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# Economic and Social Development

52<sup>nd</sup> International Scientific Conference on Economic and Social Development Development

## Book of Proceedings

Editors:

Elisabete Pinto da Costa, Maria do Rosario Anjos, Miroslaw Przygoda



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# CHINA'S TRANSITION TO A KNOWLEDGE ECONOMY - INSTITUTIONAL MECHANISMS, PUBLIC POLICIES AND PRIVATE INVESTMENT

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## **ABSTRACT**

*Currently, China is the world's largest exporter and its share of global markets continues to rise. Not because the economy expands its low-cost manufacturing base, as manufacturing is, in fact, moving out from China to other countries in South-East Asia and Africa. On the contrary, the country is moving up the value chains through innovation. Through the lens of the National Innovation System and Learning Models, and using the newest secondary data, as well as a collection of interviews and on-ground observations in China, the study identifies and describes the underlying mechanisms, structural causes, public policies and institutional arrangements that drive the country's transition towards a more innovative economy. It highlights the key characteristics of the national innovation system, in respect to funding for research, government's role and public policies, inbound and outbound foreign investment as well other factors. The study does not attempt to evaluate how innovative China is, which is a legitimate but separate discussion. In turn, this study will explain how innovation actually occurs in China. China's technological progress relies on an unique mix of liberalization, imitation, incremental innovation, strong R&D spending, burgeoning market scale, competition between local governments and strong central policies. Progress is uneven, as several technological sectors and administrative regions are global leaders, whereas others fall far behind. Elements of this landscape might be of use to other developing economies. However, due to the peculiarity of China's, including its economic and demographic scale, as well as its political system, its solutions might only fit China.*

**Keywords:** *China, innovation policy, R&D expenditure, foreign direct investment, high-tech exports*

## **1. INTRODUCTION**

China's gross expenditure on research and development (GERD) is increasing year by year, has exceeded that of the European Union as a whole in 2014 and is predicted to exceed United States by 2020. According to Global Innovation Index 2017 (Dutta, Lanvin, and Wunsch-Vincent)<sup>1</sup> China<sup>1</sup> became the 22<sup>nd</sup> most innovative country in the world, and the only middle-income nation in Top 25. The composite ranking reflects vast improvements in indicators such as business sophistication, exports of high-tech and creative goods, research expenditure, number and quality of patents, university rankings, cited publications, global-reach of companies, research talent and others. The study shows that gaps are narrowing, but China has not yet reached the top of the value chain. It still has a long way to catch-up in order to become a leading innovative economy. This study aims to identify and describe the mechanisms, structural causes, policies and institutions behind China's transition to a more innovative-driven growth model. The main areas to be explored are: funding for research; governmental policies; influence of foreign companies; investments abroad and others. It is not in the scope of this paper to measure the performance, quality or level of innovation. The paper will not address the question "How innovative is China?", a legitimate research topic which is due to further endeavours. Instead, this paper's main question is "How does China innovate?"

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<sup>1</sup> without Hong Kong which is separate no. 16

Section one is a brief overview of the most significant theoretical contributions to the study of innovation as a source of economic growth. It finds that National Innovation System(Freeman 1987) and Learning Models(Metcalfe 1998) are the most useful frameworks for understanding China. Section two describes the methodology used to collect and process data. Due to the high dynamic nature of innovation, the study relies on the newest theoretical contributions and data as secondary sources. Large input was also collected through interviews and on-ground observations in China. Section three is dedicated to research funding as a fundamental input factor for innovation. Having in mind that the country is soon to become world's largest R&D spender, the chapter draws attention to the structure of funding by source and industrial sectors, and finds out that R&D is primarily market-led, whereas the state has a surprising little contribution. It also points to the fact that R&D spending is highly atomised and therefore innovation champions are lacking. Section four will review the complex roles of government in the innovation system, including an overview of its most influential policies since 1980. The state appears to be a platform creator, facilitator and strategy-setter but not a principal actor or sponsor itself, although it is willing to intervene strongly on the market in limited cases. Following chapter five will assess the important role that foreign companies have played in China since the opening up, as well as their complex interactions with domestic companies and the state. It also analyses the growing willingness and ability of domestic companies to purchase companies from abroad, as an effective means to access markets, tap into global talents and fresh technologies. Against this background, within the analytical framework of innovation and economic growth, the final chapter will draw the conclusions.

## **2. LITERATURE REVIEW**

This chapter will overview the most influential perspectives about the very nature of innovation, its relation to economic development and the mechanisms that enable innovation to occur and spread in a developing economy.

### **2.1. What is innovation?**

The Austrian scholar Joseph Schumpeter is the forerunner of the study of innovation, concept that he placed at the core of his Theory of Economic Development (1934). He defined innovation as “creative destruction” – the process through which novel methods, products and ideas are transformed by firms and entrepreneurs into economic outcomes, resulting in the creation of new industries and markets and the destruction of old ones. Hage and Rogers Hollingsworth (2000) introduced the concept of “idea innovation network”, distinguishing between different types of research: basic, applied, product development, production research, quality control research, and marketing. The Organization for Economic Cooperation and Development classifies innovation on the basis of where it occurs into: product, process, marketing and organizational(OECD/Eurostat 2005). It might be incremental, which is to make gradual improvements over previous methods and products, or radical, which is to create new concepts and technologies that are highly different from the previous ones and have the potential to significantly change industries, and even create new industries whatsoever. Obtaining different types of innovation involves different degrees of difficulty, starting from the easiest - process innovation, following with incremental innovation and finally, the hardest, radical innovation(Li 2017).

### **2.2. Innovation as a driver for economic growth and “catching-up”**

Economic growth is the result of changes in production inputs, technological progress and productivity level, while the latter two are strongly related (Solow 1957). Developing countries make efforts to “catch-up” with advanced economies, aiming to reduce income and technological gaps (Lee 2014).



During incipient and intermediary stages of catching-up, factor accumulation is highly important, including but not limited to machinery procurement, increase of human capital, infrastructure and constructions. At this stage, importing mature technology is the only way to narrow the technological gaps. Domestic innovation is still too costly, time-consuming and not feasible whatsoever. As the economy develops further and reaches middle-income level, the marginal effects of investments in factor accumulation gradually diminish (Liu et al. 2017). In order to maintain economic growth and momentum for transition towards high-income level, a country requires a different set of strategies. Otherwise, it risks to fall in the middle-income trap, the same way as it happened to several countries in Central and South America or the Middle East (Gill and Kharas 2007). While arguably it is not the only way to progress and move-up the value chain, there is consensus in the regard that domestic innovation, in the sense of technological development, is a primary source of sustainable growth, gains in productivity and competitiveness (Eichengreen, Park, and Shin 2011). Complementary, improving the institutional framework (better governance performance, higher education level, lower corruption etc.) is also important for achieving sustainable economic growth (Liu et al. 2017).

### **2.3. How does innovation occur?**

The National Innovation System (NIS) is the most widely employed framework in innovation studies. It can be defined as “the network of institutions in the public and private sectors whose activities and interactions initiate, import, modify and diffuse new technologies” (Freeman 1987). NIS thus puts innovation in a specific national institutional context where innovative players at different levels are in constant interaction. These interactions constitute the very fabric of the system and are shaped by factors such as culture, institutional arrangements, policies etc (Nelson 1993). The main innovative players are firms, as they have the incentive to seek, store and accumulate innovation capabilities. However, their ability to innovate is influenced by interactions with a broad array of external organisations, state and private actors, suppliers, customers, markets etc (Li 2017). Another useful theoretical tradition is the Learning Model proposed by evolutionary economists such as Dosi (1997) and Metcalfe (1998). Accordingly, innovation is acquired by firms through a gradual process of developing and accumulating existing capabilities, making use of their available resources and opportunities. The sequence starts with low-end manufacture. Climbing a reversed product cycle, firms gradually develop new design and skills to improve their process, products and marketing, eventually reaching the top of the production chain. The process includes “variety creation [...], replication including imitation[...] and selection (that reduce variety in the economic system and discourages the inefficient or ineffective utilization of resources)” (Malerba and Nelson 2012). The concept of “leapfrogging” will also prove to be useful during the analysis. This view emphasises the advantage of the latecomer who has the opportunity to skip costly stages of research and to learn and make direct use of the innovation breakthroughs already available (Cao 2002).

## **3. METHODOLOGY**

Using the framework of NIS and Learning Models, this exploratory research aims to provide a contextual macro understanding of the mechanisms and processes that drive innovation in China, across industries, by examining the following principal elements: funding for research; governmental policies; inbound and outbound investment and others. The current study does not aim to measure the efficiency or productivity of innovation in China, nor its extent, which would require a different set of input and output quantitative measures. It limits its scope to China at national level, but draws attention to the significant regional differences in terms of economic and technological development. Informational input is based on an extensive review of the most recent academic works covering world innovation in general and Chinese in

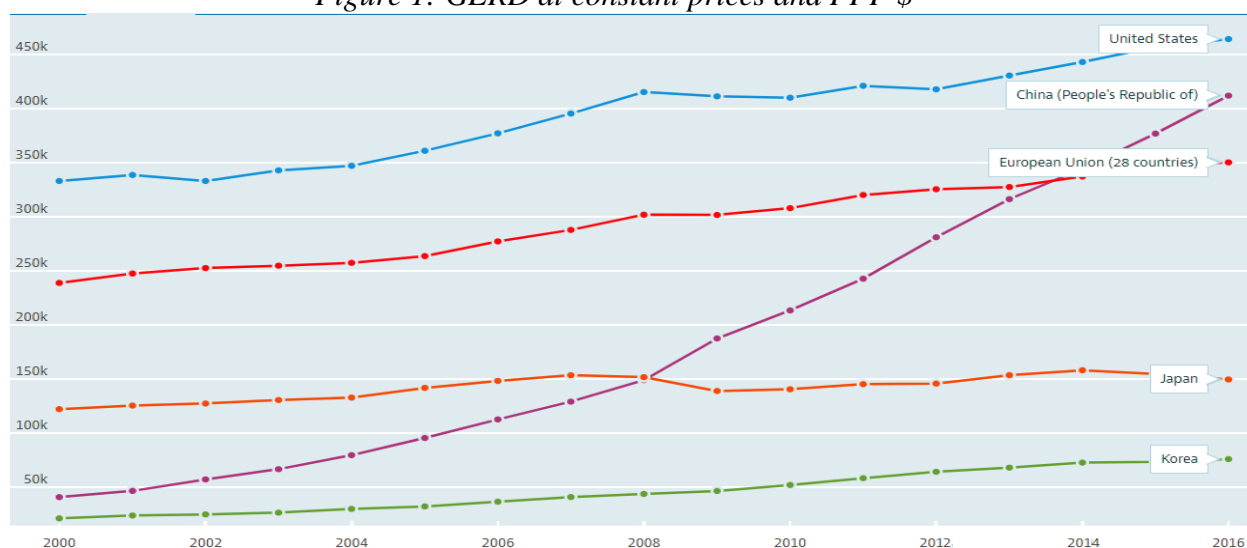
particular, both from international and Chinese sources. Giving the highly dynamic nature of the topic under research, academic understanding has a significant temporal delay against empirical reality. For this reason, in general, it uses only academic works and data newer than 2014. However, it is well understood that the theoretical framework and fundamental concepts are based on earlier literature, beginning with Schumpeter's Theory of Economic Development (1934). In order to assess governmental perspectives, a collection of official policy documents were analysed, as well as political statements from news articles and think-tank reports, in China, the United States and European Union. Statistical data is collected from China S&T Statistical Yearbook (Ministry of Science and Technology), as well as international databases: World Economic Outlook Database (IMF 2018), Main Science and Technology Indicators (OECD 2018) and UIS online database (UNESCO Institute for Statistics 2018). Very useful were also composite measurements such as The Global Innovation Index 2017 (Dutta, Lanvin, and Wunsch-Vincent 2017) and The 2017 EU Industrial R&D Investment Scoreboard (European Commission), which offer analysis on a large set of input and output factors, as comparisons among countries. The same resourceful as secondary sources were on-site visits and interviews. I have visited industrial parks, high-tech companies, investment firms, government agencies and start-up incubators on a series of field-trips to China's major innovation clusters: Beijing, Guangzhou, Hong Kong, Shanghai, and Shenzhen. A series of structured, semi-structured and informal interviews were conducted with industry actors, policy stakeholders, consultants, journalists, researchers and members of the academia, both Chinese and foreigners.

## 4. RESULTS AND DISCUSSIONS

### 4.1. Funding for research

Between 2000 and 2015, China's Gross Expenditure on Research and Development (GERD) measured in current PPP \$ has increased annually by approximately 18% (Ministry of Science and Technology various years). China counts for an ever-larger share of the global R&D spending and, since 2008, it has become the second biggest spender nation in the world. In 2014 it has surpassed the EU as a whole and following current trends, China could overtake the US around 2019.

*Figure 1: GERD at constant prices and PPP \$*

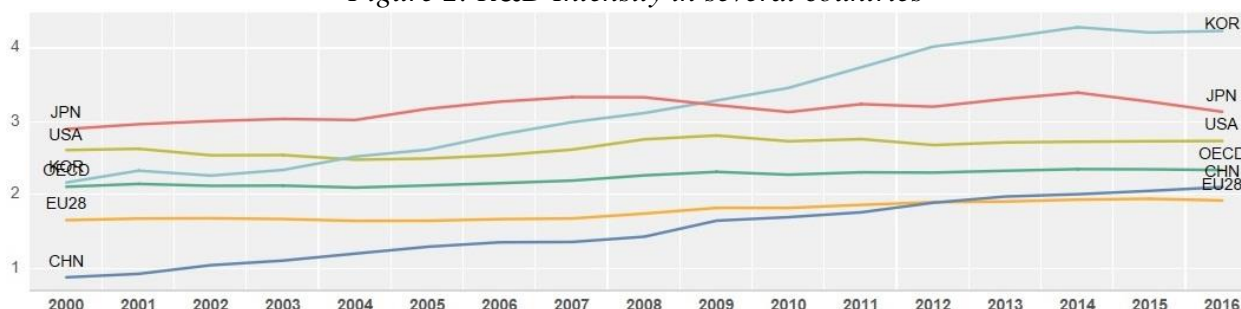


*Source: OECD Main Science and Technology Indicators (2018)*

China's GERD expenditure relative to GDP, also known as R&D intensity, increased from 0.83 per cent in 2000 to 2.12 per cent in 2016. Although still behind US, Japan, Korea and OECD

average, the nation is advancing quickly and has exceeded the EU. The 13th 5-Year Plan (2016-2020) sets an R&D intensity target of 2.5 percent by 2020, indicating that Chinese R&D expenditures will continue to rise.

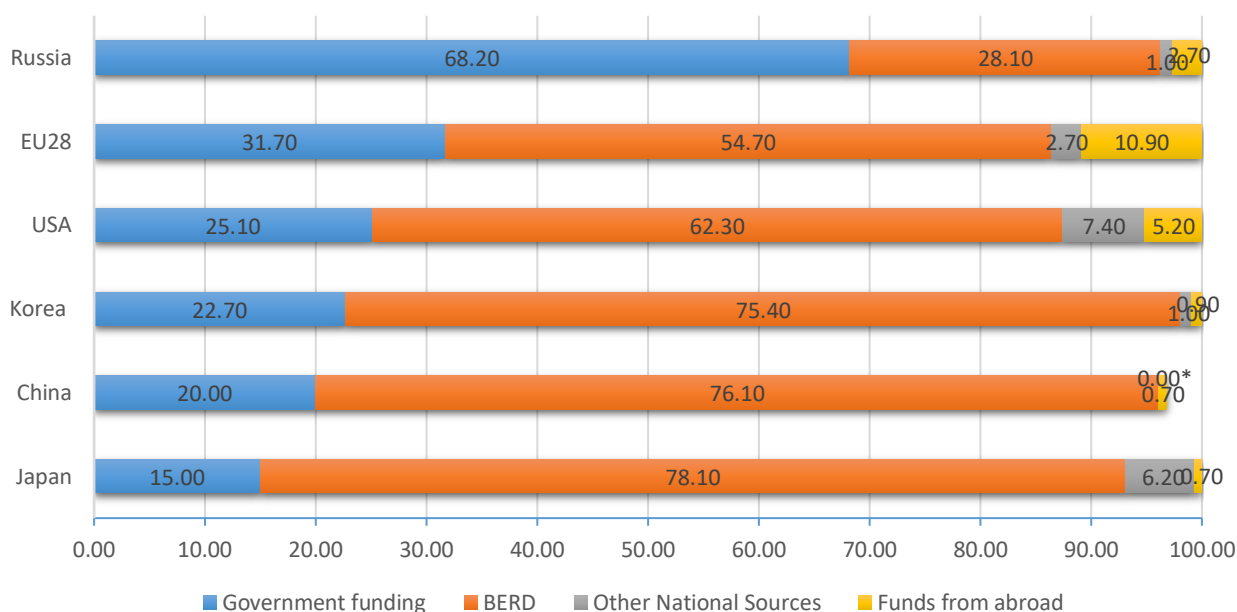
Figure 2: R&D Intensity in several countries



Source: OECD estimates based on OECD Main Science and Technology Indicators Database, March 2018

Looking into the sources of funding, surprising is the fact that governmental direct funding for R&D accounts for just 21.26% of GERD. Actually, the government's contribution is lower than in Korea (23.66%), US (25.50%), EU (31.74%) and Russia (68.52%). Therefore, Business Expenditure for R&D (BERD) in China accounts for 74.73%, second only to that of Japan (77.97%). Data is confirmed by *China S&T Statistics Yearbook*, *OECD Main Science and Technology Indicators* and *UNESCO UIS* online databases.

Figure 3: R&D by funding source, 2016 or latest available year (% of GERD)

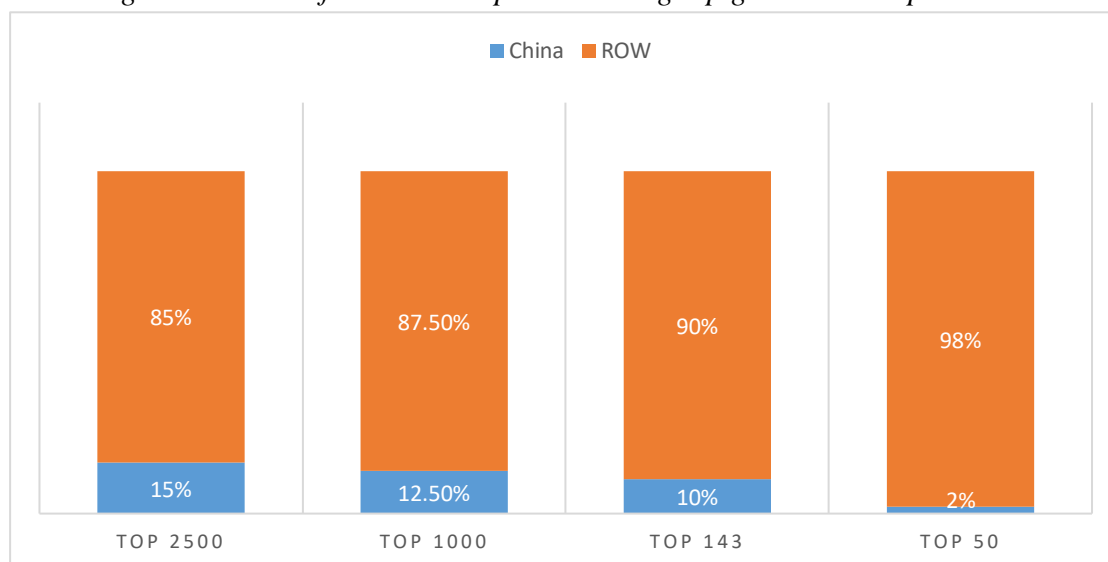


Source: Author's compilation, based on data from OECD (2018)

If we compare R&D spending of Chinese companies to the rest of the world, the 2017 *EU Industrial R&D Investment Scoreboard* (European Commission 2017) reveals that out of 2500 top world spenders with over € 24 million each, 376 companies are from China (combined amount \$61.8 bn., 8% of total expenditure), whereas 822 companies are from US (\$290 bn., 39% total expenditure), 567 from EU (\$192.5 bn., 26%), 365 from Japan (\$103.8 bn., 14%), and 370 from ROW (\$96.4 bn., 13% total expenditure).

The study records a fast growth of cumulated expenditure by Chinese firms included in the top, with 18.8% just in 2016. The growth is the fastest of all countries and is distributed across all industrial sectors considered, as well as across a large population of firms. However, the total nominal sum is still relatively small, given China's economic size. 2017 Global Innovation 1000 Study realised by Strategy&(2017) shows that amongst 1000 top global R&D spenders, 125 firms are from China, whereas 368 companies are from US, 235 from Europe and 171 from Japan.<sup>2</sup> If we narrow the ranking even further, in between 143 global companies that invest in R&D more than €1 bn., 14 firms are from China, whereas 51 from US, 39 from EU, and 22 from Japan.(Strategy&, 2017) Ultimately, in top 50 R&D spenders, there is only one Chinese company, Huawei, which occupies position 6 (European Commission, 2017). Therefore, we can notice that Chinese BERD accounts for an important share of top global R&D spending which is growing rapidly. The global BERD of US and China are comparable, China being expected to exceed the US in the next few years. However, if we analyse firms distribution, we find that the more we narrow the rankings towards top spenders, the more the ratio of Chinese companies decreases. In top 2500 largest R&D spenders, 15% are Chinese companies. In top 1000 the ratio decreases to 12,5%, in top 143 to 10% and in top 50 to as low as 2%. The opposite is valid for United States, which hosts approximately 65% of top 20 R&D spenders.

*Figure 4: Share of chinese companies among top global R&D spenders*



*Source: Author's own compilation, based on data from 2017 Global Innovation 1000 Study (Strategy&, 2017) and The 2017 EU Industrial R&D Investment Scoreboard (European Commission 2017)*

Therefore R&D funding in China is particularly atomized and evenly distributed over a larger population of companies, especially outside Top 2500. The number of companies involved in R&D activities is relatively large, whereas funding per unit is relatively small. Furthermore, research efforts of Chinese companies in top 2500 are less focused on particular industries and are more evenly distributed across sectors. ICT production is the only dominant industry, accounting for 34% of all research spending. If we exclude Huawei, which accounts alone for 16.8% of all input, then ICT will decrease to 17.2% of all research spending, followed by automobiles and transport with 12.5% and ICT services with 10.1%. All the other industries account for less than 10% of research spending. Such an atomized structure both across companies and industrial sectors brings more competition and dynamism throughout under-

<sup>2</sup> This study does not include Huawei, China's largest spender.

high tech sectors and sustains incremental innovation through improvements in production process, supply chain, business and marketing models. However, Chinese companies are relatively limited in their capacity to engage in expensive basic research with high risks and long-term gains, which is exactly the type that would eventually lead to radical breakthroughs. According to latest data of China S&T Statistical Yearbook (Ministry of Science and Technology), in 2016 an 84.5% lion share of GERD belonged to experimental research, 10.3% to applied research and just 5.2% to basic research. Not even has the percentage of basic research increased over recent years. Therefore, there still are no genuine Chinese competitors to innovation giants such as Alphabet and Amazon.

#### 4.2. Policies and government

Innovation has long been considered critical for China's economic development by top leadership. Chairman Deng Xiaoping designated science and technology as the 'first productive force' in 1978,<sup>3</sup> whereas the concept of 'revitalizing the nation through science and technology' has become widely used since 1995.<sup>4</sup> This chapter will briefly overview the most relevant policies and projects implemented by the Chinese government in order to stimulate innovation in Chinese economy, since the opening-up reform in 1978. Finally, I will assess the measure to which the Government is actually influencing the innovation process. In terms of policies, the trigger for China's take off was the establishment of Special Economic Zones (SEZ) since 1980, areas of experimentation with market-principles and liberalised foreign investment. Some of them, such as Shenzhen, transformed into powerhouses of innovation and economic development, inspiring reforms across the whole nation. As the market became larger and more attractive, foreign companies sought to receive access to their products. The Chinese government leveraged the opportunity and deployed the policy of "trading market for technology" (TMFT) (Xia and Zhao 2012). TMFT has been restricting market access on conditions imposed by the government, related to the transfer of technology and production capacity to China. This usually translates into a compulsory joint venture between the foreign company and a domestic counterpart. The most known case is that of the automobile industry. The High-Tech Research and Development Program (Program 863) adopted in 1986 and the National Program for Priority Basic Research and Development (Program 973) adopted in 1997 provided funds for universities, research institutes and companies to research a series of targeted national priorities, including energy, information technology, agriculture, health and environment. The policies also aimed to better connect research in public institutes with manufacture in SOEs, as the two sectors had been largely separated (Xue 1997) (Liu and White 2001). As part of the "Indigenous Innovation" campaign, in 2006 the Chinese government announced The National Medium- and Long-Term Program for Science and Technology Development (2006-2020), known as MLP. It is a masterplan for S&T aiming to transform China into an "innovative society" by 2020. According to the program, The 16 major special projects cover a range of strategic sectors including: "core electronic devices, high-end generic chips and basic software, super large-scale integrated circuit manufacturing technology and associated techniques, the next generation broadband mobile telecommunication, high-end numerically controlled machine tools and basic manufacturing technology, the development of large oil-gas fields and coal-bed methane, large advanced pressurized water reactors and high temperature gas coolant reactor nuclear power stations, water body contamination control and treatment, new genetically modified varieties, major new drugs, prevention and treatment of major infectious diseases such as HIV/AIDS and viral hepatitis, large passenger aircrafts, high resolution earth observation systems, manned space flights, and the moon probe" (State Council of the People's Republic of China. 2006).

<sup>3</sup> 3rd Plenary Session of the 11th CPC Central Committee of the Communist Party of China, 18 Dec. 1978

<sup>4</sup> National Science Conference 1995

In 2015 Made in China 2025 was launched, presumably inspired by the German Industrie 4.0. The policy strongly emphasizes technological self-sufficiency, intelligent manufacturing and the development of cyber technologies. The government leads investments in those targeted areas and planned technologies that do not make financial sense for market forces, being too risky, expensive and lengthy. Such are the cases of wind turbines, high-speed rail, aircraft engines, and space-related industry. However, as discussed in the Funding for Research chapter, government direct funding for R&D accounts for less than 22% of GERD, while the large majority of funds is provided by the business sector. Nevertheless, private R&D is rather negligibly supported in terms of subsidies or favourable tax policies. On the other hand, the government aims to remove ideological and institutional obstacles, stimulate cooperation between academia and industry, as well as to ensure a fair platform for competition and an efficient institutional environment (State Council of the People's Republic of China 2015a). Unlike previously, modern S&T strategies strongly emphasise the role of business-led innovation and the aim to commercialize technology. The state aims to stir “mass innovation and entrepreneurship” across a wide population of companies, calling for SMEs to increase their role in R&D (State Council 2015b, 2016). Therefore, both statistics and policy statements prove that the Chinese government is turning to be a facilitator for a market-driven innovation, rather than a principal actor itself. It is less engaged than general perception might assume and the trend shows even less engagement in the future. However, it is important to note that in areas of specific interest, the state might own itself, directly or indirectly, important shares of companies, or possess other types of dependence relations (Li 2017). The state might also intervene strongly with protectionist measures in specific markets.

#### **4.3. Inbound and outbound FDI**

China has the largest market in the world in terms of PPP, ahead of USA and India (IMF 2018). Such a scale offers unique possibilities for both domestic and international firms to experiment and find niches for their products and ideas. Moreover, more recently Chinese companies have accumulated sufficient resources and capital to venture into foreign markets, not only by selling products but also by investing, conducting M&A and building capacities abroad. This chapter is dedicated to the interactions between foreign and domestic companies and the role of these interactions in China's national innovation system. The learning curve for Chinese companies started when markets were suddenly opened in the 1980s. Favourable policies attracted MNCs to move production in China, open branches and subcontract local companies. Initially, domestic innovation has relied on imitation and the direct import of technology. The pace was very fast, driven by the need to meet MNCs' requirements on cost, performance and quality for the goods manufactured in China (Steiber 2018). Domestic companies gradually began to adjust their products and services to the domestic market (Yip and McKern 2016). Authors label this phase as “frugal innovation”, which is to reduce premium features meant for developed markets, cut costs and adapt products for the local consumers (Li 2017). China was incrementally adding to its technical know-how on the basis of a trial and error learning process, gradually employing best or near best-practice technologies (Yu, Yu, and Pan 2017). As the internal market grew and became more attractive, MNCs started not only to produce in China in order to sell abroad, but also to target the Chinese market itself. Domestic companies had to progress and reach higher standards in order to compete with foreign products on their own market. While foreign companies had superior technology, managing skills and a global network of resources, local companies benefited from inside-knowledge of the local markets. Chinese companies managed to move up the value chains through developing designs and technology, marketing capabilities and even attracting talents from MNCs. They made a natural use of the supply chain networks developed in China by MNCs in their global productions system, including high-quality component suppliers and subcontracted manufactures.

Therefore, MNCs created both the resourceful industrial ecosystem and the competition pressure needed to drive the take-off of many Chinese successful companies. Such an evolution is maybe most visible in the ICT industry (Steiber 2018, Li 2017). Market restrictions and the “trading market for technology” (TMFT) policy have also played an important role in strengthening Chinese firms’ ability to resist competition pressures. Some markets were opened or will open only after domestic companies are strong enough. In the case of automotive industry, foreign carmakers are required to establish joint ventures with Chinese counterparts, eventually transferring to China technology and know-how. TMFT is discussed broader in the Policies and Government chapter. A more recent phenomenon is that of Chinese outbound investments. Investments abroad were first promoted in 2005 with the announcement of the “Go Global” policy. After the launch of the Belt and Road Initiative, the volumes of OFDI skyrocketed, especially in developed markets. However, according to the public figures released by China’s Ministry of Commerce, FDI decreased in 2017 by 29.4% and reached \$120 billion. This is because the government has installed capital controls, being weary about money-laundering and decreasing currency reserves. It has also set specific industry priorities for OFDI, encouraging technology-seeking investments in the detriment of other ventures. Perceptions about incoming Chinese investments vary highly from country to country. Whereas some countries put high expectations around economic benefits brought by new capital, others countries are rather concerned. USA is by far the largest destination for Chinese OFDI, accounting for 17.44% between 2005 and 2015. Investments are dominated by M&As in the fields of software & IT services, electronic components, communications, industrial machinery, business services and auto components (Select USA 2017). US – China FDI flows have inversed since 2014, when Chinese investments to US exceeded US investments to China. However, following the general trend, Chinese FDI to US have recently seen a sharp decrease, from a total value of \$46.5 bn. in 2016 to \$29.7 bn. in 2017 (Hanemann, Rosen, and Gao 2018). To conclude, the role of foreign companies in the Chinese innovation system started in the stage of low-end manufacture. They brought technology and knowledge, re-shaped institutional frameworks and created a new type of industrial ecosystem. Chinese companies absorbed technology and made use of the newly created supply-chains. They climbed a reverse product cycle by imitation, variety creation and selection, achieving incremental improvements to their processes, products and marketing and eventually becoming competitive. MNCs also acted as mobilising factors of competition. On the other hand, the Government stimulated technology absorption and protected domestic firms from the negative aspects of competition. Ultimately, the local market acted as a stepping-stone for successful Chinese companies before venturing into competition at global scale. As domestic companies accumulated capital and capacities, they became increasingly willing to expand abroad, especially by the means of M&As in developed markets. Direct exposure to foreign markets is enhancing Chinese companies’ innovation capacity due to increased competition and knowledge transfer. Investing abroad is also a new means to acquire technology, talents and know-how. Despite recent setbacks, on the medium-term, it is expected that Chinese FDI will resume a tempered growth.

## 5. CONCLUSION

The study presents a partially successful story of how a developing, manufacturing-based economy can learn, accumulate capabilities and move towards an innovative, competitive and technology-driven model. The experience of China shows that there is more than one way to progress. At the same time, one has to bear in mind that due to peculiarities such as political system and demographic conditions, the solutions found by China might only function for China. The scope of the study is the national-level, being limited to investigate differences across industrial sectors and geographical regions. However, it is important to note that while China is a world leader in several industries which have achieved remarkable success, there are

also sectors where China lags far behind in terms of productivity and technological level. Nevertheless, economic circumstances as well as government policies differ greatly from one geographical region to another. Overall, economic reforms, imitation, incremental innovation, heavy R&D spending, large market scale, intense competition and a market-driven economy combined with pragmatic and sometimes strong central policies contributed in different ways to China's innovation landscape. China is still behind in many sectors, such as automotive, aerospace or high-tech industry. However, the tectonic plates are shifting. China's shares of global export markets is constantly increasing, not because manufacture would grow extensively, but because the economy is moving up the value-chain. The nation is soon to become the largest R&D spender in the world. One of the main arguments of this study is the fact that, counter-intuitively, R&D funding in China is business-led, to an extend even larger than in the EU, US and Korea. On the other hand, government spending is also increasing, but on limited number of priority areas. Research spending is highly atomized and distributed across industrial sectors and population of companies. This reflects strong incremental innovation capacity and balanced technological development, or "mass-entrepreneurship and innovation" as policy-makers describe it. It also reflects the lack of real champions that can venture into costly, basic research, which eventually leads to radical scientific breakthroughs. The paper explores the complex role of the state in fostering innovation. Chinese Government is not and does not aim to be the main actor or sponsor of innovation activities or the industry at large. It sees itself and acts as a platform and facilitator for a market-driven economy. However, there are times and specific sectors where the government considers necessary to intervene strongly in markets, which not rarely draws criticism from foreign policy and business circles. Its main policies in the field of innovation include: prioritizing certain strategic areas for resource allocation and favourable policies, stimulating the acquisition and import of foreign technology, intervening on markets when needed and sometimes in protectionist ways, reducing the nation's technological dependencies and vulnerabilities, attracting international talents, promoting outbound investments and others. Learning from foreign companies was a fundamental driver for innovation in China. After the opening-up, foreign companies brought capital, technology and knowledge, re-shaped institutional frameworks and created a new type of industrial ecosystem. Some Chinese companies have accomplished to climb a reverse product cycle by imitation, variety creation and selection, achieving incremental improvements and eventually becoming competitive innovators themselves. Foreign companies also acted as a mobilizing factor of competition for domestic firms. They were both discriminated against and favoured by the state in different stages and industries. Finally, the study analyses recent trends in technology-oriented investments abroad carried by Chinese companies, usually in the form of mergers and acquisitions in developed markets. The main motivations for Chinese companies are entering those markets that are not easily accessible for Chinese brands, as well as acquiring fresh technology and talent. Chinese FDI outflows have increased vigorously in the last decade, but due to stricter regulations both in China and abroad, the last two years saw a relative decline in value and number of deals. The study argues such decline is situational, and the long-term trend of increasing investments will resume, probably at a more tempered pace. Other relevant factors that need further analysis when deconstructing China's national innovation system include the leapfrogging phenomenon(Cao 2002), talent attraction policies and the role of regional innovation clusters.

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# THE SANCTIONATORY LAW AND THE REGULATORY STATE IN THE ECONOMIC-FINANCIAL PLAN

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## **ABSTRACT**

*After the economic and financial crisis of 2007-2008, which had highly negative repercussions worldwide, a large number of States reacted forcefully, mainly targeting banks and insurance companies' activities, besides corporations. This reaction produced, mostly, a wide range of unlawful conduct—therefore sanctionable—and the economic value of sanctions will increase to higher levels—which are often difficult to determine. Regulatory State consolidated its position and simultaneously managed to settle at other points never reached so far. From that perspective, a few years after the crisis, we think it is relevant trying to understand the choices of some States—as the Portuguese—and the effectiveness of measures implemented in the economic and financial plans. The question that arise—and on which we intend to reflect—concerns the effectiveness of strengthening the different sanctioning rights and the adoption of measures as, for instance, compliance programs. In our view, this matter still needs reflection in Portugal, since we keep discussing the issue of which sanction must not integrate that kind of program. Meanwhile, the list of infractions—that different economic and financial operators may commit—continues to increase, and they are punishable with high economic sanctions, in spite of being difficult to identify their nature. A prime example of what we have just said is in the Competition Law (Lei da Concorrência), currently in force in Portugal, which enshrines crimes, administrative offences and infractions.*

**Keywords:** *Regulatory State, Sanctionatory Law, crimes, administrative offences*

## **1. INTRODUCTION**

After beginning in the United States of America (USA), the 2007-2008 economic and financial crisis has spread in practically worldwide, thus reaching Europe. Such a crisis arises when europeanization and globalization of law have long been a reality, at the same time that, in Europe, the experience of the Regulatory State was already known. For this reason, nowadays the vast majority of States have no longer isolated legal systems and no communicating vessels, as seen in the operating models currently in force—in Europe, and even in Portugal—which now coincide with those of the USA. Just think, for example, of the regulatory agencies of the Regulatory State that—coming from the USA—would set up camp later in Europe. Thus, starting from the problem posed by Europeanization and globalization of legislation in economic and financial matters, and having the Regulatory State as a background, we will reflect on the harmonization of legislation effectiveness at a global level, as well as the so-called model of the Regulatory State in preventing a new crisis. Our analysis will be, above all, oriented to Portuguese law, sometimes calling its competition law to the fore.

## **2. TOWARDS THE REGULATORY STATE - THE CONTRIBUTION OF EUROPEANIZATION AND GLOBALIZATION**

In Soares' words, the current European Union (EU) and its predecessors contributed to the phenomenon of the Europeanization of law. This is because, right after Portugal's accession to the European Economic Community (the then EEC and current EU), the phenomenon of receiving this law began as a result of “major changes in the functioning of the economy as well as in the Portuguese legal system” (Soares, 2008, 37). In this regard, the same author tells us that the Portuguese legal system is perhaps a paradigmatic example of the Europeanization

process, and the “accession to the European Community and the resulting obligations constituted an opportunity for the portuguese legal order modernization with adoption and implementation of laws in unknown areas or where there was a stronger resistance to its development”. Likewise, Soares points out that, due to Community law, there were important changes in customs law, tax law and company law. At the same time, he adds that accession to the then EEC gave rise to other branches of law in the Portuguese legal system such as environmental law, consumer law and competition law (SOARES, 2008, 37 and 38). For sure, the Europeanization of Portuguese law is not complete without adding here the capital influence of the European Convention on Human Rights and its respective court's jurisprudence. No less important than Europeanization of legal system, there's in parallel the globalization. Indeed, globalization “understood in a broad sense as an economic, political, social and cultural process,” “has emphasized that today, more than ever, we live in a global and interdependent world and that no State can be isolated” (Teles, 2008, 99). Globalization has also contributed to a certain homogenization of States' laws, and, as a result, different States have adopted the same instruments in several plans: economic, financial, etc. A paradigmatic example of what we have just mentioned is the creation of regulation authorities—specific to the Regulatory State—that are currently present in practically all European legal systems. Being absolutely sure that we live less and less on legal islands, but instead in a small global village, let us now see some marks of that already designated Regulatory State.

## **2.1. Some fundamental features of the Regulatory State and its importance**

It is not possible in a study of this dimension to carry out an exhaustive survey of what we call the Regulatory State. However, in general terms, and as we have already had the opportunity to write about (Vilela, 2018, 102-105), it is important to say that its main feature is that the nation-state delegates a bunch of regulatory powers precisely to the regulatory authorities, as the State abstains from intervening in these same sectors. Along with the Regulatory State and its regulation agencies, a new sanctioning law emerges widely produced by these agencies. At the same time, these agencies watch over the fulfillment of these duties inspecting actions and using their sanctioning powers. After that, another level of regulation was associated with it—more precisely self-regulation—through the implementation of compliance programs, and it was generalized afterwards. Meanwhile, let's take a closer look at how we came to this new state model.

### *2.1.1. The emergence and spread of regulation authorities, Brief note on their powers, The programs of compliance*

Having in mind the Regulatory State explanation, firstly, Arnaud (2008, 86) mentions the creation of a problem-solving model called governance, born in the USA from the 19th to 20th century. According to the author, governance is the “way of governing oneself” that quickly became a particular way of managing some matters without having recourse to legislative acts or state laws, besides being a fundamental element of the American legal culture. The reason for this problems-solving way to exist is both that some state leaders felt the distance between themselves and central power as well as its delays in decision making. Thus, governance—as “a complex process of interactive, dynamic, projective decision-making designed to evolve permanently to respond to changing circumstances” (Arnaud, 2008, 86 and 87)—was gaining ground in such a way that the sovereign state got ahead to delegate part of the regulations to “institutions in charge of ensuring the regulation of spaces devoted to free trade” (Arnaud, 2008, 90). Still, according to the author, for sure, the 1930s crisis came to favor the emergence of true corporate governance theory (Arnaud, 2008, 87). Therefore, the State ensured a new response to changes occurred in domains such as “telecommunications, audiovisual, computer data, electricity market, insurance, stock exchange, financial markets, ethics and bioethics,

consumer protection, competition, mediation and child protection”. Thus, it has been created almost every day “a new regulation authority to a specific field” (Arnaud, 2008, 90). From what has been said we can deduce that regulatorion authorities replace administrative authorities to regulate, supervise and impose sanctions on specific sectors like economic, financial or other sectors. And if it is true that they have undergone a long evolution in the country where they were born (the USA), eventually the same is true as they finally have reached other States as a result of the above-named Europeanization and globalization. The existence of this type of institution has consequences in the legal world, not only because they undertake transformations in the process of creating the law, but also because these authorities have the power to sanction offences which they investigate. In short, regulation authorities create law with a wide range of rules to be fulfilled by different activities. Moreover, these authorities supervise, inspect and impose severe sanctions on the detected infractions taking into account that the nature of infractions is different in every State, as each one can create crimes to punish infractions or administrative offences, or simply administrative infractions. In line with this matter, Arnaud is right when he points out that the existence of these institutions creates a “question of compatibility between their regulatory power and the public authority itself (Arnaud, 2008, 90). At the present time, the picture of the Regulatory State is not complete if we do not add the generalization of compliance programs to what we have already said. In fact, just as important as the hetero-regulation carried out by regulatory authorities, there is another regulation program—now self-regulating—which represent the companies' adoption of “voluntary compliance programs” to significantly reduce “risks of commercial companies responsibility along with their leaders in civil, administrative and even criminal spheres, aiming to generally defend stakeholders.”(Mendes, 2018, 11).

#### *2.1.1.1. Brief outline of the Portuguese Regulatory Entities Framework Law*

Regarding the particular case of Portugal, it is known that the Portuguese legal system had already administrative authorities that have some affinities with the regulatorion authorities. However, it was mostly because of the 2007-2008 economic and financial crisis and its repercussions in Portugal that the Portuguese state has committed to approve the Framework Law of Regulation Entities—under Law No. 67/2013 of 28 August—by the time the Memorandum of Understanding is signed with its creditors (the International Monetary Fund—IMF—, the European Union —EU—and the European Central Bank—ECB, or, for short, the troika) in May 2011. Under this law, it was created a common regime applicable to different regulators, thus contributing to the uniformity of the existing legal framework regarding regulation. Furthermore, among other reasons, Morais stresses that this law was necessary because it contributed to the uniformity of the legal regulation authorities' regime because some had “indirect administration, others an independent administration, others a hybrid limbo of semi-independent administration which respective links with the Government were different” (Morais, 2015, 156). According to the author, the existence of these regulation authorities was justified, insofar as it was necessary to “replace a paradigm of the State that had intervened directly in the market” with another State paradigm that should intervene “as little as possible enabling the market financial system to work, to safeguard the public interest and to supervise economic agents indirectly”. At the same time, it was urgent to create entities with such “high technical specialization, depoliticization and impartiality”. Establishing proof of the Europeanization law and, in general, its globalization, Morais also draws attention to the influence of the European Union creating regulators to be independent of the respective States (Morais, 2015, 156). Its independence of the state administration was indeed sought with the regulation authorities, and particularly through this law. However, Morais puts his finger on the wound clarifying that these regulation authorities are not independent of “their counterpart leadership structures at a European level”, and that is the reason why this EU policy is a way to

limit state sovereignty through a parallel or separate administration”(Morais, 2015, 157). Undoubtedly, high technical specialization is one of the entities' fundamental traits to highlight which is not only desirable, but also praiseworthy in all respects, namely because they have to resolve issues with a high degree of technical knowledge. Thus, they will be able to litigate on an equal basis with offenders in the respective area of intervention (Vilela, 2017, 130). If we are not missing the point, offenders of any regulated area bear no resemblance to ordinary people who either commit a road traffic offence or who do not pay their tax within the time limit. Quite the contrary. We are in the presence of offenders that have a specific high degree knowledge of the area in which they work, a highly qualified knowledge either from a technical point of view, or even scientific. For this reason, any activity of supervision, inspection or instruction and conviction requires technicians as much as well prepared than the offenders standing in the other side, the side of those who assess, draw up reports, investigate and decide. Only then they can fight infractions with equal arms. Likewise and for this same reason, we also welcome the creation of the Competition, Regulation and Supervision Court, a measure that was also included in the Memorandum of Understanding (Vilela, 2017, 130). However, as we have already pointed out previously, we cannot avoid to mention the following issue. Under the terms of article 3, Law no. 67/2013, more precisely paragraph 2, *e*), the regulation authorities have “powers to sanction infractions as they have regulatory, legal regulation, supervision, and inspection powers”. As a result, the regulation authorities concentrate a great bunch of powers that make them powerful, and it requires them to act with caution so that “the regulation authority that supervises and draws up the infraction notification should not be the one that appreciates and judges it. So, we welcome and agree with Ribeiro's solution” (Vilela, 2017, 130). It is, therefore, essential to effectively carry out the supervision of legislation enforcement to prevent further damages in any sector. However, when it comes to moving from the investigation to the sanctioning phase, it is totally unacceptable, under a State subject to the substantive rule of law, having the same authority that controls both phases. With this idea, we only intend to defend a mitigated accusatory procedure with offenders getting a guarantee of impartiality during the investigation and sanctioning phases, and it will not be achieved if the same authority both investigates and impose sanctions. In fact, striving for an even more drastic solution in this matter, we emphasize, once again with Mendes, according to whom there must be a total separation between the investigating authority and the one who has the decision-making power concerning administrative sanctionary law (Mendes, 2009, 223 and following). To sum up, and saying it with Mendes, when coming on the scene, “the independent authorities subverted the classic model of separation of powers”, insofar as they “get three types of public powers traditionally separated: ruling, executive and (para)judicial powers” (Mendes, 2018, 18). In any case, we cannot help being apologists for these regulation authorities, and as a matter of fact, to be truly effective about their objectives, they must get strong powers and have the power to impose the fulfillment of duties whose violation, as a general rule, is considered an infraction severely sanctioned with economic penalties. Otherwise, these powerless institutions would do little or nothing. We can see, therefore, that we are not defending its powers without limit, especially in cases that fundamental rights are at stake. It's worthy of note that, for instance, we have long argued that some more severe accessory sanctions, concerning organically administrative procedures, should not be imposed by administrative authorities (now by regulators), but instead by the courts (Vilela, 2013, 376). So, if we had this idea about the application of some more severe accessory sanctions, we also understand now that the same can happen in other cases in the course of a regulatory law procedure before the regulator. However, we will return to this particular problem later.

### *2.1.2. The sanctioning legal system emerging from the Regulatory State*

#### *2.1.2.1. Some specificities of Portuguese domestic law: the administrative sanctionary law*

To better understand everything that we have been saying, it is important to introduce here a brief note on administrative sanctionary law. A high percentage of the infractions that are part of the Regulatory State has an administrative sanctionary law nature. In our point of view, this legal nature is different from the nature of the crime, and it means that it is not a minor crime, but it is not an administrative infraction either. No, it is not. It is, so to speak, an infraction that is increasingly approaching criminal law choosing it as a subsidiary law, as well as criminal procedural law. The administrative sanctionary law is established by Decree-Law No. 433/82, on 27th October, which approved the General Regulatory Law (RGC). From a procedural point of view, there is the first phase before an administrative authority (an organically administrative phase) and, at the present, also before regulators (articles 33 to 58). There is a second phase that begins—or not—depending on whether the defendant conforms—or not—with the decision ending with conviction that is granted by the administrative authority or the regulator (articles 59 to 75). In that case, the defendant may lodge a judicial challenge against the decision in the court, and after that, begins the second phase of the regulatory law procedure, more precisely the judicial phase (Articles 59, 60 and 61). To make it clear, just two or three more traits to show you that this is a guaranteed law as it should be in a Regulatory State, with very heavy economic sanctions along with accessory sanctions which are no less serious. Firstly, the principle of legality is in force with regard to administrative offences and fines, as well as the principle of the prohibition of retroactivity as to law enforcement over time (Article 3); secondly, the defendant has the right of defense (article 50) and, concerning any order or measure that is unfavorable to him, the defendant has the right to apply to a court to make an inquiry into the legality of the measure. Therefore, there is a wide possibility of judicial challenges and, as a result of it, a judge may be entitled to intervene—whether allowing the defendant to appeal against decisions, orders and measures taken against him (article 55) or having the right to lodge a judicial challenge against a decision that can be refused. We reiterate what we have said before: their subsidiary laws are criminal law, as far as material or substantive issues are concerned (article 32). As for criminal procedural law, whether it's the organically administrative phase or the judicial challenge phase, criminal procedural law is always its subsidiary law (article 41) (Vilela, 2015, 154).

#### *2.1.2.2. The sanctioning law emerging from the Regulatory State*

After making these caveats—that we believe it is important—about Portuguese law and administrative offences—an illegal act that Portugal "imported" from the German legal system—let's see the sanctioning law of this State. Concerning the law resulting from this new State model, we have seen changes that, in some cases, could be classified as unprecedented. Right from the start, the criminal law—an ultima ratio, and sanctioning law par excellence—we can affirm that the criminal law emerging from this new State model presents itself very different outlines compared to what was left to us by the Enlightenment. Indeed, this “new” State criminal law essentially protects supra-individual legal assets, which many of them were created according to the activity performed, having no resemblance to those found in classic criminal law or justice. In this new Criminal Law, more than punishing damage, it is necessary to prevent risks. If we are waiting that damages occur within an activity—for instance, a financial activity—the intervention to be made could happen too late as a large number of companies, economic operators and consumers would have already felt “in their skin” the breach of duty or conduct effects caused by the damages infraction. Thus, these damages can cause a systemic crisis, as we have already seen in the past. “For good or for bad”, globalization—as we have seen before—causes this contagion effect, not only positive effects but also the negative ones.

In fact, it was just because of globalization that the effects of the 2007-2008 economic and financial crisis—which began in the USA—had repercussions almost across the world. By the time, we said that this new criminal law essentially builds dangerous crimes, often crimes of abstract danger, as the legislator, when drawing up the respective legal type of crime, quite simply presumes that such conduct is abstractly dangerous. In straight terms, it means that a criminal sanction is imposed before the damage of a protected legal asset had supposedly occurred—perhaps too much earlier (Vilela, 2018, 102), which also involves an anticipation of criminal protection. Another characteristic of criminal law is the frequent recourse to blank criminal rules—that is, rules that need others to complete their meaning. In the precious Silva Sánchez' synthesis (2015, 2 and 3) that our reasoning has, in part, been based on, the paradigmatic infractions of this type of State are the non-fulfillment of the duties imposed by the Regulator to prevent risks, and which foundation of penalty imposition is grounded on a utilitarian idea, but without concern about observing the principle of the penal desert (Silva Sánchez, 2015 and Vilela, 2018, 103 and 104), a very fundamental canon for the criminal law of the legal good that we are still defending.

### *2.1.3. An example from Portuguese competition law*

An example of what we have been saying is the competition law, currently contained in the New Portuguese Competition Act (RJC), approved by Law no. 19/2012 of 5th June, when the Memorandum of Understanding was signed in May 2011 by the Portuguese State and the so-called troika. Indeed, the evolution of competition law allows us to find in it, firstly, the influence of Europeanization and Community law and, secondly, the Regulatory State's regulation which was accentuated with the Memorandum of Understanding signed with the troika after the economic and financial crisis of 2007 -2008. Although Portugal already knew about competition law before the RJC, the fact is that it was only in 2003 that a major reform took place in this particular sector. Thus, on the one hand, Law no. 18/2003 of 11 June entered into force approving the Competition Law, and on the other hand, the Decree-Law no. 10/2003 of 18 January instituted one of the Regulatory State “arms”, the Portuguese Competition Authority. It was endowed with powers to inspect, investigate and sanction the infractions committed having an universal jurisdiction since it exerts its “powers over all sectors of economic activity” (Soares, 2008, 45, as well as Vilaça and Gomes, 2017, 103 and 104). In the words of Vilaça and Gomes, these two laws constituted a qualitative leap within the ambit of Portuguese competition law, starting to align in essence “with the prevailing criteria in the law into force in the European Community and the most advanced European countries in this field” (Vilaça and Gomes, 2017, 104). The approximation of competition law to other foreign law did not stop here, since, after the economic and financial crisis, the Portuguese State again reformed the legislation on competition law, as mentioned above. Let us, therefore, narrow our analysis of the present study's object and look more closely at this branch of post-crisis regulated law.

## **3. AND AFTER THE CRISIS? WHAT HAPPENED IN (AND WITH) THE REGULATORY STATE?**

The economic and financial crisis that started in 2007-2008 in the USA quickly spread to Europe, and it is certain—for some authors—it was due to a deficit in the regulators' supervision. After all, even though we already knew the existence of the regulation agencies, it seems that they had exerted their powers either in a weak way or with some negligence. Thus, it was necessary to tone these same powers and, at the same time, to think of other ways to sanction illegal acts committed within the ambit of regulated sectors. Thus, Portugal—submersed in a crisis that forced it to recourse to the so-called troika for a financial rescue—had to sign the above-named Memorandum of Understanding in May 2011, which contained measures that included the intensification of the supervisors regulation as well as armoring



regulated activities with a significant increase of duties to be fulfilled by different companies. According to Costa, this agreement included, at first, that Portugal ought to approve the so-called Stability and Growth Programme (PEC I) 2008-2011, in which, among other measures, the need to reinforce "Information and transparency duties of financial institutions and deposit guarantees, the granting of personal guarantees by the State to banks as the reinforcement of their financial strength". Thus, still according to Costa (2014, 11), among these duties of information and transparency, there was the provision of information to the supervisory authorities, the reinforcement of the available information on complex products, the mandatory communication to the supervisory authorities regarding the holding participations—some are now included in Article 210 of the Legal Framework of Credit Institutions and Financial Companies (RGICSF). The obligations arising for the banking and insurance sectors have not diverged much from what has resulted in competition law. In an exemplary way, let's see what resulted from this new competition law.

### **3.1. Portuguese competition law after the economic and financial crisis**

In terms of competition, the Memorandum of Understanding outlined the objectives for the Portuguese State as—among others—to reinforce competition and sectoral regulators. At the same time, it proposed the review of the respective competition law "making it as autonomous as possible from Administrative Law and the Code of Criminal Procedure, and more harmonized with the legal framework of EU competition" (Memorandum, 2011, 34). Within this thread, the new RJC (New Portuguese Competition Act) was finally approved, and it is pertinent to emphasize the following notes from this act—among many others. Thus, we begin by indicating that article 67 of the RJC classifies infractions of the competition law as administrative offences, and yet, with the caveat that the criminal liability can arise and that it is possible to adopt administrative measures. Consequently, and after classifying the majority of its infractions as administrative offences—an illegal act distinct from the criminal act, but which does not belong to administrative law neither—the legislator of this same act establishes RGCO (general regulatory law) as a subsidiary law within the ambit of regulatory law procedures in relation to prohibited practices (Article 13) and concentration between undertakings. It also institutes RGCO as a subsidiary law applicable in the second phase of the regulatory law procedures (Article 83), a phase that is characterized—as we have already seen—for not be taken before the regulatory authority, but instead before a judge. Notwithstanding, in spite of what we have said previously, according to the RJC, the Administrative Procedure Code (CPA) is applied both to the control procedure of concentrations between undertakings (article 42) and to the appeals lodged within the ambit of administrative procedures foreseen in this law (article 91). Continuing with the notes concerning the current RJC, it is noteworthy the maintenance of periodic penalty payments' provision (article 72)—a mechanism that comes from civil law and often distanced from the sanctioning law—and is also pertinent to mention the settlement proceedings in the investigation foreseen in article 22. Another set of rules that also deserve a reflection are those introduced by this same law about setting the amount of fines. Thus, when determining the fine, the current Article 69 of the RJC has undergone major changes compared with its predecessor. While article 43 of the former law had fixed the fine maximum range including the percentage of "the previous year's turnover", currently, numbers 2, 3 and 4—of the above-named article 69—determine the fine maximum range considering as well "the turnover percentage" with recourse to the turnover of the year immediately preceding the final decision". According to paragraph 8 of the article in question—and that's even more serious—the Competition Authority has the power to adopt "guidelines containing the methodology for setting the amount of fines, in accordance with the criteria defined in this law". In terms of sanctions, in articles 75 to 82, under the verification of some assumptions, we find the provision of the so-called

clemency law that allows the party concerned to benefit of immunity from fines or reduction of fines for infractions of the competition rules. Finally, what about these exemplary changes concerning the competition law that occurred after the 2007-2008 economic and financial crisis?

### **3.2. The effective reinforcement of the Regulatory State, but also an approximation of the sanctioning law to some mechanisms that are not specific to that law**

We believe that reinforcement of duties in different regulated activities contributed to overcoming the crisis and we understand—since the beginning—that strong and effective regulation only could contribute to a better functioning of the respective regulated sectors. Therefore, we think that the Regulatory State has been intensified not only in its dimension of hetero-regulation, but also in self-regulation. Just think, for instance, of the multitude of duties that troika had compelled us to introduce into the banking sector—as we saw previously—which are part of Article 210 of RGICSF. Indeed, we find there rules that ultimately could be part of a compliance program (Vilela, 2018, 120). However, the post-crisis regulated law, in general, has introduced some foreign elements in sanctioning laws and sometimes has created or intensified legal disharmony because of the recourse now to the administrative sanctionary law, now to the criminal law in order to solve some problems. For this reason, and before delving into the analysis we have proposed to do, we may well bear in mind that the sanctioning law par excellence includes, among others, criminal law and administrative sanctionary law, and for sure, both have a different legal nature. It is also noteworthy that, besides the German legal system, only the Portuguese legal system has a long tradition in the matter of illegal act of regulatory law (the RGCO is from 1982), and it confers a greater number of guarantees to the defendant rather than administrative law. That's the reason why we have said before that if the Administrative Sanctionary Law is closer to some law, it is certainly not the administrative law, but rather the criminal law and, concomitantly, criminal procedural law. With these words, and being aware that we have not made an exhaustive analysis regarding the RJC, it is important to now raise a question—as other authors have already done—which is equally valid for any other regulatory law. We have seen that, as a general rule, infractions of competition law constitute administrative offences, which means that the regulatory authority is responsible for the application of the sanction (the fine) instead of the courts. In fact—as we have already stated—courts will only intervene if the party concerned does not conform with the decision ending with a conviction that is granted by the regulator, in which case they may lodge a judicial review against the decision in a specialized court. However, Marques, after a thorough analysis of competition law, concludes that some illegal acts, such as cartels, should be considered crimes instead of administrative offenses. Indeed, this author came to this conclusion taking into account the canons that impose the criminalization of the offense against a legal asset (Marques, 2019, 449-451), thus joining some international doctrine referred by Dias and Loureiro (2017, 815). Regarding the infraction that sanctions cartels—as these two authors remind us—it is certain that we are facing two contrastive models: on the one hand, we have the EU model, an institution that does not criminalize this conduct which is followed by Portuguese law; on the other hand, the USA model which classifies the formation of cartel as a crime since the so-called Sherman Act (Dias and Loureiro, 2017, 815). What about this dual criterion when it comes to sanctioning cartels? Something as simple as when the conduct constitutes an infraction which must be criminalized (because it protects legal assets with criminal dignity, and because other conditions have to be met for its criminalization), if the legislator creates an administrative offence instead of a crime, then we will be facing the lack of the constitutionality of the rule, as the Administrative Sanctionary law—both from a substantive and a procedural point of view—provides fewer guarantees than the criminal law.

In the same way that, if the conduct constitutes an administrative offence (and thus be sanctioned with a fine rather than a penalty) instead of a crime, we are again facing unconstitutionality, since the legislator imposes penalties through crime, sanctions that are more severe than it's necessary for that case. As a result, there's a breach of the principle of proportionality. The other reflection that we can not help but notice Marques's question, which is it much more related to procedural aspects than substantive aspect, concerning the possibility of the Portuguese Competition Authority (Autoridade da Concorrência), “in a sanctionary administrative law model and as an administrative entity, being equipped with an exaggeratedly reinforced catalog of means of obtaining evidence, subject to compression of fundamental rights, which in principle should not occur in such a procedural nature” (Marques, 2019, 453). What can we say about this Marques' concern, especially when we saw earlier that the regulator concentrates all those powers listed above? Well, although we argue that regulators should have strong powers, it is necessary that the RJC, in particular, and any other regime in general, does not grant criminal procedural powers proper to the judicial authorities when the rights, freedoms and guarantees of offenders are at stake. In that case, the decision must issued by one of these authorities, thus validating evidence, somewhat similar to what is done within the ambit of criminal procedural law. For this reason, the Dias and Pereira considerations (2019, 97) are very topical and pertinent when remind us that “the administrative procedures of pre-investigation collide” with the Constitution of the Portuguese Republic because the ownership of criminal prosecution is the Public Prosecutor's Office and it enshrines an accusatory structure for criminal proceedings. According to the authors, they still clash with the law, insofar as they are contrary to the Portuguese criminal code rule that entrusts the Public Prosecutor's Office to carry out criminal proceedings. These words, combined with those of Mendes that are precisely regarding the structure of regulatory law procedure, make us reflect. And if it is certain that we propose the differentiation of bodies within the regulatory entity to mitigate the regulatory law procedure effects, it is also true that we are aligned with the same tuning fork of Marques. That's why, we think that is our duty to call the attention, for the same reason, to that RGCO should also be reviewed and—within the organically administrative phase—to bring the Public Prosecutor's Office and judges to intervene separately in some cases, and in other cases both Public Prosecutor's Office and judges. In addition, the sanctioning regimes of regulated activities, as in the case of competition law, should not, in our opinion, allow approaches to the CPA, since it has no sanctional bias and, in many cases, does not provide full guarantees to offenders. Furthermore, following Dias and Loureiro (2017, 853), we can and must affirm that the periodic penalty payment is a punitive manifestation of civil law and unknown both to criminal law and administrative sanctionary law. It is, still according to the authors, a civil sanction meant to force the debtor to fulfill the lacking obligation. In turn, it is also criticized that the administrative offences, in terms of fines, do not have a minimum and maximum range with fixed values, rather using the percentage of the business value to fix them. However, what's even more criticized is the fact that the 2012 legislator, within the ambit of determining the measure of the fine, fails to refer to the percentage of the turnover of the previous year in order to find the maximum amount of the fine. Instead, the legislator now refers to the turnover for the year immediately preceding the final decision. Indeed, as Dias points out, such turnover has no relation to the practice of the infraction. In this sense, Dias adds that although the legislator enjoys a “wide margin in setting the amounts of the fine”, “proportionality requires that this determination is subject not exclusively, but mainly, to a consideration of the seriousness of the illicit and the fault of each infraction” (Dias, 2018, 60). Regarding this system, the author also adds that it leads to extremely variable values depending on the company in question (Dias, 2018, 60 and 61). We can also point to another criticism of this system: in compliance with the principle of law reserve, the minimum and maximum ranges of fines must be provided by law in the strict sense.

So, it does not seem to us that paragraph 8 of article 69 complies with this requirement by providing that the Competition Authority adopts "guidelines containing the methodology for setting the application of fines". We would like to make one more criticism about this RJC. It concerns mechanisms which are introduced apparently intending that the process culminates with a agreement instead of a conviction, an agreement often achieved through recourse to the complaint. We are referring, as it is easy to see, to clemency programs. Thus, for instance, under the terms of article 75 of the RJC, the offender may benefit of immunity from fines in the context of regulatory law procedure related, among others, to an agreement or concerted practices when "it reveals their participation in an alleged agreement or concerted practice, provided this company is the first to supply information and evidence" that are relevant to carry out regulatory law procedures. In turn, there is no longer immunity from fines for offenders who are not the first to denounce the infraction, but a reduction of the fine, under the terms of article 78, provided that they collaborate actively with the Authority of the Competition. It should be noted that the reduction of the percentage that reduces the fine will decrease depending on whether the undertaking is the first, the second, and the subsequents to supply relevant elements, and they benefit respectively from reductions of 30% to 50%, reductions of 20% to 30%, and a reduction of up to 20%. One last note to accompany Marques in his criticism of the transaction procedure outline, as foreseen in Article 22. In effect, according to the author, we are dealing with a transaction procedure that leads "simply to an idea of negotiating the sanction, with a view to its reduction", between the Competition Authority and the target undertaking, making it an unappealable decision (Marques, 2019, 263). It is, therefore, pertinent, in the context of globalization and the Europeanization of law, whether in competition law or in any other, especially if it involves a sanctioning aspect, that we should take into account the specificities of internal laws having regard to the EU law, and in regard to this law in view of the USA law. In fact, considering Marques' words, this is the only way for us to avoid the inconsistency between "US criminal law and EU administrative law" as a result from the "tendency to "import in a second line "DEC [European Competition Law] solutions that correspond, themselves, to transplanted solutions coming from the American legal system" (Marques, 2019, 453).

#### 4. CONCLUSION

We will conclude by saying that we are not sure that the RJC has been able to achieve the desiderata imposed in the troika's Memorandum. We end, however, without certainty that, in this case, Europeanization and globalization have had the function that is being expected from it, which is to give a joint and concerted response, but also harmonious, from the point of view of each internal law. After all, we must not forget, with Jáuregui, that every law cannot come only from a single source of power, or from a single sovereignty. "Therefore, it is necessary to consider the possibility of having a broader or more diffuse law, creating a concept of law that makes possible to overlap and interact with various legal systems without necessarily presupposing a system of subordination or hierarchy, either between one another or with other systems ". In this way, the overlapping of internal law and international law, gradually, leads jurists—equally gradually—to the formulation of a world constitution, a constitution that will be grounded, above all, "on shared criteria, coordination and subsidiarity" (Jáuregui, 2013, 194 and 195). In the particular case that concerns us, that is to overcoming the economic-financial crisis, inserted in the Regulatory State and in its sanctioning law, we must also take into account the words of Geithner and Paulson Jr.: the "enemy is forgotten" (if we interpret correctly the words of the authors, the expression "enemies" refer not only to the crisis but also to its effects). Thus, like the authors, we also "believe that the first rule for an additional financial reform must be hippocratic: (...) we must be careful, even when we readjust some of the post-crisis reforms, in order to not allow a general weakening of the most powerful defenses against the crisis ".

Still as a warning, they write, “when times are good, the dangers of going back can seem insignificant.” But the costs of the worst financial crisis may be so huge that it should have a serious effort for getting even stronger measures, both to avoid them and to mitigate them, when they occur” (Geithner e Paulson Jr., 2019, 126). And at the present moment, we already have a set of tools that we did not know then. Let us therefore know how to globalize them with respect for the differences of the different legal systems—American, European, communitarian and national. To what has been said and also as a conclusion, it's necessary adding two more notes: the first to stress that the sanctioning law must exist. However, the application of effective and efficient sanctions should only take place after some conditions that we consider essential are met:

- a) the offenders must be judged in the scope of fair and equitable procedures, with measures that respect the legality (often, the legality criminal law), especially when fundamental rights are at stake;
- b) the course of the process shall be clear and, as much as possible, approach the criminal process and not the administrative procedure, since only the first allows full protection of the mentioned fundamental rights;
- c) sanctions must respect the principle of determinability, since only then the offenders will be able to freely and consciously decide either committing or not the offence;
- d) the principle of proportionality between infractions and sanctions must be considered, and the determination of their economic value, under any circumstances, can not constitute a “death penalty” for the economic and financial agent. For this reason, there must be a correct consideration of the criteria to be observed in determining the measure of the sanction, namely, the intensity of the fault, the circumstances in which the infraction was committed, the economic conditions of the offender, among others;
- e) the profit obtained from committing the infraction, as we have long argued (Vilela, 2013, 364 and 365), should not be added to the amount of the fine, instead it should be withdrawn from the offender as an effect of the sentence;
- f) throughout the sanctioning procedure, the offender must have guarantees not only concerning the right to actively participate in the process, but also a right of defense prior to any decision that may be rendered against him.

Basically, by listing all the points, we are drawing attention to the need for an accurate classification of infractions, either as crimes or as administrative offenses, infractions that were created by German law and that exists in Portugal for a long time. In our view, only these two infractions, with their respective substantive and procedural regime, allow us to ensure the points that we have talked about giving some examples. As a matter of fact, regulation carried out by regulators has contributed to overcome the crisis, just as the necessity of compliance programs, as a self-regulation measure, has been playing a positive role, even more because in Portugal, as is pointed out by Mendes (2018, 19), corporate sector has been particularly focused in the importance of implementing compliance and “responsible governance” programs. As for the second note of this reflexion, we would to conclude that it is good that sovereign states benefit from the vigilance exercised by all regulators, although with respect for the basic principles that we have just mentioned as an example. However, there is already a claim for the intervention of the sovereign state, the EU, its institutions, the IMF. The claim that they intervene in the economy, inject capital, because, after all, we are already suffering the dark effects of COVID-19. Not only in terms of the health of all of us, but also in terms of the economic and financial plan. Everyone, in short, is urgently claiming that everything that has been done and said should be re-balanced.

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## STRATEGIES AND MECHANISMS OF SUSTAINABLE DEVELOPMENT IN THE SMALL AND MEDIUM-SIZED BUSINESS: PROJECT PORTFOLIO AND TRANSFORMATIONAL APPROACHES

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### ABSTRACT

*The study shows the insufficient use of the potential of SMEs, the small contribution of SMEs to sustainable development, the low level of methodological elaboration of transition from small to medium-sized businesses based on project management. These facts determined the range of issues considered: criteria-based apparatus for assessing the sustainability of development in SMEs; development of sustainability management through using investment-portfolio and transformational approaches. In the wake of the study, the following results were obtained. To assess stability, the traditional areas of analysis and the corresponding criteria have been singled out, namely: characterizing external factors of business processes; material, labor, financial resources. These indicators of SME's performance should be supplemented by assessment of achievement the following objectives of sustainable development: ensuring stable employment, competitive wages, additional social benefits, social investments in the regions of presence; interaction with authorities, non-profit organizations in the spheres of recognized social significance, etc. The authors consider the development of sustainability management using portfolio and transformational approaches as a most important direction for overcoming such decision-making models. For achieving this, it is advisable: to include sustainability criteria in the development and evaluation of projects; develop regulations for assessing sustainable investments; create Sustainable Development Councils that could include representatives of the executive authorities, of the public, suppliers and customers; work out accounting and reporting rules in the field of SME's sustainable development. Thus, sustainability can be integrated into the performance of SMEs on the strategic and operational level.*

**Keywords:** *small and medium-sized business, sustainable development, project and portfolio management, criteria of Assessing Sustainability in SMES, investment-portfolio and transformational approaches*

### 1. INTRODUCTION

One of the most important component of sustainable development is favorable economic conditions for development of society, primarily its social and environmental aspects. Worldwide, small and medium-sized businesses are usually regarded as an essential pillar of the economy of sustainable development: to a considerable extent they form the budget revenue of countries; in many ways they ensure the higher rate of employment and the growth of population's welfare, innovative development, including digitalization, implementation of the projects aimed at protecting the environment. According to Eurostat, over the last three years the proportion of small and medium-sized businesses in EU member states exceeded 97% of all enterprises, they generated more than 55% of GDP, given that on average 2/3 of all persons working were employed in this sector of economy. In those countries where these indicators differ (e.g., in Great Britain less than 50% of enterprises fall into the SME category) this is



usually interpreted as under-utilization of SME potential (Eurostat, 2018). In Russia, a number of indicators also lag behind European averages. For example, despite the fact that the proportion of small and medium-sized businesses also exceeds 90%, only about 20% of all those employed work in the SME sector, while their contribution to the country's economy amounts to 30% (Rosstat, SME, 2019; Russian statistical yearbook, 2019). Globally, regular measures are taken in the direction of strengthening the state support to small and medium-sized enterprises. Firstly, clear criteria of assignment to the SME category are set: this is important for the admission of companies to special programmes of financing, training, gaining a competitive advantage (EU recommendations, 2003; Federal Law, 2007; Postanovlenie Pravitelstva RF, 2016). Secondly, the programmes of support covering legislative and organizational measures are worked out (The World Bank, 2019; Sberbank 2019, OPORTA 2008). Also a considerable amount of scientific publications have been devoted to the issues of the institutional support and the public regulation of small and medium-sized enterprises. In particular, the works of Bos-Brouwers (2010), Klewitz, J., et al (2014), Koe W., et al (2015) are devoted to the influence of selected aspects of SME on the sustainable development. The role and significance of intellectual capital in SME are considered by Jones, et al (2016), Todericiu R., Stăniț, A. (2015). The issues of SME financing, forms of state support and systemic investigations of SME development are presented in the works of Bell, S. (2015), Bobyleva A. (2011), Bykovskaya Y. (2018), Sokolov A. and Rudnik P. (2014). Thus, there is a significant amount of papers studying certain aspects of SME development and factors influencing the growth of this sector of the economy but there are very few comprehensive works researching the contribution of small and medium-sized businesses to the sustainable development. Even fewer works are devoted to the matters of internal strengthening of sustainability, the opportunities of SME self-development. Most of the existing publications are predominantly aimed at micro-enterprises popularizing well-known ways and means of planning and product promotion. However, they do not reveal either patterns of business growth mechanisms, or a move to the group of larger companies. The most important works about mechanisms of advancing sustainability with regard to SME are: T: Marcelino-Sadaba, S., et al (2015); Anshin V.M., Skripka E. (2017). Nevertheless, these works only define the general outlines of the development of sustainability management in SME, and deepening and widening of the issues raised is obviously called for. Thus, the insufficient use of the potential of small and medium-sized businesses in many countries, including Russia, the absence of comprehensive scholarly works on SME contribution to sustainable development, the low level of methodological and legal elaboration of support for such transformations on the basis of the system approach and managing programmes and projects – all of the above has contributed to the choice of the topic and the range of issues that require priority consideration. Such issues include:

- criteria-based apparatus of evaluating sustainability in small and medium-sized businesses;
- assessment of the present state of SME sustainability;
- development of sustainability management by way of using investment-portfolio and transformational approaches.

## **2. AREAS OF ANALYSIS AND CRITERIA IN THE ASSESSMENT OF SUSTAINABLE DEVELOPMENT IN SMALL AND MEDIUM-SIZED BUSINESSES**

Among the areas of analysis and sustainability criteria it would be useful to single out the general ones, which reflect the level of institutional support of SME as an economy sector, and individual ones, reflecting sustainability of a particular enterprise based on its specificity (Anshin, V., 2017).

Further disaggregation presupposes defining common criteria allowing to assess SME sustainability on the factors of the environmental influence – and individual criteria within the following groups:

- market conditions;
- internal business processes;
- resource endowment.

These areas of assessing sustainability presuppose the use of both quantitative criteria and qualitative criteria (Table 1) which are assessed by experts on a five-point scale or a ten-point scale, for instance. It is necessary to point out that the areas of assessing internal business processes depend to a considerable extent on a type of activity of a particular SME (e.g., they will differ a lot in the manufacturing sector and in the service sector). In each situation assessment criteria will definitely require clarification (possibly, widening or narrowing and setting thresholds values/criteria).

*Table following on the next page*

*Table 1: Main Areas and Criteria of Assessing Sustainability*

Areas of Analysis and Types of Criteria	Numerical Score/ Quantitative Indicators
External Environment (General Criteria)	
• state regulation of SME;	
• availability of programmes of SME support and their effectiveness;	
• dynamics of tariffs regulated by the state;	
• fiscal and/or stimulating function of tax legislation;	
• dynamics of exchange rate;	
• influence of transport infrastructure on the access to consumers	
External Environment (Individual Criteria)	
• characteristics of state regulatory activities regarding SME (legal, normative-technical);	
• availability of preferential tax regimes;	
• dynamics of the enterprise's share in the market;	
• basic consumer segments, the opportunity of positive developments;	
• competitive environment (existence (absence) of market entry barriers, main competitors);	
• availability of substitutes;	
• dynamics of market prices for products ( goods, services);	
• availability of special conditions for performance (or) interaction with the state (e.g., state contract execution).	
Internal Business Processes	
• strategy (ways of development, promotion in the market, competition practices, methods of conducting business activities, etc.);	
• dynamics of production volumes, sales in the external and internal market and by product type;	
• organization of production (own production/assembly, supply dependent);	
• compliance of production with ecological norms;	
• compliance of production with international quality standards;	
• energy efficiency and energy conservation, consumption;	
• production structure: availability of subsidiaries, dependent affiliates, their interaction;	
• rationality of managerial structure;	
• occupational safety, injury reduction, development of safety culture in the production;	
• investment activity (conformity with strategy and objectives, project management system);	
• lowering negative impact on the environment (reduction of harmful emissions, waste management, etc.)	
Resources	
Material basis:	
• correspondence between production site and production volumes;	
• energy and water supply;	
• equipment quality (degree of wear and tear, utilization rate, possibility of selling without financial loss);	
• use of intangible assets in the production process;	
• stocks of raw materials, components/accessories – actual and those necessary for production process;	
Personnel (labour resources):	
• correspondence of the number of employees, their knowledge, qualification and competence to business needs;	
• measures aimed at improving skills of employees;	
• social protection of the company's employees (additional measures of the company's administration).	
Administrative capacity:	
• level and forms of interaction with state structures, executive authorities.	
Financial resources:	
• dynamics and structure of the own sources of financing;	
• dynamics of long-term and short-term loans and borrowings, accounts payable;	
• amount of retained earnings or uncovered loss of previous years and in the reporting year;	
• compliance of the received income with the market average;	
• dynamics of accounts receivable as compared with accounts payable;	
• dynamics of dividend payment and their share in the net profit.	

*Source: own elaboration*

As follows from Table 1, the assessment of financial stability is the direction in which quantitative criteria are the most often set to assess this component of stability. A company can work out (and usually does) its own criteria of sustainability by the following gross (cost) indicators:

- revenue;
- costs;
- gross profit;
- commercial and managerial expenses;
- profit from sales;
- other income and expenses;
- net profit (loss);
- EBITDA.

In addition to these indicators, the company can establish relative criteria (coefficients) and focus on the average for this type of activity among SMEs, if such information exists. Such criteria may be: profitability, leverage, labor productivity, etc. When considering sustainability criteria, it should be emphasized once again that despite the existence of the seemingly generally accepted definition of sustainability (Brundtland Report, 1987), it is often understood differently or else its components are interpreted differently in different situations. For example, in Western Europe, the emphasis is made mainly on environmental aspects, in Africa, attention is mainly paid to solving social problems (Manaykina, 2015), while in Russia the stress is primarily laid on economic stability which is regarded as a financial basis for providing other sustainability components. Nevertheless, the sustainability assessment, which includes all three components, is becoming increasingly widespread in Russia. In particular, since 2014, the Russian Union of Industrialists and Entrepreneurs has compiled sustainable development indices “Responsibility and Openness”, “The Vector of Sustainable Development” and some others (RSPP, 2019). In our opinion, to assess sustainability of a company, it is also advisable to include the following areas of assessment:

- compliance of the strategic goals of the company with a sustainable development strategy;
- actions of the Company to address the strategic objectives of sustainable development;
- implementation of best corporate governance practices, taking into account the principles of sustainable development (stable employment, competitive wages, additional social benefits, social investments in the regions of presence);
- assessment of suppliers and contractors for compliance with the principles of sustainable development;
- interaction with authorities, non-profit organizations in the spheres of social significant;
- impact of the organization on the socio-economic development of local communities.

Considering the criteria-based apparatus for assessing stability, it should be emphasized that there are not only difficulties associated with the selection of assessed indicators, but there are also other methodological complications that do not allow to sum up individual indicators of stability and evaluate it using an integral indicator. The problem is that there exists a more complex relationship between the indicators. For example, in agriculture, the production of organic products leads to a decrease in the use of mineral fertilizers, reduction of soil and water pollution. It can strengthen administrative support, but it can also negatively affect the income of the producer, due to lower yields, and the welfare of the consumer, due to higher prices for products. Sustainable development indices of the RSPP, as well as the world-famous sustainability indices (Bobilev S.N., 2014) are difficult to apply for SMEs due to the incomplete transparency of information.

For example, in Russia, the main source of information about the state of the segment is the register of SMEs published by the Federal Tax Service. However, it is annually reviewed in August and based on the data of the company's revenue over the previous year. Moreover, newly registered companies are automatically recorded as small business, part of de facto non-operating companies that are in bankruptcy proceedings, remains in the register (BobylevaA., 2019). According to experts (Sberbank, 2019), these facts greatly complicate the assessment of the dynamics of companies viewed by segments, and may distort research results. Another methodological problem that hinders the objective assessment of sustainability in the SME segment in Russia is the lack of information on companies joining holding-type groups, in other words - the dependence of companies. On the one hand, such companies may be better provided with orders, have a guaranteed sales market (Papadopoulos, G, 2015); on the other hand, due to the use of transfer prices, they may be financially unstable, run a high risk of bankruptcy, etc. (BobylevaA.Z., 2019) and the analysis of these two groups of companies as one is not entirely correct. It seems it is advisable to exclude affiliates which became part of large holdings, from the SME segment. Nevertheless, taking into account the possible errors of analysis due to imperfections in the information base, in the next section we are going to use the elements of the above criteria apparatus to assess the sustainability of small and medium-sized businesses.

### **3. ASSESSMENT OF THE CURRENT STATE OF SUSTAINABILITY OF SME**

Statistics show that the number of small enterprises in Russia for 2010-2018 increased by 62%, the turnover of enterprises - 2.8 times, investments - 2 times, assets - 3 times, equity - 2.7 times (Rosstat, SME, 2015, 2019). This may indicate a certain development of small business. However, when assessing sustainability, it should be borne in mind that revenue per enterprise remains very small: in 2018, it amounted to 20 million rubles per year, the average number of employees per enterprise is 4 people (Rosstat, 2019), while legislation allows to attribute to SMEs enterprises with a turnover of up to 800 million rubles per year and numbering up to 100 people (Federal Law, 2007, Resolution of the Government, 2016). It should also be noted that the average number of employees for 2010-2018 in small business increased by less than 10%, and in 2014-2018 it even decreased slightly. This may indicate the unattractiveness of small businesses from the purely financial point of view : according to official statistics, wages in small business make up only 63% of the average wage calculated for a full range of enterprises (Rosstat, SME, 2019; Rosstat, 2019). On the other hand, it should be borne in mind that in small businesses, employment often takes place according to illegal schemes: the employee either does not register at all or is registered as part-time, receives “unofficial” wages. So, neither the employee nor the employer pays taxes. The ratio of profitable and unprofitable small enterprises has remained at 80:20 for all years. Therefore the share of unprofitable enterprises of SMEs is less than in the full range of enterprises. For example, in 2018 the proportion of unprofitable enterprises amounted to 33% (Rosstat, 2019). However, it is not necessary to speak clearly about the financial successes of small business, since profitable enterprises in the SME segment had low profitability of both - products and assets: 3.5–7% and 1.8–4%, respectively, and for the full range of enterprises it was higher: 6.7-10.7% and 3.8-4.7%, respectively (Rosstat, SME, 2019; Rosstat, 2019). If we consider SMEs by economic activity, then agriculture was more profitable, as well as activities in the field of real estate, healthcare, social services, scientific research. Nevertheless, the higher profitability of these industries did not lead to an overflow of capital and an outstripping growth in the number of enterprises in these industries: by type of activity the largest share is occupied by wholesale trade and repair (35-39%), construction (11-13%). Until 2014, companies related to real estate operations had a high share (20-21%), but in recent years their share has dropped to 8%. In agriculture, hotel business, education, services in healthcare, culture, sports, small enterprises make up no more than 3% in each of

the areas (Rosstat, 2019). There is a outstripping growth of microenterprises: if in 2010 their share in small business was 86%, then in 2018 it was already 91%, their number in 2010-2018 increased by 71%, turnover - 2.25 times and amounted in 2018 almost 10 million per enterprise (Rosstat, SME, 2019, Rosstat, 2019). Indicators of medium-sized enterprises` sustainability are particularly noteworthy. Unfortunately, the incompatibility of the data does not allow an analysis for the entire period of 2010-2018, but the analysis for 2017-2018 shows that in the medium-sized enterprises the average number of employees has decreased, investments in fixed assets, assets, the turnover are stagnant, while as in enterprises of other categories, these indicators are growing. In recent years, Rosstat reflects information on investment objectives in SMEs and the data indicate a focus on the sustainability of Russian companies in all three components: for example, in 2018, 9% of managers noted that among their goals was job generation, 7% - energy saving, 5% - environmental protection (Rosstat, 2019). In general, the study allows us to state that, both in Russia and around the world, an assessment by one group of criteria testifies to the strengthening of the sustainability of SMEs, an increase in orientation to its environmental and social components. According to other criteria, short-term economic benefits continue to dominate in the priority system of many small companies. Overcoming such decision-making models will be facilitated by the development of sustainability management through portfolio and transformational approaches.

#### **4. DEVELOPMENT OF SUSTAINABILITY MANAGEMENT THROUGH INVESTMENT PORTFOLIO AND TRANSFORMATIONAL APPROACHES**

Sustainability management in SME has its own characteristics related to the specifics of the segment itself:

- a number of companies have moved from microenterprises to small and medium-sized enterprises and have further ambitious development plans;
- less bureaucratization and lower number of managers compared to large business companies, which in some extent facilitates business transformation;
- lack of sufficient experience in applying the investment-portfolio approach, but there is a need for this, especially in the IT, construction, and consulting businesses;
- grant opportunities and other kinds of financial support from the state and non-profit organizations;
- focused informational, organizational and other support of the executive authorities in implementing the sustainable development strategy and, in particular, digitalization. These peculiarities can be used to integrate the principles of sustainable development into project practice of SMEs through the following measures.
- Inclusion of sustainability criteria in project design and evaluation. Sustainability criteria should contain an economic, environmental, and social component, as well as focus on the company's transforming into a larger one. It should be taken into account that the project affects sustainability, and sustainability criteria (sustainability requirements) affect project parameters.
- Development of regulations for evaluating sustainable investments and projects. It is advisable to include two types of projects in portfolios: a) traditional ones aimed at improving operational activities without violating sustainability, and b) special projects whose immediate goal is to strengthen sustainability. For example, a new product that takes into account environmental requirements is a traditional project, while a construction project for sewage treatment plants is a special one (Anshin, 2017). The systematic selection of projects is provided by determining the stability drivers and evaluating their compatibility in a given period. Also the time difference should be taken into account: energy efficiency reduction projects can be costly, but its implementation saves resources.

- The establishment of a sustainable development Council, whose members are involved in the formation of the project portfolio. The Council may include representatives of the executive authorities, the public, suppliers and customers. Their participation will facilitate the selection of the most relevant projects in terms of increasing the stability of the region or type of activity (for example, related to digitalization).
- Development of reporting in the sphere of sustainable development and providing it to interested parties.
- Selecting the implementation and current stability control model (appointment of a sustainable transformation program Manager, creating a sustainable transformation program office, etc.). Thus, the investment-portfolio and transformational approaches are the means by which sustainability can be integrated at strategic and operational levels of SMEs.

## 5. CONCLUSION

The current state of SMEs around the world indicates the underutilization of their potential fully, their insufficient focus towards sustainable development. These circumstances slows down the implementation of sustainable development goals (Brundtland Report, 1987). The state and non-profit organizations provide tangible support to the SME sector but increasing sustainability is not possible without mobilizing the internal capacities of SMEs. The most important “internal” mechanism for increasing the sustainability of SMEs is the wide use of investment-portfolio and transformational approaches in the implementation of the strategy. These approaches, with the inclusion in the portfolios of above two sustainability projects` types together, will provide a new quality of sustainability management and make it systemic. In our opinion, creating a sustainable development project management system in SMEs is a priority for companies seeking to ensure their stability and investment attractiveness.

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## ANALYSIS OF ACQUISITION SUCCESS IN HOTEL INDUSTRY OF THE REPUBLIC CROATIA

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### ABSTRACT

*The acquisition success can be observed through the analysis of financial statements of the acquirer. Horizontal and vertical analysis of the acquirer's financial statements, as well as analysis of individual financial indicators, shows the impact of the transaction on acquirer's business performance. Accounting approach is relevant when it comes to M&A research, and therefore it is used in this paper to examine the success of acquisition of company Istraturist d.d. by company Plava Laguna d.d. within Croatian hotel industry. After the analysis of key business indicators it has been concluded that business performance of the acquirer Plava Laguna d.d. was better after the successful acquisition of company Istraturist d.d.*

**Keywords:** *acquisitions, hotel industry, financial statement analysis*

### 1. INTRODUCTION

Mergers and acquisitions (M&A) represent one of the main features of contemporary economic trends (Rupcic, 2003, pp. 94). Mergers, acquisitions and takeovers are business combinations which are used to grow a business (Tipurić, Markulin, 2002, pp. 16). In an ever-changing business environment, mergers and acquisitions have become one of the quickest routes for companies to operate in new markets and add resources to existing resources (Kumar, 2019, pp. 1). During the nineties of the last century, mergers and acquisitions became one of the most dynamic forms of business internationalization. A company can implement one of the three following growth strategies: internal or organic growth, growth through mergers and acquisitions, and growth through strategic alliances. Internal growth represents the slowest way of growth because when company pursues internal growth it relies on its own resources and it also relies on increase of products and services sold on existing markets as well as independent development of new products and penetration to new markets (Filipović, 2012). Considering the fact that internal growth represents the slowest way to grow and considering that companies cannot accomplish planned growth only by relying on its own resources, companies often to expand business through mergers and acquisitions or through strategic alliances (Tipurić, Markulin, 2002). There are goals and objectives that every company wants to achieve when implementing the acquisition process. However, it can happen that the objectives of the acquirer are not complementary to the target company's objectives. In order to avoid conflict between the acquirer and the target company, a dialogue should be established and companies should agree to compromise. Moreover, in order to realize the objectives more easily, managers should possess specific knowledge and skills on matters such as available forms of financing, as well as accounting principles in mergers and acquisitions and their implementation (Gole, Morris, 2007, pp. 20-21).

When measuring the success of mergers and acquisitions, four research approaches can be considered: event study approach, accounting approach, case study approach and approach based on surveys of managers (Filipović, 2012). In academic community heterogeneity regarding motives and success of M&A prevails. Acquiring a company is a landmark decision that is fraught with risk. The preparations and implementation of an acquisition require extensive resources and specific skills (Bergamin, Braun, 2018, pp. 1). Thus, the main aim of this paper is to analyze acquisition success of company Istraturist d.d. by company Plava Laguna d.d. within Croatian hotel industry. After the overview of acquisitions' characteristics in EU and Croatian hotel industry, success of acquisition of hotel company Istraturist d.d. by hotel company Plava Laguna d.d. was analyzed.

## 2. ACQUISITIONS IN HOTEL INDUSTRY

Tourism is a strategic industry of the Croatian economy just like in many other European Union economies such as the United Kingdom, France, Spain and Greece. The hotel industry is an integral part of the tourist offer of every economy, and besides accommodation it offers services of food and drink, wellness, and sports and recreation. In terms of accommodation offer in the Republic of Croatia, private accommodation dominates, accounting for 63.2% of total accommodation units in 2018. Private accommodation units increased by 7.9% compared to 2017. It is important to note that the number of private accommodation units has been steadily increasing since 1980. The number of accommodation units in campsites in 2018 is 18.6% which represents decrease for 2.5% compared to the 2017. When compared to private accommodation and campsites, hotels and apart-hotels come in third place, and in 2018 account for 10.3% of the total number of accommodation units, which is 0.7% less than in 2017.<sup>1</sup> When analyzing the quality of the hotel offer in the Republic of Croatia, according to the list of categorized objects, four-star hotels are the most dominant. According to the list of categorized objects, there are 308 four-star hotels registered, which comprise the offer of 28,223 accommodation units. There are 39 five-star hotels registered. On the other hand, there are 192 campsites registered in the Republic of Croatia, and only three have five stars. Three stars campsites are the most numerous, consisting of 69 campsites with total offering of 26,894 accommodation units.<sup>2</sup> It is important to point out that the hotel industry in Croatia has been going through a process of expanding into hotel chains and the reconstruction of hotel facilities over the last few years, and there are also more and more greenfield investments.<sup>3</sup> Besides from expanding hotels into hotel chains in Croatia, there is significant number of M&A transactions in hotel industry in European Union as well as in Croatia. Figure 1 shows number of transaction in selected countries of EU from 2009 till 2020.

*Figure following on the next page*

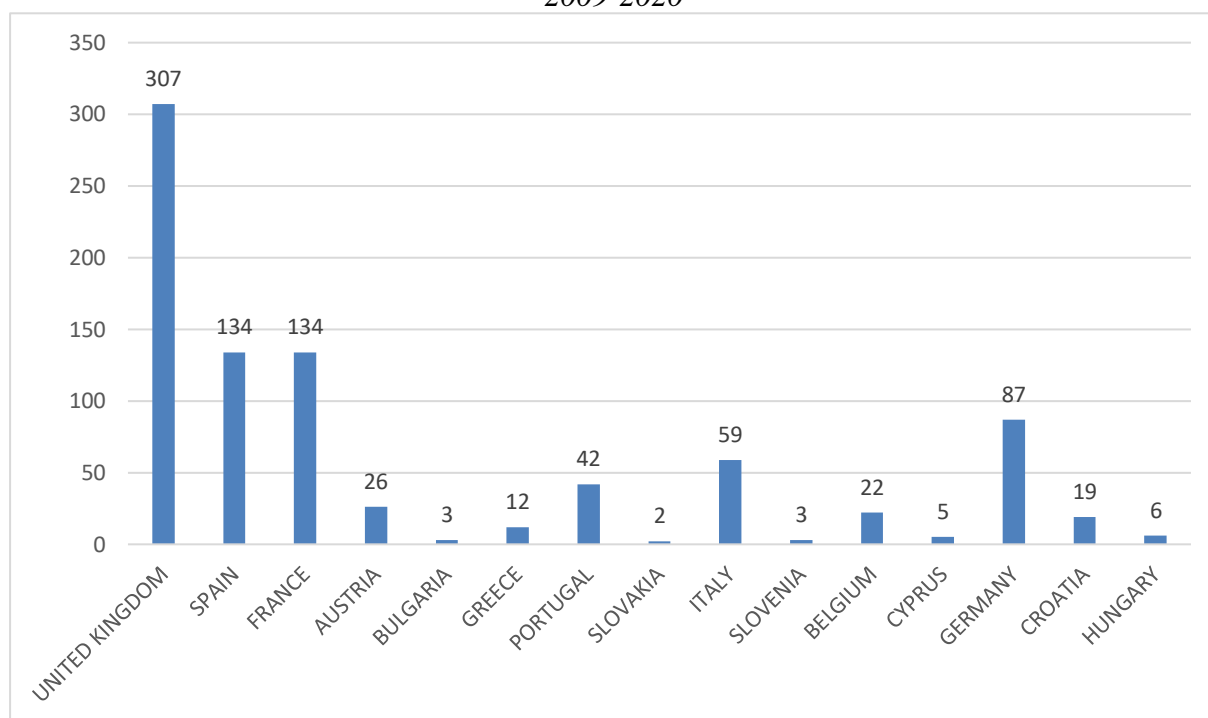
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<sup>1</sup> Available at: [www.htz.hr/sites/default/files/2019-06/HTZ%20TUB%20HR\\_%202018.pdf](http://www.htz.hr/sites/default/files/2019-06/HTZ%20TUB%20HR_%202018.pdf) [2.1.2020.].

<sup>2</sup> Available at: <https://www.dzs.hr/> [4.1.2020.].

<sup>3</sup> Available at: <https://www.dzs.hr/> [4.1.2020.].

*Figure 1: Acquisitions in hotel industry in selected countries of the European Union in period 2009-2020*



*Source: www.mergermarket.com [4.1.2020.].*

The data in Figure 1 was gathered from Mergermarket database that records transactions with a deal value of more than 5 million Euros. As it can be seen, the largest number of transactions has been concluded in the United Kingdom, which is not surprising since it is the third largest economy in the world. According to some analyzes, the tourism industry in UK is estimated to be worth over 257 billion GBP in 2025.<sup>4</sup> There are 206,000 tourism companies registered in UK, contributing with 25 billion GBP to exports.<sup>5</sup> In Spain and France there were 134 acquisitions in the hotel industry. It is important to note that France is the world superpower when it comes to receptive tourism and is the eighth largest economy in the world. In 2017, it generated 87 million foreign arrivals, and the France government plans to generate 100 million foreign arrivals by 2020. France's tourism revenue amounts to 54 billion Euros a year, with the tourism industry accounting for 7.1% of total GDP.<sup>6</sup> The Hungarian economy is more focused on the food industry rather than tourism, which justifies the small number of concluded transactions. Slovenia and Bulgaria are newly developed tourist destinations. For example, Sunny Beach in Bulgaria attracts more and more young people who want to go out and have fun, thus competing with the Croatian beach Zrce. In the period 2009-2020 there were 19 acquisitions in hotel industry of the Republic of Croatia, which is satisfactory considering the fact that Croatian economy is small, and that tourism is strategic industry in Croatia, and the level of tourism development influences the hotel industry. Accordingly, it can be concluded that the degree of development of the economy and the importance of tourism for the economy has impact on the number of acquisitions in the hotel industry. Along with M&A intensity in hotel industry measured with number of transactions it is also important to analyze the value of those transactions. Therefore, Table 1 presents highest value transactions in the period 2009-2020 for the selected EU countries.

<sup>4</sup> Available at: <https://htz.hr/sites/default/files/2019-01/UK.PDF> [10.1.2020.].

<sup>5</sup> Available at: <https://htz.hr/sites/default/files/2019-01/UK.PDF> [10.1.2020.].

<sup>6</sup> Available at: <https://htz.hr/sites/default/files/2019-01/Francuska.pdf> [10.1.2020.].

*Table 1: Highest value transactions in the hotel industry in selected countries of the European Union in period 2009-2020*

Country	Compl.date	Target Company	Bidder Company	Transaction value, EUR (million)
United Kingdom	30.09.2015.	Center Parcs UK	Brookfield Property Partners L.P.	3,346
France	31.05.2018.	AccorInvest (57,8% stake)	GIC Private Limited;	2,850
Croatia	12.02.2019.	HUP Zagreb d.d.	Adris Group	228
Italy	18.04.2017.	Boscolo Hotels S.p.A.	Verde Partners Inc.	500
Bulgaria	18.11.2013.	Hilton Hotel	Global Properties Bulgaria	24
Croatia	26.08.2014.	Istraturist d.d.	Plava Laguna d.d.	120,1
Austria	01.07.2016.	Grape Hospitality	Eurazeo Patrimoine	474
Hungary	14.12.2017.	Sofitel Budapest Chain Bridge Hotel	Starwood Capital Group	75
Spain	20.06.2016.	Testa Residencial	Merlin Properties Socimi, S.A.	3,437
Greece	27.10.2016.	Astir Palace Hotel SA	AGC Equity Partners Limited	430
Cyprus	06.03.2017.	Sentido Cypria Bay; Cypria Maris Beach Hotel & Spa; Laura Beach & Splash Resort	Fattal Hotels Ltd.; ISSTA Lines Ltd	80

*Source: www.mergermarket.com [10/1/2020.].*

Almost all highest value transactions were concluded between 2015 and 2018, and it can be concluded that the economic recovery affected the number and final value of acquisitions. When analyzing highest value transactions, it can be seen from Table 1 that highest value transactions occurred in United Kingdom and France, and that can be explained by strength of their economies as well as with impact of tourism on their GDP's. The highest value acquisition in the hotel industry of the Republic of Croatia was concluded by Adris Group in early 2019 when they acquired HUP Zagreb d.d. Prior to this transaction, the most significant transaction was acquisition of Istraturist d.d. by Plava Laguna d.d. which will be analyzed in following section of this paper.

### **3. ANALYSIS OF ACQUISITION OF ISTRATURIST D.D. BY PLAVA LAGUNA D.D.**

Plava Laguna d.d. company for catering and tourism, is registered at the Commercial Court in City of Pazin. The share capital of the company amounts to 1,444,530,057.18 HRK divided into 2,197,772 ordinary shares and 420,000 preference shares with a nominal value of 250.00 HRK. The company provides catering and tourism services in the cities of Porec and Umag, and since 2013 in Rijeka after the acquisition of the Hotel Bonavia d.d. With this transaction, the company entered a segment of four-star hotels. In 2014 the company acquired 93.04% of Istraturist's d.d. ordinary shares from Zagrebačka banka d.d. Istraturist d.d. provides services in facilities located in the area of Istria, namely in City of Umag. Blue Laguna d.d. has a capacity of 43,075 beds, out of which 10,595 are in hotels, 6,290 in apartments and 26,190 in campsites. It is important to note that Blue Laguna's portfolio also includes two marinas with a total of 360 ship berths. The Company is continuously investing in construction and reconstruction of its hotels, and therefore 4-star facilities are the largest in their portfolio.<sup>7</sup> Istraturist d.d. is a hotel company founded in 1963 and holds hotels and apartments in its portfolio. In total, it has 15 accommodation facilities that can accommodate 23,000 guests. All its capacities are located in Northwestern Istra. Istra D.M.C. ltd. is a subsidiary through which Istraturist d.d. has a license for the organization of the ATP tournament in Umag, which is organized in cooperation with

<sup>7</sup>Available at: <http://biz.plavalaguna.hr/hr/> [12.1.2020.].

partners and sponsors in order to contribute to the recognition of Umag as a tourist destination. The company is also a member of the Northwestern Istra Tourism Cluster, which aims to develop the destination and extend the season through cycling, gastronomy, tennis, football and wellness activities. The share capital of the company is divided into 4,674,995 ordinary shares with a nominal value of 100.00 HRK.<sup>8</sup> Until 2014, the majority shareholder of Istraturist d.d. was Zagrebacka banka d.d. with a 93.04% of ownership stake. On August 26<sup>th</sup>, 2014 contract between Zagrebacka banka d.d. and Blue Laguna d.d. for purchase of 93.04% stake of Istraturist d.d. was signed. A transaction value was 120,102,000 EUR, and 100 million was financed with bank loans while the rest was financed with cash. Based on the decision of the Commercial Court in Pazin on January 12<sup>th</sup>, 2018, Istraturist d.d. was merged into the Plava Laguna d.d. which has become his universal legal successor.<sup>9</sup> When it comes to M&A success some of the researchers find evidence that the most successful transactions are those that promote the acquirer's core business, largely reflecting their familiarity with such businesses and their ability to optimize investment decisions. Related acquisitions may even be more likely to generate higher financial returns than unrelated deals, since related firms are more likely to realize cost savings due to overlapping functions (DePamphilis, 2018, pp. 13). In order to assess the success of acquisition of Istraturist d.d. by using the accounting approach, comparative income statement of Plava Laguna d.d. (Table 2) was analyzed in period after the acquisition of Istraturist d.d. till 2018.

*Table 2: Comparative income statement of Plava Laguna d.d. in period 2013-2017*

(000's of HRK)	'14/'13	%	'15/'14	%	'16/'15	%	'17/'16	%
Sales	-14.828	-3,00%	33.909	7,07%	16.383	3,19%	45.315	8,55%
Other revenues	690	41,12%	-748	-31,59%	1.895	116,98%	-1.779	-50,61%
Costs of inventories and services	-6.086	-4,43%	11.768	8,97%	3.539	2,48%	-310.011	-211,67%
Personnel expenses	-1.172	-0,97%	8.096	6,80%	-2.924	-2,30%	-255.004	-205,29%
Amortization	761	0,72%	-1.905	-1,79%	-7.856	-7,53%	-191.511	-198,53%
Other expenses	7.630	24,37%	-3.679	-9,45%	-2.165	-6,14%	-86.351	-260,87%
Financial revenues	-706	-8,15%	-922	-11,59%	1.130	16,07%	-2.231	-27,33%
Financial expenses	2.357	136,96%	33.463	820,57%	-9.339	-24,88%	-40.678	-144,24%
FINANCIAL RESULTS	-3.063	-44,14%	26.631	686,90%	-10.469	-34,32%	-26.583	-132,66%
<b>TOTAL REVENUE</b>	<b>-15.228</b>	<b>-3,01%</b>	<b>32.296</b>	<b>6,59%</b>	<b>19.421</b>	<b>3,72%</b>	<b>41.311</b>	<b>7,62%</b>
<b>TOTAL EXPENSES</b>	<b>3.490</b>	<b>0,88%</b>	<b>47.743</b>	<b>11,95%</b>	<b>-18.745</b>	<b>-4,19%</b>	<b>26.665</b>	<b>6,22%</b>
GROSS PROFIT	-18.718	-17,07%	-15.447	-16,99%	38.166	50,56%	14.646	12,89%
TAXES	1.919	477,36%	5.306	228,61%	5313	69,66%	9.935	76,78%
<b>NET INCOME/LOSS</b>	<b>-20.637</b>	<b>-18,89%</b>	<b>-20.753</b>	<b>-23,42%</b>	<b>32.852</b>	<b>48,41%</b>	<b>4.712</b>	<b>4,68%</b>

*Source: Author's calculations based on Annual Financial Statements of Plava Laguna d.d., available at: <http://rgfi.fina.hr/JavnaObjava-web/pSubjektTrazi.do> [15.1.2020.].*

In 2014, total revenues were 3.01% lower than in the previous year due to an increase in the VAT rate on accommodation and catering services from the previous 10% to 13%. The decrease in revenues was driven by a decrease in accommodation revenue of 15.3 million HRK, which is a result of a 3.7% decrease in overnight stays. In 2015, total revenues were 515.7 million HRK, which represents increase by 6.9% compared to previous year.<sup>10</sup> That increase can be explained through increase in accommodation revenue in 2015.

<sup>8</sup> Available at: <http://rgfi.fina.hr/JavnaObjava-web/pSubjektTrazi.do> [12.1.2020.].

<sup>9</sup> Available at: <https://www.zse.hr/default.aspx?id=10006&dionica=20> [14.1.2020.].

<sup>10</sup> Annual Financial Statements of Plava Laguna d.d., available at: <http://rgfi.fina.hr/JavnaObjava-web/pSubjektTrazi.do> [15.1.2020.].

The increase of total expenses in 2015 is the result of increased business activities. In 2016, the company recorded an increase in sales, which impacted an increase in total revenues of 6.59%, and that increase was generated through higher accommodation revenues. In 2017, the company increased its average net prices by 5.3%, which had a favorable impact on business performance and total revenues. The financial ratios used to assess the safety of business performance are the liquidity and debt ratios shown in the table below for the period after the acquisition of Istraturist d.d. Financial ratios were analyzed (Table 3) in order to make conclusions about the impact of debt, generated in acquisition process, on financial stability of Plava Laguna d.d.

*Table 3: Selected financial ratios of Plava Laguna d.d. after the acquisition of Istraturist d.d.*

FINANCIAL RATIOS	2014	2015	2016	2017
CURRENT LIQUIDITY RATIO	2,47	1,29	1,28	1,57
FINANCIAL STABILITY RATIO	0,95	0,98	0,98	0,95
DEBT RATIO	0,36	0,31	0,25	0,24
SELF-FINANCING RATIO	0,64	0,69	0,75	0,76
FINANCING RATIO	0,56	0,44	0,34	0,32
COVERAGE RATIO I.	0,7	0,75	0,81	0,86
COVERAGE RATIO II.	1,06	1,02	1,02	1,05

*Source: Author's calculations based on Annual Financial Statements of Plava Laguna d.d., available at: <http://rgfi.fina.hr/JavnaObjava-web/pSubjektTrazi.do> [15.1.2020.].*

For ease of comparison, the Table 3 provides data for year 2014 when acquisition was concluded, and when increase of debt occurred since majority of financing included bank loans. In 2015, the company's liquidity decreased due to the utilization of a portion of highly liquid deposits to finance the part of the transaction. In 2014 the financing ratio was 0.56, and in 2017 it was reduced to 0.32. The analysis of the self-financing coefficient and the financing coefficient reveals that despite the increase in company's debt, Plava Laguna d.d. reduced the share of other sources of financing and, while retaining income, increased its self-financing sources. The tendency of an increase in coverage ratio I indicates that the company finances larger part of its long-term assets with its own long-term sources. In conclusion, it can be pointed out that the transaction had a greater impact on the company's liquidity than on its financial stability. Despite the decrease in liquidity, Plava Laguna d.d. remained liquid, and improved its liquidity and reduced its debt in the following business years. Financial ratios for evaluating business performance are activity ratios, economy ratios, profitability and investment ratios. Table 4 highlights the most important ratios in order to evaluate the success of the acquirer's business performance after the acquisition of Istraturist d.d.

*Table 4: Selected business performance ratios of Plava Laguna d.d. after the acquisition of Istraturist d.d.*

FINANCIAL RATIOS	2014	2015	2016	2017
EFFICIENCY OF TOTAL OPERATIONS	1,23	1,17	1,27	2,2
TOTAL ASSETS TURNOVER RATIO	0,21	0,23	0,24	0,25
SHORT-TERM ASSETS TURNOVER RATIO	2,43	2,85	3,18	2,12
NET PROFIT MARGIN	18,90%	20,17%	23,78%	20,21%
RETURN ON ASSETS	3,91%	4,59%	5,71%	4,98%
RETURN ON EQUITY	5,82%	4,27%	5,95%	5,86%
EARNINGS PER SHARE	40,32	30,88	45,83	47,97

*Source: Author's calculations based on Annual Financial Statements of Plava Laguna d.d., available at: <http://rgfi.fina.hr/JavnaObjava-web/pSubjektTrazi.do> [15.1.2020.].*



The fluctuations in business efficiency are influenced by changes in VAT rates and levies, and with the increase of accommodation prices. Despite the purchase of a controlling interest, total asset turnover ratio is increasing and thus indicates efficient asset management. The net profit margin also recorded an increase in all periods of the analysis, which means that the company is able to manage its operating costs efficiently while increasing sales. Comparing the return on equity and the return on assets, it can see the effect of financial leverage as the company earns greater returns for owners of equity than for owners of all sources of financing. Regarding investment ratios, the company continuously paid out dividends on preferred shares, while dividends on ordinary shares were paid out only in 2013.<sup>11</sup> It can be pointed out that the acquisition of Istraturist d.d. did not have adverse effect on business performance of Plava Laguna d.d. but on the contrary, the Plava Laguna d.d. continued to effectively manage its assets and improve its operational efficiency. Therefore, the acquisition of Istraturist d.d. can be considered as a successful acquisition from acquirer's perspective.

#### 4. CONCLUSION

The Croatian hotel industry is undergoing a process of enlargement which is characterized with number of horizontal acquisitions. Hotel facilities are being increasingly modernized and adapted to the latest tourists' requirements, and that is achieved through the reconstruction or construction of new hotel facilities. There are also a large number of small family-run hotels, but when it comes to the number of accommodation units, private renters dominate. For the last two years, private renters faced a problem of filling their capacities due to the unreasonable price to quality ratio of the accommodation they offer, as opposed to luxury equipped hotels and campsites that are generally pre-filled. When it comes to hotel chains in the European Union, in addition to being far more sophisticated, they have entered into vertical integrations through which they offer air travel, cruise services, etc. Based on the data available in the MergerMarket database, it can be concluded that the degree of development of the economy and the importance of tourism for the economy has impact on the number of acquisitions in the hotel industry of EU countries. Plava Laguna d.d. had diverse offer of accommodation in its portfolio including hotels, campsites, and marinas mainly located in the area of Istra. With acquisition of Istraturist d.d., Plava Laguna d.d. increased the concentration of the destination as well as the number of accommodation units, and thus became more competitive. Since the transaction was partly financed with bank loans cash that affected the liquidity of the acquirer for two years after the acquisition, but acquirer's liquidity ratios recovered in 2017. The net profit margin recorded an increase in the period after the acquisition due to efficient management of operating costs while increasing sales. Sales increased because of higher number of accommodation units and increase in accommodation prices. Even though more than two thirds of M&A transactions fail, after the analysis of acquisition of Istraturist d.d. by using accounting approach it can be concluded this was successful acquisition from Plava Laguna's perspective.

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## CONSEQUENCES OF JUDGMENT: RELATIONSHIPS BETWEEN INDIVIDUAL PERFORMANCE AND EMPLOYEE TURNOVER

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### ABSTRACT

*The general approach to individual performance has dynamically changed and evolved in the sociological and psychological literature over the last few decades. Earlier, practitioners in Human Resource Management had often been led to misguided or improper interpretations of employee performance, and companies only considered the measurable employee performance as the “real” whole individual performance and ignored the non-measurable effects on the outcome of the performance indicators. Based on the evolution of solutions in the literature and based on own experience, companies have recognized the role and importance of employees in organizations, and they are making efforts to meet the physical and psychological expectations of this factor to improve individual performance. In compiling our knowledge base from the performance-oriented literature, we took into consideration the holistic nature of the topic, and we relied primarily on that literature and studies as the knowledge base of our research, which examined the non-measurable elements and its effects of individual performance. In the introduction, we examine the meaning of individual “well-being” or “good work” in different literature as the starting point of our study. In the main part of the literature, we summarize the importance of individual performance in the relevant organizational behavior literature as one possible impact or element of the employees’ well-being in the workplace. We describe the role and effect of the High-Performance Work Systems (HPWS) in performance measurement. Furthermore, we examine the turnover intention of the employees as possible outcomes of the lack of individual well-being. Our study proposes a new conceptual framework for employees’ well-being in organizations, one that focuses on the most disadvantageous outcomes of these employee turnover issues.*

**Keywords:** *employee turnover, individual performance, well-being*

### 1. INTRODUCTION

Until the early twenty-first century, profit maximalization was the basic approach and the driver of the business in the economy (Solomon, 1999). The indicators, which directly affect the operating of companies in the competitive sector, was singularly profit making. The corporate reports did not contain the conditions of the working environment, the employees' well-being or the performance, job satisfaction and commitment of the staff from a business approach. However, this attitude changed dramatically in the late 1970s, when more and more literature began to address the workplace environment of an employee and its effects: both from physical and psychological sides. Considering an average employee's agenda, it is easy to recognize that a significant proportion of employees, depending on the nature of the job, spend at least 8-12 hours at work a day, where their “lived” experiences may have a significant impact on their private lives outside the workplace as well. Hence, the researchers recognized these issues and began to examine the role and impact of individual well-being in the organizational environment. One part of the research article, which deals with the environmental factors of the workplaces, examines the sound, light, air and other external factors, which impact on the

individual's well-being was evidenced (Gifford, 1996, Badayai, 2012). Another part of these research studies deals with the social impact of employee well-being in the literature. This research has studied and described for instance the role of the leader in the team (Gjerlov-Juel, 2019; Koene et al., 2002). Gjerlov-Juel classified the environmental climate of the employees into five groups according to the effect's nature: leadership climate, empowerment climate, justice climate, operation climate or ethical climate. With the strengthening of the business ethics' position in the daily business, the psychological aspects of workplace conditions have also come to the spotlight. Numerous studies and literature address the role of employee well-being in the work environment as a potential factor in the success of a company from the financial side. One of the most influential researchers of the individual well-being and positive psychology research is Csikszentmihalyi et al. in the psychological-oriented literature, who found the concept of creation and interpretation of "flow" as a common name of the emphasized phenomenon. He defined the "flow" experience as "moments when one reaches such equilibrium and one becomes completely engrossed in the enjoyment of one's work are described as an experience of flow" and he "asserts that the task of good managers and enlightened business leaders is to create a working environment which facilitates as many moments of "flow" as possible" (Vogt, 2005). Furthermore, he emphasized that the employees who work in an inspiring work environment, develop their personal skills and abilities, and simultaneously with it, they can grow their productivity as well (Csikszentmihalyi, 2003). Therefore, the company can reach a higher profit rate and it can keep its position in the business market. One of the key messages in the business ethics-related literature of Csikszentmihalyi is, the most important tasks of company executives must be to achieve the flow of employees. Csikszentmihalyi and his colleagues named the individual well-being in a workplace as "good work" (Gardner et al., 2001). Beside Csikszentmihalyi's researches and articles, more researchers have examined the positivity and the effect of positivity in the workplace (Luthans et al., 2008; Spell et al., 2014). Spell, Eby and Vandenberg examined the power of the developmental climate for the organization and perceived competence. With a multilevel modeling technique, they take to evidence the meaningful impact of the developmental environment for organizational commitment, engagement and job performance, and they presented the downstream predictive effects of the work environment to the voluntary turnover and individual job performance. Luthans and Youssef (2007) also emphasized the inspiring role and importance of the positive organizational climate which serves as the basis of sustainable growth and performance in a company. Besides, some articles discuss and model the well-being effect of employee commitment and trust (Mo and Shi, 2017) or emphasize the role of the leader as one of the most relevant influencers of employee positivity, motivation and team cohesion. The basis of our study originates from organizational behavior-oriented articles, which focus on the direct connection between individual performance and voluntary turnover of the employees.

## **2. PERFORMANCE AND PERFORMANCE MEASUREMENT**

The studies usually use performance as an umbrella term in the research, which was identified especially with the financial approach of the phenomenon (Kotter and Heskett, 1992; Huselid, 1995), for which there are different methods to measure, depending on the level of investigation that each research involves. The measurement of the corporate performance is one of the major figures of the company, which presents the place of the firm in the market competition, help the positioning of the company to the requirements and trends of the future and has a significant impact on the goal settings from strategical approach. Several studies have analyzed the performance on an organizational level from different perspectives with different figures and they emphasized the importance of the exact description of cases and the environment of the cases.

Most articles identify the performance at organizational level with growth (Gjerlov-Juvel and Guenther, 2019), development level and expansion intensity of a company, but another part of the studies examined the individuals in a group context. All of them highlighted the relevance of environmental factors, which influence the appearance and measurement of performance. Bititci et al. (2012) collected and summarized the performance measurement as a research topic within a holistic systems-based framework and reorganized the performance measurement article in a slightly new way, which stresses the importance of performance measurement and consequently performance with the importance of strengthening and expansion for academics and practitioners. A significant body of literature in connection with performance examines the effect of the different human resource practices and systems on the corporate performance which practices and systems have a strong influence on the success of the companies' business performance (Jiang et al., 2012; Tzabbar et al., 2017, Martin et al., 2005) or it can indicate a negative effect on the organizational performance (Jensen et al., 2013; Han et al., 2018) as well. A narrowed part of this literature are those research articles that examine the indirect effect of employee turnover on corporate performance. These researches have showed the turnover effect on the performance through the turnover indexes of the human resource management area (Berry et al., 2012; Batt and Colvin, 2011; Hausknecht and Holwerda, 2013; Ton and Huckman, 2008).

### **2.1. High Performance Work System**

In the last decades, the goal and task of the human resource management area as part of the companies' organization significantly changed. While earlier the recruiting process in case of a new workforce used to be part of the daily routine, this statement is not entirely right in the current situation. Some studies researched and presented the direct and indirect cost of recruiting a new employee, and these have also taken into account the "time consequence", what means recruiting of a new staff member (Hausknecht and Holwerda, 2013; Trevor and Nyberg, 2008). Therefore, now the focus is on the retention of valuable staff in the daily business. The human resources articles emphasized that „people are the most important resource in every organization because they possess the knowledge of how to utilize and orchestrate the available specific resources" (Gjerlov-Juvel, Guenther, 2019; Martin et al., 2005). Therefore, new priorities were concluded: companies are able to achieve or maintain their competitive advantage by retaining and developing the skills of their employees, which generates later a higher level of performance for them. The human resource practices and human resources systems help the companies in this general issue, which combine the elements of these practices and processes. These systems are flexibly adapted to the circumstances to be primarily more efficient and less time available expressed in the company's strategic goals. Basically, “prior research identified various HR systems such as high performance work systems (HPWS), high commitment HR systems, high involvement HR systems and high investment HR systems” (Jiang et al., 2012). We utilized the high performance work system literature to our study, which examined the impact of human resource systems, processes and practices to the higher level of the individual and the company's performance as well. The term of high performance work system was defined one of the first by Huselid in 1995, who analyzed the effect of human resources practices at an organizational level and identified the system which “include rigorous recruiting and selection protocols, performance management and incentive compensation systems, and employee training and development activities that are designed to acquire, refine, and reinforce employee skills and behaviors necessary to implement the firm's competitive strategy” (Huselid, 1995). Since then, numerous studies have examined the emergence and impact of the phenomenon in the organizational behavioral literature from several perspectives. For example, high performance work system was “defined as a series of performance-enhancing human resource management practices” (Han et al., 2019), or this is “a

synergistic effect of certain combinations of practices” (Hartog et al., 2004). “High-performance work systems (HPWS) have recently been defined as a group of separate, but interconnected human resource (HR) practices designed to enhance employees’ skills and effort” (Messersmith et al., 2011). Based on McDuffy’s definition: “it is the combination of practices into a bundle, rather than individual practices, which shapes the pattern of interactions between and among managers and employees” (Boxall and Macky, 2009). This is “a set of practices that typically comprise comprehensive recruitment and selection, incentive-based compensation, performance management, extensive employee involvement, and detailed training initiatives” (Jensen et al., 2013). “The term high performance work system is typically used to describe a system of integrated or combined HRM practices, work structures, and processes that are designed to produce high levels of employee knowledge, skill, attitude, motivation and flexibility” (Han et al., 2019). However, the definitions and meanings of high performance work practices can be different in companies. Posthuma et al. (2013) made transparent this different meaning and they analyzed and classified the HPWS articles between 1992 and 2011, which was the basis of their comprehensive high performance work practices taxonomy. They described, “system which can enhance the employee competencies, commitment and productivity are often called high-performance work systems” (Posthuma et al., 2013). They restructured the mentioned research articles to a new conceptual framework, which can present the coalition of specific human resource practices, to facilitate higher organizational performance. It was interpreted in four levels (high performance work principle, high performance work policies, high performance work practices, high performance work products) and each level was identified in organizational and human resources architectures simultaneously, thereby systematizing the literary interpretations.

## **2.2. The dark side of high performance work system**

“High performance work systems can improve financial performance through enhanced intermediate outcomes such as increased job satisfaction and productivity and also reduced turnover and less absenteeism” (Posthuma et al., 2013), but it can exert a negative impact to the performance, hence it has a dark side as well. The key to success is in the appropriate positioning of the human resource practices in the long-term strategy of the company (Jiang et al., 2012a; Jiang et al., 2012). Han et al. (2019) examined the possible investigation of negative high performance work system effect and classified it into four groups according to why and when these effects occur. In the collecting of possible effects, we followed this classification. One possibility of emerging negative effect of high performance work system can originate from employee perspectives, which mean the usage of human resource practices in the daily business. The different HR practices influence performance through the abilities and motivation of employees. As long as, one of these indicators is weaker, the aim of performance will not be achieved. “Employees will perform well when they are able, motivated, and given the opportunity (work environment) to do so” (Han et al., article in press), and any synergetic problem induce an unlikely effect on the corporate performance. Based on the JDR model, another possibility of emerging negative performance-relevance effects can be the potential imbalance between job demands and resources, which define the social and physical abilities of the workplaces from the organizational approach on both sides. One of these articles analyzes and confirms the direct impact of imbalance between these two indicators through empirical examination in the governmental sector in Wales. According to the results of the research, there is a clear cohesion between high work demand and employees' anxiety, which spill over to employee turnover intention (Jensen et al., 2013). The same imbalance can also originate from a job resource approach, which resources support the individual's and company's goal achievement. In summary, the “job demands exert negative effects on job satisfaction and job resources exert positive effects on job satisfaction, however, these two factors exhibit weak

interaction effects” (Han et al., 2019). Hence, the balance of job demands and resources appears as a critical element for the company primarily from management perspectives. The third potential indicator of the negative effect of high performance work system can be employee motivation, which has a significant, relevant impact on the performance at individual and organizational levels as well (Han et al., 2019). "The individual and collective levels are inextricably linked because the performance opportunities of individuals and their motivations are influenced by the quality of resources, collaboration and trust in their working environment” (Boxall and Macky, 2009). According to the organizational behavior-oriented articles, trust plays an appropriate part in the performance. The role of trust appears as a key factor in the functioning of the organization. Behind the spillover impact of trust, there are typically two or three indicators such as motivation or employee engagement (Long, 2018; Gardner et al., 2011). In the functioning of motivation, the leader’s behavior plays a specific role in the team, which was emphasized by the mentioned organizational behavior-oriented literature. Studies have shown, that we need to differentiate between the types of motivation. Whilst, the intrinsic motivation as one form of motivation can inspire appropriate and conscious trust-building, the organization can also determine the extrinsic motivation with results-oriented evaluation, external reward or other wide-used human resource techniques, but the company needs to continuously monitor the balance of these two motivation elements. A potential disbalance creates a negative effect on the organization. At last but not least, the employee attitude or behavior can play a significant role in the nature and attributes of high performance work system's effects. The individuals evaluate the different cases, news, company’s figures, attitudes or the whole company culture slightly different way, so the interpretation and implementation of the company's strategy and policy need to be close to the employee's understanding (Bowen and Ostroff, 2004). In that case, the company’s goal and employees' goal don’t overlap with each other, the company will lose valuable workers. The unacceptable behavior of the group leader or a repressive corporate culture means causes the same negative result on the high performance work system and corporate performance. Moreover, the role of corporate gossip is not negligible in these situations. Hence, the continuous monitoring of the employee’s requirement and social demand can be the key task of the companies.

### **3. EMPLOYEE TURNOVER AS NEGATIVE CONSEQUENCE OF EMPLOYEE WELL-BEING**

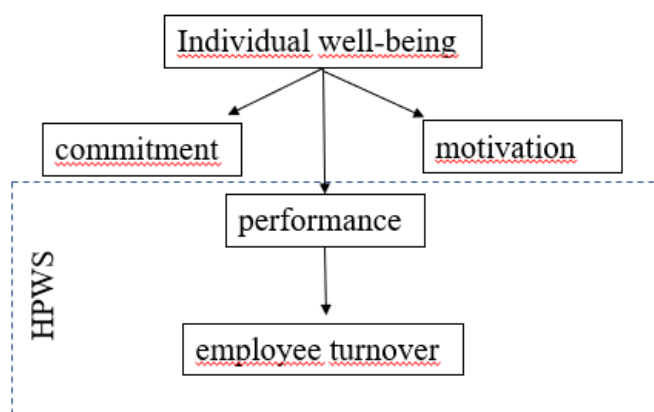
In the nineties, several studies recognized the effect of voluntary turnover on organizational performance (Ton and Huckman, 2008; Hausknecht and Holwerda, 2013; Batt and Colvin, 2011). According to our examined researches, the appearance of turnover as a phenomenon among the members of a team has a significant negative effect on the team morale, commitment or job satisfaction (Meyer et al., 2015; Mackay et al., 2017; Boswell et al., 2017, Tarigan and Ariani, 2015), which provides further reasons to emphasize the importance and relevance of the topic. The research articles analyze the topic from a different approach. One possible explanation of it is derived from the behavioral traits of an employee as latency, absenteeism and at last, voluntary turnover or turnover itself, which was referred to in the psychological articles as “withdrawal behavior” (Berry et al., 2012; Podsakoff et al., 2007; Eder and Eisenberger, 2008). This psychological understanding of the literature has been revised for instance by Berry et al. concern to the current labor market situation over the past ten years. They attributed the lack of job satisfaction and organizational commitment to the appearance of these three factors in their meta-analysis. Eder and Eisenberger (2008) described the withdrawal behavior with tardiness, lateness and absenteeism as typical signs of lack of job satisfaction or organizational commitment, and they compare the appearance and effect of these issues on the group and individual level. Another possible explanation of turnover is based on the financial effect of it.

Previous studies have already emphasized the high-cost relevance of the turnover which further provides the importance of the topic. Furthermore, Batt and Colvin (2011) noted the same impact in their study, in which they examined the relationship between performance and employee turnover along with a call center case. Eder and Eisenberger (2008) also point out these issues in their article, which served as the motivation of their research. Besides the mean statement of the mentioned turnover-oriented researches, according to which turnover and organizational performance correlate with each other, Batt and Colvin noted that companies were first abandoned by well-trained, experienced colleagues, which further supports the cost relevance of the initial assumption. These “side effect” of this relationship further proves the necessity of the research. But it’s not only the recruiting activity that presents the cost consequences. The cost consequences of withdrawal behavior are as high as the cost of recruiting. If the worker arrives late for work, works slower than expected, takes a longer break than required or doesn’t come to work at all, it has similar cost consequences as recruitment, therefore this aspect also needs to be taken into account by the company. Along with these two approaches (psychological effect and financial effect of turnover), we return to my initial assumption that performance and turnover are related to each other. Although a significant part of the articles analyzed the employees' turnover intention from the psychological side, these studies are not part of my examination.

#### 4. CONCLUSION

The purpose of the current study was to present the importance and impact of the work environment and workplace climate for organizations. According to the performance-oriented articles from the organizational behavior research area, the importance of individual well-being is incredibly important and these researches suggest continuous handling and improving the potential indicators of it. In our short summary, we examined the positive impact of employee well-being on employee and organizational performance, and created a conceptual model, which presented our restructuring among the research articles of the mentioned area.

*Figure 1: Illustration of the logic of the study*



We have collected and reorganized the research articles in the topic and according to the examination areas of the individual well-being oriented studies, we divided them into three groups as impact "area" of the employee well-being phenomenon, of which the performance-oriented literature provided the basis for our study. In these research articles and case-based studies, we sought to justify our assumption that the individual's well-being can be clearly demonstrated in the employee's performance and investigated individual well-being as an umbrella term. Hence, our assumption presents the path from individual well-being toward individual performance, where we found direct or indirect connection between them.

In our conceptual framework, we described the meaning of performance and the importance of performance measurement, and we chose the high performance work system as “work environment”, in order to examine the effect of human resource practices, which serve as tools for stimulation of employee well-being and through it, the inspiration of employee performance. According to our collected literature, there are pros and cons to the high performance work system, which represented the negative side of the human resource practices and methods as well. At the end of our logical thinking remains the employee turnover, which symbolizes a possible outcome of the workers' “negative” well-being, which becomes even more salient due to this correlation. The main conclusion of the study emphasizes the building, maintaining and developing of inspiring climate in the workplace, which appears as general support and fosters the individual well-being and performance. The present literature review offers usable knowledge for practitioners about the correlation between well-being and performance indicators in the work environment, and it might provide opportunities and resources for organizations.

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## **POLITICAL PARTICIPATION, DIGITAL MEDIA AND COMMUNICATION FOR DEVELOPMENT AND SOCIAL CHANGE: THE PERSPECTIVE OF THE YOUTH CITIZENS**

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### **ABSTRACT**

*This article which derives from a doctoral project in Communication for Development and Social Change (C4DSC) Studies aims to analyze the role of digital media in processes of political participation amongst young Brazilians who used the online platform U-Report. The research problematizes the contradictions between the abundance of space provided by online technologies and the disconnection between the citizens and their representatives relating to communication and representation in the public arena. The methodology applied was qualitative, carrying out in-depth 13 interviews with young people (F = 7; M = 6). The analytical method was fundamentally centered on discourse and thematic analysis to suggest evidence on the everyday practices of participation by the youth using the U-Report. From the results, these young people attested that although online media provide space and voice as relevant means to enhance their participation, the impact on social change remains uncertain. The findings from this study suggest that to enhance youth participation through digital platforms requires a fundamental rethinking of the communication strategies that seek to improve young citizens' representation in the public arena.*

**Keywords:** C4DSC, Brazil, Digital media, Political Participation, Youth

### **1. INTRODUCTION**

The contradiction between on one hand an abundance of new digital communication tools as a means of youth engaging in the public arena (of reaching young people) and on the other hand the perception of a communicational gap between youth and their government representatives (Tufté, 2017) is the problem informing this study. From this identified contradiction emerges the argument for a new point of view for Communication for Development and Social Change (C4DSC) that enhances youth citizen engagement. The current Brazilian context for youth citizens has become increasingly challenging, given that a considerable part of young Brazilians are from a disadvantaged class in terms of essential rights, such as security, education, health and decent work (Cerqueira et al, 2018). For young people who participated in this study, their disadvantage begins with the prerogative of not being recognized as citizens by the Brazilian society. Neglect of their rights by the political class is a factor that motivates them to act politically and to question their representation by the current policy through the help of digital media. However, the problem that this work addresses, highlighted in Tufté (2017), is also confirmed in the that context. In general, the young people in this study perceived a communication gap between the new forms of participation facilitated by digital networks and the concrete responses of the public authorities to their opinions and demands. This distance marks what some authors call the development crisis, which is ultimately associated with a deficit of citizen participation in decision-making processes (Dagnino, 2010; Tufté, 2017; Thomas, 2014). Such deficit has engendered a C4DSC crisis and challenged C4DSC strategies ability to enhance youth participation on development processes. (Tufté, 2013; 2017). This specific challenge is connected to broader concerns about the ability for C4DSC to enhance social inclusion and in particular the inclusion of marginal voices in processes of change. It touches upon profound issues of voice, visibility and participation, revealing that there can be no recognition of subordinate voices without reconsidering the power dynamics inherent in the

very nature of a communication that, in theory, was created to support social development but which, in practice, is forged institutionally and without citizen participation (Dutta, 2015; Huesca, 2002; Tufte, 2017). Based on these premises, this article is structured in the following way. Firstly, it reviews relevant literature, thereby revealing that the core of the failure to fulfill the role of C4DSC lies in the institutional structures that minimize the ability of citizens to be agents in their own realities. Secondly, as part of the literature review, it delves into the Brazilian context that has delineated the participation of young people since the so-called “Jornadas de Junho de 2013” (Days of June 2013). Thirdly, this article presents possible ways to rethink C4DSC from the perspective of a project for citizen participation. Fourthly, this article continues with the exposition and analysis of the empirical results of the experience on a group of 13 young Brazilians with U-Report. This is a program institutionally designed to engage young people to participate politically using digital platforms. The article ends with a discussion of a communication approach and practice that emerges from the perspective and experience of the young citizens. This communication approach is a proposal that establishes the role of the youth citizens as the actors in the social changes they want to experience and suggests the roles for development institutions dealing with young people.

## **2. PROBLEM, CONTEXT AND PATHWAYS**

As mentioned in the introduction, this literature review addresses the theoretical framework that supports the discussion of a C4DSC practice. Divided into three topics, the first part of this review addresses the problem, or the failure to fulfill the role of this type of communication, to empower citizens to act in favor of the social changes they themselves want to promote and experience. The second topic evokes the context, in this case, the Brazilian one, which demonstrates how young people have participated politically since the so-called “Jornadas de Junho de 2013” (Days of June 2013), a fact that represented a milestone in the history of national political participation (Gohn, 2018). Finally, the third and final topic addresses the paths, or possibilities for rediscussing the C4DSC that can apply to the context being discussed or other similar ones through a participatory process aligned with the youth’s perspectives.

### **2.1. The problem of the Communication for Development and Social Change**

The C4DSC is a discipline from the 1970s, encouraged by professor emeritus at the University of the Philippines Los Baños, Nora Quebral. In this regard, C4DSC has been systematized based on practice, especially by non-profit organizations and public institutions as part of the new geopolitical arrangements arising both from the post-World War II era and from the emancipation of the former colonies that incorporated the great European empires. In its genesis, the role of this communication has been to value the cultural diversity of people and the singularities of individuals, their voices and to ensure opportunities for the exercise of citizenship and collective action for the social changes desired (Manyozo, 2017; Servaes and Malikhao, 2005; Waisbord, 2008). In practice, however, the post-colonial developmental paradigms that engendered and evolved the discipline and its practices in developing countries up to contemporary times were based on the so-called “Western development model” and came from a top-down perspectives by ex- colonizers for the resolution of what they understood as the causes for non-development of former colonies (Melkote & Steeves, 2015). According to these authors, under the aegis of this paradigm, both power and communication were concentrated in the hands of a small economic and political elite capable of shaping and leveraging a modern development proposal linked to the satisfaction of their own interests with the help of the mass media and with a communication focused on changing individual, collective behavior and, consequently, the social norms at the expense of not considering the citizens' perceptions (Melkote & Steeves, 2015). It is from this historical framework that comes the problem that motivates this work, the C4DSC crisis.

For Tufte (2017, p.168) this “is, substantially, a crisis of participation and inclusion of citizens in the political arena”, manifesting itself as “a crisis of representation” of the citizens. It is with regard to this lack of representation and citizen participation that Tufte (2013; 2017) discusses the C4DSC paradox in contemporary times. For, although there are countless popular demonstrations and insurgencies facilitated by the new media technologies, there is also a “critical shrinking of public spaces for deliberation”, which evidences an “exclusion of ordinary citizens’ experiences from general public debate ”(Tufte, 2017, p. 168) something that, according to this author, is made explicit as a gap between citizens, the institutions that communicate with them and their representatives in politics. Moreover, Tufte exemplifies this gap as a project of citizens' pseudoparticipation in campaigns and other communication strategies for development where they seem to be more “invited” to participate than to actually be part of the intervention, or to have the spaces they “claimed” (Tufte, 2017, p. 143). Likewise, other authors defend the idea of a crises in social development in contemporary times (Dagnino, 2010; Leal, 2010; Manyozo, 2017) and associate its factors with the misrepresentation of the participation in public affairs as a project for citizenship. Dagnino (2010, p. 101) goes further and advances with the thesis that there is a “perverse confluence” by public and non-profit institutions linked to the development industry acting against citizens. An inherent part of the neoliberal paradigm, this confluence occurs when institutions lose the senses of terms, such as empowerment, citizenship and autonomy, originally built by citizens from processes of struggle and resistance against the dominant power. Because of this confluence, these terms are nothing more than rhetoric where, on the one hand, citizens claim essential rights and, on the other, a small decision-making elite, reduces them to a small portion of only the privileged individuals (Dagnino, 2010).

## **2.2. The context of the political participation of young Brazilians**

The so-called “Jornadas de Junho de 2013” (Days of June 2013), proved that the internet was able to mobilize thousands of people around causes that aroused from their dissatisfaction. More specifically, Souto (2016, p. 265) says that “it is impossible to talk about youth and political participation without referring to that particular fact”. The author adds that June 2013 marked a milestone that cooled down the arguments of those who, “looked at the youth with distorted lenses, and proclaimed their apathy and disinterest in politics.” This date thus represents a historic milestone in the country's forms of participation and was fundamentally important to design a new scenario for the performance of the young Brazilians in society and also attributed new meanings to social struggles. Gohn (2018, p. 123) adds that one of his great legacies was the “legitimation of social protest on the streets as a way of searching for cyclical changes” and the influence of digital media as a factor that facilitated and sustained, the existence of these movements. Although the digital media played a part in the “Jornadas de Junho de 2013” (Days of June 2013), it is important to refer that these social movements have not been generated in the internet. Rather, they are a result of decades of social struggles in the Brazilian history (Peruzzo, 2013). Prof. Cecília Peruzzo adds that even the issues that motivated millions of Brazilians to go to the streets during those days in June, such as the movements against the World Cup in Brazil or the free public transportation pass, in fact have been initiated years before and out of the digital environment (Peruzzo, 2013). Contrary to the optimistic view that the internet has favored the dialogue between public authorities and citizens, the popular manifestations that took place in Brazil since 2013 demonstrated that, in reality, public authorities had (and still have) difficulty interacting with the youth, that is because, during the first decade of the new century the youth were still involved in a more institutionalized form of participation, however, with their gradual disinterest in these types of participation, the state, many public authorities, and also the civil institutional representatives were not able to accompany them in their social changes and with “the new forms of sociability and

communication generated by the social networks and media". In other words, the public authorities were not aligned with the youth or did not realize that, for the most part, they took their manifestations to the streets, but they did not have the government or institutions as the focus of participation, since their references on citizenship have changed. The lives of the youth today are much more built on daily practices, they no longer count with the strength of the parties, organized models or institutions (Gohn, 2018). Another interesting point of view on the limitation of the internet as a form of participation among Brazilians comes again from the "Agenda Juventude Brasil 2016" (2016 Brazil Youth Agenda) study. There, Souto (2016, p. 279) draws attention to the fact that young people identify acting through the internet as "a relatively less effective form of political action", when compared to the other alternatives evaluated by the author in the study (mobilizations of street and direct actions, acting in associations or collective groups, acting in councils, conferences, public hearings). According to the youths, the act of expressing an opinion on important topics or demanding from the politicians online "weakens to the extent that it refers to a purely individual act". On the contrary, the young people who participated in the study reported greater adherence to the options of "street mobilizations" and "performance in collectives and social movements" as a more effective engine of social change. This implies that, although the Internet has (and has had) great potential to contribute to the improvement of participation in more traditional spaces, it does not entice young people to feel like they have an effect when it comes to participating politically (CETIC, 2017).

### *2.2.1. The discomfort of the youth, their motivations for participating and their constraints*

The lack of privilege is, above all, an aspect that affects young Brazilians regardless of the region they are from. As Abramo summarizes (2016, p. 113), these young people are "far from being recognized as rights owners and actively included in the democratic process in Brazil". In addition, the empirical work of Novaes (2014) published at the Observatório da Juventude (Youth Observatory)<sup>1</sup> is even more specific when it refers to the youth's three greatest fears, in particular, for the at-risk youth: "the fear of being left out"<sup>2</sup> because of unemployment; "the fear of being disconnected", in a world connected and marked by new technologies, and "the fear of dying", precociously and violently. In fact, the worsening of the living conditions of the vast majority of the young Brazilian population - especially the most vulnerable: the black youth, LGBTs and men living in peripheral areas are the target of violence in Brazil (Cerqueira, 2018) and the consequences of these risks lead to a feeling of permanent insecurity in the present and great uncertainty about a promising future for them (Ribeiro, Lânes e Carrano, 2005). The worsening of the living conditions of the vast majority of the young Brazilian population is one of the factors that motivates them to participate in public affairs (Castro, 2008, p. 253). According to Castro, the political participation of young people is not made in the cultural and historical void, but in real societies that bear the unique marks of their history and the specific difficulties of their present". Therefore, observing the repercussions of social inequalities in Brazilian youth reveals and explains their motivations for participating in politics (Castro, 2008). However, the abundance of digital media contrasts with constraints in spaces for participation and political deliberation. An example of this, is that since the beginning of 2019 when the government of President Jair Bolsonaro was established, the spaces of participation of civil society are being gradually reduced, instead of being enlarged and valued

<sup>1</sup> Observatório da Juventude (Youth Observatory) is an initiative of the Federal University of Minas Gerais and the full text of Novaes (2014) is available at: <http://observatoriodajolesc.ufmg.br/mal-estar-medo-e-mortes-entre-jovens-das-slums-and-peripheries-by-regina-novaes/>

<sup>2</sup> Brazilian expression popular with young people that equates to being excluded or being outside a group, process or opportunity.

(Forum, 2020; Leal, 2019). Proof of this is that in April 2019, presidential decree 9. 759<sup>3</sup> announced the extinction of hundreds of social councils with popular participation responsible for debating and monitoring federal policies in different areas that require the attention of minority populations, such as indigenous peoples, Afro-descendants, street populations and Lesbian, Gay, Bisexual and Transgender (LGBT) groups. This measure prevents the direct engagement of civil society with the public authorities in order to influence the public policies.

### 2.3. Possible paths to rediscuss the C4DSC

From the post-colonial framework, the modernizing paradigm of the C4DSC and the challenges to the participation of the citizens studied above, the paths to rediscussing this communication have been based on an idea of development that contradicts the structures that originally forged the C4DSC. This implies that C4DSC must go beyond the institutional control mechanism of its interventions and oriented to change the behavior of individuals in order to be able to "bring individuals together to transform the economy, politics, social relations and the very notion of development, in order to enable them to own their own history" (Manyozo, 2017, p. 6). In practice, rediscussing the C4DSC involves questioning its ability to articulate "other voices" and produce "other narratives" for a so-called "other development", one where a project of radical citizen participation must be at its heart (Quarry and Ramirez, 2009, p. 27). This participation project is based on three important bases, the first of which focuses on the valorization of popular culture (Dutta, 2015) to resist neoliberal governance through solidarity with subaltern communities based on the principles of listening, reflecting, participating and conversating (Freire, 1987). The second, resides in the importance of C4DSC in empowering the voices of citizens (Couldry, 2010) and in allowing the rise of subordinate narratives previously stifled by dominant epistemologies in European countries (Couldry, 2010; Santos & Menezes, 2010). And the third is to highlight the daily practices of civic and political participation of citizens, including the most recent forms of social mobilization through digital networks (Tufte, 2017). In line with this radical participation project, Tufte (2017) draws attention to a new social thought focused on the citizen. Such thought comes from a sociology that recognizes the individual's power of action in the collective with the capacity for agency, something that the author defines as a "citizen perspective" of C4DSC (Tufte, 2017, p. 2). This perspective of communication considers citizens based on their social imaginary, that is, from the ways in which they imagine their social existence, how they relate to each other, what social expectations they have and what are the most normative notions and images underlying their expectations. For this initial notion that guides his work, Tufte (2017) argues that without considering the social imaginary of individuals, there are no spaces for full dialogue and there will be no opportunity for radical participatory communication processes that are led by them and in which they can exercise their rights, capabilities and opportunities to formulate and articulate communication for social change. Ultimately, these paths rediscuss the current role that C4DSC must play in contemporary times, that of balancing the dynamics of power between citizens and their representatives (Dutta, 2015; Huesca, 2002; Thomas, 2014).

### 3. METHODOLOGY

This topic presents the methodological options of the work that refer especially to qualitative methodologies in order to understand: What do the experiences of the youth with the U-Report program inform in regards to the discipline and the new practices of C4DSC?

<sup>3</sup> Decree 9. 759 of April 11, 2019, risks the continuity of about 700 councils linked to direct and indirect public administration. Raimundo Bonfim, a contributor to the Rede Brasil Atual website, states that these councils are "collective spaces made up of representatives of civil society and the government, with the task of researching data, evaluating diagnoses, systematizing, debating and formulating public policy proposals, as well as monitoring the implementation progress and oversee the application of resources. " Available at: <https://www.redebrasilatual.com.br/blogs/blog-na-rede/2019/05/ataque-a-participacao-popular-e-retrocesso-democratico/>

### **3.1. The group, the methods and the U-Report**

The group of participants in this work is composed of 13 young Brazilians, seven girls and six boys aged between 16 and 22, from the states of São Paulo and Bahia. Fundamentally, qualitative methodologies were used, with emphasis on the techniques of case study and data triangulation (Denzin, 1989; Stake, 1995; Yin, 1981), using face-to-face interviews in the cities of São Paulo and Salvador as the main method of data collection. It is worth noting that in the process of collecting qualitative data, the youth were not selected by the researcher, on the contrary, they volunteered for the research, that is, the group of 13 emerged from an invitation launched on the technological platform that the U- Report uses, the Rapid Pro, through a partnership between the researcher and the NGO that operates the U-Report program in Brazil, the Viração. For the purpose of this work, two categories of thematic analysis were considered: (1) the effects of the U-Report on the participation of young people and (2) the perception of the impact of this participation on the social changes that young people wish to see. This investigation followed an ethical protocol in which young people were anonymized and had their names replaced with fictitious names to protect their identities.

#### *3.1.1. U-Report*

Created by the innovation office of the United Nations Children's Fund (UNICEF), U-Report is a program for the participation of adolescents and young people that uses digital platforms (SMSs - short messages system-, Facebook, Twitter and WhatsApp) to enable them to claim their rights and strengthen their voices. Self-defined in the program's own slogan: "U-Report. Here your voice has power" (U-Report, 2019). The users of the program, also known as "U-Reporters", are aged between 15 and 25 years old. Among the actions taken by them, are sharing opinions on topics about their daily lives, such as the use of public spaces on issues of health, safety, employment, sexuality, technology, political processes (elections, public decisions), disaster management, among others equally relevant (U-Report, 2019). It is worth mentioning that U-Report was elected to illustrate this work because it is recognized as a case of institutional C4DSC (Banaji et al, 2018; Kleine, Hollow & Poveda, 2014; Tufte, 2017). By sending messages through the digital platforms mentioned above, young people who join the program respond to surveys, mainly quantitative, sent by communication specialists. The individual messages are confidential, but the aggregated data is available on the U-Report page (in the countries where U-Report operates). These data can eventually be disaggregated for more accurate analysis by age, gender and locality in real time and "are used to connect young people with their representatives, improve UNICEF programs and drawing attention to urgent issues with the national governments and the UN", and they are also useful in the formulation of public policies (U-Report, 2019).

### **4. RESULTS AND ANALYSIS**

The summary of the findings favors an answer to the research question previously stated: What do the experiences of the youth with the U-Report program inform in regards to the discipline and the new practices of C4DSC? In the analysis of these findings, two main themes are highlighted: (1) the effects of the U-Report on the participation of young people and (2) the perception of the impact of this participation on the social changes that young people want to see. On both topics, the opinions of the youth are divided between the advantages of the experience with the U-Report, unfulfilled expectations and skepticism about the program's impact in relation to social changes. When the theme is political participation, it is noted, in general, among the 13 participants that they perceived numerous advantages in the experience of the U-Report. It is clear that the program is relevant to enhance their voices, it reinforces the feeling that their opinions are taken into account and that it helps them to critically reflect on their realities.



However, the points that drew attention to the limitations of the program are those that reinforce the problem that this work exposes: the crisis of representation of citizens in the political arena within the scope of C4DSC. In this sense, the U-Report's automated mechanism does not favor a dialogical communication with the wider public authorities. In other words, even though the program offers opportunities, it does not make clear the certainties of being heard, nor a feedback mechanism by the public authorities. The following topics detail the findings and analyze them in the light of the literature.

#### **4.1. Youth and U-Report: more voice and political participation?**

During the interviews, young people were initially asked if they thought that the U-Report supported them, in any way, to be more participative in the social and political sphere and, if so, how. With the exception of one young man, Daniel, all 12 others said yes and that the biggest contribution of the U-Report in the political participation process is that it stimulates reflections and the critical capacity to question issues that are not available through other media channels. In addition to the first question, the youths were asked if they felt heard through the platforms that the U-Report operates (SMS, Messenger, Facebook and Twitter). In a ubiquitous way, the participants answered yes, that they had voices, that is, that their opinions counted and that they were taken into consideration by the U-Report. These young people recognize that the main contribution of the U-Report is to motivate them to discuss topics relevant to them in the Brazilian context, such as sexuality, health, education, work, bullying, prejudice, among others, both online and offline. Likewise, young people admit that the program creates an incentive for them to be active citizens in defending the causes they believe in, for example: "I joined in 2017 and my motivation was to express myself on subjects that people don't talk about in other media and that are considered in the program". Interviewer: "*What subjects?*" "Sexuality, violence, abuse. For me it drew the attention that people must stop to think a little more, because people do not know what really happens if they do not live it" (Tomás). Similar to Tomás, Inácia admits: "I really liked the idea and I felt like I had a voice, to say what I think in that space." Excited, the young Sílvia says that her voice also counts in the U-Report surveys: "every opinion counts there. It is a kind of *ant job*, we are gathering information to generate a whole." These results emphasize the arguments of Couldry (2010), Quarry and Ramirez, (2009) and Dutta (2015) about the importance of enhancing the voice in the construction of new narratives that represent citizens and their perceptions of development. Similarly, the view of the youth about a call for critical awareness in the themes that pervade their realities refers to the ideas of Freire (1987) about a project for the empowerment of citizens based on the principles of listening, reflection and participation. However, the limits of the youth's experiences, came up when asked if, in fact, they manage to be closer to their representatives. An example of this answer came from Fernando: "I have the expectation of hearing from the public authorities." Asked if he thinks his voice reaches these levels, he says: "I would like that very much. I imagine it does, but I'm not sure that it actually does (...) I wanted people (from U-Report) to put pressure on politicians and say, look what the crowd is saying, but I'm not sure it happens." Rui has a similar concern: "I hope that the U-Report will give people a voice, and that my voice will end up somewhere". Asked what he thinks happens to his opinions on the platform, he replies: "I don't have this expectation, I don't know if it will get there, it's not clear to me." The uncertainties of the young participants about the effects of their voices in the political arena refer to the institutional mediation component of the U-Report, or advocacy that, in theory, seeks to bring their voices closer to the decision-making processes by their representatives in political power. These uncertainties reinforce the critical arguments for the persistence of a communicational gap that favors a crisis of citizen representation at the heart of the C4DSC crisis (Duta, 2015; Tufte, 2013; 2017).

## 4.2. U-Report and social changes

When observing the effects of young people's political participation via the U-Report on the social changes they want to see, such as the influence of laws and public policies, the youth's doubts about the program's influence gain contours that vary between a great expectation or complete disbelief of this possibility. This refers to the context examined about the place acquired by the youth as being disadvantaged in public policies, (Novaes; 2014; Ribeiro, Lânes and Carrano, 2005). It is from this place that other criticisms of the program emerge. When asked how the experience with the U-Report could be improved? for the majority of the young people interviewed, the U-Report should also mobilize and involve citizens in face-to-face spaces. Also, on this issue, young people referred that the program's role should be that of mediator in social mobilizations initiated by the networks. For these young people, this hybrid mediation of the program would give them more sense of autonomy and power to bring about social changes that on the internet seem inconsistent, fragmented and inconclusive (CETIC, 2017; Souto, 2016). When the subject moves to questions about the laws and public policies as part of one of the effects of the program, young people are even more incredulous. Not only do they doubt that their voices reach politicians, they also do not consider that their representatives take them seriously. Disappointed, Vívian says: "I don't know if it is possible to reach this point, but if they have access, it would be very interesting if they could influence and that way, they can do something for us, but I don't think that politicians are interested in us. They don't care about us." Disbelieving like the majority of the others, Rui admits that he does not have this perception, because "it always depends on politicians." In regards to this feeling shared by the young people, Couldry (2010) claims that recognizing the voices of others is not enough, registering them as important, a realistic analysis of the obstructions to this recognition is necessary, in order to favor them. For this reason, to have real power, these voices need to be able to reach and influence the spheres of power that matter to citizens (Tufté, 2017). Analyzed in the light of the definition of C4DSC by Linje Manyozo (2017, p. 6) which refers to the role of "bringing individuals together to transform the economy, politics, social relations and the very notion of development", the U-Report seems to not be a sufficient mechanism of representing the youth in the public sphere in order to enhance their autonomy. Furthermore, the U-Report seems to demand more personalized forms of communication so that the voices of young people can be not only heard, but also effectively taken into account in a context of restricted representative spaces as examined in the Brazilian context. A possible factor associated with the distance that their voices reach is that in the U-Report the young person is not a participant in the creative process that originates the online discussions, but is merely invited to take part in them (Tufté, 2017). Likewise, the young people who participate in the U-Report did not choose the audience with whom they would like to interact with, that is, their representatives in politics. Therefore, they are unaware of the channels through which their voices travel and the destinations they may reach. On the contrary, some have expectations that their voices will reach the extended instances of power, while others are incredulous that, through the program, their voices have an effect on these instances. It is also clear that the sense of having a voice is like having power, institutionally defended based on the U-Report slogan, seems to come from the idea of having a direct and assured relationship. While, in the reality of the young people, there is a definitely long and uncertain path that links them to the political power of their representatives. To summarize, for these young people, the experience with the U-Report proves that having more space and more voice does not necessarily mean having more power in the political arena over the social decisions that affect them. It is recalled that this dissonance of meanings originally linked to the ideas of participation, citizenship and empowerment by citizens empties when adopted by institutions funded in the neoliberal system in what Dagnino (2010, p. 101) referred to as "perverse confluence", which reinforces the idea of rethinking the role of C4DSC in the direction of the citizens.

## 5. COMMUNICATION FROM THE PERSPECTIVE OF THE YOUTH

As the results demonstrated, the experiences of the “U-Reporters” with the program reflect the challenge that C4DSC needs to overcome while providing opportunities for space and voice, but favoring dialogical mechanisms between citizens and their representatives who, in the end, influence a more balanced power dynamics (Dutta, 2015; Huesca, 2002; Thomas, 2014, Tufte, 2017). Built on these bases, the communication from the perspective of the youth is a proposal thought in two ways: on the one hand, it considers young people as agents of change. On the other hand, it reconsiders the institutional role in promoting development. This role discusses today’s development “for” young people, with little participation in decision-making processes and encourages institutions to think about creative arrangements “with” young people in actions led by them. From the point of view of the young people as effective actors of social change, this communication proposal considers their social imaginary in line with Tufte’s thoughts (2017). And it is dedicated to investigating how, in the Brazilian context in which young people have been suffering deprivation of fundamental rights, but at the same time, they have increased opportunities for expressing themselves through social movements, they managed to build their social existence, based on the changes they want to see and the challenges of having their voices heard. In this sense, a communication constituted by their social imaginary must be dedicated to getting to know who these young people are, based on their daily participative practices underlying their expectations of social recognition. From the point of view of the revision of institutional practices, the communication from the perspective of the youth favors the public sector’s commitment to the youth agenda, paving the way for a direct and horizontal dialogue between youth and their representatives. Thus, it is also essential to consider the digital network’s limitations when compared with that of face-to-face spaces where the youth recognize as legitimate in their ways of participating in politics. To summarize, the communication from the perspective of the youth must be first able to catalyze the skills of these young people and guarantee that the youths themselves idealize interventions based on their social imaginary. Second, this communication should be seen as a facilitator for young people to operate in their social networks (online/offline) in an uncompromised way with the strategic institutional objectives, but also with the causes that they advocate in their daily lives and with the pace in which these processes take place.

## 6. CONCLUSION

The political participation of many young Brazilians is today much more built through daily practices and less with the strength of organized parties, models or through institutions. Therefore, when rethinking C4DSC from the perspective of the youth, it is necessary to take into account both the original institutional role of mediator in promoting development, advocating on behalf of the young people, and of considering the good communicative flows undertaken by the young people and their own notions of what it is to participate politically in order to change their social realities. Ultimately, institutions must be more flexible in abandoning the helm and learning to navigate the waters in which young people navigate in their participatory practices both online and offline.

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## THE APPLICATION OF FEDERAL PUBLIC POLICIES IN COMMUNITY UNIVERSITIES: THE CASE OF LAW COURSES IN BRAZIL

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### ABSTRACT

*The international economic and political impact on higher education in Brazil, since the late 1980s, has evidenced the monetization of this educational level, which occurs through the implementation of education reforms that facilitate the performance of economic corporations, and that predominantly benefit quantitative evaluation tools. Extensive literature review revealed that, due to these processes, higher education in Brazil has undergone a strong change in identity, acquiring characteristics and roles that corresponds to the economic interests. Hence, our study seeks to expand this investigation. The objective is to identify how Law Professors from community institutions of higher education perceive the inclusion of economic interests - through new public management practices- in federal public policies for higher education. Empirical data were obtained through semi-structured interviews. The interviewees were professors at the Law Schools of two community institutions of higher education, located in two states of southern Brazil. The research results indicate that the neoliberal project affects the activities of the higher education institutions, as an effect of the commodification process of private education, as a reflection of the insertion and expansion of the economic groups performance in this environment. In addition, the interviewees presented several obstacles, namely related to the introduction of practices which condition the university's management towards a market view, and which affect their performance as professors. Among the practices mentioned is the assessment that establishes rankings for universities and courses. Finally, they declare not to be comfortable with the practice of evaluation and with the context of control that it presents. Thus, there are neoliberal practices in universities focused on business and competition, encouraging the creation of subjectivities.*

**Keywords:** *Economics, Education, Power, Public Policies*

### 1. INTRODUCTION

The political success of neoliberalism is one of the factors that has contributed to normalize the idea that education could be the object of choice in a free market. Neoliberalism challenges the State's intervention in the production of goods and services, whether it being health, transportation or education, and presents an agenda that advocates for the decrease of the State expenditure for the reduction of the public deficit, privatization policies of state-owned companies, in addition to trade and financial opening processes (Bruno, Clément and Laval, 2010). For almost a third of a century, this norm of life has governed public policies, commanded international economic relations, transformed the society, reshaped subjectivity, by imposing on each of us that we live in a universe of generalized competition, ordering social relations according to the market model, forcing to justify increasingly deep inequalities, changing even the individual, who is urged to conceive themselves and to behave as a company. Concurrently, neoliberalism appears as a financial veil and an economic mechanism, which are the real historical subjects.

For Gérard Duménil and Dominique Lévy, neoliberalism “has restored the strictest rules of capitalism”, allowing the power of capital to continue its multi-secular march in ways that are renewed through crises. The originality of neoliberalism lies in the fact that it creates a new set of rules that define not only another “accumulation regime”, but also - more broadly - another society. Dardot and Laval (2016, p. 23) emphasize that “finally neoliberalism is indeed the bearer of a process of general commodification of social relationships”. Through neoliberalism, the own state intervention in the provision of education is established in the most radical way, which does not prevent - on the contrary – to predict that the demand in terms of basic education is solvable. In this perspective, Ball (1993) states that the market is considered an alternative policy to the public monopoly on education, which sets the tone for education policy. The changes in the organization and orientation of higher education in Brazil, since the 1980s, are related to neoliberal principles<sup>1</sup>, producing public policies with relevant consequences on the functioning of the different categories and segments that compose this educational level, a proposition which is the recommendation of international organizations such as the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD) and the World Bank. The neoliberal scenario, based on the market (or quasi-market), stimulated the adoption of New Public Management (NPM) policies, whose implementation is based on performance measurement and on the monitoring and management of the system executed through an audit increase- instead of the original regulation system - and granting corporate power to managers, instead of the typically public collegiate administration (Andresani and Ferlie, 2006). This scenario is clear and with increase indications in many countries in various types of assessments and audits, including performance audits (Power, 1994; 2003; Pollit, 2003), providing a greater vigilance to the educational environment and, specifically, to the university environment. In the face of the neoliberal setting and NPM practices, and considering the international economic and political impact on higher education in Brazil, since the late 1980s, with the commercialization of this educational level, through the implementation of education reforms that facilitate the operation of economic corporations, and which predominantly benefit instruments for quantitative evaluation, the question to be answered is what is the perception of Law Professors, at Community Institutions of Higher Education (HEIs), about the results of federal public policies on higher education? In order to answer this question, we seek to identify how Law Professors at Community HEIs perceive the insertion of economic interests in federal public policies on higher education through NPM practices. This article consists of an approach to public policies on higher education in Brazil, a literature review based on Foucault’s punitive power, a description of the pertained methodology, a discussion about results corroborated by compiled empirical data from lecturer’s interviews, and the decisive outcomes.

## **2. PUBLIC POLICIES ON HIGHER EDUCATION IN BRAZIL**

Education can be understood as a public policy of a social nature, since, on the one hand, it is the responsibility of the State, and on the other hand, it is not conceived only by the institutions that compose it. In this context, Höfling (2001) considers that all public education policy is oriented politically and theoretically, according to the intent of the State that implements it: social policies - and education - are located within a particular type of State. Public policies are forms of State interference, aiming at the maintenance of the social relations in each social formation, assuming different “features” in different societies, and different conceptions of the State.

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<sup>1</sup> [...] Neoliberalism, as a political-economic theory, suggests that social well-being is attainable by releasing individual entrepreneurial abilities within an institutional framework while building solid private property rights and open markets. The role of the state is to create and preserve the institutional structure that appears better suited for those practices. [...]. (Harvey, 2014, p. 12).

It is impossible to think of the State outside a political project and a social theory for society in its entirety. In Brazil, federal public policies for higher education are manifested through the LDBE (Law of Directives and Bases of National Education) and mainly through Sinaes (National Higher Education Assessment System), which assesses all aspects that revolve around teaching, research, extension, social responsibility, student performance, institution management, faculty and facilities. To this end, the system contains a series of complementary assessment tools, such as self-evaluation, external assessment, ENADE (National Assessment of Student Achievement), assessment of undergraduate courses and information instruments such as the Census and registration. The integration of such instruments allows for the attribution of certain concepts to each one of the dimensions (ordered on a scale of five levels) and for the set of the dimensions evaluated. The Ministry of Education and Culture (MEC) discloses to the public the evaluation results on higher education institutions and their courses. In Brazil, the Sinaes evaluation process is based on the evaluation of an institution, its programs and students. The internal and external evaluation of the institution considers 10 dimensions: Mission and IDP (Institutional Development Plan); policies on teaching, research, postgraduate and extension courses; HEI social responsibility; communication with the society; personnel policies, teaching staff and technical-administrative careers; HEI management organization; physical infrastructure; evaluation planning; student service policies; financial sustainability. The courses assessment, however, is conducted considering 3 dimensions only: didactic-pedagogical organization; teaching staff profile; physical facilities. The student evaluation through Enade is applied periodically to students of all undergraduate programs at the end of the first and last year of the course. The assessment is expressed through concepts, based on minimum standards established by experts from different areas of knowledge. The assessment carried out based on public higher education policies paves the way for competition between HEIs, denoting a market logic that fits into a neoliberal ideology. In this context, the university policy horizon has expanded to the process of internationalization and globalization – both for higher education and research - not only in Europe, but also in Latin America and, specifically, in Brazil. Brazilian public policies for university reform seek, therefore, to make all types of HEIs competitive players on a global level, building a teaching and research structure as powerful as that of the United States (Laval, 2004). It is noteworthy that in Brazil, unlike the public-private dichotomy, there are three types of higher education institutions (HEIs), according to the patrimonial or income purpose: public, private and community<sup>2</sup>. Community institutions are organizations of Brazilian civil society that are created with the objective of filling the absence of public institutions of higher education, mainly in the southern region of the country. Community Institutions of Higher Education (CHEIs) are considered non-state, public entities that operate in the areas of education, research and extension. They present a strong interaction with the community, through the consolidation of solidarity alliances, mainly focused on the areas of education and health, with the allocation of scholarships to students in need; a higher teachers payment and the concern with the “quality of education”, are differentials in relation to higher education institutions of a business nature. Community institutions are presented in Brazil, therefore, as an alternative to the higher education commercialization model, and as possible partners of the public power to carry out programs of public interest in higher education, the education area, and as beneficiaries of state resources for the development of public interest. Historically, community institutions were born as confessional institutions, supported in their activities by - or with the intervention of the Catholic and Methodist churches. Although they are an alternative to the higher education commercialization model, community HEIs - as well as private and public ones - have followed

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<sup>2</sup> Community universities are a set of Higher Education Institutions that are neither public nor private, thus being private non-profit universities and are characterized by their functioning and organization based on the principles of democratic management (Frantz, 2003).



the trend of applying NPM practices which, next to the neoliberal reform, deepened the relationship of HEIs with the “market”. In this context, the teaching activity within universities became more closely monitored, with the accentuation of the power relations not only by university managers, but also by the State itself.

### 3. THE DISCIPLINARY POWER ACCORDING TO MICHEL FOUCAULT

The theoretical approach of the present research covers the analysis of power in the perspective Foucault<sup>3</sup>, seen as a network of relations, which traverses and advances the higher education environments, and in which all individuals are involved, as generators or receivers. For the development of this analysis, disciplinary power is addressed. The choice for Foucault (2014) is based on the way the author deals with power relations that involve the State and the Individual, from the construction of the criminal legislation, from punitive means, from physical violence, torture, to modern methods, such as prisons. In this context, Foucault studies the modification of the State’s actions, which changes from punishment to surveillance. The French philosopher suggests that “in any society, the body is trapped within very tight powers, which impose limitations, prohibitions or obligations” (Foucault, 2014, p. 118). Regarding social relations and the exercise of power, the configuration of power comprises: a disciplinary society, from the beginning of the 17th century to the middle of the 18th century, marked by the development and diffusion of disciplinary power; the surveillance society, from the second half of the 18th century to the mid-19th century, centered on visibility games that imply the development of surveillance practices and the formation of a broad social Panopticism (Prado Filho et al., 2014; Prado Filho and Geraldini, 2012). According to Foucault, there is not one single theory of power. However, he defends the existence of power relations, that is, “disparate, heterogeneous forms, in constant transformation. Power is not a natural object, a thing; it is a social practice and, as such, historically constituted” (Foucault, 1995, p. 199). Foucault (2014) understands that disciplinary power creates a cellular form of individuality. This composition originates a combinatory individuality that treats individual bodies as mobile elements, to be connected to other individual bodies, and which controls time to maximize the extraction of their forces and to combine them with others for better results, dismissing verbalization and explanation<sup>4</sup>. In Foucault's conception, the body is not only endowed with passivity, because, as a site of discursive conflicts and of an incarnated soul, it also becomes a site of struggle. The purpose of surveillance-power applicability is to make visible those you want to have under control. Therefore, for Prado Filho and Geraldini (2012, p. 143), “thinking about surveillance as an instance of power does not imply thinking about a simple act of supervision, but including it in a political, productive perspective”. From surveillance, “power becomes a multiple, automatic and anonymous mechanism” (Foucault, 2014, p. 148). It is a power that is both indiscreet and discreet, because if on the one hand it is everywhere and always alert, on the other it always works in silence. Power is characterized by a fine surveillance that is present in all levels and, therefore, does not impose itself under a single focus, making it self visible and oppressive. In addition, it operates anonymously (Prado Filho and Geraldini, 2012). Discipline enables the functioning of a relational power that sustains itself by its own mechanisms and that replaces the uninterrupted play of calculated gazes for the spectacle of public events. Thus, calculated observations, visibility and permanent surveillance find legitimating based on the architecture of the Panopticon. Regarding Bentham's Panopticon, Foucault (2014, p. 194) explains that “We know the principle on which it was based: at the

<sup>3</sup> “Discipline and Punishment”, originally published in France in 1975.

<sup>4</sup> For Mills (2003), disciplinary power is a practice that is exercised over individuals even before appearing as an institution and as a State. According to the author, medical records are made, controls of routines and behaviors, the workers' handbook, which records who the previous employer was, under what conditions they left. These are habits that establish the normalization and automatic compliance of the individual, revealing the approach of disciplinary power and subjection.

periphery, an annular building; at the center, a tower; this tower is pierced with wide windows that open onto the inner side of the ring; the peripheric building is divided into cells, each of which extends the whole width of the building; they have two windows, one on the inside, corresponding to the windows of the tower; the other, on the outside, allows the light to cross the cell from one end to the other”. The major effect of the Panopticon is to induce in the inmate a conscious and permanent state of visibility, which ensures the automatic functioning of power. The purpose of this is to ensure that: the surveillance is permanent in its effects, even if it is discontinuous in its action; the perfection of power should tend to render its actual exercise unnecessary; that this architectural apparatus should be a machine for creating and sustaining a power relation regardless of the person who exercises it; in short, that the inmates should be caught up in a power situation of which they are themselves the bearer. (Foucault, 2014). Therefore, the essential factor is that the person knows they are being watched, although there is no need to be effectively monitored. The “Panopticon is a Discipline machine for dissociating the see/being seen dyad: in the peripheric ring, one is totally seen, without ever seeing; in the central tower, one sees everything without ever being seen” (Foucault, 2014, p. 196). In this context, whoever is subjected to a field of visibility, and who knows it, appropriates the conditions of surveillance on their own, and becomes the principle of their own subjection. The Panopticon then presents itself as a magnificent machine not only for subjection, but also for self-subjection (Hoffman, 2018). Therefore, the Panopticon has a role of amplification, power is organized, not for power itself, nor for the immediate salvation of a threatened society, what matters is to strengthen the social forces – to increase production, to develop the economy, to spread the education, raising the level of public morality, to increase and multiply (Foucault, 2014). Panopticism is the general principle of a new “political anatomy” whose object and end are not the relations of sovereignty, but the relations of discipline. Thus, in a society in which the main elements are no longer the community and public life, but private individuals on the one hand, and the State on the other, relations can only be regulated in a way that is the exact reverse of the spectacle. In modern times, it was reserved for the State's ever-increasing influence, for its ever deeper intervention in all the details and relations of social life, to increase and perfect state guarantees, by using and directing towards this great purpose the construction and distribution of buildings designed to observe a large crowd of men at the same time (Foucault, 2014). Julius saw this surveillance structure as a historical process that was fully accomplished in what Bentham described as a technical program. Our society is one not of spectacles, but of surveillance; under the surface of images, one invests bodies in depth; behind the great abstraction of exchange, there continues the meticulous, concrete training of useful forces the circuits of communication are the supports of an accumulation and a centralization of knowledge; the play of signs defines the anchorages of power; the totality of the individual is amputated, repressed, altered by our social order, it is rather that the individual is carefully fabricated in it, according to a whole technique of forces and bodies (Foucault, 2014, p. 209). Bentham defines another way of analyzing the social body and the power relations that traverse it, in terms of practice, he defines a process of subordination of bodies and forces that must increase the utility of power while practicing the economy of the prince. Panopticism is the general principle of a new political anatomy whose object and end are not the relations of sovereignty, but the relations of discipline (Foucault, 2014). Therefore, the solution of the Panopticon to the question of the productive increase of power can only be assured if, on the one hand, it has the possibility of being exercised continuously in the foundations of society, in the most subtle way, and if, on the other hand, it functions outside these violent forms that are linked to the exercise of sovereignty (Prado Filho, 2005). In this sense, one of the ways of increasing the power of the State can be observed through public policies, which can be considered an instrument of state interference and surveillance to reach a political and social project.

#### 4. METHODOLOGY

The research is characterized as qualitative, with data collection through a semi-structured interview. The data were collected in October 2016 and October 2019. The sample corresponds to 9.5% of the Professors belonging to Law Schools at two community HEIs in southern Brazil. Regarding the profile of the respondents, there was a predominance of Professors with over 10 years of experience, belonging to the permanent staff. Regarding gender, there was numerical parity. In the present article, we chose to treat the data obtained in the interviews through a discourse analysis, since it presents itself as a method that aims not only to perceive how a message is transmitted, but also to explore its meaning.

#### 5. REFLECTIONS ON PUBLIC POLICIES IN LAW SCHOOLS OF COMMUNITY INSTITUTIONS

The following section presents the main findings, based on the perceptions of Law School Professors at two community HEIs, which are matters about the reflections on federal public policies in higher education. Public policies in Higher Education (HE) starting at the federal level are strongly linked to neoliberalism, which employs unprecedented power techniques over conduct and subjectivities. In addition, neoliberalism is the bearer of a process of general commodification of social relationships (Dardot and Laval, 2016). The interviewed Professors explain in their speeches how they perceive the context of the public policies on their day-to-day activities at the university, especially in matters regarding characteristics they identify in the current administration, and the changes that have been occurring in recent years. The narratives show:

- It tries [the university management] to sell a participative image, but the solutions are centralized. It is a pseudo-participation of the professor. (S3)
- The speech is different from reality. (S4)
- A more corporate management, more of a company idea [...]. A marketing view. (S1)
- Today there is a much more entrepreneurial relationship. Before people were closer, the institution's bond as a family has been lost. (S3)
- A greater strictness when it comes to controlling teaching performance at workload levels [...]. (S8)

HEIs are becoming more and more practiced and inserted in the pro-market logic, pro-utilitarian and quantitative evaluation, and pro-ranking system. Clearly, the narratives demonstrate that teachers do not have a receptive eye on what refers to the insertion of practices resulting from the new management paradigm in HE, a philosophy that calls for HEI to be managed as a business. Following the perception of the Professors, another issue that arises from public policies is the quality discourse within HE. The following is reported by respondents:

- A fraudulent speech that most of the time does not match the reality [...]. A mercantilism [...]. A frenetic advance for EAD, (distance learning), a false purchase of a diploma. (S3)
- Control of the workload. (S7)
- It sells a false idea. In fact, it is an ancillary of the market. (S4)
- A challenge, for example, in the Law course sometimes the question is: OAB (Brazilian Bar Association) or applying for a public office position? Or the market? (R1)
- If I analyze the ENADE and OAB exam, I will have different results. The most mistaken result is that of the OAB. The OAB looks at memorization (to memorize). Education does not seek an absolute answer, it must be philosophical. You must be able to think. (R2)

From the reports, it is recognized that the quality discourse assumes a disjointed direction from that which is proposed. Furthermore, it requires teachers to become self-disciplined, since they respond to monitoring mechanisms, such as assessment, which leads to an individualization -

the manufacturing of individuals. It is noticed that the professors warn of a critical issue, namely for not being clear about how to act in the classroom facing a mixture of average students. There is also the concern, as pointed out by R1, about the direction of the lessons towards ENADE, OAB or public tendering, since the teachers also need to think about the employability of the students, in face of the market demands. In addition, there is the issue of Education being perceived as a good, a commodity. The commoditization process of Education stands out as a reflection of the expansion of private and community universities. Panopticism is perceived in the teacher testimonies in what concerns the public policies instituted within the scope of HE, namely identified in the teaching activity and by the practices of Sinaes, as shown in the following reports:

- Nobody feels comfortable [...]. (S7)
- I feel more interference in the activity, because now I have digital subject matters in the black board environment of Distance Learning Disciplines. There is a constant monitoring of our performance, such as the hours we are online, the production and interaction with students. A greater supervision. (S1)
- In the past 20 years we have become hostages. They [the Federal Government] organized teacher training as an education policy. In the last 20 years we started to suffer with the prescriptive policy, we went from a quantitative to a qualitative evaluation. At first it seemed that it was more democratic and emancipatory [...]. From the political parameters, I began to observe how I manage my classroom, because they [student] need to learn for the market [...]. (R3)

From the speech of R3, it is possible to understand how power gradually grows from the practices or strategic relations between individuals and groups that conceive games of conduct among them, which take place according to the governability perception. As it can be seen, the policy in place for HE does not cease to enhance its effects, always seeking to maximize results at lower costs. Thus, the applicability of regulation, self-regulation and surveillance technologies is mentioned regarding digital disciplines, as explained by S1. In addition, it should be noted that Foucault (2014) argues that the disciplines function as techniques that manufacture useful individuals. Observed in the excerpt: *I see an increase and a great incentive for us to train students for the ENADE tests, which ultimately will give the Institution a higher or lower score. So, over the years when the Law course must take the ENADE exam, we notice a very strong movement to train students for this exam, as well as for the OAB, as well. We get stuck and do not know how to prepare for one or the other - OAB or ENADE.* (S1)

The impact of the neoliberal project on the teaching activity is identified. The thinking of Slaughter and Rhoades (2004) is relevant, when they relate this discussion to the themes of the neoliberal State and the new global economy, thus establishing an intrinsic relationship between an organization (in this case, universities) and the social, political and economic environments that encloses it. The last group of narratives addresses the issue of freedom of speech (democracy). Which refers to Foucault (2014) when the author argues that punishment within discipline is just an element of a double system: gratification-sanction. The following fragments portray the issue:

- *Freedom of speech exists within the context of the institution. I need to say what people want to hear and not what I think. And this is related to this change that occurred in the matter of human resources relations, because a while ago you spoke with the intention of bettering the institution. Today you speak so that your boss listens and stays by your side and keeps you on the job. So, the question is very complicated. Do you understand? I mean, long ago you could say anything. If you complained to the rector, you would complain and curse, but you would discuss the ideas, and they would reflect on it.*

*Nowadays, if you do something like that, it is grounds for dismissal. The logic is different. (S4)*

- *It seems to me that if you don't go through the filter of first asking for authorization, of showing what your goal will be with that, the tendency is for you to be seen as someone who is not fulfilling their role. (S8)*
- *Actually, several times we are called to give the same speech. So, it seems obvious, it is an assisted freedom. (S7)*

Concerning freedom of speech, we noticed that this fundamental right arises with a hidden effect since people remain cautious of the direct exercise of their freedom. Control is perceived from the speech of S8. The control perspective is linked to the management of the HEIs, which in turn seek to meet what is recommended by public policies, which “elaborate and put into practice an arsenal of supranational instruments of control and certification” (Dias Sobrinho, 2010, p. 272). An example of this refers to the Organization for Economic Cooperation and Development (OECD), which, according to the author, defines the instruments, indicators, methodologies and assessment objectives. Therefore, the discussions about the transformation that universities have been undergoing in recent decades, in the face of globalization and neoliberalism, identify the approach of these institutions towards the market. Therefore, this scenario clearly assumes the effect on teaching, referring to the subjection of professors.

## 6. CONCLUSION

The purpose of the present article was to empirically investigate what is the perception of Law Professors, at two community HEIs in southern Brazil, about the insertion of economic interests through NPM practices into federal public policies for higher education. In our study, the interviewees exposed several obstacles that affect their performance as teachers, considering the public policies for higher education in place. Most of the obstacles are linked to the introduction of practices that condition university management towards a market view. Among the practices, the teachers emphasize the assessment establishing rankings for HEIs and courses. Likewise, the professors also declare that they are not comfortable with the evaluation practice and with the context of supervision it presents. Another aspect highlighted is linked to the controls on teaching performance (such as schedules) and on the distribution of workload. Furthermore, it calls attention to the teaching policy defined as “a fraudulent speech”. Regarding the freedom of teaching and of expression in the general context of HEIs, it can be concluded from the interviewees statements that it is partially positioned, since a teacher understands it as “assisted freedom”. An explanation for this context may be “fear”. Regarding fear, it is worth mentioning that this feeling is present in the teachers’ routines. Even to participate in the research as interviewees, certain professors did not feel comfortable (they showed fear). In fact, there was a case of a teacher who - when the recorder was disabled - asked: “But am I not going to lose class hours because I accepted this interview?” (S3). Therefore, considering the perception of the professors at the two HEIs, it is concluded that the public policies for higher education present a restrictive character, which affects the performance of teachers, resulting in a critical education, damaging the teachers working conditions in certain situations. It is emphasized that the elements previously exposed find meaning in the “productive power”, connected with the biopolitics that emerged in the middle of the 18th century as techniques related to the problem of the regulation of collective institutions and the life of populations. Based on these considerations, Butler's excerpt (2017, p. 4) is that “as a form of power, subjection is paradoxical. One of the familiar and distressing ways in which power manifests itself is the fact that we are dominated by a power external to us”. The research presents an analysis in the light of Michel Foucault about the perception of teachers inserted in the context of higher education, with the applicability of federal public policies that emerge through NPM

practices. To conclude, the famous proposition of Foucault according to which the modern subject would consist in the ultimate effect of a number of disciplinary practices spread in the social field, that is, the soul as a prisoner of a body henceforth in a permanent situation of control (Carvalho and Gallo, 2015). The analysis from the perspective of Michel Foucault ought to be relevant to contexts other than the two HEIs mentioned here, since they approach important changes in the Brazilian higher education, and in other countries. In this regard, the conclusions concerning the importance of this dimension for teachers are also likely to echo in other countries. Therefore, there are neoliberal practices in HEIs, focused on business and competition, encouraging the creation of subjectivities.

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## COMMON PRACTICES IN STANDING OUT ON THE DIGITAL MARKETING AGENCIES' MARKET – AN OBSERVATION APPROACH

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### ABSTRACT

*In an era where communication has changed from traditional media to the digital environment, a new need for digital professionals has occurred, leading to the expansion of marketing and advertising agencies to a new ground: the virtual world. On the other hand, making a consistent impact through digital means comes with its challenges, especially when referring to constantly adapting and reinventing communication. Within this framework, the digital marketing agencies' market has faced constant growth and expansion which is likely to keep on evolving. In a crowded and dynamic market like this, digital marketing agencies face all types of challenges, especially when it comes to becoming visible and stand out from their competitors. In order to evaluate this market, the current research was developed aiming to evaluate the online presence of some of the most known digital marketing agencies in Romania. Based on observation, the present research has led to findings showing that a friendly, clean, simple approach in communication, in addition to using previous clients and awards won for past projects constitute a winning strategy for most digital marketing agencies. Nonetheless, one surprising finding is that there is a considerable number of digital marketing agencies that do not have a consistent presence on various platforms of social media. Future research approaches might get into the depth of the underlying factors that determine such an approach of the market.*

**Keywords:** *digital marketing agency, communication, marketing, social media*

### 1. INTRODUCTION

Since the founder of radio, Guglielmo Marconi, communication has entered a new era, an era dominated by more and more tools for distance communication and mass communication. And the way companies communicate with their customers has also faced some significant changes in the light of this entire market changes. They moved from a local impact area to a global one, from mass communication to a personalized one, an aim made possible due to the incredible expansion of one-to-one digital tools. In this framework, marketing agencies have expanded toward delivering digital services for companies determined to be a strong presence also in the virtual market. And this is how a rising competition was born in the market of digital agencies that now face the challenge of discovering how to stand out in a crowded market. This paper aims to address specifically this topic, starting with a brief literature analysis dedicated to setting the context and proving the usefulness of the research aim and results presented in the current paper.

## **2. LITERATURE REVIEW**

There have been many initiatives and research projects studying the impact of companies' communication skills on their relationship to their customers and their conclusions (Quinn, et al., 2016) show that organizations should structure themselves in order to be more market-oriented and responsive to changing customer needs and market conditions. In this framework, the concept and practice of Integrated Marketing Communication (IMC) seems the viable solution. But IMC has attracted different definitions from both scholars and practitioners in marketing communication so much so that it has been described as lying in 'the paradox of conceptualization' (Adebiyi, and Bello, 2018). The quest for achieving IMC objectives, built on coordinated brand development, media and audience fragmentation as well as increased message effectiveness through consistency and reinforcement of core message (Adebiyi, and Bello, 2018), has placed increasing pressure on managers to either develop new skills or to attract suitably qualified and experienced personnel (Quinn, et al., 2016). This is even more relevant as many companies, even in the UK, still operate at the level of tactical coordination of communication tools and media (Adebiyi, and Bello, 2018). In this respect, agencies have a significant role in marketing strategy development such that any attempt to understand the processes associated with 'how marketing happens' must take into account the contributions of marketing agencies (Keegan, Rowley, and Tonge, 2017).

### **2.1. The digital world**

When defining digital marketing we can refer to the definition mentioned by Royle and Laing (2014): 'the use of digital technologies to create an integrated, targeted and measurable communication which helps to acquire and retain customers while building deeper relationships with them'. So digital marketing is any form of marketing products or services that involves electronic devices (Patel, 2020). In a more detailed perspective, digital marketing encompasses all marketing efforts that use an electronic device or the internet, with businesses leveraging digital channels such as search engines, social media, email, and other websites to connect with current and prospective customers (Alexander, 2020). Since these digital channels are constantly expanding in terms of diversity, capabilities and reach, companies across the globe face the challenge of keeping up the pace with their customers' changing needs in terms of connection and communication. This changing digital landscape has precipitated a sense of crisis (most probably also due to the increasingly fragmentation of the digital market (Busca, and Bertrandias, 2020)) for marketers and the role of marketing within the firm (Quinn, et al., 2016). Even more than that, the role of others from outside the marketing department – and often from outside the company – in providing the new skills and addressing the knowledge gap – presents a new challenge, one which infringes on the scope and contribution of the marketing department and potentially diminishes its role (Quinn, et al., 2016). But this challenge is nothing compared to the damages of digital world absence of a company when relating to their customers. Actually, the widespread adoption of digital marketing techniques, including social media, has significantly contributed to the individualization of marketing where the providers of goods and services are increasingly communicating with individual consumers and users, gaining feedback on a one-to-one basis and providing bespoke solutions for clients (Royle, and Laing, 2014). When referring to the future of the digital marketing, this important communication environment might evolve in three different directions, which are not mutually exclusive: 1) it can recognize more decision-making abilities to consumers with a low behavioral diversity; 2) it can allow consumers to act out more types of behaviors while keeping a centralized management decision structure; 3) it can also come closer to collaborative systems, with different collaboration modalities involved (Busca, and Bertrandias, 2020). Also, the digital landscape seems to have taken over the traditional media, as growth rates for traditional advertising and digital marketing spend have remained similar over time with



consistent, strong growth in digital marketing and relatively steady losses to traditional advertising spending (Moorman, 2020). Either way, one common solution to face this new challenge posed by the digital world relates to hiring an external digital marketing agency to solve the digital communication demands of the customers.

## **2.2. The digital marketing agencies' world**

In the new landscape of the digital world, traditional agencies should decisively respond to the challenges generated by the consumer evolution and develop digital skills, particularly of the social type, to support advertisers in the difficult process of creating brand openness (Vernuccio, and Ceccotti, 2015). This objective is even more important for two main reasons: first of all, the agency competition has grown dramatically in recent years and it is expected to continue throughout the next 3-5 years (Promethean, 2020) and, second of all, Google and Facebook generate more revenue than any traditional media company because they control more eyeballs, proving that digital marketing matters since it is where the attention is (Patel, 2020). But, the days of being present in the marketplace being enough to build a business are coming to an end, and this is why specialists and technological prowess becomes an even greater differentiator for corporate clients (Promethean, 2020). From the agencies' side, their future business is a question of evolving in their role as communication consultants at the strategic level that will enable them to offer an integrated, long-term vision (Vernuccio, and Ceccotti, 2015). This is particularly relevant as findings from Killian and McManus (2015) prove that brand management responsibilities are often divided between digital agencies with specialized social media knowledge and traditional agencies that are responsible for shaping the brand essence and developing an advertising presence in traditional media. In this context, the agency revenue has grown ~15% in 2019 (Promethean, 2020).

## **2.3. The digital marketing agencies' challenges**

But external service providers might not solve the problem entirely, since most industries are going through a crisis defined by a combination of tighter budgets, pressures to provide actionable insights, data proliferation from a broader range of sources, the increasingly sophisticated technological focus and the demand for new skills signposts (Quinn, et al., 2016). As a result, there is an increasing trend towards adding in-house marketing talent and this is putting pressure on agency revenue as multiple services are becoming redundant (Promethean, 2020). As any other moment of crisis, the turbulence in the marketplace is providing opportunities for well differentiated agencies to take significant market share (Promethean, 2020). In this unsteady business environment for digital marketing agencies, the biggest pain point is finding new clients, as defined by 60% of the respondents that took part in the research developed by Dearlove, An and Williams (2018). Operating in a highly fragmented market, with many new small agencies launched in 2019 (Promethean, 2020), digital agencies can turn this downside of the market into their advantage, by securing a strong position on the market. Dearlove, An and Williams (2018) show that sales and/or marketing is preventing the agency from growing as quickly as they would like for 55% of the respondents included in their research. And the same study shows that the major direction for investment in the next year for 72% of the respondents will be lead generation from marketing efforts, including online & offline. Given this framework, the current research was developed in order to discover common practices in the management of digital agencies aiming at attracting new leads based on their online presence on different platforms. The methodology and main findings of this research will be presented in the following section of this paper.

### **3. RESEARCH**

In the light of this digital transformation, there is a definite need for business online migration, which brings communication and media agencies a huge opportunity for market expansion through their digital branches. However, there is a saying about the shoemaker who always wears the worst shoes, meaning that companies that have to take care of another people's business forget about their own. On the other hand, when deciding on a specific provider, companies tend to evaluate each provider self-presentation, thus it becomes important to have a high-level visibility and a continuous communication with the market, if you want the market to take you seriously. Based on this context, we have developed a direct research, based on qualitative observation, regarding the manner in which digital agencies try to stand out in this already crowded market.

#### **3.1. Research methodology**

The scope of the present research is to evaluate the online presence of some of the most known digital marketing agencies in Romania. We have taken into consideration both domestic agencies, as well as representatives of global companies. In order to make a better assessment of their online presence, the research focused on the following objectives:

- a) Identifying their own online communication channels;
- b) The frequency of communication through own channels;
- c) The nature and content of such a communication;
- d) Use of other online communication channels (such as independent advertising platforms – for example, IQads);
- e) Analyzing digital agencies' value proposition.

In a country where we have around 70 dedicated digital agencies and an annual market value of 63 million euro (Forbes, 2019), standing out from the crowd is not necessary, but rather a plus, as the market is still growing and there isn't a strong competition yet. However, being a big agency does not win clients anymore, as little companies are begging to make their mark in this industry. The size of the company is actually one of the criteria companies use when selecting the digital agency to work with. Although not published yet, in parallel with the present research, we have conducted another one, within corporate clients of digital agencies, in order to better understand how they are choosing their partners in this line of work, and the trend nowadays is an orientation towards small companies that care about their clients' well-being, not just insert them in a well-structured production line. Having such a context, we have decided to use observation as a qualitative research method, where variables are analyzed from a content point of view, rather than being quantified. Moreover, from all marketing research methods, observation resembles the most with what potential clients are doing when searching for digital agencies. The sample consists of 12 agencies, both local and international, as well as big and small companies (in terms of income and number of employees), in order to identify if there are any differences in their communication approach. Data was collected on January-February 2020, using as information sources just the Internet (websites and social media platforms), without any contact with the analyzed digital agencies.

#### **3.2. Research results**

The most common channels/tools of online communication are represented by websites and social media platforms; thus, we have analyzed the use of these channels by digital agencies in order to communicate with the market.

### *3.2.1. Website*

All agencies included in this research have a country dedicated webpage, be it a stand-alone website or a part of the global platform. Just a third of them give users the possibility to switch from English to Romanian on the website, a fact that shows how much they focus on domestic clients. When it comes to website content, we have identified the trend of using a clean, simple and direct approach, agencies limiting themselves in presenting very briefly what they offer and their best work in terms of projects and clients. The content is more visual than textual. At the opposite pole from this friendly communication style, there is another category of agencies that tend to maintain a more distant attitude, focusing on general information about codes of conduct, articles and papers with relevant content for their market.

### *3.2.2. Facebook*

We can see here two categories of agencies in terms of Facebook usage:

- Agencies with a low level of use for this social media platform, the content focusing on jobs, own projects and awards; the frequency for Facebook communication on their own accounts is 2-3 posts per month;
- Agencies that use Facebook to always stay in front, always in contact with the market, to be always present in the eyes of potential clients; communication through this medium is quite common (2-3 posts per week), content having both information about the agency, as well as market-related items (such as trends and news from the digital world, studies and analysis).

When it comes to the nature of Facebook communication, we see that agencies tend to be friendly, inviting users behind the scenes and, thus, helping them to get to know better the people working in those agencies.

### *3.2.3. Instagram*

It is not so common as a corporate communication tool, only half of the analyzed agencies having an Instagram dedicated account. The content is playful, with a very subjective approach regarding the nature of the message, presenting moments from the office, behind the scenes, projects that they are proud of. We see also a lot of videos here.

### *3.2.4. LinkedIn*

The agencies included in the analysis have an account because everyone knows that in the business environment you have to be there, but they do not use it for communication, most of the time posts being as rare as 1-2 per year. We can draw the conclusion that, when an agency will start to communicate also through this platform, it will immediately stand out. The nature of the communication on LinkedIn is an absolute objective one, agencies seeing this social platform as a very serious environment where everyone means business.

### *3.2.5. Twitter*

This platform has almost no success in Romania, considering that, for a population of almost 20 million people, we have only 377.568 accounts, from which only 24.400 are active users (Profit, 2019). Considering the above-mentioned context, is no wonder that, out of those 12 agencies analyzed in the present research, only 2 have an account, but we have to mention that one of these two is just linked to the global account, is not Romania-related. Having such a scarce Twitter communication, we can state that this channel could be the steppingstone for building another competitive advantage in terms of being recognized by the market, being present on clients' minds and having a voice where other agencies remain silent.

### 3.2.6. Youtube

This channel is seen more as a backup for Facebook and Instagram, agencies using it in order to present projects done for their clients through videos that are too big to fit on other platforms' posts. There are only two agencies that literally communicated with their audience through Youtube, presenting their team and workplace.

Besides their own online channels, digital agencies are eager to communicate also through paid syndicated platforms, such as IQads, one of the biggest online platforms for advertising and marketing communication in general. The analyzed agencies are all present somehow in this online platform, be it through an individual description sheet (history, vision, services offered) or just mentions in articles written by others. The communication in IQads can take different forms, such as articles, creations or podcasts, all of them with a relatively high frequency, each analyzed agency within this study having more than 100 articles. The content in these articles is related to awards, successful stories for their own clients, predictions about future developments, philosophies and approaches in advertising, trends and opinions about their industry. The last objective of our study refers to type of value proposition used by digital agencies, and, as it can be observed in Table 1, there are two approaches:

- the first one is about an objective value proposition, that states very clearly what the agency is offering in terms of services, highlighting the experience and the cost efficiency;
- the second one is about an affective value proposition, in which agencies are showing the end-value of working together, rather than what they can do for their clients.

*Table 1: Type of value proposition used by digital agencies*

Objective	Affective
Our company is a full-service interactive agency, made up of a well rennet and proactive team, with over more than 10 years' experience, who managed to impose on the market with superior quality services. We offer our clients integrated strategies of digital marketing that efficiently combine the online marketing tactics with the off-line ones.	We exist to give our clients' brand 'an unfair share of attention'
The expertise of the tribal team worldwide covers the entire spectrum of skills in digital marketing services: concepts of campaigns and integrated campaigns, e-commerce platforms and platforms dedicated to the mobile environment, communication in social networks and strategies that creatively implement new technologies.	We deliver everything needed to touch the hearts and minds of consumers, no matter where they find themselves on the consumer journey.
We are a strong full-service digital agency that bridges that gap between marketing, advertising and technology by offering a vertically integrated "one-stop-shop" solution for all your strategy, creative and digital evolution.	We are a culture of many, united as one. We're passionate about the power of digital, and our collaborative culture helps us deliver flawless execution and create transformative work.
We are offering you the best possible media plan, with an excellent report between price/views/sites, in order for the client and also the agency to be happy with the collaboration and to desire a long-term relationship.	We make sure that when the future comes you are already there.
	Creative courage is what our spark ignites.
	We create exceptional digital user experiences that solve business problems and make lives easier.
	We make brands more valuable to people, and people more valuable to brands, while bringing digital to the core of communication.
	The 7 times Digital agency of Romania.

*Source: mullenloweprofero.ro, kubisinteractive.ro, isobar.com, syscomdigital.ro, thegroup.ro, republika.ro, v8i.ro, grapefruit.ro, kaleidoscopeproximity.ro, infinitsolutions.ro, digitalatelierinteractiv.ro, webstyler.ro*

Based on these observation results, it can be argued that there are some winning strategies that can be extracted from the experience of these agencies: a friendly, open, clean and simple approach is preferred instead of a stiffer approach. Also, multiple online platforms can be used to create a strong presence on the market and, also, to differentiate from other competitors on the market.

#### 4. CONCLUSIONS

The current research shows how digital agencies have chosen to communicate, to make themselves visible on the digital agencies market. These results can be considered the first steps towards defining and discovering better and better the market of digital agencies. Future research might address also the link between the online presence of digital agencies and their performance in terms of their clients' results, should there be any. Expanding the research coverage might also lead to a better understanding of the entire digital agencies' market. Nonetheless, since the digital world is constantly changing and evolving, so is the market for digital agencies is likely to evolve and expand to new virgin territories as well. In this context, research is crucial to keep on expanding in order to get into the depth of this industry.

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## THE PERSPECTIVE OF GREEN GDP IN GROWTH MODELLING

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### **ABSTRACT**

*Many are of thought that as income increases, countries will lean towards more sustainable technological solutions, i.e. become more environmentally conscious, hence, achieve economic progress that takes due account of natural resource and environmental degradation. Meaning that sustainable development can really co-exist with current economic patterns of growth. The practical curiosity therefore leads us to a question; can the Green GDP concept endorse an apparently virtuous model of growth so that economic development can go hand in hand with greater improvement in physical, human as well as natural capital, having in mind at the same time the dynamic globalisation process of economic dependence? This paper evaluates the possibility of the usage of Green GDP measure in growth modelling, as to bridge down the evoked differences between the standard and new green concepts of GDP. The goal is to re-examine growth modelling by replacing standard GDP indicator with the Green GDP measure and re-evaluating some conventional economic factors of growth. Empirical analysis is based on panel cointegration analysis for the set of 44 countries, mostly developed and developing ones. Results are consistent with general features of standard growth models with the dual characteristic of the relationship between economic openness and green growth.*

**Keywords:** *Green GDP, growth model, openness, panel cointegration*

### **1. INTRODUCTION**

In the times when the strive for even higher growth rates is still unparalleled, the concept of uncontrollable growth is not left unchallenged. When focusing on economic growth, we mainly address changes in the GDP as to measure flows of output and income through the economy. GDP indicator can answer questions regarding the pattern, as well as the dynamics, of economic growth quite well. This reductionism in mainstream economic theory and in practical manifestation of economic policies sometimes bypasses the question of oblivion towards the destruction of socio-economic systems. As the economic growth improves quality of life to a certain point, it usually has a negative effect beyond this point due to the ‘threshold effect’. Thus, when this point is crossed, further economic growth can deteriorate the quality of life due to the costs associated with an increasing income inequality, loss of leisure time and natural resource depletion. So, the question of co-existence of equitable and sustainable development and current patterns of economic growth comes into foreplay. One concept stands out more strongly from the crowd of definitions that are trying to incorporate different aspects of well-being in aforementioned conceptual confrontation. That is the concept of Green GDP, i.e. in a much broader sense, the endeavour towards the green growth. Green growth is about fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services for promoting our well-being and by fostering investment and innovation that will underpin sustained growth and give rise to new economic opportunities (OECD, 2011). Such an eclectic definition provides also an affirmative ground for defining Green GDP capacities. Green GDP, as we recognize it today, is a general concept that refers to a wide array of adjusted GDP measures that are corrected for social and environmental costs, for some of these costs are not commonly presented in monetary units. The practical curiosity therefore leads us to a question; can the Green GDP concept endorse an apparently virtuous

model of growth so that economic development can go hand in hand with greater improvement in physical, human as and natural capital, having in mind at the same time the dynamic globalisation process of economic dependence? This paper evaluates the possibility of the usage of Green GDP measure in growth modelling, as to bridge down the evoked differences between the standard and new green concepts of GDP. The goal is to re-examine growth modelling by replacing standard GDP indicator with the Green GDP measure and re-evaluating some conventional economic factors of growth. Empirical analysis is based on panel cointegration analysis for the period 2008-2016 on set of 44 countries, ranging from developed and developing ones. Short time period reflects the data unavailability. Our results confirm general features of standard growth models with the dual characteristic of the relationship between economic openness and green growth.

## **2. AN ALTERNATIVE VIEW ON ECONOMIC GROWTH**

This section presents a short introduction on the perspective of Green GDP within traditional growth modelling with introspection into some theoretical issues, and in addition offers an empirical background on related studies.

### **2.1. Theoretical background**

Green growth logic is based on making growth process resource efficient, cleaner and more resilient without necessarily slowing them (Hallegatte et. al, 2012). Considering traditional economic growth theories that identify sources of economic growth, which are paralysed with assumptions about substitution, rate on returns and technical change, it is not easy to evaluate direct or indirect contributions of environmental protection to economic growth, and vice versa. Growth theory can help in explaining green growth if we can find a nexus between environmental policies and environmental degradation on the hand, and sources of economic growth and the rates of return to the investments and innovations in the green economy, on the other hand (Smulders, Toman and Withagen, 2014). It is very hard to identify channels that are theoretically able to make green policies contribute to economic growth having in mind that human and capital stock, as well as environmental stock can change over time. While theoretical and computational issues hinder the development of green growth economic models based on, for example Green GDP indicator, they nonetheless provide a source of data that can be used to re-examine the links between GDP and sources of growth commonly used in economic growth models (Talberth and Bohara, 2006). In that manner, growth theory can say something about green growth if we at least reveal nexus between Green GDP and traditional sources of growth such as capital accumulation and technical change. If we expand scientific horizon into global economic system, we can track additional variables that influence economic growth. For example, a number of studies have reported on the positive aspects of open trade regimes, thereof that export expansion raises the rate of economic growth by the way of its impact on total factor productivity, as of negative aspects by linking greater openness to deterioration of social and environmental conditions. This makes the environmental reach of openness, hence trade, somewhat ambiguous. In theory, for example, modern exogenous growth models provide direct links between growth and endogenously chosen policy options such as freer trade regimes (Talberth and Bohara, 2006). So if we use common variables as a source of economic growth, why should we switch to the alternative measure of GDP on the other side of growth equation? The answer is simple! The GDP includes only economic activities and transactions that have a price, therefore ignore market activities and informal transactions that also affect growth prospects. Some shortcomings of GDP could be summarized as follows: (1) it can be a misleading economic indicator if we place a disproportionate importance to it because it often reflects the material and static positions, rather than signalling what is wrong in the economy; (2) since it does not scale the sustainability of growth (it does not detect the distribution of



income, household production and/or the loss of leisure time, volunteering, costs of environment degradation, social and public health costs that are in direct relation to economic activity and etc.), it is de facto a bad measure of social welfare; (3) it is a bad measure for international comparison of countries' life standard (for it tracks only our production/consumption and it always gets better as long as we produce more or produce more valuable things (Stjepanović, Tomić and Škare, 2019). Similarly, den Bergh (2015) suggests that (1) GDP does not satisfy the basic principles of good bookkeeping; (2) its usage in modelling is inconsistent with general focus in theoretical micro- and macroeconomics; (3) it does not capture stylized facts on subjective well-being such as happiness; (4) does not capture income inequality, relative income and etc.; (5) neglects informal economy and finally (5) it does not address environmental issues. By replacing standard GDP measure with, an alternative GDP measure, which is also not impregnable and impeccable one, we are still able to provide a new perspective on the green growth dynamics. The main disadvantage of the usage of the Green GDP in economic growth modelling is that there is no general agreement on how Green GDP should be estimated, for that there is no consensus either on whether there should be a uniform measure.

## **2.2. Empirical background**

There is a vast number of papers dealing with different domains of economic growth theory, but we found two papers that follow the line of our inquiry. First, that of Talberth and Bohara (2006), who first tried to estimate the relationship between GDP and host of factors commonly included in traditional economic growth models. The authors developed models of Green GDP growth and the gap between traditional and Green GDP by using a panel data set of eight developed countries for the period spanning 30 to 50 years. They found strong and robust results suggesting a negative nonlinear correlation between openness and Green GDP growth and a positive nonlinear correlation between openness and growth of the gap between traditional and Green GDP. Their results, in fact, provided empirical support for researches that associate greater openness with environmental degradation, income inequality and an increase in economic activity, for that is self cancelling from a welfare perspective. This research will be a cornerstone for our study, as it was for the paper from Wang (2011). In his study, author tested the effect of openness to international trade at Chinese provincial level, by applying comparable Green GDP data from 31 provinces and regions to a variant of Solow growth model. Results revealed a nonlinear relationship between Green GDP and openness, measured both by volume of trade and foreign direct investment, at provincial level. In addition, openness had an inverted U shape effect, meaning it increases sustainable development at the beginning and decreases sustainable development after a threshold point.

## **3. METHODOLOGY AND DATA**

In this section we will discuss methodological issues, describe the data and present the model. As the main goal of the study is to empirically test the perspective of Green GDP in growth modelling we will use the traditional production function with common factors of growth.

### **3.1. The model**

As noted previously, our approach will be based on the work from Talberth and Bohara (2006) who used a variant of the standard Solow growth model, suggesting that the real output is a function of a country's stock of capital and labour and influenced by other factors which may affect the productivity of these inputs such as economic openness (Solow, 1956, 1957). To incline the relevance of the Green GDP indicator and its potential to serve as a metric for sustainable progress, we incorporated it in the traditional model of economic growth.

From a more general form of growth model as in:

$$GGDP_t = f(K_t, L_t, O_t) \quad (1)$$

where  $GGDP$  stands for the Green GDP at time  $t$ ,  $K$  for the measure of a capital stock at time  $t$ ,  $L$  for the measure of labour input at time  $t$ , and  $O$  is an index of economic openness at time  $t$ ; we can modify the model towards a more specific form of Green GDP model that relies on widely accepted data representing common factors of growth. Therefore, our reduced form of an aggregate production function can be expressed as an equation:

$$\ln GGDP_{it} = \alpha_{0i} + \beta_{1i} \ln GFCF_{it} + \beta_{2i} \ln ADR_{it} + \beta_{3i} \ln OPEN_{it} + u_{it}, \quad i = 1, 2, K, N, \quad t = 1, 2, K, T \quad (2)$$

where  $\ln GGDP_{it}$  represent the logarithm of Green GDP at time  $t$ ,  $\ln GFCF_{it}$  stands for gross fixed capital formation as a measure of capital stock at time  $t$ ,  $\ln ADR_{it}$  stands for age dependency ratio as a measure of labour input at time  $t$ ,  $\ln OPEN_{it}$  stand for economic openness at time  $t$ ; and  $u_{it}$  is the error term while  $i$  and  $t$  denotes country and time respectively.

### 3.2. Data

Annual panel data on the observed variables, covering the period 2008-2016 for 44, mostly developed and developing countries (EU countries and potential members, part of the OECD countries and some selected countries), are taken from the World Bank database. The data for Green GDP are taken from the paper Stjepanović, Tomić and Škare (2019) whose calculations are based on an alternative approach to sustainability and green growth (Stjepanović, Tomić and Škare, 2017). Data (un)availability is a major obstacle in achieving more (time) extensive research on a cross-country base for most of the data needed for calculation of the Green GDP are published irregularly. Data are expressed in logarithms and presented<sup>1</sup>:  $\ln GGDP$  as the logarithm of the Green GDP indicator,  $\ln GFCF$  as the logarithm of gross fixed capital formation<sup>2</sup>,  $\ln ADR$  as the logarithm of age dependency ratio<sup>3</sup> (% of working-age population) and  $\ln OPEN$  as the logarithm of trade (% of GDP)<sup>4</sup>.

### 3.3. Methodology

Cointegration analysis with panel data is similar to cointegration usually employed in time series analysis and consists of unit root tests, cointegration tests and the estimation of long-run (and short-run) relationship. In this part we followed methodological explanations based on the paper from Škare, Benazić and Tomić (2016). The literature on panel cointegration has been expanding rapidly, responding to the complex nature of interactions and dependencies that exist over time and across the individual units in the panel (Breitung and Pesaran, 2005). Many authors have generally confirmed that it is the span of the data, rather than frequency that matters for the power of this approach (Pedroni, 1997). On the other hand, the pooling of time series is traditionally related to the substantial degree of sacrifice in the terms of possible heterogeneity of individual time series, therefore, testing the unit root and cointegration hypothesis by using panel data involves several serious complications such as mentioned unobserved heterogeneity, the question of independence of cross-section units, panel results are

<sup>1</sup> EViews (IHS Global Inc., 2019) econometric software was used for the whole methodological part.

<sup>2</sup> Gross fixed capital formation (formerly a gross domestic fixed investment) includes land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. According to the 1993 SNA, net acquisitions of valuables are also considering capital formation. Data are in constant 2010 U.S. dollars.

<sup>3</sup> The age dependency ratio is the ratio of dependents - people younger than 15 or older than 64 to the working-age population - those ages 15-64 (as the proportion of dependents per 100 working-age population).

<sup>4</sup> Trade is the sum of exports and imports of goods and services measured as a share of gross domestic product.

often difficult to interpret, and etc. Nonetheless, the growing popularity of panel cointegration is due to good reasons: first many important economic questions are naturally framed in a panel perspective, and second, adding the cross-section dimensions grants considerable improvements to the small sample properties of testing procedures, provided the possible linkages across units are properly accounted for (Di Iorio and Fachin, 2011). Though panel results may be biased by specific county experience, time averages, unbalanced feature, etc., the problem of shorter time series lead us to the panel cointegration aspect of research. Next, unit root tests are often limited to results from few generally applied tests that are relevant for individual time series, yet a number of more sophisticated procedures of unit root testing are nowadays available for panel cointegration purposes. The analysis starts with conducting a battery of panel unit root tests, as it is very important to determine the order of integration of a time series in order to avoid spurious results, especially since macroeconomic variables are often characterized by non-stationarity. If the series are integrated (non-stationary), the analysis continues with testing for the panel cointegration. Otherwise, a short-run interpretation is appropriate. Therefore, to test the order of integration following panel unit root tests are considered: LLC test (Levin, Lin and Chu, 2002), Breitung test (Breitung, 2000), IPS test (Im, Pesaran and Shin, 2003) and Fisher-type tests using the ADF (Maddala and Wu, 1999 and Choi, 2001). LLC and Breitung tests under the null hypothesis assume the common unit root process, while IPS and Fisher-type tests under the null hypothesis assume individual unit root process. On the other side, LLC and Breitung tests under the alternative hypothesis assume no unit root, while IPS and Fisher-type tests assume that some cross-sections are without unit root. Next, in the LLC, Breitung, IPS and Fisher-ADF tests, the automatic lag length selection is based on Schwarz information criteria with a maximum lag of 3. Moreover, to estimate the long-run variance in the LLC tests, the Bartlett kernel was used with maximum lags determined by the Newey and West bandwidth selection algorithm. For the purpose of the analysis, we evaluated panel cointegration tests according to Pedroni (1999, 2004) and Kao (1999). Pedroni and Kao extend the two-step Engle-Granger (1987) framework to tests involving panel data. Pedroni proposes several tests for cointegration that allow for heterogeneous intercepts and trend coefficients across cross-sections with two alternative hypotheses: the homogenous vs. heterogeneous alternative. The Kao test follows the same approach as the Pedroni tests, but specifies cross-section specific intercepts and homogeneous coefficients on the first-stage regressors. Due to assumed research homogeneity, in Pedroni's cointegration test the automatic lag length selection is based on Schwarz information criteria with lags from 2 to 3 while the spectral estimation used in computing the test statistic or statistics is based on the Newey-West automatic bandwidth selection and Bartlett kernel. The same is done within the Kao cointegration test except that the automatic lag length selection is set to a maximum of 2. The long-run relationship is estimated using the pooled Panel Fully Modified Least Squares (FMOLS), pooled Panel Dynamic Least Squares (DOLS) and Pooled Mean Group/AR Distributed Lag (PMG/ARDL) estimation methods. Since FMOLS and DOLS provide only long-run estimates, for the short-run estimation PMG/ARDL is used. All these methods assume the existence of a single cointegrating vector between panel data, which is empirically relevant, since our analysis explores the relationship between four variables. Phillips and Moon (1999), Pedroni (2000), and Kao and Chiang (2000) proposed extensions of the Phillips and Hansen (1990) FMOLS estimator to panel settings while Kao and Chiang (2000), Mark and Sul (1999, 2003), and Pedroni (2001) propose extensions of the Saikkonen (1992) and Stock and Watson (1993) DOLS estimator. FMOLS and DOLS estimation methods for panel settings allow the estimation of the panel cointegrating regression equation for non-stationary data by correcting the standard pooled OLS for serial correlation and endogeneity of regressors that are usually present in long-run relationships. In addition, the DOLS allows augmenting the panel cointegrating regression equation with cross-section specific lags and leads to eliminate the

endogeneity and serial correlation. The PMG/ARDL (Pesaran, Shin and Smith, 1999) takes the cointegration form of the simple ARDL model and adapts it for a panel setting by allowing the intercepts, short-run coefficients and cointegrating terms to differ across cross-sections. Therefore, the main advantage over the FMOLS and DOLS is that it can allow the short-run dynamic specification to differ across cross-sections while the long-run coefficients are constrained to be invariant. For the purpose of the analysis, in the FMOLS and DOLS the default (homogenous variances) coefficient covariance matrix computations uses an estimator of the long-run variance computed using a Bartlett kernel and fixed Newey-West bandwidth. Moreover, in DOLS estimation method lags and leads are specified using the automatic lag length selection based on the Schwarz information criterion. In the PMG/ARDL, the automatic lag length selection of dependent variable and dynamic regressors is based on Schwarz criterion with a maximum lag of 2.

#### **4. THE RESULTS**

In this section we present the results of our Green GDP growth model demonstrated in the equation (2). Following tables display estimates for different analyses described in the methodological part. Regarding the order of integration of our time series, unit root tests indicated that the variables are integrated, i.e. they are non-stationary in level and stationary in first differences (Table 1). Though, unit results are rather heterogeneous, graphical display of the variables across the panel date suggested their non-stationarity. Therefore, a panel cointegration tests can be implemented. Next we have to presents the results of Pedroni and Kao panel cointegration tests between the Green GDP and selected factors of economic growth. In both cases, with only intercept and again when intercept and trend are included, most of the Pedroni's statistics reject the null hypothesis of no cointegration between variables indicating the existence of long-run panel cointegration relationship between the observed variables. Thus, it can be concluded that there exists a long-run relationship. Kao's panel cointegration test strongly rejects the null hypothesis of no cointegration between variables indicating the existence of long-run panel cointegration relationship between the observed variables. According to these residual cointegration tests, we can deduce we found convincing evidence of a long-term cointegration attributes. Since Johansen Fisher panel cointegration results may vary according to the number of lags used and due to other specifications, we opted not to use this type of cointegration test.

*Table following on the next page*

Table 1: Panel unit root tests

Variable and test	Level		First difference	
	Intercept	Intercept and trend	Intercept	Intercept and trend
<i>Levin, Lin and Chu t*</i>	Prob. **			
lnGGDP	0.0000	0.0000	0.0000	0.0000
lnGFCF	0.0000	0.0000	0.0000	0.0000
lnADR	0.0000	0.0000	0.0000	0.0000
lnOPEN	0.0000	0.0000	0.0000	0.0000
<i>Breitung t-stat</i>	Prob. **			
lnGGDP	-	0.6694	-	0.0006
lnGFCF	-	0.9970	-	0.0578
lnADR	-	1.0000	-	0.9998
lnOPEN	-	0.5085	-	0.0032
<i>Im, Pesaran and Shin W-stat</i>	Prob. **			
lnGGDP	0.0401	0.4714	0.0000	0.0008
lnGFCF	0.0823	0.6199	0.0001	0.0332
lnADR	0.8770	0.0618	0.0000	0.0000
lnOPEN	0.0000	0.0002	0.0000	0.0000
<i>ADF - Fisher Chi-square</i>	Prob. ***			
lnGGDP	0.0660	0.1549	0.0000	0.0000
lnGFCF	0.9998	0.1598	0.0000	0.0000
lnADR	1.0000	0.9144	0.0000	0.0055
lnOPEN	0.0000	0.0000	0.0000	0.0000
<i>ADF - Choi Z-stat</i>	Prob. ***			
lnGGDP	0.1164	0.2205	0.0000	0.0000
lnGFCF	0.9909	0.7229	0.0000	0.0001
lnADR	0.9924	0.0000	0.0003	0.8971
lnOPEN	0.0000	0.0000	0.0000	0.0000

Notes: \* Heteroscedastic Consistent. \*\* Probabilities are computed assuming asymptotic normality. \*\*\* Probabilities are computed using an asymptotic Chi-square distribution.

Source: Author's calculations

Table 2 reports the results from cointegration tests.

Table 2: Cointegration tests

Variables: lnGGDP, lnGFCF, lnADR, lnOPEN								
Pedroni residual cointegration test	Intercept				Intercept and trend			
	Statistic	Prob.	Weighted Statistic	Prob.	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	-3.767669	0.9999	-5.138817	1.0000	-6.394459	1.0000	-8.370318	1.0000
Panel rho-Statistic	3.712691	0.9999	3.260711	0.9994	6.182350	1.0000	5.810686	1.0000
Panel PP-Statistic	-13.20931	0.0000	-21.56188	0.0000	-22.55857	0.0000	-35.84489	0.0000
Panel ADF-Statistic	-7.363674	0.0000	-9.475420	0.0000	-7.590342	0.0000	-11.55862	0.0000
Group rho-Statistic	6.667251	1.0000			8.645631	1.0000		
Group PP-Statistic	-27.24586	0.0000			-41.65594	0.0000		
Group ADF-Statistic	-12.76116	0.0000			-15.14609	0.0000		
Kao residual cointegration test	t-Statistic				Prob.			
ADF	-5.362638				0.0000			

Source: Author's calculations

The following Table 3 presents the panel cointegration results from FMOLS, DOLS and PMG/ARDL estimation methods between the Green GDP and selected independent variables, testing the characteristics of the long-run linear cointegration relations. PMG/ARDL estimations also provide us with the results from the short-run dynamics.

Table 3: Panel cointegration results (Pooled estimation) – *lnGGDP* (dependent variable)

Panel Fully Modified Least Squares (FMOLS) – (lags-leads; 1,1)								
Variable	Constant				Constant and trend			
	Coefficient	Std. Error	t-Statistic	Prob.	Coefficient	Std. Error	t-Statistic	Prob.
lnGFCF	0.463903	0.040699	11.39853	0.0000	0.283065	0.050257	5.632367	0.0000
lnADR	-0.259715	0.188866	-2.612117	0.1701	-4.435283	0.815796	-5.436757	0.0000
lnOPEN	-0.184946	0.070803	-2.612117	0.0094	0.183644	0.080208	2.289600	0.0228
Panel Dynamic Least Squares (DOLS) – (lags-leads; 0,0)								
Variable	Constant				Constant and trend			
	Coefficient	Std. Error	t-Statistic	Prob.	Coefficient	Std. Error	t-Statistic	Prob.
lnGFCF	0.298292	0.055514	5.373314	0.0000	0.159968	0.059727	2.678305	0.0084
lnADR	-1.142922	0.198479	-5.758409	0.0000	-5.657337	0.864037	-6.547563	0.0000
lnOPEN	0.004715	0.100366	0.046981	0.9626	0.031579	0.117146	0.269572	0.7879
PMG/ARDL (Pooled Mean Group/AR Distributed Lag) – ARDL (1,1)								
Variable	No constant no trend				Restricted constant			
	Coefficient	Std. Error	t-Statistic	Prob.	Coefficient	Std. Error	t-Statistic	Prob.
Long Run Equation								
lnGFCF	0.997751	0.007390	135.0062	0.0000	0.066667	0.023367	2.853069	0.0049
lnADR	0.641538	0.077631	8.263947	0.0000	-1.690949	0.144530	-11.69963	0.0000
lnOPEN	-0.216079	0.031203	-6.924952	0.0000	-0.352684	0.042429	-8.312371	0.0000
Short Run Equation								
COINTEQ01	-0.373923	0.065754	-5.686724	0.0000	-0.937006	0.093009	-10.07430	0.0000
D(lnGFCF)	0.116137	0.117602	0.987546	0.3245	0.585071	0.235953	2.479607	0.0141
D(lnADR)	-1.990321	1.001351	-1.987635	0.0481	8.103462	2.508928	3.229851	0.0015
D(lnOPEN)	0.295095	0.106254	2.777256	0.0060	-0.203155	0.105032	-1.934227	0.0547
C					30.46076	3.097120	9.835188	0.0000

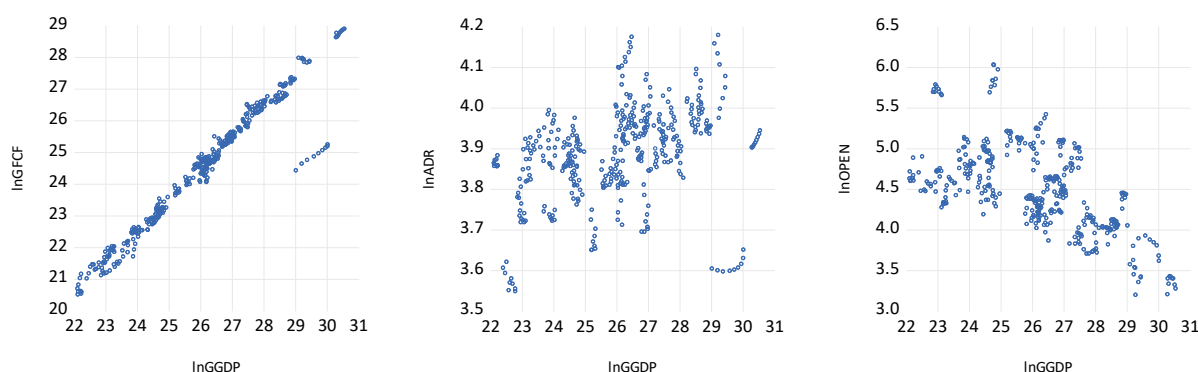
Source: Author's calculations

Results of all estimation methods indicate that long-run coefficients are statistically significant with a direction that is theoretically expected and consistent with the results of, both Talberth and Bohara (2006) and Wang (2011). Gross fixed capital formation coefficients are positive and strongly significant varying from 0.30. to 0.46 in the case with constant and from 0.15 to 0.28 in the case for constant with trend for FMOLS and DOLS (except the coefficient obtained from the PMG/ARDL with no constant and no trend, which is a bit higher). Accordingly, it can be concluded that a rise in capital leads to an increase in the Green GDP, coefficients suggesting the relationship that is inelastic. Age dependency ratio coefficients display negative and strongly significant elastic relationship, varying from -1.14 to -5.66 (except for the coefficient obtained from the PMG/ARDL with no constant and no trend, which positive, but statistically insignificant). Meaning, that a larger dependent population constrains productivity, hence the Green GDP. In the case of variable openness, results are somewhat ambiguous, similar to previous studies. Both in long- and short-run, we can track results that are rather exclusive, with inconclusiveness on the direction of the relationship as well as on the statistical significance across all three panel estimation methods<sup>5</sup>. The results on openness to Green GDP relationship could be displaying opposite results based on a possible non-linear relationship, which has been empathized in previous empirical studies. Namely, when observing scatter diagrams (Figure 1), we can perceive the positive and linear relationship between the Green GDP and gross fixed capital formation, however, the relationship between the Green GDP and other two variables, namely age dependency ratio and openness cannot be interpreted straightforward, as it indices ambiguity in the linearity of the relationship, with relatively negative slope of the variable openness. Short-run evidence from the PMG/ARDL models is consistent with the long-run relationship for all three dependent variables. When scrutinizing on the individual short-run cross section results obtained from the PMG/ARDL model estimation (see Table 4 in Appendix), again we find rather mixed results regarding the signs of the coefficients (especially

<sup>5</sup> Zero restrictions on the long-run parameters are tested using the Wald test (available upon request), confirming their statistical significance.

for the variable openness), however, in almost all the countries error correction coefficients are statistically significant suggesting a slow to moderate speed of convergence.

*Figure 1: Scatter diagram of mutual relationship towards the Green GDP indicator*



*Source: Author's calculations*

The general conclusion of the analysis suggests that our Green GDP growth model provides results that are consistent with general features of standard economic growth models with ambiguous and probably dual characteristic of the relationship between economic openness and green growth.

## 5. BEYOND CONCLUSION

The idea of Green GDP arose in the early 1990s in response to the imperfections of traditional GDP measure to account for specific types of (environmental) economic costs which influence human well-being. Over recent years the concept of green growth and green GDP has burst onto the international policy scene and now catches great attention of the media, different ecological and environmental groups and academia. A term rarely heard before 2008, now occupies a prominent position in the policy discourse of international economic and development institutions (Jacobs, 2013). Looking at development and environmental protection within a common growth framework enables us to identify latent conjunctions between them. In such context, our paper tried to clarify the issues of the usage and pragmatics of the Green GDP indicator in the standard growth modelling framework, as to re-examine its expedience by re-evaluating some factors that influence the rate of growth. Namely, with the production function defined as that of green growth feature, we found it useful to define a measure of economic progress that encompasses produced and natural factors. We modelled the effects of both, capital and human stock, as well as the effect of economic openness. Empirical analysis based on a panel cointegration approach suggests that presented Green GDP growth model provides results that are consistent with general features of standard economic growth models with ambiguous and probably dual characteristic of the relationship between economic openness and green growth. Finally, we cannot provide enough international evidence about the direction of the impact of openness on economic growth, but we can say that that relationship is highly statistically significant and robust. Even though environmental externalities, market failures, conceptual, technical and ethical issues complicate the comprehension of the green growth and especially the calculation of the Green GDP indicator, we are of thought that this alternative measure of economic activity can be used within standard growth modelling to scale the sustainability of economic progress.

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## APPENDIX

No constant					Restricted constant				
Belgium					Belgium				
Variable	Coefficient	Std. Error	Statistic	Prob. *	Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.177557	0.056720	-3.130422	0.0520	COINTEQ01	-1.067721	0.147944	-7.217069	0.0055
D(LNGFCF)	-0.392031	1.092655	-0.358788	0.7435	D(LNGFCF)	0.377811	0.670375	0.563581	0.6124
D(LNADR)	0.925063	25.63854	0.036081	0.9735	D(LNADR)	10.10211	43.94839	0.229863	0.8330
D(LNOPEN)	0.587387	0.154103	3.811651	0.0318	D(LNOPEN)	0.027031	0.123465	0.218933	0.8408
					C	35.94791	169.1738	0.212491	0.8453
Bulgaria					Bulgaria				
Variable	Coefficient	Std. Error	Statistic	Prob. *	Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.220896	0.303657	-4.020646	0.0276	COINTEQ01	-0.344029	0.042247	-8.143252	0.0039
D(LNGFCF)	0.051552	0.050146	1.028040	0.3796	D(LNGFCF)	-3.471725	1.190491	-2.916214	0.0617
D(LNADR)	6.944392	12.32250	0.563554	0.6124	D(LNADR)	66.48099	308.4074	0.215562	0.8432
D(LNOPEN)	0.626377	0.059469	10.53276	0.0018	D(LNOPEN)	-0.745188	0.072891	-10.22325	0.0020
					C	9.250252	42.13053	0.219562	0.8403
Czech Republic					Czech Republic				
Variable	Coefficient	Std. Error	Statistic	Prob. *	Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.486634	0.040948	-11.88427	0.0013	COINTEQ01	-0.682185	0.150248	-4.540395	0.0200
D(LNGFCF)	-0.599192	0.192633	-3.110539	0.0529	D(LNGFCF)	-0.095349	0.241743	-0.394424	0.7196
D(LNADR)	-1.795734	0.802145	-2.238665	0.1111	D(LNADR)	12.04147	36.33935	0.331362	0.7622
D(LNOPEN)	0.863175	0.114143	7.562210	0.0048	D(LNOPEN)	-0.022538	0.218019	-0.103377	0.9242
					C	21.90535	156.1015	0.140328	0.8973
Denmark					Denmark				
Variable	Coefficient	Std. Error	Statistic	Prob. *	Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.329760	0.197262	-1.671690	0.1932	COINTEQ01	-2.255256	0.064732	-34.83971	0.0001
D(LNGFCF)	-0.506750	0.637185	-0.795295	0.4846	D(LNGFCF)	1.039672	0.043808	23.73232	0.0002
D(LNADR)	3.320519	53.55040	0.062007	0.9545	D(LNADR)	40.14380	38.45033	1.044043	0.3732
D(LNOPEN)	0.666170	0.280096	2.378365	0.0978	D(LNOPEN)	-0.678521	0.036242	-18.72206	0.0003
					C	74.55857	70.84814	1.052372	0.3699
Estonia					Estonia				
Variable	Coefficient	Std. Error	Statistic	Prob. *	Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.801089	0.115509	-6.935323	0.0061	COINTEQ01	-0.185605	0.045379	-4.090116	0.0264
D(LNGFCF)	-0.260602	0.113384	-2.298413	0.1051	D(LNGFCF)	0.632395	0.037703	16.77323	0.0005
D(LNADR)	0.116544	1.643549	0.070910	0.9479	D(LNADR)	-1.848616	33.74015	-0.054790	0.9598
D(LNOPEN)	0.663489	0.109148	6.078787	0.0089	D(LNOPEN)	-0.280927	0.137949	-2.036455	0.1345
					C	5.748832	42.41364	0.135542	0.9008
Germany					Germany				
Variable	Coefficient	Std. Error	Statistic	Prob. *	Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.065761	0.058782	-1.118733	0.3448	COINTEQ01	-1.107638	0.002352	-470.8553	0.0000
D(LNGFCF)	1.415850	0.851082	1.663587	0.1948	D(LNGFCF)	1.881395	0.012223	153.9230	0.0000
D(LNADR)	-5.328360	49.43468	-0.107786	0.9210	D(LNADR)	-22.85878	1.421733	-16.07811	0.0005
D(LNOPEN)	-0.579430	0.420973	-1.376408	0.2624	D(LNOPEN)	-1.128430	0.005127	-220.0898	0.0000
					C	39.20636	2.770288	14.15245	0.0008
Greece					Greece				
Variable	Coefficient	Std. Error	Statistic	Prob. *	Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.140924	0.012144	-11.60477	0.0014	COINTEQ01	-1.262029	0.884720	-1.426473	0.2490
D(LNGFCF)	0.210191	0.072770	2.888441	0.0631	D(LNGFCF)	-0.565671	0.317208	-1.783279	0.1725
D(LNADR)	-0.125257	37.53930	-0.003337	0.9975	D(LNADR)	24.80949	597.9554	0.041491	0.9695
D(LNOPEN)	0.275559	0.070708	3.897119	0.0300	D(LNOPEN)	-0.031197	0.062421	-0.499788	0.6516
					C	41.05874	942.4112	0.043568	0.9680
Ireland					Ireland				
Variable	Coefficient	Std. Error	Statistic	Prob. *	Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.383848	0.055705	-6.890754	0.0063	COINTEQ01	0.182341	0.209798	0.869125	0.4487
D(LNGFCF)	-0.291878	0.112296	-2.599184	0.0804	D(LNGFCF)	0.119522	0.085212	1.402642	0.2553
D(LNADR)	7.294720	14.89109	0.489871	0.6578	D(LNADR)	6.502443	31.11561	0.208977	0.8479

D(LNOPEN)	-0.414288	0.194993	-2.124631	0.1236
Spain				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.159243	0.057054	-2.791113	0.0684
D(LNGFCF)	-0.062072	0.104666	-0.593045	0.5949
D(LNADR)	-3.323606	4.004289	-0.830012	0.4674
D(LNOPEN)	0.344898	0.087495	3.941904	0.0291
France				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.279659	0.124628	-2.243961	0.1106
D(LNGFCF)	-0.238435	2.386296	-0.099919	0.9267
D(LNADR)	-4.124784	14.43128	-0.285822	0.7936
D(LNOPEN)	0.546791	0.830337	0.658516	0.5572
Croatia				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.555497	0.092621	-5.997558	0.0093
D(LNGFCF)	-0.111217	0.127785	-0.870340	0.4482
D(LNADR)	-4.935110	10.55756	-0.467448	0.6720
D(LNOPEN)	0.672305	0.178006	3.776863	0.0325
Italy				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.591360	0.098576	-5.998999	0.0093
D(LNGFCF)	-0.172372	0.313564	-0.549718	0.6208
D(LNADR)	2.502285	18.85912	0.132683	0.9028
D(LNOPEN)	0.162640	0.101749	1.598443	0.2082
Cyprus				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.155235	0.002670	-58.13395	0.0000
D(LNGFCF)	-0.158659	0.016869	-9.405538	0.0025
D(LNADR)	2.903039	8.338709	0.348140	0.7507
D(LNOPEN)	0.327052	0.222530	1.469700	0.2380
Latvia				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.750218	0.267144	-6.551587	0.0072
D(LNGFCF)	-0.673579	0.157182	-4.285341	0.0234
D(LNADR)	9.550255	12.66806	0.753884	0.5057
D(LNOPEN)	0.851242	0.088498	9.618798	0.0024
Lithuania				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.070307	0.037033	-1.898493	0.1539
D(LNGFCF)	0.335871	0.260856	1.287571	0.2882
D(LNADR)	1.050569	46.44330	0.022620	0.9834
D(LNOPEN)	0.297272	0.314072	0.946509	0.4137
Luxembourg				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.228887	0.014999	-15.26059	0.0006
D(LNGFCF)	0.687371	0.046883	14.66148	0.0007
D(LNADR)	-10.72510	35.81390	-0.299467	0.7841
D(LNOPEN)	-0.147747	0.064417	-2.293608	0.1056
Hungary				
D(LNOPEN)	-0.204071	0.456571	-0.446964	0.6852
C	-6.150494	231.0509	-0.026620	0.9804
Spain				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.711167	0.133859	-12.78340	0.0010
D(LNGFCF)	0.465091	0.047258	9.841530	0.0022
D(LNADR)	11.73935	17.13453	0.685128	0.5425
D(LNOPEN)	-0.154615	0.035002	-4.417355	0.0215
C	58.37741	159.2644	0.366544	0.7383
France				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.262996	0.059148	-21.35312	0.0002
D(LNGFCF)	0.710203	0.610520	1.163275	0.3288
D(LNADR)	17.14379	18.28382	0.937649	0.4176
D(LNOPEN)	-0.565767	0.214091	-2.642647	0.0775
C	44.07771	71.65172	0.615166	0.5820
Croatia				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.151545	0.118016	-9.757535	0.0023
D(LNGFCF)	-0.196499	0.077273	-2.542914	0.0845
D(LNADR)	1.047092	27.41640	0.038192	0.9719
D(LNOPEN)	0.088711	0.071151	1.246789	0.3010
C	36.13496	117.8904	0.306513	0.7793
Italy				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.276049	0.062207	-20.51295	0.0003
D(LNGFCF)	-0.088036	0.101141	-0.870424	0.4481
D(LNADR)	23.75617	46.08939	0.515437	0.6418
D(LNOPEN)	-0.032841	0.037365	-0.878903	0.4442
C	44.11894	76.10096	0.579742	0.6028
Cyprus				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.922513	0.039404	-48.79001	0.0000
D(LNGFCF)	-0.524711	0.003426	-153.1643	0.0000
D(LNADR)	-0.951558	1.685117	-0.564684	0.6118
D(LNOPEN)	-0.142550	0.024426	-5.836107	0.0100
C	58.45573	44.96109	1.300140	0.2844
Latvia				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.588297	0.177060	-3.322581	0.0450
D(LNGFCF)	0.444315	0.088340	5.029618	0.0151
D(LNADR)	7.272564	124.4999	0.058414	0.9571
D(LNOPEN)	-0.416090	0.244431	-1.702279	0.1873
C	18.03552	164.9030	0.109370	0.9198
Lithuania				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.832935	0.122544	-6.797048	0.0065
D(LNGFCF)	0.496613	0.178717	2.778769	0.0691
D(LNADR)	6.725819	75.36180	0.089247	0.9345
D(LNOPEN)	-0.389494	0.299962	-1.298478	0.2849
C	26.00603	119.6704	0.217314	0.8419
Luxembourg				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.523401	0.073963	-7.076547	0.0058
D(LNGFCF)	0.535285	0.070653	7.576203	0.0048
D(LNADR)	-5.147811	35.30996	-0.145789	0.8933
D(LNOPEN)	0.139385	0.087407	1.594666	0.2090
C	16.54705	74.77250	0.221299	0.8391
Hungary				

Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.157701	0.009105	-17.32084	0.0004
D(LNGFCF)	0.170181	0.077413	2.198354	0.1153
D(LNADR)	0.714498	5.433873	0.131490	0.9037
D(LNOPEN)	1.144611	0.208288	5.495323	0.0119
Malta				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.034434	0.003436	-10.02083	0.0021
D(LNGFCF)	-0.186993	0.012112	-15.43925	0.0006
D(LNADR)	2.738604	2.798952	0.978439	0.4000
D(LNOPEN)	-0.637920	0.184103	-3.465017	0.0405
Netherlands				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.309470	0.040142	-7.709445	0.0045
D(LNGFCF)	-0.477157	0.054711	-8.721401	0.0032
D(LNADR)	2.695377	9.831793	0.274149	0.8018
D(LNOPEN)	0.347375	0.104931	3.310521	0.0454
Austria				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.193771	0.122669	-1.579620	0.2123
D(LNGFCF)	0.505404	0.638563	0.791471	0.4865
D(LNADR)	-2.279946	66.06356	-0.036025	0.9735
D(LNOPEN)	0.176645	0.109997	1.605902	0.2066
Poland				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.180344	0.017111	-10.53995	0.0018
D(LNGFCF)	0.237400	0.128580	1.846323	0.1620
D(LNADR)	-2.278282	2.767597	-0.823199	0.4707
D(LNOPEN)	1.690499	0.252398	6.697737	0.0068
Portugal				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.209379	0.074505	-2.810252	0.0673
D(LNGFCF)	0.051102	0.083356	0.613064	0.5832
D(LNADR)	1.440787	42.61033	0.033813	0.9752
D(LNOPEN)	0.283527	0.089492	3.168186	0.0506
Romania				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.047023	0.238326	-4.393248	0.0219
D(LNGFCF)	0.211767	0.031901	6.638147	0.0070
D(LNADR)	-12.69120	33.63710	-0.377298	0.7311
D(LNOPEN)	-0.013195	0.129242	-0.102097	0.9251
Slovenia				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.330504	0.055509	-5.954041	0.0095
D(LNGFCF)	0.255848	0.066724	3.834403	0.0313
D(LNADR)	4.080020	11.73083	0.347803	0.7510
D(LNOPEN)	0.295113	0.088527	3.333574	0.0446
Slovak Republic				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.330504	0.055509	-5.954041	0.0095
D(LNGFCF)	0.255848	0.066724	3.834403	0.0313
D(LNADR)	4.080020	11.73083	0.347803	0.7510
D(LNOPEN)	0.295113	0.088527	3.333574	0.0446

Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.418962	0.061925	-22.91437	0.0002
D(LNGFCF)	0.242430	0.015066	16.09154	0.0005
D(LNADR)	3.949650	1.941657	2.034165	0.1348
D(LNOPEN)	0.045420	0.082310	0.551811	0.6195
C	45.75554	64.13152	0.713464	0.5271
Malta				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.481143	0.019249	-24.99595	0.0001
D(LNGFCF)	-0.091357	0.004747	-19.24623	0.0003
D(LNADR)	9.683921	6.180411	1.566873	0.2151
D(LNOPEN)	-0.618457	0.086083	-7.184417	0.0056
C	14.31698	16.81938	0.851219	0.4572
Netherlands				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.229070	0.104892	-11.71745	0.0013
D(LNGFCF)	0.158421	0.032168	4.924840	0.0160
D(LNADR)	17.42014	18.55101	0.939040	0.4170
D(LNOPEN)	-0.278102	0.049302	-5.640804	0.0110
C	41.72191	121.8168	0.342497	0.7546
Austria				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.597571	0.126879	-4.709756	0.0181
D(LNGFCF)	0.949282	0.262570	3.615351	0.0364
D(LNADR)	-16.01389	316.1576	-0.050652	0.9628
D(LNOPEN)	0.019593	0.067213	0.291501	0.7897
C	19.91926	139.8219	0.142462	0.8957
Poland				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.623695	0.150572	-10.78352	0.0017
D(LNGFCF)	0.140479	0.039342	3.570681	0.0375
D(LNADR)	16.63103	19.46619	0.854355	0.4557
D(LNOPEN)	-0.609303	0.427935	-1.423823	0.2497
C	53.58566	161.8239	0.331136	0.7623
Portugal				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.755316	0.113054	-15.52631	0.0006
D(LNGFCF)	-0.104561	0.023246	-4.498033	0.0205
D(LNADR)	28.35354	115.7782	0.244895	0.8223
D(LNOPEN)	0.044334	0.027088	1.636636	0.2002
C	57.15628	120.2687	0.475238	0.6671
Romania				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.107202	0.501644	-2.207146	0.1144
D(LNGFCF)	0.735375	0.117606	6.252846	0.0083
D(LNADR)	8.962687	143.5692	0.062428	0.9541
D(LNOPEN)	-0.672405	0.577302	-1.164737	0.3283
C	35.73037	522.5912	0.068372	0.9498
Slovenia				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.293728	0.048883	-26.46580	0.0001
D(LNGFCF)	0.826394	0.029755	27.77333	0.0001
D(LNADR)	7.209179	11.13466	0.647454	0.5635
D(LNOPEN)	-0.165431	0.023529	-7.031041	0.0059
C	40.39077	48.23838	0.837316	0.4639
Slovak Republic				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.293728	0.048883	-26.46580	0.0001
D(LNGFCF)	0.826394	0.029755	27.77333	0.0001
D(LNADR)	7.209179	11.13466	0.647454	0.5635
D(LNOPEN)	-0.165431	0.023529	-7.031041	0.0059
C	40.39077	48.23838	0.837316	0.4639

COINTEQ01	-0.088692	0.008587	-10.32816	0.0019
D(LNGFCF)	-0.290119	0.060259	-4.814541	0.0171
D(LNADR)	0.211414	3.779823	0.055932	0.9589
D(LNOPEN)	0.725962	0.108172	6.711163	0.0068
Finland				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.975620	0.213413	-4.571512	0.0196
D(LNGFCF)	-1.638940	1.029674	-1.591709	0.2097
D(LNADR)	-0.813605	1.303287	-0.624272	0.5767
D(LNOPEN)	0.968861	0.231313	4.188524	0.0248
Sweden				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.147171	0.150038	-0.980890	0.3990
D(LNGFCF)	0.601578	3.894861	0.154454	0.8871
D(LNADR)	-1.240397	13.72098	-0.090401	0.9337
D(LNOPEN)	0.472150	4.253384	0.111006	0.9186
United Kingdom				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.132277	0.064310	-2.056873	0.1319
D(LNGFCF)	0.957663	0.491799	1.947266	0.1467
D(LNADR)	1.498476	48.68543	0.030779	0.9774
D(LNOPEN)	0.014322	0.192976	0.074216	0.9455
Iceland				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	0.283813	0.020300	13.98114	0.0008
D(LNGFCF)	0.819578	0.046302	17.70071	0.0004
D(LNADR)	-10.50397	34.72921	-0.302453	0.7821
D(LNOPEN)	-1.122299	0.333059	-3.369670	0.0434
Norway				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.329444	0.030498	-10.80203	0.0017
D(LNGFCF)	2.113955	0.245975	8.594198	0.0033
D(LNADR)	-29.65794	52.81334	-0.561562	0.6136
D(LNOPEN)	1.875307	0.334461	5.606949	0.0112
Montenegro				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.103810	0.026662	-3.893513	0.0301
D(LNGFCF)	0.422360	0.143030	2.952942	0.0599
D(LNADR)	-10.98281	103.6688	-0.105941	0.9223
D(LNOPEN)	0.169274	0.096965	1.745724	0.1792
North Macedonia				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.859751	0.136462	-6.300287	0.0081
D(LNGFCF)	-0.589701	0.204485	-2.883835	0.0633
D(LNADR)	-6.233714	13.08921	-0.476248	0.6664
D(LNOPEN)	0.312510	0.040847	7.650740	0.0046
Albania				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	0.182899	0.009847	18.57344	0.0003
D(LNGFCF)	-0.285395	0.057561	-4.958174	0.0158
D(LNADR)	-2.040248	1.760834	-1.158683	0.3304
COINTEQ01	-0.981789	0.201617	-4.869566	0.0165
D(LNGFCF)	-0.149078	0.040090	-3.718584	0.0338
D(LNADR)	9.690222	19.90892	0.486728	0.6598
D(LNOPEN)	0.211714	0.133341	1.587756	0.2105
C	31.01687	202.7160	0.153007	0.8881
Finland				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.330056	0.037805	-35.18158	0.0001
D(LNGFCF)	0.714809	0.084389	8.470386	0.0035
D(LNADR)	16.05525	5.701299	2.816068	0.0670
D(LNOPEN)	-0.873618	0.068722	-12.71228	0.0011
C	43.40867	39.73338	1.092499	0.3545
Sweden				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.973519	0.028453	-34.21493	0.0001
D(LNGFCF)	1.040493	0.363711	2.860773	0.0045
D(LNADR)	12.93809	13.91438	0.929836	0.4210
D(LNOPEN)	-0.700467	0.498468	-1.405239	0.2546
C	32.53786	30.72730	1.058923	0.3673
United Kingdom				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.530903	0.004973	-106.7565	0.0000
D(LNGFCF)	1.002271	0.021529	46.55436	0.0000
D(LNADR)	7.506891	5.205411	1.442132	0.2449
D(LNOPEN)	-0.581922	0.030741	-18.92987	0.0003
C	18.48151	5.751237	3.213484	0.0488
Iceland				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.550549	0.024927	-22.08674	0.0002
D(LNGFCF)	0.417550	0.014320	29.15950	0.0001
D(LNADR)	-2.403172	13.88799	-0.173040	0.8736
D(LNOPEN)	-1.219852	0.109834	-11.10628	0.0016
C	16.68006	22.39721	0.744738	0.5105
Norway				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	0.047464	0.023515	2.018480	0.1369
D(LNGFCF)	2.783200	0.138394	20.11076	0.0003
D(LNADR)	-46.00104	64.23070	-0.716185	0.5256
D(LNOPEN)	2.765903	0.206946	13.36532	0.0009
C	-1.465414	25.82273	-0.056749	0.9583
Montenegro				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.616267	0.105647	-15.29869	0.0006
D(LNGFCF)	-0.327210	0.063517	-5.151556	0.0142
D(LNADR)	9.625777	46.48456	0.207075	0.8492
D(LNOPEN)	0.050693	0.022176	2.285934	0.1064
C	46.81549	91.08598	0.513970	0.6427
North Macedonia				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.308157	0.078115	-16.74645	0.0005
D(LNGFCF)	0.337930	0.109625	3.082615	0.0540
D(LNADR)	5.885446	4.769045	1.234093	0.3050
D(LNOPEN)	0.151839	0.017633	8.610988	0.0033
C	38.61086	68.88822	0.560486	0.6143
Albania				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.361203	0.024916	-14.49692	0.0007
D(LNGFCF)	-0.365145	0.041236	-8.855099	0.0030
D(LNADR)	-3.173186	1.701846	-1.864555	0.1591

D(LNOPEN)	1.704012	0.106782	15.95789	0.0005
Serbia				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.488974	0.065844	-7.426207	0.0051
D(LNGFCF)	-0.532147	0.249158	-2.135783	0.1223
D(LNADR)	4.249733	24.39151	0.174230	0.8728
D(LNOPEN)	0.389398	0.299488	1.300215	0.2844
Turkey				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	0.166419	0.009452	17.60654	0.0004
D(LNGFCF)	0.910788	0.056620	16.08588	0.0005
D(LNADR)	-4.385136	25.42377	-0.172482	0.8740
D(LNOPEN)	-0.398409	0.172326	-2.311954	0.1038
Moldova				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.070867	0.127197	-8.418940	0.0035
D(LNGFCF)	-0.190367	0.050755	-3.750678	0.0331
D(LNADR)	-9.422628	7.237441	-1.301928	0.2839
D(LNOPEN)	0.316134	0.041751	7.571965	0.0048
United States				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.428048	0.019009	-22.51873	0.0002
D(LNGFCF)	0.213642	0.002977	71.75746	0.0000
D(LNADR)	-2.601087	1.662320	-1.564733	0.2156
D(LNOPEN)	0.063217	0.000671	94.14722	0.0000
Australia				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.047040	0.019106	-2.462084	0.0907
D(LNGFCF)	1.864709	0.452665	4.119403	0.0259
D(LNADR)	-2.492595	16.04918	-0.155310	0.8864
D(LNOPEN)	-1.103977	0.292710	-3.771566	0.0326
Japan				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.133256	0.028360	-4.698745	0.0182
D(LNGFCF)	-1.688756	1.139730	-1.481716	0.2350
D(LNADR)	-2.041685	8.241537	-0.247731	0.8203
D(LNOPEN)	0.296884	0.115634	2.567441	0.0827
China				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	0.045104	0.000307	146.8361	0.0000
D(LNGFCF)	0.270791	0.205311	1.318934	0.2788
D(LNADR)	-6.524718	7.311947	-0.892337	0.4380
D(LNOPEN)	0.137983	0.019045	7.244924	0.0054
Chile				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.164592	0.014944	-11.01369	0.0016
D(LNGFCF)	0.416726	0.038201	10.90873	0.0016
D(LNADR)	-7.866767	3.938851	-1.997224	0.1397
D(LNOPEN)	0.553222	0.041997	13.17293	0.0009
Israel				
D(LNOPEN)	1.265859	0.076811	16.48027	0.0005
C	10.71177	21.81362	0.491059	0.6571
Serbia				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-1.551863	0.038838	-39.95779	0.0000
D(LNGFCF)	-0.176138	0.031538	-5.585027	0.0113
D(LNADR)	12.84893	6.962675	1.845402	0.1622
D(LNOPEN)	-0.342182	0.049612	-6.897188	0.0062
C	48.11190	38.45138	1.251240	0.2995
Turkey				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.227124	0.081490	-2.787150	0.0686
D(LNGFCF)	0.687251	0.048949	14.04003	0.0008
D(LNADR)	-6.607691	234.4690	-0.028182	0.9793
D(LNOPEN)	-0.183776	0.145917	-1.259455	0.2969
C	7.582319	94.38917	0.080330	0.9410
Moldova				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.664838	0.039599	-16.78924	0.0005
D(LNGFCF)	0.163313	0.019217	8.498527	0.0034
D(LNADR)	-3.463953	3.020128	-1.146956	0.3346
D(LNOPEN)	0.565135	0.045002	12.55792	0.0011
C	19.19107	33.14827	0.578946	0.6032
United States				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.323990	0.003830	-84.59864	0.0000
D(LNGFCF)	0.231250	0.001769	130.6952	0.0000
D(LNADR)	12.79845	5.868146	2.181003	0.1172
D(LNOPEN)	-0.030367	0.000289	-105.0701	0.0000
C	11.71484	4.977731	2.353450	0.1000
Australia				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.521922	0.022826	-22.86499	0.0002
D(LNGFCF)	1.729172	0.184299	9.382428	0.0026
D(LNADR)	17.97263	41.11863	0.437092	0.6916
D(LNOPEN)	-0.728738	0.124520	-5.852395	0.0099
C	17.55156	25.89051	0.677915	0.5464
Japan				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-2.553361	0.235991	-10.81974	0.0017
D(LNGFCF)	8.854877	3.010464	2.941366	0.0604
D(LNADR)	14.28963	177.7066	0.080411	0.9410
D(LNOPEN)	-0.797491	0.059313	-13.44539	0.0009
C	90.41894	264.9047	0.341326	0.7554
China				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.042156	0.008740	-4.823424	0.0170
D(LNGFCF)	-0.118485	0.507710	-0.233371	0.8305
D(LNADR)	-6.314737	8.295767	-0.761200	0.5019
D(LNOPEN)	0.080099	0.025003	3.203515	0.0492
C	1.670051	11.22603	0.148766	0.8912
Chile				
Variable	Coefficient	Std. Error	Statistic	Prob. *
COINTEQ01	-0.229393	0.008084	-28.37620	0.0001
D(LNGFCF)	0.646250	0.018527	34.88205	0.0001
D(LNADR)	-4.736237	5.563460	-0.851311	0.4572
D(LNOPEN)	0.332050	0.028897	11.49068	0.0014
C	7.437258	8.517796	0.873143	0.4468
Israel				

Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-1.364870	0.208406	-6.549086	0.0072
D(LNGFCF)	-0.824359	0.458485	-1.798006	0.1700
D(LNADR)	-0.816901	8.616602	-0.094806	0.9304
D(LNOPEN)	0.350750	0.081153	4.322062	0.0228
Mexico				
Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-0.906881	0.059345	-15.28144	0.0006
D(LNGFCF)	1.718362	0.166681	10.30926	0.0019
D(LNADR)	6.256288	9.835744	0.636077	0.5699
D(LNOPEN)	-1.952502	0.271344	-7.195660	0.0055
Switzerland				
Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-0.030028	0.145078	-0.206982	0.8493
D(LNGFCF)	0.838061	0.681524	1.229687	0.3065
D(LNADR)	-0.735146	43.26943	-0.016990	0.9875
D(LNOPEN)	0.181819	0.142722	1.273939	0.2924

Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-0.512660	0.050979	-10.05636	0.0021
D(LNGFCF)	0.485467	0.171309	2.833873	0.0660
D(LNADR)	17.78571	73.74065	0.241193	0.8250
D(LNOPEN)	-0.074666	0.075263	-0.992068	0.3943
C	16.81513	54.62435	0.307832	0.7783
Mexico				
Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-0.997502	0.027228	-36.63453	0.0000
D(LNGFCF)	1.938766	0.070820	27.37603	0.0001
D(LNADR)	13.36055	36.11391	0.369956	0.7360
D(LNOPEN)	-2.019407	0.135132	-14.94395	0.0007
C	34.28934	32.93110	1.041245	0.3743
Switzerland				
Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-0.500756	0.098329	-5.092663	0.0146
D(LNGFCF)	1.229809	0.383749	3.204726	0.0492
D(LNADR)	5.340184	155.3128	0.034383	0.9747
D(LNOPEN)	-0.038178	0.080413	-0.474771	0.6674
C	16.83750	110.1954	0.152797	0.8883

## CHALLENGES OF THE MODERN WORLD: REGIONAL DEVELOPMENT OF THE NORTHERN SEA ROUTE

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### ABSTRACT

*The past year has witnessed an explosive growth of one of the most important transport arteries in Russia - the Northern Sea Route. By the will of fate, Russia found itself in a unique geographical situation with 65% of its territory being a permafrost zone, and its almost 40 thousand-kilometer Arctic Ocean coastline. For centuries, the Russian people have been trying to turn geographically unfavorable conditions into a blessing. It gradually became clear that the polar lands are extremely rich in minerals, and that the Northern Sea Route, given a proper technical support, is economically advantageous. The Northern Sea Route (NSR) is the shortest waterway from Europe to Asia and one of the most important shipping routes of Russia. Since it lies in the polar zone with its extreme environmental conditions, the development of the NSR has always been associated with enormous difficulties. On the other hand, this route has its advantages over the competitive route that encircles Eurasia from the south, primarily the lack of bandwidth restrictions compared, for example, with the Suez Canal. Denmark, Canada, Norway, Iceland, Sweden, Finland and China declare their interests in the Arctic. China's acquisition of permanent observer status in the Arctic Council has opened opportunities for the country to develop Sino-Russian bilateral cooperation in the Arctic. China is making active efforts to strengthen its presence in the region and is interested in developing relations with Russia as the owner of the Northern Sea Route and most of the Arctic resources. Russia in its turn considers China a potential investment partner with advanced technologies. Currently, a number of factors have forced the Russian government to reconsider its views on Asian countries as potential investors and technology partners, as well as key consumers. Located in the northern hemisphere, China has a significant strategic interest in the Arctic in terms its sustainable economic development and national security. The Northern Sea Route can play a key role in advancing the bilateral relations between China and Russia in the Arctic region. Rich oil and gas resources and convenient shipping conditions to ensure sustainable economic development are important. The Arctic will obviously become a valuable source of energy supply for China making its cooperation with Russia one of the top priorities.*

**Keywords:** *the Arctic, the Northern Sea Route, energy, natural, investment resources, global warming*

### 1. INTRODUCTION

Over the past few decades, due to global warming and the rapid melting of glaciers, interest in the Arctic has increased worldwide. The region attracts the attention of environmentalists, oil and gas experts and politicians. Russia is destined to become the most significant player in the Arctic having a long Arctic coastline, huge resources and prospects for the development of a new trade route. Recently, China has also been striving to become a key player in the development of the Arctic region with its growing importance in the field of scientific research, environmental protection, the discovery of new sea routes and natural resources. China is actively engaged in research on climate change in the region and has the status of a permanent observer in the Arctic Council [7]. The initial interest of China in the Arctic was associated precisely with climate and environmental studies. Its further participation in the development of this region initiates modernization in areas where the implementation of the project is strategically important.



This applies, primarily, to the shipbuilding cluster and to ensuring China's competitive advantages over the Republic of Korea and Japan for future contracts on deliveries from Russia. For China, one of the largest shipping powers in the world, the search for alternative transport routes is crucial. The South China Sea has long been the subject of a dispute between China and its neighbors regarding the ownership of several islands. The use of the Northern Sea Route which runs along the northern Arctic coast of Russia and is free of ice in summer would reduce both the shipping time by 40% and China's dependence on the South China Sea, where tensions currently persist. Today, not only the Arctic countries but also the states with no direct access to it take interest in the region due to its significant proven deposits of mineral resources that include 61 oil and gas fields, of which 43 are in Russia, 11 in Canada, 6 in Alaska and 1 in Norway. On the seabed of the Arctic there are 13% of undiscovered world oil reserves and up to 30% of natural gas [8]. More than 96% of platinum group metals, 90% of nickel and cobalt, 80% of gas, 60% of oil, 60% of copper are produced in the Arctic region of Russia. Fisheries of global importance are also being conducted in the seas of the Arctic Ocean. All this enhances the competition among countries, primarily the Arctic Council (AC) members, for dominance in the Arctic basin and requires regulation of their business activities [12]. Five of the eight AC member countries (Russia, USA, Canada, Denmark and Norway) have land territories and adjacent territorial waters in this basin. Other 13 states have the status of an observer country in the AC. For China being one of them is of great political and economic value since Arctic control has strategic economic consequences not only for the Arctic countries but for the whole world. Over the next decade, melting polar ice will help create new shipping lanes that will be 6–19 days shorter [4] and significantly less costly than the existing route through the Suez Canal. In fact, this trade route can claim to be of paramount importance, which within the framework of the Arctic Council significantly increases the strategic role of Russia controlling it de facto (Fig. 1) [11].



Figure 1: The Arctic Blue Economic Corridor in China's network of transport corridors

Russia has preemptive rights to develop the Arctic viewing it as a “pantry” of huge resources and a focus of its national security. The growing interest of China and the leading role of Russia in the Arctic make the study of their relations in the region paramount, which reflects an

improvement in bilateral relations as a whole. In recent years, the main agenda for cooperation between the two countries in the Arctic is energy and natural resources. China has no territory in the Arctic; therefore, it cannot be regarded as an Arctic state. Nevertheless, Chinese scientists perceive their country as a "sub-Arctic", which indicates China's increased interest in the Far North. This is confirmed by the active development of a joint gas production project on the Yamal Peninsula, a very promising cooperation in the construction of the Belkomur railway, which will run from Arkhangelsk to the Komi Republic under the White Sea and further to the Urals, in which large Chinese corporations plan to invest. Arkhangelsk and Murmansk will obviously become the main transport hubs of Europe connecting the Arctic sea route with Northern Europe and the regions within Russia. China views the Russian Far East, Siberia and the Russian Arctic as increasingly important regions due to their potential for energy, export markets, new shipping and trade routes. It also considers these regions as recipients and partners of Chinese infrastructure and other development projects. This activity is synergistically linked to China's "One Belt One Way" initiative. China also seeks to take advantage of Russia's current geostrategic and geo-economic vulnerability, and Russia needs China as a partner to gradually strengthen its presence in the Arctic. The policy of China in the Arctic is based on the interconnection of three principles: respect for partners, cooperation and mutual benefit for all parties involved. As part of the first principle, China respects the rights of the Arctic countries (members of the Arctic Council) and indigenous peoples living in the northern territories, enshrined in international law, and advocates the peaceful resolution of disputes over the claims of various countries to the Arctic shelf and the regimes of commercial shipping in the seas of the Arctic Ocean. The second principle declares China's desire to participate in the development and implementation of an international cooperation agenda for certain activities in the Arctic, in particular by integrating the Belt and Road initiative and its priorities into the idea of Arctic cooperation. This involves coordinating the national economic strategies of China and the Arctic countries, and the interconnection of their infrastructure systems through the formation of transport and economic corridors in the northern latitudes, the development of trade and investment, financial cooperation and humanitarian ties. The principle of mutual benefit for China is to offer investment and technology in exchange for participating in the development of resources and access to transport routes. One of the main tasks is the diversification of routes connecting China with natural resource deposits and the largest world markets in Europe and North America. Despite the strategic orientation of the "Belt and Road" initiative on the southern routes of the Sea Silk Road, China's sea commercial transportation is critically dependent on the situation in the bottlenecks of such corridors as the Strait of Malacca and the Suez Canal. That is why China is so actively involved in the Arctic agenda and aims to directly participate in the construction of the Arctic blue economic corridor mainly in the Russian part of the Arctic (Fig. 1). In early March 2013, China was granted observer status in the Arctic Council. Particular attention was paid to the correlation among resource use, climate change and the environment, and this is easily explained. China is currently the largest emitter of greenhouse gases in the world (about 6 billion metric tons per year). Toxic smog in large Chinese cities is a common occurrence. Clean burning of natural gas is the best alternative, especially considering Beijing's goal of purifying the air in Chinese cities by 2030. Global warming and changing weather conditions are particularly challenging for China, a country with a huge population. Sandstorms, the number of which has increased six times over the past 50 years, and frequent floods have tragic consequences. Thus, China, unlike many other developed countries, considers the climate and atmosphere as the major factors of its further development. About a third of the world's gas reserves in the Arctic are at the core of China's cooperation with the Arctic states and, above all, with Russia. Melting Arctic ice has expanded the transport capabilities of the Northern Sea Route, facilitating shipping. Russia sees China as a potential partner in its endeavor to make the route more cost-effective.

Fundamental on the Arctic issue are the publications of Russian researchers Yu.V. Morozov, A.F. Klimenko, M.A. Tarakanova. The works of English-speaking authors Stephen Blank, Elizabeth Wishnick, Frédéric Lasserre, Malta Malte Humpert are widely known. Main articles on the Arctic are also published in periodicals such as *Polar Science Arctic and North*, *Arctic Yearbook*, *SIPRI Policy Paper*, *The Polar Journal*, *Independent Barents Observer*, *ArCticles*, *Journal of Transport Geography Economies and Politics*, *China and regional politics. History and Modernity*” and others.

## **2. THE NORTHERN SEA ROUTE**

The NSR is a shipping lane officially defined by Russian law as a strip from the Kara Sea to the Pacific Ocean, passing along the coast of the Arctic Ocean from the Kara Gate between the Barents and Kara Seas along Siberia to the Bering Strait. The NSR provides Russia with tremendous strategic opportunities and commercial benefits; it has a number of alternative passages and routes between Novaya Zemlya and the Bering Strait [7]. The fact that Russia geographically and geopolitically controls most of the Arctic Ocean, and the entire NSR passes through its territorial waters, makes it an indispensable partner for China in the development of the Arctic. Russia generally supports Chinese initiatives not only in the region, but also globally, expecting China to participate in the development of commercial navigation along the NSR and invest in the development of resource deposits in the Arctic zone. However, against the background of Western sanctions and limited access to financial resources and advanced foreign technologies, Russia needs to extrapolate relations with China from an exclusively resource component to the wide format of a joint economic corridor in the Arctic [1]. First of all, the NSR ensures the functioning of the state’s transport infrastructure in particularly inaccessible areas of archipelagos, islands, seas and the coast of the Far North, the central regions of East and West Siberia, linking the waterways of the great Siberian rivers and sea routes for transporting cargo flows to the west and east of the country into a single system [7]. On the other hand, the use of the NSR for cargo transportation is currently facing a number of problems, including poor infrastructure and seasonality. So, the equipment of ports serving the NSR and cargo transportation along the important Siberian river arteries including the Ob leaves much to be desired. Although significant financial costs are required to re-equip them according to the requirements, the economic effect of such investments is quite high, and it becomes a powerful impetus for the development of rich Siberian deposits. Of particular importance - given the underdevelopment and even lack of a road network in many Siberian regions - the NSR has for the forest industry. Since the construction of roads and their operation require significant funding, it is more rational to raft timber along rivers that, as you know, flow into the Arctic Ocean. Another challenge facing the NSR operation is the so-called reverse loading with the cargo being transported mainly in the direction from East to West. To encourage companies to transport goods in the opposite direction, preferential rates apply. The Northern Sea Route is an important part of the Far North economic infrastructure. In addition to being a convenient and safe artery for delivering goods from Europe to the Far East, this highway connects several large rivers of the northern part of Russia, as well as other modes of transport. Its is invaluable for the Arctic islands and settlements located on the coast, since the transportation of goods and the provision of the population living there with everything necessary are carried out mainly by sea [11]. The NSR, as Russian transport route in the Arctic, is necessary to ensure the further economic development of the northern regions and the state as a whole. The prospect of its transformation into a high-latitude Arctic transit shipping route is an alternative to the existing intercontinental transport links between the countries of the Atlantic and Pacific basins through the Suez and Panama Canals. The Northern Sea Route can become an important strategic addition to the project “One Belt One Road”, saving time and money of Chinese exporters in their trade with Europe.

China's strategy "One Belt One Road" was formulated in 2013 and aimed at developing infrastructure and strengthening ties between the Eurasian countries, focusing on the land economic belt of the Silk Road and the Sea Silk Road of the 21st century. In May 2015, Russia and China signed an agreement targeted at uniting the integration efforts of the Eurasian Economic Union and the Silk Road project. According to foreign agencies, China and Russia have agreed to jointly build the Ice Silk Road along the Northern Sea Route in the Arctic. The cooperation of Russia and China in the Arctic region can be viewed in the context of pairing two initiatives - the Russian one on the creation of the Greater Eurasian Partnership and the Chinese "One Belt One Road". The impulse to it was given by the Russian government approval on August 31, 2017 of the new edition of the state program "Socio-economic development of the Arctic zone of the Russian Federation", the implementation period of which was extended until 2025. Other regulatory documents related to the development of the Arctic zone of Russia are the Fundamentals of state policy of the Russian Federation in the Arctic for the period up to 2020 and further perspectives, the RF State Program "Socio-economic development of the Arctic zone of the Russian Federation for the period up to 2020" and the Development Strategy of the Arctic zone of the Russian Federation and national security for the period up to 2020. In the summer of 2013 and 2015, the Chinese leading shipping company, COSCO, twice sent the Yong Sheng container ship to sail along the Russian coastline of the Arctic sea route. The second shipping brought greater economic benefits than the first one. The total cost of sailing Yong Sheng on the Russian Arctic sea route is \$185 thousand less than on the traditional Suez route. The Russian government has high hopes for national economic development in the Arctic. If the Chinese side can translate the plans into reality by turning the Northern Sea Route into the Blue Economic Corridor, it will benefit both Moscow and Beijing. The implementation of the Arctic Belt project within the framework of the "One Belt One Road" initiative reflects China's desire to expand its presence in the Arctic region to reduce, among other things, the US strategic dominance in various parts of the world. Cooperation with Russia and the joint efforts to develop the Arctic, which is gradually becoming a new "strategic breakthrough" for China, are consistent with its ideas about the need to defend its national interests. At the same time, the implementation of this global project as a whole meets the national interests of Russia, its vision of the world community as polycentric, ensuring the sovereignty, territorial integrity and national identity of nations and peoples, based on a partnership excluding interference in internal affairs and the imposition of values and ideals that are not perceived by the majority of the country's population [11]. The presence of the Northern Sea Route in Russia has become an important factor in the geopolitical "big game". Recently, the idea has been discussed in NATO countries that this path should become "common." The USA demands from China to stop investing in the infrastructure of the NSR, and from Russia - to reduce its military presence in the Arctic regions. Denmark, Canada, Norway, Iceland, Sweden, Finland and China declare their interests in the Arctic. On the other hand, as recently as last August, the largest French company CMA CGM, specializing in container shipping by sea, informed that it refused to use the NSR in the future. The French explained their move as "caring for the environment." Further their example was followed by the German shipping company Hapag-Lloyd, the Swiss Mediterranean Shipping Company and the American manufacturer of sports equipment Nike. Obviously, the real reason here is completely different. "Unfortunately, there is a risk that political issues on containing the Russian development of the Arctic are being solved under the guise of environmental problems," said Deputy Transport Minister Yury Tsvetkov. In his opinion, the competing powers are unhappy that Russia is a leader in the development of the Arctic region with no other country having as many atomic icebreakers or investing as much in such projects to develop the North as the RF does [3]. Chinese banks and funds are the main creditors of Sino-Russian energy projects and at the same time institutions whose money comes from the state budget.

Their participation in Arctic projects implies strong support and attention from the Chinese government. Chinese money does not always work. They are needed at the “right time” so that there is a return. Arctic oil and gas fields are registered under Russian law as strategic, foreign investments in which are strictly controlled. The continuous drop in oil prices coupled with the US and EU sanctions had a serious impact on the Russian economy and, consequently, caused a considerable financial imbalance. Ironically, the difficulties Russia faces are beneficial to China, as the Russian leadership has given a political guarantee to Chinese investment. According to many experts, the Chinese presence in the Arctic is not dangerous. China has sufficient technology, power and money to be of interest to the Arctic Council. In turn, China wants to benefit from any cooperation. Beijing also cautiously “goes north” so as not to seem aggressive. The Arctic is not necessarily the main task of China today, perhaps it is only part of long-term planning. The Arctic will not change in the next five years, but within 30 years the situation will probably change, and then China will be ready for this.

### 3. CONCLUSION

Russia and China are the leading world powers in the Arctic region. China unveiled the country's first formalized Arctic policy, one of the main provisions of which was the inclusion of northern routes in the “Belt and Road” network of corridors. The development of commercial navigation in polar waters is impossible without cooperation with Russia. So, the main promising areas of Russian-Chinese cooperation on the creation of the Arctic Economic Corridor have been considered in this article. The economic, infrastructural and technological problems of the Arctic region development have been identified, and measures have been substantiated to expand China's participation in the project. It is concluded that the current geopolitical situation in the Arctic and progressive climatic changes in the northern latitudes make cooperation with China strategically important for Russia in terms of obtaining investments and technologies for building infrastructure and cargo-producing capacities along the Arctic transport arteries. This, however, requires prompt action to create an enabling environment for attracting and protecting Chinese investment.

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# **BUILDING A RESILIENT ORGANIZATION IN TURBULENT LIBERALIZED TRANSPORT MARKET ENVIRONMENT – A CASE STUDY ON INCREASING COMPETITIVENESS THROUGH AN INNOVATIVE APPROACH TO CONTINUOUS IMPROVEMENT IN RAIL UNDERTAKINGS**

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## **ABSTRACT**

*The liberalized transport market presents many challenges for enterprises. Without responding to a constantly changing environment, railway transport undertakings cannot be resilient organizations that meet the requirements of a modern and environmentally friendly carrier system. The sustainability of the transport system should be promoted by seeking an innovative approach to increase the competitiveness of rail transport. Everyday transport system encounters road congestion. This results in accidents also in the quality of the transport system. It is therefore extremely important to encourage railway undertakings to provide quality services that meet the needs of the whole economy. The fundamental statute of continuous improvement of each enterprise is to understand its peculiar transport processes. For better understanding and specific analysis, there are available lots of quality improvement toolkit. The relationship between consequence and potential causes can be monitored through various fundamental and specific tools. This paper describes a case study focused on one the most essential train delays that belong among the characteristic task reducing competitiveness in the railway sector and is treated substantially from the customer's perspective. The purpose of this paper is to highlight the possible ways of quality management methods applied in the framework of the train delay issue. These delays force a trains' punctuality and therefore it is significant to identify most prevalent causing these problems reasons as well as to analyse them and propose solutions. Following the results of the research, the innovative approach used in the case study utilizes Six Sigma tools and describes a new software solution that monitors gaps in quality. This approach is the result of long-term research by authors and has never been implemented in this form before.*

**Keywords:** case study, continuous improvement, liberalized transport market, rail undertaking

## **1. INTRODUCTION**

Rail transport undertakings have been under increasing pressure in recent decades, due to ever-changing conditions as part of the liberalization of the rail transport market and increasing competition from road haulers. With an increase in individual transport, it is essential to look for new ways of improving public transport, including rail transport (Coronado, Antony, 2002).

If railway undertakings want to strengthen their position in the public passenger transport market, they must look for new determinants of success and introduce innovative methodologies and strategies into their business and consequently operational processes (Chong Un Pyon et al, 2011). The necessity of introducing these changes is closely related to the worldwide trend of customer orientation, which is now increasingly connected with the concept of quality of provided services or improvement of quality of services (Chesbrough, Rosenbloom, 2002). Also in terms of rail undertakings, according to Dorie Clark, the resilient organization has to work on more than one-time cycle. This idea was a lot of years ago explained and support, when Edward Deming told, that resilient organization had to work on never-ending cycles. Besides, as Karen Firestone recently treated in the Harvard Business Review, a company without a Plan B puts itself at grave risk of failure. This idea of continual improvement on more than one-time cycle at a time – creating value for both undertaking and customer (Czajkowska, Stasiak-Betlejewska, 2015). How can rail undertaking react in such a turbulent environment? It needs to succeed in quality and improvements (Drucker, 1999). A holistic perspective on improvement is required (Broh, 1982). To be a resilient organization, rail undertakings must be able to respond actively to changes in the service quality improvement requirement (Hudakova, Luskova, 2016). These are not only based on customers, but are also enshrined in the transport sector in important European Union documents such as the White Paper, which aims to create a competitive transport system with an emphasis on guaranteeing the quality of rail services, accessibility and reliability of transport services and users' rights, rail passenger transport to compensate for delays. It also includes European standards, which include the basic definition of quality, the definition of quality criteria in public passenger transport, the methods of its measurement and evaluation (Hudakova, Masar, 2018). Concerning the provision of rail passenger services, it is necessary to take into account that customer requirements and demands change over time (Luskova, Bugarova, 2011). It is necessary to know at every moment of the transport service what the customer's expectations are, as it is he who assesses the quality of the services provided and decides on the reuse or non-use of this mode of transport (Pfohl, Gallus, Köhler, 2008). This paper aims to strengthen the practical ways of quality management methods implemented in the framework of the train delay issue. Negative impact of delays force a trains' punctuality and therefore it is substantial to identify most predominant causing these problems reasons as well as to take apart them and intend solutions (Juran, 2005). According to the results of the research, the innovative approach used in the case study uses Six Sigma methods and portrays a new software solution that looks after gaps in quality.

## **2. RESEARCH BACKGROUND**

Rail transport has the status of a significant carrier transport system in the liberalized transport market. The basic service provided in rail passenger transport is the transport of the passenger from the starting point to the point of consumption (Kudláč, Štefancová, Majerčák, 2017). The need to transport is based on the individual needs of the passenger and, as a rule, constitutes an intangible service (Sekulová, Nedeliak, 2013). In the services of an intangible character, a person has a fundamental position, focusing mainly on:

- the physical appearance of people and places such as cleanliness and comfort of the room equipment or the pleasantness of the staff,
- price, while quality requirements increase in proportion to price;
- observed risk, eg. the passenger has a lack of information before or during transport (risk of service without guarantee)

The overall quality of rail passenger transport is influenced by many criteria that represent customers' view of the service provided.



A set of standards has been issued across the EU to improve the quality of public passenger transport and to draw attention to the needs and requirements of customers. The basic objective of the research was to assess how it is possible to maintain a resilient organization in the changing conditions of the transport market (Šatanová, Sedláčiková, 2015). To achieve the stated objectives of this research, the cooperation of carriers and infrastructure managers of the V4 countries was established. The creation of certain framework conditions and measures aimed at improving quality served as a basis for research. The result of this collaboration is individual products and services oriented to customer requirements and market relations, which makes these products further customized. The following basic measures as a background for relevant research have been established. The goal of a resilient organization in rail transport, concerning the customer's needs, is to sustain the principles described in figure 1.

*Figure 1: Basic principles for resilient organization in rail transport*



*Source: Authors*

All these principles depend on the quality of the individual components of the transport system. The individual components of the transport system that influence how good or bad is the organization's health as well as resilience can be characterized as follows (Nedeliaková, Sekulová, Nedeliak, Majerčák, 2014):

- Vehicles - Good technical condition of vehicles makes it possible to minimize delays due to technical failure on the vehicle. Regular technical inspections and maintenance of vehicles are an important element of the quality system in transport services.
- Transport infrastructure - parameters of the transport route (its technical condition, throughput, load, category, the quality level of security and notification equipment) directly influence the selection of the transport route (and consequently also its length), which also affects the transport time (Nedeliaková, Sekulová, Nedeliak, 2015).
- The technology of transport and transport process - rationally designed and properly applied technological processes of transport and transport processes contribute to a great extent to reducing the risk of poor quality service (Nedeliaková, Nedeliak, Majerčák, 2014).

- Information system - the task of information systems in transport is to inform all subjects involved in the transport, to ensure reliable and continuous contact with customers and to inform carriers about the risk of deviation from quality.
- Human factor - any mistake caused by a worker at any place can have very serious consequences. This applies in particular to workers directly involved in the management and provision of traffic operations, the operation of vehicles (Corning, 2003).

In general, the resilience of rail undertakings can be assessed from two points of view:

- Technical resilience - touches on the process, technical conditions, technology, fleet condition.
- Functional resilience - results from the interaction between the service provider and the customer. In this case, in addition to the technical background of rail operation (which customer may not understand), the customer also considers eg. staff behavior or comfort.

This research involved Six Sigma tools to measure resilience in the rail organization through the assessment of the level of quality. These methods include:

- objective measurement,
- demand and supply oriented measurement and evaluation, including employee and management of the undertaking.

### **3. RESEARCH RESULTS – A CASE STUDY ON INCREASING COMPETITIVENESS FOR THE SCOPE OF TRAIN TIMELINESS**

The results of the research are based on the assessment of the resilience of rail undertakings concerning the above mentioned individual components of the transport system (Nedeliaková, Dolinayová, Nedeliak, 2013). In this part of the paper, the authors highlight the impact of train timeliness on increasing competitiveness. The authors explain how to assess the resilience of an undertaking in a case study with Six Sigma tools. All individual components, such as vehicles, transport infrastructure, technology, information system, human factor affect one of the basic requirements of the transport system and that is timeliness. The authors defined timeliness in the research as the observance of driving times according to the train traffic diagram. This is about eliminating train delays. Six Sigma is a philosophy that unambiguously pursues improving quality, achieving productivity and scores, as well as increasing customer satisfaction. Its main implementation was applied in the research in the provision of services that are not part of the production process. The worldwide profit of this methodology is suitable for the use of powerful techniques and tools to achieve the efficiency of statistical operations, shorten times and eliminate defects, determine the required level, and bring the organization of competing components (Heidari, Loucopoulos, 2014). Specific measurable Critical Quality Indicators (CTQs), which represent the expected quality, are defined from passenger requirements, referred to as Customer Voice (VOC). The impression of the service provided then reflects their true perception of quality. The Railway Undertaking should endeavor to guarantee a transport service where the expected quality is the same as the perceived. On the other hand, the account is also taken of the need for the transport undertaking itself, expressed from the voice of the undertaking (VOB) for a specific set of critical process indicators in the undertaking (CTB), taking into account the overlapping as well as the business. When choosing to apply the Six Sigma methodology to rail transport processes, it is necessary to determine who the customer is and what his / her expectations are, as well as to set requirements for the target quality by the transport subject (Mašek, Kendra, 2013). The result should be the provision of a transport service where the quality provided is closer to the initially set target quality. The support of top management and cooperation with management is the basis for the successful implementation of this qualitative approach (Nedeliaková, 2017).

As it is about achieving measurable performance improvements through the voluntary introduction of the Six Sigma creative approach, teamwork at all levels under the management of each Belt is highly desirable. Process improvement through the Six Sigma methodology is carried out gradually based on individual projects. To define improvement projects in the transport undertaking, it is important to identify areas where this qualitative approach can be beneficial in achieving the desired quality objectives. Six Sigma focuses on eliminating defects in the process and reaching the Sigma level. The following table shows the outcome of the case study. It defines the timeliness area where the Six Sigma approach can be used to improve processes and achieve the required quality. Based on the identification of non-conformities in railway transport while respecting customer and company requirements, concrete projects for process improvement will be identified. Table 1 shows key processes for the application of Six Sigma methodology in the scope “timeliness”.

*Table 1: Key processes for the application of Six Sigma methodology*

Identification of defects	Customer’s requirements				Undertaking’s requirements		Six Sigma project for improvement of processes
	Passenger		Carrier		Infrastructure manager		
	VOC	CTQ	VOC	CTQ	VOB	CTB	
Train delays	Train timeliness	number of canceled or delayed trains according to timetable and length of delay	co-operation of the dispatching apparatus to reduce the impact of train delays on the smoothness of rail transport	Proportion of delayed trains according to plan	analysis of train delays and efforts to eliminate them	Proportion of delayed trains according to plan	Elimination of delays in passenger trains
			reducing the number of accidents and operational failures caused by the carrier		reducing the number of accidents and operational failures due to infrastructure manager		
			operational solution of train delays according to well-defined procedures		setting up a compensation system between railway operators and the traveling public		

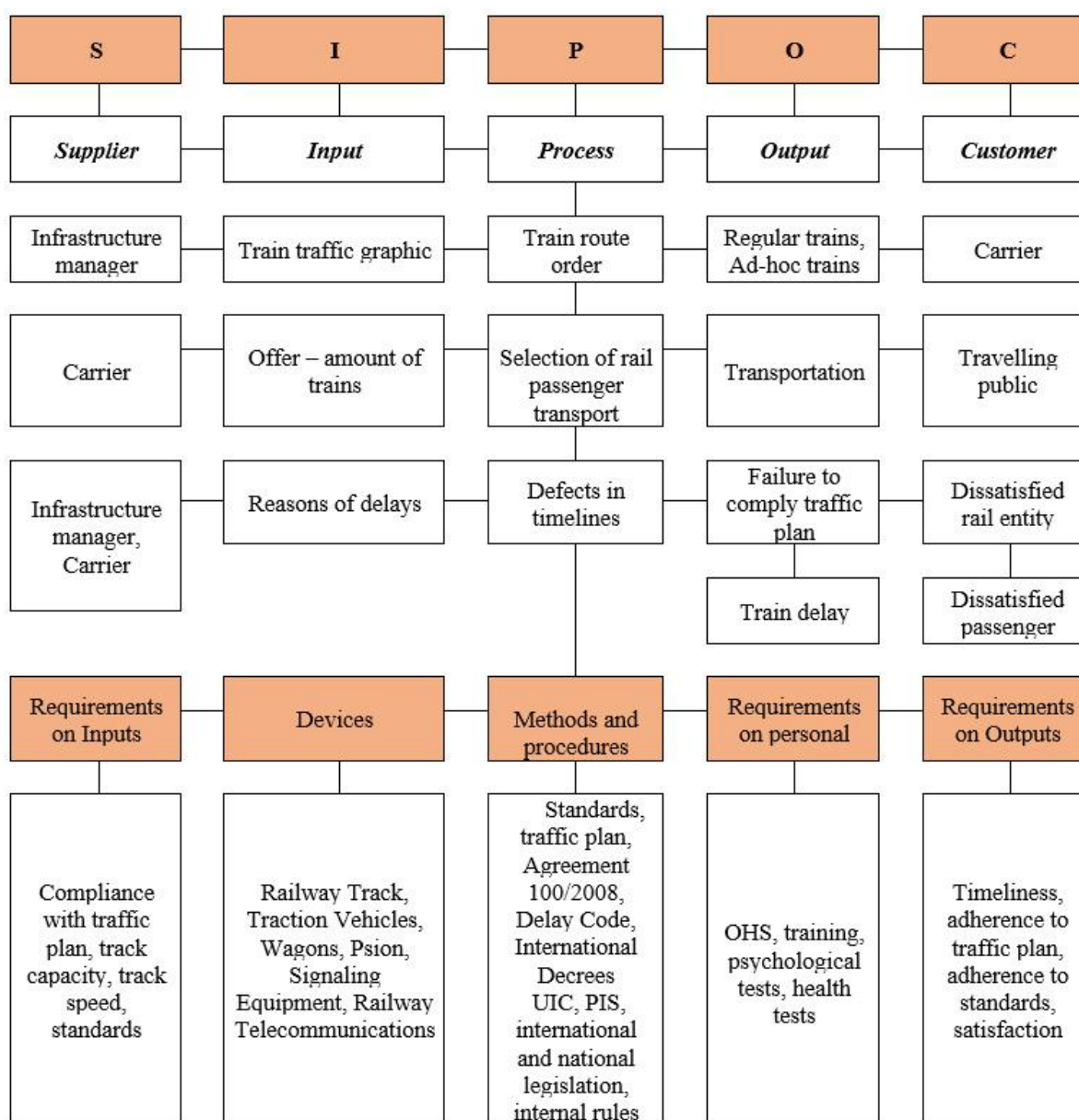
*Source: Authors*

### 3.1. SIPOC map application

When analyzing business performance it is necessary to map individual processes and determine inputs and outputs. In the passenger transport process, the infrastructure manager can be defined as a supplier of capacity in rail passenger transport where train paths are ordered by carriers, with the end-user being the traveling public. In the case of train delays, their timeliness is not respected and trains are delayed at individual transport points compared to the specified train traffic graphic. The SIPOC map defines and limits the process and reflects supplier-customer relationships. It is a chronological ordering of the process, which begins with the delineation of the process and the subsequent definition of the start and endpoints. Figure 2 shows the process of passenger rail transport defined with the SIPOC map tool.

*Figure following on the next page*

Figure 2: SIPOC map and the process of passenger rail transport



*Source: Authors*

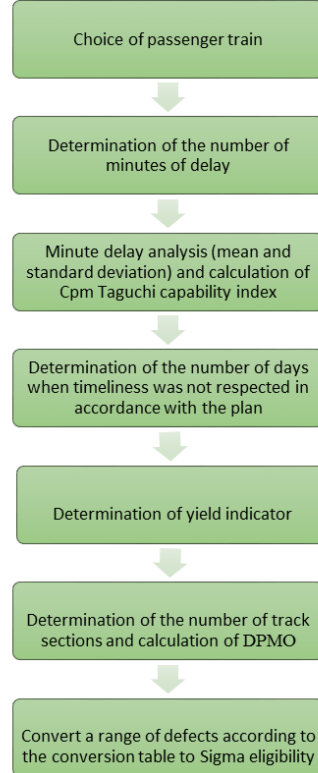
All parts of this SIPOC map have a decisive influence on maintaining the resilience of rail undertakings. Because in a liberalized transport market, undertakings must constantly monitor bottlenecks in their processes and improve service quality.

### 3.2. New view on resilience assessment - indicators of quality evaluation

Based on the DMAIC cycle, as a data-driven improvement cycle used for improving, optimizing and stabilizing business processes and designs, effective monitoring and evaluation of the rail undertaking's timeliness in processes can be ensured. The basic indicators of evaluation in transport services include yield, Taguchi capability index and Sigma level. Figure 3 shows the procedure for calculating indicators for passenger train delays. The calculation of defects per million opportunities DPMO is involved in the research. When evaluating the process capability according to the Six Sigma methodology and at the same time from the perspective of the carrier and especially the passenger as a customer, it is important to analyze specific trains, respectively selected train group (Nedeliaková, Panák, M. 2015).

In the case study, selected tracks and trains were analyzed. In analyzing the timeliness of the trains, international and national trains were monitored on different lines and at different times. At the same time, the quality indicators of the monitored trains of different categories were compared and compared for the same period (4 years).

*Figure 3: The algorithm for calculating indicators for passenger train delays*



*Source: Authors*

Table 2 describes only a small part of the conducted research, it compares the quality assessment indicators in selected cases.

*Table 2: Determination of eligibility of possible processes for selected sections*

Year	Amount of delays	Amount of delayed sections	Cpm Taguchi	Average time(min)	Median	Standard deviation	Yield indicator	DPMO	Sigma
2016	314	1 893	<b>0,13</b>	19,3	16	17,5	0,140	259 315	<b>2,1</b>
2017	265	2 132	<b>0,15</b>	14,5	11	17,4	0,276	291 257	<b>2</b>
2018	249	2 208	<b>0,16</b>	16,4	14	14,8	0,318	302 466	<b>2</b>
2019	275	2 184	<b>0,15</b>	15,2	12	17,9	0,247	299 178	<b>2</b>

*Source: Authors*

The resulting DPMO indicator in terms of the Six Sigma metric determines the number of defects per million opportunities. In the case of train delays, the term opportunity can be defined as the number of track sections of the analyzed train. Based on the DPMO value obtained, the Sigma competence level is determined. Taguchi index and Sigma metric based on DPMO can be considered as two basic indicators. Their testimony is different. While in the Six Sigma metric, Sigma reflects only the number of missed trains per section, Cpm Taguchi shows their variability in terms of average delay and standard deviation. Both indicators aim to show the highest possible values. According to Six Sigma, the goal is to achieve 6 Sigma for almost faultless service provision.

The value of the analyzed trains is at the level of 2 Sigma and at the same time depends on the type of train, position and travel time. The yield indicator serves to illustrate the ratio of timely trains to the total number of dispatches. In a comprehensive analysis, it is necessary to compare and take into account all indicators when assessing train quality. The aim is to analyze the reliability of a given train over some time and propose further measures to improve the actual condition through a DMAIC cycle. Failure in quality is such a serious problem that it must be recorded to avoid a future collapse of the transport system while helping people to take the following measures. Therefore, the level of 2 Sigma in timeliness is not sufficient, research has included software development that monitors errors in the quality of the rail undertaking's processes and thus eliminates the negative effects on the organization's resilience. The figure 4 shows a proposed interface of software used for noting the quality of deviation, a failure that can negatively impact the punctuality of trains.

*Figure 4: Proposed interface of software solution*

*Source: Authors*

The software is designed for employees of railway companies, but also organization management. It categorizes track sections, trains, causes and consequences of various types of errors. This helps to reduce deviations from quality. At the same time, it supports the creation of a resilient business environment and the entire transport system.

#### 4. CONCLUSION

This principle is a prerequisite for maintaining a resilient undertaking in such a challenging environment as the liberalized transport market is. It is characterized by new entrants, the high competition of services, changing conditions and pressure on sustainability. Therefore, it is extremely important to consider the idea of what aspects are affecting building a resilient organization. This research shows the importance of monitoring the quality and readiness of processes concerning customer's requirements. These results can be considered as new about the identification of the level of readiness and resilience of the railway undertaking in a constantly changing transport market environment. The research provides an interesting incentive for its extension to other countries, areas, respecting the proposed solutions in the new methodology.

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## **WIFI TECHNOLOGY AS AN IMPORTANT CHANNEL OF MARKETING STRATEGY IN THE RETAIL ENVIRONMENT**

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### **ABSTRACT**

*The aim of this paper is to assess the awareness of proximity technologies and their use by Slovak retailers and consumers, and also to evaluate the access of retailers and consumers to proximity marketing services. In this paper we focus only on services provided through Wi-Fi technology, as the most frequently used tool of marketing proximity worldwide. Based on the set problem the marketing research of Slovak consumers and structured interview with representatives of marketing and digital agencies were realized. Based on the results, we can say that the potential of using proximity tools via Wi-Fi technology as a form of communication between the seller and the customer during the purchase in the retail store exists.*

**Keywords:** Proximity marketing, Wi-Fi technology, Survey, Retail

### **1. INTRODUCTION**

In response to changes in customers' purchasing and consumption behavior, businesses today need to adapt their marketing communications with customers to address them correctly and match their preferences and needs (Stuchly et al., 2018, Valaskova, Krizanova, 2008). Increasingly, the emphasis is on connecting online and offline communication channels. Through customization and personalization, companies strive to better reach their customers and implement a variety of modern marketing strategies. Especially in the retail environment, traditional retailers face a lot of competition from online sellers and have to make great efforts and resources to attract customers back to their stores. One recent marketing trend that can better target and reach customers with relevant and personalized content based on their location is proximity marketing. Unlike abroad, proximity marketing is rarely used in the Slovak Republic. The aim of this work is to assess the awareness of proximity technologies and their use by Slovak retailers and consumers, and also to evaluate the access of retailers and consumers to proximity marketing services. In this paper we focus only on services provided through Wi-Fi technology, as the most frequently used tool of marketing proximity worldwide.

### **2. LITERATURE REVIEW**

Levesque et al. (2015) define proximity marketing as a wireless and localized distribution of location-specific advertising content. Using mobile technologies, this type of mobile marketing targets customers with highly personalized and relevant content, at the right time and in the right place.

This type of marketing strategy is suitable for targeting distances up to about 50 meters, especially inside buildings. The term “proximity marketing” was introduced to retailers in 2008 and has since become a trend in marketing communications. More and more companies are using proximity marketing as a tool of more effective communication with customers (Beaconstac, 2019). According to the Market for Proximity Marketing report, the proximity marketing market was valued at \$ 9.01 billion in 2015 and is expected to reach \$ 52.46 billion by 2022, with CAGR1 of 29.8% over the forecast period. Market growth is fueled by increased interest in business intelligence and increasing competition in the market (Sroka et al., 2014), along with an increasing number of smartphones. The market is further fueled by factors such as continuous technological advancement in location services, increased use of Beacon technology and the growing need to improve customer service (MarketsandMarkets, 2016). Technological advances over the last few years have made technology more affordable, and so many businesses have incorporated it into their marketing strategies. Wi-Fi is the most widely used wireless technology based on IEEE 802.11 standards. It allows radio data transmission on the free 2.4 GHz and 5 GHz frequency bands (Davis, 2004). Today, most mobile devices support Wi-Fi standards. The most widely used smartphone standards in 2019 are 802.11ac and 802.11n (ScientiaMobile, 2019). The basis of any wireless network is an access point. The primary task of the access point is to transmit a wireless signal that end devices can detect using built-in Wi-Fi adapters. The device can connect to the Internet and a wireless network through an access point. The main advantages of Wi-Fi technology are its abundant use and ubiquity. It allows mobile devices to connect to the Internet and provides high data transfer rates (Reicher, 2018). However, compared to the other technologies mentioned, it is the most expensive to implement. Wi-Fi technology, however, brings great marketing potential in the form of public Wi-Fi networks, which can now be connected almost anywhere. Companies are increasingly offering free WiFi connection to their customers often in exchange for providing contact information (e-mail, social network profile). To log in, users must agree to the terms and conditions of use. According to a research by the Yankee Group, 96% of customers prefer stores that offer free Wi-Fi and 78% of shoppers would connect to Wi-Fi if they were given this opportunity (Essick 2015). This implies that a public Wi-Fi network can be a good tool in competitive competition. Wi-Fi benefits both the customer and the merchant. As soon as the customer logs into the network, Wi-Fi becomes an important communication channel for the merchant. Wi-Fi makes it easy to get customer information that retailers can analyze in real time to better understand customer needs and purchasing behavior. They can also give the customer a personalized discount coupon offer and improve their shopping experience. From the contact details provided, businesses can build a solid customer database for later marketing initiatives (e.g. newsletters). Wi-Fi can also be used to locate the customer and map her/his movement in the store (Essick 2015). This information is obtained through a router equipped with special cloud analysis software that continuously stores and processes identification and location data obtained from connected devices. Using such software it is possible to create a virtual customer profile with its contact and demographic details as well as information about the time spent in the store, the frequency of traffic and the trajectory of moving around the store (Purple 2019). Thanks to this information, the trader can improve the overall shopping experience, for example by giving the sales person information about the arrival of a regular customer and thus he/she can provide better service (Ferretti 2018).

### **3. METHODOLOGY**

The main aim of this paper is to assess the perception of proximity marketing activities, namely using Wi-Fi technology and to identify areas of optimization of Wi-Fi technology in the proximity marketing activities for business practice in the Slovak Republic. The partial goal is also to evaluate the access of retailers and consumers to proximity marketing services.

To ensure the fulfilment of the goal of the contribution and the marketing research, we have set the main research assumption, which is as follows: The potential of using Wi-Fi technology in proximity marketing in the business practice of the Slovak Republic exists. Based on the set problem and the goal of the marketing research, we decided to carry out the marketing research on a sample of consumers of the Slovak Republic, i.e. a selected set of statistical units that we select from the whole set of consumers of the Slovak Republic. We chose a deliberate choice as a sample selection method. We set the conditions on the basis of which the sample of respondents forms a suitably selected sample (Rimarčík, 2007; Krizanová et al., 2014). The size of the representative sample was determined by the following equation:

$$n = (z_{(\alpha)}^2 \cdot p \cdot (1-p)) / c^2 \quad (1)$$

where  $n$  is the minimum number of respondents,  $z_{(\alpha)}$  is the critical value of the normal distribution,  $p$  is the likely sample proportion, expressed as a decimal, and  $d$  is the confidence interval, expressed as a decimal (Moravčíková et al., 2017).

The confidence level was set at 95%. The critical value of the normal distribution at confidence level  $\alpha = 0.05$  was 1.96. This is based on the fact, that 95% of the area of the normal distribution is within 1.96 standard deviations of the mean. For those cases where the likely sample proportion was not known,  $p$  was set at 50%. The confidence interval was set at 5% (Palus et al., 2014). In order to conduct a marketing survey of the perception of proximity marketing activities via Wi-Fi technologies by consumers in the Slovak Republic, it is necessary to provide a sample of at least 385 respondents. In order to carry out a qualitative survey, a questionnaire was chosen as a tool for data acquisition. The questionnaire ensured finding the perception of proximity marketing activities via Wi-Fi technologies by consumers in the Slovak Republic. The survey was conducted in April 2019. The 568 respondents participated in the questionnaire survey. To analyse the access of retailers, we decided to accost several marketing and digital agencies that focus on proximity marketing or at least some of the tools of proximity marketing. In addition, we got onto several companies that provide technologies for such marketing solutions.

#### 4. RESULTS

According to the representatives of companies, the demand for proximity marketing tools is scarce. Proximity marketing tools are considered as only complementary or supportive. The most common tool used in Slovakia are QR codes. In addition to QR codes, Wi-Fi is also used as one of the proximity marketing tools. The most common way to use this technology is to characteristic name the Wi-Fi network. An enterprise can change its Wi-Fi network name to the current campaign or action in progress to attract bystanders. Interest in this solution is on the increase but this kind of proximity marketing is not always realized through a marketing agency or specifically as a kind of proximity marketing. Businesses that want to differentiate themselves from the competition are actively pursuing the latest trends in the marketing world, as well as their competitors, and if they are able to implement some of the marketing solutions themselves, they will. Many entrepreneurs may not even know that they use the proximity marketing tool (Gajanová, Nadanyiová, 2019). Based on the evaluation of the questionnaire survey, which we focused on the use of the Wi-Fi by consumers of the Slovak Republic, it follows that this technology is the most used feature in the mobile phone of Slovak consumers. Consumers of the Slovak Republic prefer to use Wi-Fi on their mobile phone. Very often up to 79% of consumers use this feature, while 9% of consumers rarely use this feature. Only 2% of consumers do not use this feature on their mobile phone, and 10% of consumers do not own a Wi-Fi mobile phone. The main function of Wi-Fi technology is internet connection.

We have therefore found out which networks consumers are most often connected to. Slovak consumers most often (56%) connect to private paid Wi-Fi networks such as home Wi-Fi networks and work Wi-Fi networks. 33% of Slovak consumers prefer to connect to a public Wi-Fi network rather than a private Wi-Fi network. In the case of proximity marketing via Wi-Fi network, however, it is usually necessary to connect the consumer to the public free network provided by the company. It is therefore important for businesses that choose to carry out proximity marketing through Wi-Fi technology to know how consumers use Wi-Fi on their mobile phone. The survey shows that 45% of consumers have Wi-Fi on their mobile phone permanently turned on. About 25% of consumers sometimes turn off Wi-Fi immediately after use. In addition, we found out what sites consumers visit most often when they connect to a merchant's Wi-Fi network. Up to 67% of consumers browse social networks and emails. 7% of consumers browse the merchant's website or e-shop and 6% of consumers browse the competitor's website or e-shop. 10% of consumers browse other websites. We also asked for an attitude to mobile communication between a merchant and a customer in a brick and mortar store. The results show that only 15% of consumers do not have a positive attitude towards this form of communication. 16% of consumers indicated that they appreciated this kind of communication. 30% of consumers expressed a neutral attitude and 39% of consumers had not expressed their attitude because they had not encountered this type of communication. Based on the results, we can say that the potential of using proximity tools as a form of communication between the seller and the customer during the purchase in the retail store exists.

## 5. DISCUSSION

The information gathered is very important to businesses because they can properly set up the proximity marketing activities used in their business. First of all, consumers need to be informed about the possibility of connecting to the Wi-Fi network operated by the business. Businesses that operate a free Wi-Fi network typically place the Wi-Fi logo in a prominent location in their store. Many times, businesses have a Wi-Fi network password and the customer will get the password on demand. It is very important to engage the customer in the concept of marketing proximity in the right way. We recommend that businesses limit the use of Wi-Fi networks by:

- Subscribing to email newsletters
- Signing in to your business app
- Confirming network login on the company website, etc.

In this way, when a customer logs in in their web browser or through an business application, they see information on the current campaign, actions, events, and so on the main website. In this way, the retailer can communicate the required information. Customers browse emails and social networks most often when they sign up for a free Wi-Fi network in retail. More than 60% of consumers identified this option in a questionnaire survey. This means that by limiting the login to the enterprise's public Wi-Fi network by subscribing to email newsletters, there is a presumption that such an email will be viewed by the consumer as soon as they log on to that network. In addition, the retailer will ensure that its public Wi-Fi works on a similar basis to the Bluetooth beacon. By logging on to the enterprise's Wi-Fi network, the retailer obtains purchase preference data of customers. Based on this data retailer can send personalized advertising, discounts and special offers to the consumer. In addition, the business obtains information about the length of connection to the network, movement through the store and store departments. From the statements of representatives of several marketing and digital agencies we know that proximity marketing realized through Wi-Fi technology is quite frequent in Slovakia. This technology is most commonly used in cafes, restaurants, shopping malls, hotels, vehicles, or public areas. The content addressed to consumers is mainly of an informative nature.

Another big advantage of providing a Wi-Fi network as a proximity marketing tool is that the name of a Wi-Fi network itself may already contain advertising, special offers, or discount notifications. It is enough for the company to instruct the staff to update the Wi-Fi network name regularly according to the current event or special offer. In this way, businesses not only reward consumers with free internet access, but communicate the information they need to increase sales chances.

## 6. CONCLUSION

The paper deals with the issue of proximity marketing as a modern trend in the field of marketing communications. Proximity marketing gives merchants the ability to better target their customers with relevant content based on their location. The aim of this work was therefore to find out how Slovak consumers and retailers approach the proximity of marketing through Wi-Fi technology. On the basis of quantitative and qualitative research related to the Wi-Fi function in consumers' mobile phones, it can be said that the Wi-Fi function is widely used among Slovak consumers compared to other mobile functions. Businesses have a relatively high chance of reaching consumers via Wi-Fi technology in their retail stores, as the way and especially the mode of using this feature is positive for proximity marketing activities carried out by Slovak businesses. In addition, it is a positive finding for businesses that more than 60% of consumers browse emails and social networks when they connect to the public network. This fact is one of the important specifics of consumer behavior in the Slovak Republic.

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# THE RELATIONSHIP BETWEEN CONSUMER ONLINE REVIEWS AND SALES

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## **ABSTRACT**

*Social commerce has taken the e-tailing world by storm. Business-to-consumer sites and, more important, intermediaries that facilitate shopping experience, continue to offer more and more innovative technologies to support social interaction among like-minded community members or friends who share the same shopping interests. Online word-of-mouth (WOM) such as consumer opinions, user experiences, and product reviews has become a major information source in consumer purchase decisions. Prior research on online reviews effect has focused mostly on low involvement products such as books or CDs. With the minimal role of price in the buying decision, social discussion via online reviews becomes a collective signal of reputation, and ultimately a significant demand driver. This study shows that online reviews can be used to convey the reputation of the product, brand or goods. Also, it shows that online reviews have a significant impact on retailers' sales and offers the method for future research. In this paper, the theoretical and practical implications of the research results are discussed.*

**Keywords:** *online reviews, sales, word of mouth, WOM*

## **1. INTRODUCTION**

With the rapid development and the associated progress of society, online shopping has become an integral component in satisfying people's daily consumption requirements. The trend of using customer behaviour and demand to analyze factors that influence product sales based on data from user-generated content (UGC) is gaining prominence worldwide (Chong et al., 2017). Today, customers are increasingly paying more attention to factors such as online reviews. The timely and accurate collection of market information and the control of various factors affecting sales can assist manufacturers and sellers in maintaining reasonable inventory and improving competitiveness (Zhao et al., 2020). Moreover, e-commerce platforms use data to manipulate content and generate favourable online reviews (Lee, Trimi and Yang, 2018). For example, systemic curation management, such as clustering, screening, and sorting of reviews, is becoming an important factor that can considerably affect product sales. In e-commerce, Web 2.0 provides platforms for internet users to share their knowledge, expertise and experiences on forums, review portals, blogs and other social media websites. It also enables consumers to share their opinions and experiences about services and product usages on review platforms (Malik and Hussain, 2020). Reading product reviews has become a common step because such reviews contain important information and facilitate customers in making purchase decisions (Ye et al., 2011). However, most of the popular products receive large collections of reviews that result in information overload problem (Zhao and Zhang, 2020). Some e-commerce websites provide consumers with an interactive voting facility such as Amazon.com, asks its readers "Was this review helpful to you? Yes/No". The reviews with higher helpful votes are ranked higher than one with lower votes. However, with the exponential growth of reviews on websites, reviews are not always being consistently helpful e.g. sentiments expressed in the reviews can have a varied effect on helpfulness (Forman, Ghose and Wiesenfeld, 2011). Potential purchasers place a great deal of stock in product reviews written by previous purchasers. More and more, these product reviews are written, read, and evaluated online. Online reviews gain as much trust as personal recommendations for the majority of consumers and a glowing review motivates behaviour more than discounts and other offers (Reich and

Maglio, 2020). Consumers seem to want product reviews and firms seem happy to offer such reviews on their websites, in their advertising, and elsewhere. Indeed, firms are increasingly engaging in efforts around “review solicitation” and “online reputation management,” incentivizing previous purchasers to write reviews in exchange for discounted or free products (Reich and Maglio, 2020). As firms invest in, and consumers trust, online reviews, their management has come to occupy a more prominent role in marketing practice. Likewise, consideration of the review characteristics exerting the most impact has come to occupy a more prominent role in marketing theory. Positive reviews generally boost sales while negative reviews hurt sales and firms certainly opt to feature positive over negative reviews (Chevalier and Mayzlin, 2006). Factors affecting the sales of online products are multifaceted. Scholarly research has achieved certain research results, especially those related to online reviews, review system curation, online promotion marketing, and seller guarantees. However, those research are relatively single-spread, and combining these four aspects for research and discussion remains uncommon. Given these limitations and challenges, this study suggests analyzing the factors that influence product sales based on online reviews.

## 2. LITERATURE REVIEW

Online reviews, also known as online feedback, are an important form of electronic word-of-mouth. Online feedback assists customers in understanding product information and serves as an important reference for customers when making purchase decisions. Thus, the impact of online reviews on product sales is steadily increasing. For example, in some scientific works, Yahoo movies reviews were analyzed and observed that the number of online reviews has a positive impact on box office (Luan and Neslin, 2011). Some scholars have even found a positive correlation between sales volume, price, and review volume based on the restaurant review data collected from e-commerce websites (Lu *et al.*, 2013). These studies highlight the impact of online review volume on product sales and services. The commonly used research variables include online reviews, the length of the review, and the percentage of negative reviews, among others (Reyes-Menendez, Saura and Martinez-Navalon, 2019). In general, positive online reviews often indicate positive attributes, such as good product quality, superior brand image, and being professional, while negative online reviews depict customers’ lack of confidence in product quality and brand image. Positive online reviews help increase customers’ willingness to buy a product or use a service, while negative online reviews impede customers’ willingness to purchase sellers’ service or product (Ho-Dac, Carson and Moore, 2013). Research shows that negative online reviews spread faster than positive online reviews and that they have a greater impact on the potential customer’s purchase decisions. Therefore, positive reviews may not have a significant impact on customers’ purchase decisions, while negative reviews definitely have a stronger impact than positive reviews on customers’ purchase decisions (Malik and Hussain, 2020). The use of the Internet for publicizing feedback and recommendations on products and businesses has broadened the reach of WOM and sparked an interest in re-examining the effect of WOM in the digital age (Duan, Gu and Whinston, 2008). Two dimensions of WOM activities have been considered in these studies: WOM volume (i.e., the amount of WOM disseminated) and WOM valence (i.e., the preference carried in the WOM information), often measured as positive, negative, or with user ratings. Studies suggest that the volume of digital WOM is positively associated with product sales, but the relationship between WOM valence and sales is often mixed (Wu *et al.*, 2015). Chevalier and Mayzlin (2006) found that improvement in volume and valence of a book’s review leads to an increase in sales. However, with a similar data set from Amazon.com Chen *et al.* (2004) found that WOM valence is not related to sales. By separating WOM dispersion across different online communities from dispersion within communities, Godes and Mayzlin (2004) noted that dispersion across communities is the main factor that influences sales performance.

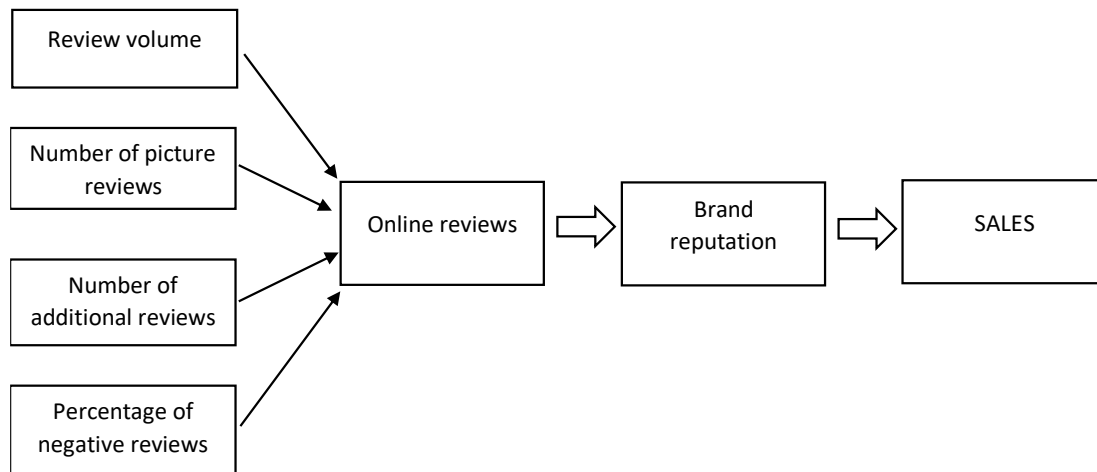


Another study is conducted by Huang et al. (2015) to explore the impacts of quantitative and qualitative factors of reviews and reviewers such as reviewer impact, experience and cumulative helpfulness. The authors demonstrated that word count with a certain threshold is effective for helpfulness prediction and reviewer experience has a varying effect on helpfulness. Similarly, a text regression model was built using a combination of review and reviewer features to predict the helpfulness of reviews (Liu and Park, 2015). The feature set includes readability and valence of reviews, reviewer's identity, expertise and reputation. Another study examined the moderating effect of product type, impact of reviewer reputation, identity and depth on review helpfulness (Malik and Hussain, 2020). The findings revealed that reviewer reputation, review extremity, and review depth are more important for helpfulness prediction using search goods. In related research, Wang (2013) examined how the impacts of online consumer reviews differ across products and consumer characteristics. They found that online reviews are more influential on the sales of less popular games or games with less experienced internet users. However, until now, there are no unified results towards the effect of online reviews on product sales. Most studies show a positive relationship between average reviews scores and product sales (Gu, Park and Konana, 2012). Using data from the movie box office, some researchers find there is no significant relationship between the movie's average rating and movie revenue. They agree, though, that the underlying word-of-mouth (the content of reviews) does play a dominant role on consumers' ratings (Yin, Wang and Shi, 2019). Chevalier and Mayzlin (2006) show that the addition of new, favourable reviews at one site results in an increase in the sales of a book at that site relative to the other site. They found some evidence that an incremental negative review is more powerful in decreasing book sales than an incremental positive review is in increasing sales. Their results on the length of reviews suggest that consumers actually read and respond to written reviews, not merely the average star ranking summary statistic provided by the Web sites. Additionally, Zhu and Zhang (2010) as well as Cheung, pointed out that online user-generated reviews are of use to both consumers and online retailers. Likewise, they indicated that online word-of-mouth can have important implications for managers in terms of brand building, product development, and quality assurance. Findings of recent studies show different effects of online reviews on the product/ service sales (Luo, Rong and Zheng, 2020).

### **3. CONCEPTUAL FRAMEWORK AND HYPOTHESIS**

Based on the literature review we mentioned conceptual framework needs to be formed for future research. Costumer online reviews can be separated into several parts and figure 1 shows it. we should build a hypothesis according to them. The main questions are: how does online review affect sales? What parts reviews are divided into? What role does brand reputation have in this process? In this conceptual framework, we will try to answer these questions and build a model for future research.

*Figure following on the next page*

*Figure 1: Product reviews, brand reputation and effect on sales*

*Source: Adapted from (Zhao et al., 2020) and (Amblee and Bui, 2011)*

As we see from figure 1 online review are separated into several parts and they form online reviews, that affects brand reputation and then brand reputation effects sales. Those variables can have a positive and negative effect. According to our framework, we can formulate a hypothesis:

- H1: review volume can affect brand reputation positively that causes a positive effect on sales;
- H2: number of picture reviews can affect brand reputation positively that causes a positive effect on sales;
- H3: number of additional reviews can affect brand reputation positively that causes a positive effect on sales;
- H4: the high percentage of negative reviews can affect brand reputation negatively that causes a negative effect on sales;

#### 4. METHODOLOGY

This study is mostly concentrated on a systematic inquiry of past papers, journal articles and conference proceedings, books and book chapters as well, which are mostly indexed in the reputable databases such as Scopus, WOS, Google Scholar and etc. Those papers helped to execute the goal of the study. From the literature review above mentioned variables were formed and examined. For the future, it is necessary to develop quantitative research inquiry to reach the goals of this study. The nature of this study is to test the model and build the theory, that is why quantitative research will be needed. According to the mentioned survey needs to be created. Also, it is necessary to measure variables. Variable measurement should be performed by questions and questions may be measured on a 5-point Likert scale with 1 meaning “not at all” and 5 meaning “very much”. After measuring the variables, the appropriate test should be run and results found.

#### 5. RESULTS AND DISCUSSIONS

Online reviews are an effective promotional tool for e-commerce entities, especially when information overload among online buyers is created due to a large amount of information available on the World Wide Web (Malik and Hussain, 2020). Online reviews provide a powerful, cheap and impactful channel for online vendors and marketers to reach their customers. Therefore, online vendors take benefit of opinions of experienced customers to attract potential buyers. The “helpfulness” feature of online product reviews facilitates the customers to cope with the information overload problem and helps in their decision-making

process (Reyes-Menendez, Saura and Martinez-Navalon, 2019). Identification of influential predictors for online review helpfulness has attracted much interest in the literature. The proposed conceptual framework model is quite effective and demonstrates the connection between online reviews brand reputation and sales. Also, it divides online reviews into the different segment and tries to demonstrate each effect on brand reputation and finally on sales. First, we find the effect of each component of online review on brand reputation that plays the mediation role, and then we find the connection to sales volume.

## 6. CONCLUSION

This research provides insights to both academic researchers and business practitioners. First, we expand the product categories examined to search and quasi-experience goods, giving academic researchers a broader understanding of the impact of online consumer ratings and reviews. Second, our findings are helpful to online retailers that are considering adding consumer reviews to their websites. For those primarily selling search goods, such a feature might not justify the costs as consumer reviews have minimal impact on sales. On the other hand, companies selling experience goods should have consumer ratings and reviews systems in place to promote the online word of mouth and attract customers to their sites to buy products and create user contents (reviews and ratings). Third, the current research offers implications to policymakers on how a national standard of retail website effectiveness may be different for sellers of different types of products. For sellers of experience goods, the inclusion of consumer reviews should be standard. In contrast, such reviews may not be necessary for retailers of search goods.

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# THE LONG RUN IMPACT OF FINANCIAL DEEPENING ON ECONOMIC GROWTH IN NIGERIA

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## ABSTRACT

*This study empirically investigated the impact of financial deepening on economic growth in Nigeria between 1986 and 2017 using annual time series data in an Auto regressive Distributive Lag Model and Granger Causality Test. The result shows that an increase in MSS leads to a reduction in GDP in Nigeria. Thus, money supply constitutes a negative motivator of economic growth and development in Nigeria. Such macroeconomic determinants like credit to the private sector and market capitalization and hence should be well captured in policy formulation and implementation. In view of the findings therefore, the Central Bank of Nigeria will need to maintain both contractionary monetary and fiscal policy mix consistent with low interest rate to curb the negative effects of this variable on economic growth and credit supply and improvement in the performance of the capital market be sustained for positive impact on economic growth in Nigeria.*

**Keywords:** *Impact, Financial Deepening, Growth, Nigeria*

## 1. INTRODUCTION

Every economy is made up of key drivers of growth processes out of which finance is crucial. To this end, the financial system has been acknowledged globally to play a catalytic role in the economic development of nations. In the words of Gisaor (2018), financial sector plays a key role in the mobilization and allocation of savings for productive use, provides structures for monetary management, the basis for managing liquidity in an economic system. It also assists in the reduction of financial risks faced by firms and business organizations during their productive activities. Financial systems also aid improvement of portfolio diversification and the insulation of the economy from the various international economic changes. The increasing deepening and expansion of the financial system is expected to create diversified financial instruments in the banking sector and capital market. Greater availability of varieties of financial institutions and instruments is expected to deepen the entire financial system. As such, financial deepening is mostly measured with the ratio of growth rate of broad money supply (M2) to that of Gross Domestic Product (GDP); ratio of total banking credit to the private sector; gross savings in the economy; gross domestic investment and interest rate spread amongst other measures (Andohol and Gisaor, 2018). Financial deepening therefore entails any effort aimed at developing the financial system that is evident in increased financial instruments and assets in the financial market (Gisaor, 2018). This means that the widest range of such assets as liabilities of non-bank financial intermediaries, treasury bills, value of shares in the stock market and money market funds will all have to be included in the measure of financial deepening. Indicators of financial deepening differ in economies and between countries. It is also possible that different financial markets have different levels of financial deepening. Countries with efficient financial system have higher financial deepening ratios than countries with highly underdeveloped financial system. Though economists have accepted the effects of financial deepening on economic growth, they have not had the same view about the long run effects and the direction of causality. While Shaw (1973) supported the idea that financial deepening creates economic growth to take place, Ogbunaka (2003) and Tyopev (2019) contended that it is the level of economic growth and development that causes financial deepening.

The reforms in the financial system in Nigeria which heightened with the 1986 Structural Adjustment Programme (SAP), affected the level of financial deepening of the country and the level of relevance of the financial system to Nigeria's economic development (Andohol and Gisaor, 2018). However, the rapid globalization of the financial market since then and the increased level of integration of the Nigerian financial system to the global system have generated interest on the level of financial deepening that has occurred. Nigeria has experienced growth in the financial sector and consequently increases in financial deepening overtime. Growth in financial outlet, marginal developments in the money and capital market, increase in bank branches, rapid use of credit and debit cards, increase in use of payment technologies like Automatic Teller Machine (ATM) and electronic transfer of deposits, expanding internet banking, e-banking and e-payments and positive indicators of and improving financial system (Monteil, 1995). The question is whether development in the financial sector, leading to financial deepening has been able to bring about increased economic growth, especially considering the fact that Nigeria still experiences high level of unemployment, high inflation rate and high interest rate. There is clear evidence of lack of credit for investment while the rural economy of the country still suffers financial neglect. Worst still is the fact that the gap between deposit and lending rate has continued to widen over the years. On this premise, the study is set out to examine the effect of financial deepening on economic growth in Nigeria between 1986 and 2017. This is to enable the researcher study the trends after structural adjustment programme. It is believed that during this period, certain financial policies were implemented. What then are their impact on financial deepening and hence economic growth in Nigeria?

## **2. THE CONCEPT OF FINANCIAL DEEPENING**

Financial deepening means the extent to which financial institutions are capable of effectively mobilizing financial resources for investment purposes. The growth of domestic savings provides the real structure for the creation of diversified financial claims. Financial deepening can also be defined as an increased ratio of money supply to GDP (Andohol and Gisaor, 2018). The most classic definition of financial deepening in economic literature according to Nnanna and Dogo (1999) is the one that reflects financial deepening to the share of money supply to GDP. Money supply has several variants which according to Ogege and Shiro (2013) include cash at bank (M1) and time-related deposits and non-institutional money market funds (M2). Broad money is defined to include  $M1 + M2$ , the view accepted and adopted for this study. Goldsmith (1995) identified four stages of financial deepening and its sequencing over time which are outlined below: The first stage of financial deepening is usually the emergence of banks. In an economy where there is only very partial information about borrowers, banks are particularly not too good at dealing with asymmetric information. Relationship lending only allows banks to work closely with borrowers to develop trust as well as share information. The second stage often involves the stock market. It requires companies to publicly disclose information about their businesses. But once this infrastructure is in place, the key advantage of a well functioning stock market is that it provides something banks are cannot provide-a long term commitment of risk capital while still giving investors a liquid form of investment. The third stage often emerges with the development of fixed income markets. These markets include both the bond market and the money markets. These are markets of choice for fund raising by government, financial institutions and matured interested markets. The bond market provides good investment instruments for long term investors such as pension fund and insurance, while the money market manage short term liquidity needs in large organizations. The final stage of financial deepening involves derivative markets and securitization. Derivatives instrument are used for hedging financial risk while securitization allows risks to be fairly redistributed across investors.

The financial stage is usually difficult to achieve hence it can easily result to financial problems leading to economic recession. Similar to financial deepening is financial widening which is the process whereby the financial system expands the spectrum of financial services and growth of financial assets and liabilities (Tyopev, 2019). It refers to the growth in number and the size of the financial institutions and increasing use of money in exchanging goods and services in an economy. There has been an improvement in the use of money in Nigeria following the establishment of the central bank but Torruam, Chiawa and Abur (2013) believes the scope can still be expanded by further developments in the non-monetized rural activities in Nigeria. This can be done by placing emphasis on agriculture and related activities. At present, there is greater number of commercial banks in Nigeria but they seemed to have limited their activities to urban centers particularly state capitals. It means commercial banking in Nigeria still remains the work of the elite working class with less attention to rural economic activities. Most of the rural populations according to Tyopev (2019) have to depend on village shop keepers, and informal finance for their business finance. This can simply be summarized that financial widening is not enough in Nigeria with over 60% of the economy under-banked (Ibrahim, 2012).

### **3. THE STRUCTURE OF THE NIGERIAN FINANCIAL SYSTEM**

A financial system as reported by Adebisi (2002) is a conglomeration of the various markets, instruments and institutions that interact within an economy to provide financial services such as resources mobilization and allocation, financial intermediation and facilitation of foreign exchange transaction to enhance foreign trade. The Nigerian financial system can be broadly divided into formal and informal financial sector. The informal financial sector is poorly developed with local money lenders, thrifts and savings associations and the likes of local bam, Adashi, esusu and etache. The formal financial sector, like any other financial sector is made up of the Central Bank of Nigeria, Securities and Exchange Commission, the Nigeria Deposit Insurance Corporation, Commercial Banks, Merchant Banks, Development Banks like Bank of Industry, Bank of Agriculture, Federal Mortgage Bank of Nigeria, Nigerian Export and Import Bank, specialized banks like Microfinance Banks, other Financial Institutions like Bureaux de Change and Insurance Companies. While the money market is where short-term and liquid or near-liquid financial instruments are created, sourced and traded with the Central Bank of Nigeria; the market regulator, the capital market, on the other hand, is involved in the mobilization of long-term financial instruments; and is structured into the debt and equity markets. The debt aspect of the market is where bonds and other debt instruments are created by the Debt Management Office (DMO) with the CBN acting as the Issuing House and Registrars. While the stock market is involved in the creation of equity instruments, which are traded on the Nigerian Stock Exchange (NSE), a Self-Regulatory Organization (SRO) with the Securities and Exchange Commission (SEC) acting as its apex regulatory body. This is complemented by the corporate debt market, which is yet to blossom despite the strides made in the public issued debt markets (Ogbonaka, 2003). Specifically, the capital market is the institutional arrangement which facilitates the transfer of medium term and long term funds from the surplus to the deficit sectors of the economy. The market thus, deals in medium term and long term loans. It supplies the industry with fixed and working capital and provides medium and long term funds to government at all levels. The instruments traded are stocks, shares and debentures of large corporation as well as bonds and securities issued by government (Torruam, Chiawa and Abur, 2013). Here, emphasis is placed on medium and long term capital that is essential for economic development. Capital is essential as it provides the opportunity for mobilizing funds for long term investment. The main functions of the capital market can be summarized according to Sanusi (2002) to include: mobilization of savings and channeling them into productive investments. Funds flow from savers to investors through the capital market taking cognizance of all the instruments of the market.

Another important function is the reduction in the cost of acquiring information and hence the transaction costs. The capital market easily bring both savers and investors together thereby reducing the exorbitant cost of savings and borrowings. This also secures the diversion of funds into wasteful ventures to productive investments thereby, encouraging capital formation in an economy. The capital market promotes financial stability through her various market instruments. Finally, the capital market ensures that funds flow from areas of economic surplus to the areas of greatest need. This encourages the development of commerce and industries. Money market on the other hand has many dimensions but collectively referring to the various firms and institutions that deal with various grades of near money. It has been further described as a network of markets that are grouped together because they deal in financial instruments that have a similar function in the economy and are to some degree substitutes from the point of view of holders. The Nigerian money market deals with short term credit instruments of high quality. Such instruments are easily convertible hence referred to as near money in our earlier definition. The key participants in the money market include the CBN with the supervisory powers over all the other participants in the market, the commercial banks who are the direct dealers in terms of volume of credit, non-bank financial intermediaries, discount houses who discount bills on behalf of others and acceptance houses who act as agents between lenders and borrowers. The main instruments of the money market are: the promissory note which is the earliest type of bill is a written promise by a business man to pay another a certain amount of money at an agreed date, usually 90 days. Bill of Exchange or Commercial Bill which is similar to the promissory note except that it is drawn by the creditor and accepted by the bank of the debtor. Treasury Bills is issued by government usually with maturity of 90 days (Samuel and Emeka, 2009). There is also Treasury Certificate with has a maturity of two years. There is Call Money where money is borrowed and for one day. Another instrument is Interbank Term which is exclusively for commercial and merchant banks with maturity of up to 90 days. Another instrument is Certificate of Deposits issued mainly by the commercial banks as their source of funds. Finally, Commercial Papers which are promises by the borrowing companies to repay a loan at a specified date, usually 3-6 months (Ogege and Shiro, 2013). The notes are not backed by any collateral but instead rely on the high credit rating of the issuing companies. The money market just like the capital market performs a number of functions summarized as follows: Provision of short term funds to the private and public institutions for investment through discounting bills, discount houses and commercial banks; and the provision of an avenue for financial intermediation. Other functions include the promotion of liquidity and safety for financial assets through secured savings and investments; facilitation of funds transfer from one economic sector to another; facilitation of monetary stability through investments in the money market; reduction in the need for commercial banks to borrow from central bank and reduction in the cost of borrowing.

#### **4. THE CONCEPT OF ECONOMIC GROWTH AND DEVELOPMENT**

According to Todaro (2000), economic growth is generally defined in terms of increase in the GDP to distinguish growth from development. Even though these concepts are sometimes used interchangeably, one can still make an attempt to distinguish them. Economic growth according to Todaro (2000) refers to an increase in a country's national output of goods and services or increase in the volume of output of goods and services within a specific period. Growth is usually taken to mean economic progress which is the rate at which the annual output of goods and services grow in real terms but economic development on the other hand is a less precise and more complex term which cannot be easily reduced to quantitative measurement in monetary terms alone. It involves a multitude of variables all of them dealing with man's existence. To Jhingan (2003), economic growth is related to quantitative sustained increase in a country's per capital output or income accompanied by expansion in its labour force,



consumption, capital and volume of trade, while economic development is a wider concept than economic growth. It relates to qualitative changes in economic wants, goods, incentives, institutions, productivity and knowledge. It is the upward movement of the entire social system. This implies that an economy can grow but cannot develop because poverty, unemployment and inequalities may continue to persist. Thus, while economic growth is the increase in the total output of an economy over a certain period of time, economic development means growth plus change. In the end however, economic development would said to have taken place if the totality of changes in these variables end up in improving the living conditions of the people. This explains why many economists believed that while economic growth is about things economic development is about persons. In the context of this work therefore, economic growth refers to increase in the value of real GDP or increase in the real GDP growth rate. Economic growth is measured by the Gross National Product (GNP). It is simply the total measure of the flow of goods and services at market value resulting from current production during a year in a country, including net income from abroad (Todaro, 2000 and Miller, 2000). This is one of the popular methods of measuring economic growth and development. It therefore implies that when GNP of an economy increases over a long period of time, such an economy is said to be growing or developing.

**GNP Per Capita:** It is the average income of the people of a country in a particular year. It is also known as per capita income (Jhingan, 2003). It is calculated by dividing national income of a country by the country's total population. When the per capita income of an economy increases over a long period, it is recognized as economic growth. It is to this regard that Meier (1976) defined economic development to mean a process whereby the real per capita income of a country increases over a long period of time.

**Welfare:** There is also a tendency to measure economic growth and development from the point of view of the economic welfare (Jhingan, 2006). This is because economic growth and development is regarded as a process whereby there is an increase in output and consumption of goods and services of individuals. Thus when there is a great increase in the welfare of the people in a country, it means there is growth and development (Miller, 2000).

**Social Indicators:** Other economists have tried to measure economic growth and development in terms of social indicators. They include items like inputs which include nutrition standard or number of hospital beds or doctor per head of population, while others may be 'outputs' corresponding to these inputs such as improvement in health in terms of infant mortality rates, and sickness rates. Social indicators are often referred to as the basic needs for development. Basic needs focus on the alleviation of poverty by providing basic human needs for the poor.

## **5. EMPIRICAL REVIEW**

Sunday and David (2011) studied the impact of financial institutions on economic growth in Nigeria between 1970 and 2009 using OLS regression and annual time series data. The application of the OLS to the small macro-economic model confirms an indirect relationship between financial structure and economic growth through banking sector domestic credit to the economy. The study suggested that policy direction should emphasize the overall growth of the financial system with reduced cost of transaction and very much efficiency in financial transaction. Ibrahim (2012) investigated the impact of financial intermediation on economic growth in Nigeria between 1970 and 2010 using annual data from the CBN. The study used simple statistics, unit root test, cointegration test and error correction mechanism and found out that financial intermediation had a positive impact on economic growth in Nigeria with some of the main indicators being statistically significant.

The study suggested for a complete integration of the real-agricultural and industrial sector for meaningful development in the Nigerian economy. Torruam, Chiawa and Abur (2013) investigated the impact of financial deepening on economic growth in Nigeria between 1999 and 2011 using a set of econometric tools such as unit root test, cointegration test and the error correction mechanism. The result shows four cointegrating equations and a unidirectional causality running from financial deepening to economic growth and above all, a positive impact of financial deepening on economic growth was witnessed. The study recommended for promotion of the Nigerian capital market for diversified financial services in the economy and Ogiriki and Andabi (2014) investigated the impact of financial deepening on economic growth in Nigeria between 1988 and 2013 using secondary data generated from the publications of the CBN. Result from the VECM confirms a long run negative relationship and no causal relationship between the dependent and independent variable during the period of analysis. On the basis of these findings, the study recommended for the regulation of the activities of financial intermediaries in order to allow for free flow of financial resources from financial institutions to the rural economy for productive activities.

## 6. METHODOLOGY

Secondary data relevant for this study was sourced directly from the publications of the Central Bank of Nigeria (CBN) and National Bureau of Statistics (NBS), the model of the study is technically specified thus:

$$GDP = F (FD) \text{-----} (3.1)$$

Equation (3.1) is non stochastic and simple relationship between GDP and financial deepening (FD). However, FD can be easily expanded to cover other related variables and how they affect economic growth in Nigeria as follows:

$$GDP = F (MSS + CPS + MCP + ITR \text{-----} (3.2)$$

Where: GDP = Real Gross Domestic Product, MSS = Broad Money Supply, CPS = Total Credit to the Private Sector, MCP = Market Capitalization and ITR = Interest Rate.

Equation (3.2) is simply also a non stochastic model which entails that only the above capture factors affect economic growth in Nigeria. It is however very clear certain factors too can affect economic growth in Nigeria. The non stochastic implicit model is therefore explicitly specified to cover the stochastic random element and transformed into ARDL long run as follows:

$$\begin{aligned} \Delta LGDP = & a_0 \sum_{i=1}^p a_{1i} \Delta LGDP_{t-1} + \sum_{i=1}^p a_{2i} \Delta MSS_{t-1} + \sum_{i=1}^p a_{3i} \Delta CPS_{t-1} + \sum_{i=1}^p a_{4i} \Delta MCP_{t-1} \\ & + \sum_{i=1}^p a_{5i} \Delta ITR_{t-1} + \lambda ECM + \zeta \text{-----} (3.3) \end{aligned}$$

Where  $b_0$  = Intercept or gradient,  $b_1$ - $b_4$  = Parameter coefficients to be estimated and U = Error Term.

All the variables areas previously defined and are taken on annual basis and used in their log form. On a priori theoretical expectation, it was expected that all the independent variables except ITR and would positively related the dependent variable in the model.

## 7. DATA PRESENTATION

*Table 1: Descriptive Statistics*

	GDP	MSS	CPS	MCP	ITR
Mean	18.96222	23.05956	1292.984	9.024444	2.298000
Median	12.70000	21.23000	1243.800	5.300000	2.320000
Maximum	72.90000	39.32000	1897.000	26.00000	6.240000
Minimum	1.600000	12.34000	594.0000	1.900000	0.120000
Std. Dev.	17.01522	8.155138	218.8311	6.725094	1.452275
Skewness	1.610196	0.596152	0.237534	1.096034	0.368094
Kurtosis	4.654978	3.294896	5.017207	3.953905	2.607848
Jarque-Bera	3.058102	3.597676	8.052778	3.013661	1.304540
Probability	0.500005	0.500491	0.317839	0.111033	0.120862
Sum	853.3000	1037.680	58184.30	406.1000	103.4100
Sum of Sq.Dev.	12738.79	2926.276	2107030.	1989.983	92.80052
Observation.	31	31	31	31	31

*Source: Author's computation using Eviews 8.0*

Table 1 above displayed the summary statistics for the dataset used. Skewness in the table is positive with all the variables having positive signs showing that the distribution was skewed to the right. This simply implies that even in a frequency distribution form, the data set analyzed was either dominated by positive values or was completely made up of positive values. The kurtosis on the other hand revealed that only MSS and MCP almost satisfied its symmetrical condition of the expected value of three (3). ITR had a value of less than three. This implies that the distribution of the variables is flat or platykurtic. On the other hand, GDP and CPS had values greater than three. This indicates that the distribution is peaked or leptokurtic. However, the probability of all the variables was shown to be positive and relatively high with all the variables in the model being statistically insignificant at 5% level of significance. This gives way for the acceptance of the in-built null hypothesis that the data set is approximately normal. Furthermore, an interesting relationship exists between the mean and median for all the variables in the model. The mean to median ratio for all the data set is within the unit proximity. The range of the distribution (difference between minimum and maximum values) is positive for all the variables in the model, given credence to the positive nature of the distribution as already indicated by the skewness.

### 7.1. Model Estimation: Analysis of ADF Stationarity Test

The result of the unit root test using Augmented Dickey-Fuller (ADF) approach was presented in Table 2. The ADF test shows that the following variables – GDP, CPS, MCP and ITR were not stationary at levels while MSS was stationary at levels. The series after first difference all became stationary at 5% level of significance but with a mix order of integration. Thus, with all the variables not integrated of the same order but have revealed a mix combination of I (0) and I (1) and the use of ARDL is appropriate.

*Table following on the next page*

Table 2: ADF Unit Root Test

	ADF Test Statistic	0.05 Critical value for ADF Statistic	Order of ITRegration
<b>GDP</b>	-3.517907	-2.929734	I (0)
<b>D(GDP)</b>	-6.675181	-2.933158	-
<b>MSS</b>	-1.399650	-2.929734	-
<b>D(MSS)</b>	-7.522302	-2.931404	I (1)
<b>CPS</b>	-2.919755	-2.929734	-
<b>D(CPS)</b>	-8.303582	-2.931404	I (1)
<b>MCP</b>	-0.542793	-2.929734	-
<b>D(MCP)</b>	-8.329979	-2.931404	I (1)
<b>ITR</b>	-2.158768	-2.931404	-
<b>D(ITR)</b>	-11.33040	-2.931404	I(1)

Source: Author's computation using Eviews 8.0

## 7.2. Analysis of Co-integration Test

Table 3: Result of the Bound Test

Country Specific	SB CLags	F-statistic	Alpha Level	Critical Bound		Decision
				Lower Bound	Upper Bound	
<b>Nigeria Model</b>	<b>3</b>	<b>5.7420</b>	<b>5%</b>	<b>2.7354</b>	<b>4.7843</b>	<b>Co-integrated</b>

Source: Author's computation using MicroFit

Table 3 above indicates the calculated F-statistics of 5.7420. Given the upper bound critical value of 4.7843 which is less than the F-statistic, the null hypothesis of no co-integration is rejected, implying long-run co-integration relationships exist amongst the variables. This leads to the estimation of the long run relationship and the associated short-run dynamics. The estimation of the ARDL model is based on the Schwarz Bayesian Criterion (SBC). The static long-run estimates as well as the diagnostic test statistics of the estimated model are reported in the following tables:

Table 4: Estimated Long Run Coefficients using the ARDL Approach  
ARDL(0,0,0,0,1,0,0) selected based on Schwarz Bayesian Criterion

Dependent variable is GDP 31 observations used for estimation from 1986 to 2017				
Regressors	Coefficient	Standard Error	T-Ratio	[Prob]
MSS	-0.49606	0.19189	-2.5851	[0.012] *
CPS	0.50187	0.44724	1.1221	[0.269]
MCP	0.39026	0.48009	0.8128	[0.422]
ITR	-0.30558	0.12620	-2.4213	[0.021]*
ECM	-0.34031	0.07411	-4.6914	[0.002]*
R-Squared	0.59497	R-Bar-Squared	0.52747	
S.E. of Regression	0.86224	F-Stat. F(6,36)	8.8137[.000]	
DW-statistic	1.8209	Schwarz Bayesian Criterion	-63.9851	

Source: Author's computation using MicroFit

Results of the ARDL presented in Table 4 above revealed the coefficient of the lagged error correction term (-0.34031) to be negative (rightly signed) and statistically significant at the 5% level of confidence. The negative and significant coefficient is an indication of co-integrating relationship among the variables. The magnitude of the coefficient implies that about 34% of the disequilibrium caused by previous year's shocks converges back to the long-run equilibrium in the current year. The coefficient of multiple determination ( $R^2$ ) is 0.59497 and the adjusted value is 0.52747 indicating that about 52.75% of total variation or a change in the present value of GDP is explained by changes in the explanatory variables in the model while the remaining 47.25% is explained by other factors not explicitly captured in the model. The MSS as a prime variable in the model is negatively related to the GDP in the model and is statistically significant at 5% level of significance. This means that money supply has negative consequences on economic growth in Nigeria. There is good evidence of money laundering in Nigeria, a development responsible for the inability of the CBN to regulate money supply hence the effect is mostly felt on the price level. ITR has a negative but statistically significant relationship with GDP in Nigeria. The recent escalating cost of borrowing in Nigeria further justifies this negative result. Meanwhile, CPS and MCP are positively related to GDP in the country. An important explanation is required here. Money is crucial for all productive activities and hence the volume of credit granted to the private sector has assisted the sector in various productive activities leading to positive development in the economy. Positive MCP entails an improvement in the market value of the capital market in terms of improved trading activities, listed companies, new shares and share value. The D-W statistic of 1.82 shows positive serial correlation but within the normal bound of 2.

*Table 5: Diagnostic Tests*

Test Statistics	LM Version	F Version
A:Serial Correlation	CHSQ(1) = .42444[.515]	F(1, 29)= .29606[.591]
B:Functional Form	CHSQ(1) = 2.1877[.139]	F(1, 29)= 1.5936[.217]
C:Normality	CHSQ(2) = 1.3630[.506]	Not applicable
D:Heteroscedasticity	CHSQ(1) = 28302[.595]	F (1, 40)= .27137[.605]

*Source: Author's computation using MicroFit*

Using the LM version, the ARDL diagnostic tests of the estimated model suggest that the model passed the tests of serial correlation, functional form misspecification and heteroscedasticity with statistically insignificant probability values. This is clearly evidenced from the high probability values reported by the LM version contained in Table 5. The high probability values of the F-statistics are also handy to confirm the result from the LM version. The stability tests - Cumulative Sum of Recursive Residuals (CUSUM) and Cumulative Sum Squares of Recursive Residuals (CUSUMSQ): The CUSUM test is particularly good at detecting systematic departure of the  $\beta_i$  coefficients that results in a systematic sign on the first step ahead forecast error while the CUSUMSQ test is useful when the departure of the  $\beta_i$  coefficients from constancy is haphazard rather than systematic but that involves a systematic change in the accuracy of the estimated equation as observations are added. Both are derived from the residual of the recursive estimation known as recursive residuals. Under the null hypothesis of perfect parameter stability, both the CUSUM and CUSUMSQ statistics are zeros. Given that the expected value of a disturbance is always zero, a set  $\pm 2$  standard error bands is usually plotted around zero and any statistic lying outside the band is taken as evidence of parameter instability. Plots of CUSUM and CUSUMSQ in figures 1 and 2 respectively showed that both statistics fall within the critical bounds implying that, all the coefficients of the estimated model for Nigeria are stable over time.

Figure 1: Plot of Cumulative Sum of Recursive Residual

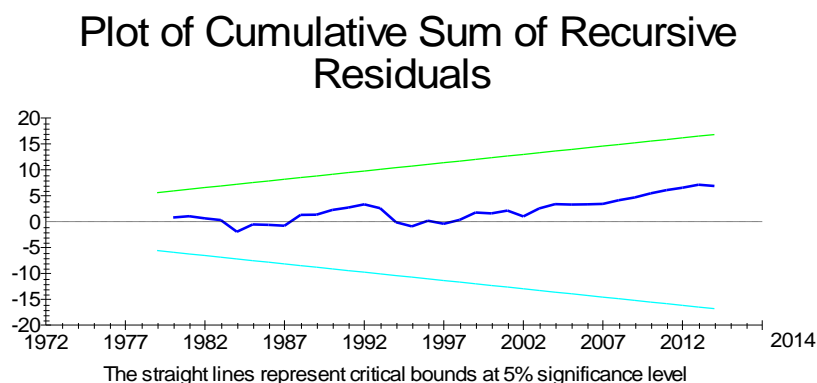


Figure 2: Plot of Cumulative Sum of Squares of Recursive Residuals

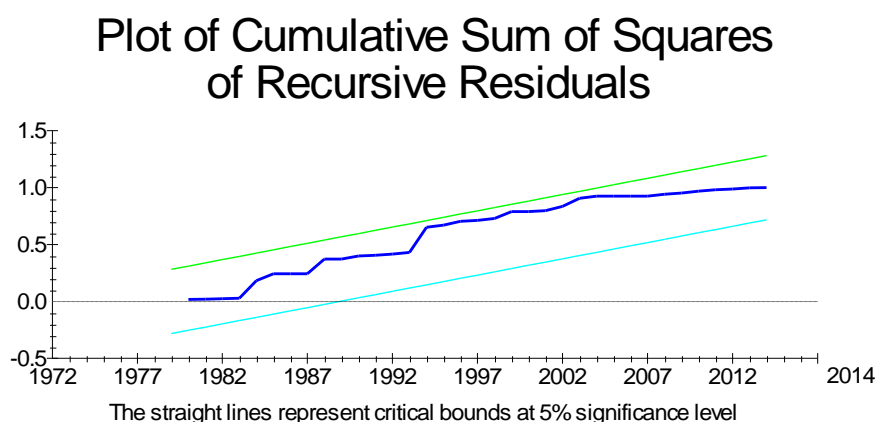


Table 6: Granger Causality Test

Pairwise Granger Causality Tests			
Date: 02/05/19 Time: 08:14			
Sample: 1986 2017			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
MSS does not Granger Cause GDP	30	5.71294	0.0124
GDP does not Granger Cause MSS		4.62245	0.0247
CPS does not Granger Cause GDP	30	6.30981	0.0044
GDP does not Granger Cause CPS		0.39307	0.6791
MCP does not Granger Cause GDP	30	5.31414	0.0166
GDP does not Granger Cause MCP		0.45136	0.6419
ITR does not Granger Cause GDP	30	4.49363	0.60262
GDP does not Granger Cause ITR		0.14821	0.8630

*Source: Author's computation using Eviews 8.0*

The result in Table 6 above shows a bi-directional causation between MSS and GDP, a uni-directional causation between CPS and MCP and GDP but no causation between ITR and GDP. This implies that money supply is an important ingredient for economic growth just as economic growth influences the quantity of money available in an economy.

## 8. POLICY RECOMMENDATIONS

In view of the findings therefore, the following are recommended:

- 1) Considering the negative effect of money supply on economic growth in Nigeria, policy makers are urged to focus on diversifying and improving the performance of the financial sector to ensure improved financial activities for improved production.
- 2) Drastic measures aimed at improving those sectors critical to capital development such as education, health, security, electricity and a host of others should be taken. These factors have the capacity of boosting productive activities in Nigeria.
- 3) The Central Bank of Nigeria of Nigeria will need to maintain both contractionary monetary and fiscal policy mix consistent with low interest rate to curb the negative effects of this variable on economic growth.
- 4) Credit supply and improvement in the performance of the capital market be sustained for positive impact on economic growth in Nigeria.

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## IN SHORTLY ABOUT ANTITRUST POLICY

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### **ABSTRACT**

*Antitrust is a term used to denote all activities of the state for the purpose of suppressing forms of business practices by private individuals or companies that are considered to be harmful to competition or constitute unfair treatment of consumers. These activities are most often governed by specific laws that constitute antitrust law, the enforcement of which is overseen by specific market regulation agencies. Those involved in the enforcement of antitrust laws may consider some act that is apparently innocent as part of an activity that violates antitrust law. Therefore, it should be borne in mind in professional working groups, and consultative groups or similar bodies, that their purpose is to enhance the ability of all members of the industry to compete more effectively and effectively deliver better value to the consumer or end user. It is therefore necessary to ensure the application of antitrust laws.*

**Keywords:** *Antitrust, Monopoly, Competition, Law*

### **1. INTRODUCTION**

Antitrust law is only as good as the mechanisms by which it is enforced (Crane, 2010.). Substance and procedure are not distinct bodies, but part of a continuum of legal and institutional rules, practices, and mechanisms working conjunctively to advance consumer welfare and efficiency. It is impossible to understand the substantive rules without understanding the relevant enforcement mechanisms. Many of the procedural and enforcement rules that apply to antitrust cases were not designed for antitrust, but are general features of civil or criminal law. Sometimes, mismatches occur between procedure's generality and antitrust's specificity. Generic enforcement methods are not always well-suited to the peculiarities of antitrust. The goals of antitrust enforcement are bound up with the goals of antitrust law itself. How antitrust is enforced depends substantially on what antitrust law is intended to achieve. For much of the history of US antitrust law, there was debate and disagreement over antitrust law's goals. The differing views implied widely varying possibilities about the structure of enforcement. Today, there is broad consensus on the goals of antitrust law, which makes possible a broad consensus on the goals and structure of enforcement. The intersection between law and economics is not a new phenomenon (Elkin-Koren et al., 2013.). There are legal fields that are aimed to regulate the activities in the traditional economic markets. The laws and legal concepts in those fields are derived from traditional economic analysis of markets, their special characteristics and failures. The 'old' law and economics focuses on these fields. Corporation law, tax law, antitrust and competition law are a few examples of such legal branches, where the economic considerations are only natural and the market analysis is an integral part of the legal framework. The 'new' law and economics is an approach that does not focus on legal analysis of the economic world but on the economic analysis of the legal world. It is not limited to the branches of the law dealing with economic issues but views the whole legal system – private law as public law, substantive law as procedural law, as well as legal institutions – as targets for economic analysis.

### **2. MONOPOLY**

Before illustrating a stylized model of monopoly, it will be useful to review a benchmark case of what monopoly is not: perfect competition (Blair et al., 2010.). In a perfectly competitive industry, there are many relatively small firms and many relatively small buyers of a

homogeneous product. Competitive firms are price takers, meaning that they have no control over the market price; they take the market price as given in their profit-maximizing calculus. A profit-maximizing firm will produce a quantity of goods (call it  $q^*$ ) such that the marginal cost of producing the last unit is exactly equal to the marginal revenue, or in this case, price. Anything less than  $q^*$  would leave profit on the table, and anything more would cut into profit (assuming that marginal cost is increasing in  $q$ , as would typically be the case in a competitive industry). There are three major results in a model of perfect competition, and the zero profit condition is one of them. The other two are market equilibrium and social welfare maximization. Competitive markets tend toward equilibrium, where the quantity supplied equals the quantity demanded. This is Adam Smith's 'invisible hand' at work. Competitive markets are characterized by economic efficiency, or social welfare maximization. Social welfare, in the economic context, quantifies the total surplus that consumers and producers enjoy when the market price is different from their reservation prices. For most consumers, the market price for a good is less than their perception of the product's inherent value. A good quantification of that value is consumers' maximum willingness to pay, as described by the demand curve. Consumer surplus is the difference between the total value that consumers receive from a good and the price they pay. Similarly, producer surplus is the aggregate difference between market price and the minimum price at which a given quantity would be produced. Social welfare is the sum of consumer and producer surplus, and it is maximized under perfect competition. This is a consequence of the assumptions that led to market equilibrium: price-taking sellers and buyers, free entry and free exit, homogeneous goods, and full information.

### 3. ERROR COSTS

The error-cost perspective evaluates antitrust rules—individually and as a whole—on the basis of whether they minimize total social costs (Baker, 2019.). The relevant costs include those of false positives (finding violations when conduct did not in fact harm competition), false negatives (failure to find violations when conduct harmed competition), and transactions associated with use of the legal process. Transaction costs include those of litigation and, for example, those associated with information-gathering by potential litigants and the institution specifying decision rules. Transaction costs are not literally error costs, but they are social costs that must also be accounted for in a decision-theoretic analysis of rules. Error costs track the overall adverse consequences of mistaken implementation of rules—consequences that may be borne by firms involved in litigation, by their competitors, customers, and suppliers, and by firms in unrelated markets that look to those rules for guidance on how to behave. Accordingly, the evaluation of error costs must look to the consequences for firms throughout the economy, not just to effects on the parties to the case. Error costs can also arise without errors in implementation. For instance, *per se* prohibitions, applied as intended, may lead to over- or underdeterrence. Finally, to the extent that uncertainty about legal rules chills beneficial conduct, or means that the rules fail to deter harmful conduct, the error-cost analysis should account for those consequences. Economists and legal scholars have argued that the goal of legal rules, including the regulation of business conduct through the antitrust laws, is to minimize the sum of direct costs and error costs (Kobayashi, 2010.). Applying this analysis to predatory pricing, error costs include the costs of false negatives or type II errors (allowing anticompetitive predatory pricing) and the costs of false positives or type I errors (wrongly condemning welfare-increasing price cuts or deterring efficient price competition from occurring in the first place). Direct costs include the costs imposed on society (including litigants, consumers, and the courts) associated with the enforcement of the antitrust laws to regulate predatory pricing. Under this framework, the optimal form and substance of a legal rule is determined by the frequency and size of the two types of error costs, as well as the costs

of administering the rule. For example, if the relative cost and frequency of false positives to false negatives is high, then the optimal rule should contain both procedural and substantive safeguards that reduce the costs of false positives. The nature of the error costs and direct costs also determines whether the optimal legal rule takes the form of an easily administered bright line rule, or a more nuanced and more difficult to administer standard. Uncertainty in the application of a nuanced standard can dramatically increase both the direct costs associated with it, raising both the frequency and cost of litigation, and the total error costs involved in enforcing such a standard. As a result, it is often the case that optimal legal rules ignore potential or speculative harms because any attempt to address them would result in an increase of direct costs far in excess of any benefit from the reduction in error costs.

#### **4. COMPETITION**

Thus, competition policy can be defined as the political and regulatory framework that dictates the rules of conduct in the market (Poli, 2015.). While most countries refer to such discipline as ‘competition law’, the US uses the term ‘antitrust’ instead. The American peculiarity is due to the different evolution of the meaning of the word ‘trust’. Originally denoting a common law arrangement whereby a property could be managed by one person or organisation for the benefit of another, the word changed meaning when, from the second half of the 19th century, many American corporations began to create cartels and to name them ‘trusts’ to conceal the nature of their business. The American response against the formation of this kind of economic arrangement came to be referred to as antitrust law and policy. Although competition policy has a broader meaning than antitrust policy – as it may include intellectual property law, subsidies and antidumping law – in most cases the terms can be used synonymously. They both aim to foster competitive market conditions by limiting those practices such as mergers, cartels, monopolisations and general unfair agreements that can damage market trends, generate negative externalities and result in high social costs. Indeed, while economics is commonly concerned with reaching efficiency at lower costs, in the case of antitrust, efficiency is as much an objective as are welfare, equity or a fairer distribution of economic opportunities, guaranteed by market freedom to invest. It follows that since competition policy ought to protect economic freedom, the regulator should intervene in the market and use competition regulations to channel, and not to restrict, the flow of business activities in order to avoid the rise of anticompetitive practices. However, the protection of economic freedom can translate either in laissez-faire policies or in the defence of those smaller firms that have fewer possibilities to invest in the market. The latter practice does not necessarily imply recourse to protectionist measures. On the contrary, it may ensure the possibility for everyone to be active in the market and not to be limited by the power exerted by big corporations. Hence, the extent to which antitrust law should or should not intervene in the market depends on how efficiency and welfare are conceptualised. Ideas, cultures, beliefs and their conversion into theoretical conceptualisations are crucial to understanding the evolution of the meaning of competition (Poli, 2015.). Indeed, while the rationale of antitrust lies in the maximisation of efficiency and the protection of welfare, the interpretation of how to reach these objectives can produce different outcomes. Goals and objectives are assessed by taking into consideration the contingent necessities and the interests of each historical period as well as the frame of theoretical conceptions and cultural variables that influence the social realm. For this reason, competition policies have a different meaning according to the country where they are applied and the cultural environment of reference. The provisions for meetings between competition officials and the provisions for technical assistance are evidence of this (Papadopoulos, 2010.). Given that competition law, having only been adopted by most countries recently, is a relatively new legal tool, regular communication among competition authorities is definitely beneficial in terms of the creation of a competition culture around the world, and at a more advanced level,

such cooperation may contribute to harmonisation of national competition laws, through the achievement of common understandings about the proper function of competition. In addition, the experience primarily of the operation of the EU–US agreement highlights that on the whole the agreement has offered useful mechanisms for cooperation in a number of cases, particularly relating to mergers, where the parties will often give their consent to the waiver of confidentiality. The increase in the number of notifications also shows that everyday cooperation among competition officials is becoming stronger.

## **5. CARTEL**

A business cartel is a formal agreement between independent firms which are active in the same or very similar areas of economic activity and which deliberately concoct an arrangement among themselves to stifle direct competition (McGowan, 2010.). Rather than engaging in open competition with one another, cartel members instead opt to reach agreement on issues such as the fixing of prices, the determination of total industry output, the allocation of customers and market shares, bid rigging and the division of profits. Understanding why certain firms opt to create such agreements necessitates an awareness of specific market conditions. Cartels usually emerge in a market or economic sector where there are a small number of manufacturers (i.e. oligopolistic markets) who are producing similar products. In such markets rival firms usually rely on heavy product differentiation through advertising (as in the brewing and glass sectors) and other marketing ploys to distinguish themselves from rival brands. This costs in terms of both advertising and, ultimately, lower profits as the goods have to be competitively priced. Entry into collusive agreements is regarded as an avenue to escape the degree of uncertainty of oligopolistic markets and to profit maximisation as if the market was itself a pure monopoly. In short, the undertakings concerned engage in collusive activity as a means of exerting market power which they would not otherwise have and by doing so restrict competition. However, the central aim of maximising profits works very much against the interests of the consumer. Caution is needed here because economic insights into the conditions for successful conclusion are irrelevant for the most part in the mindsets of competition authorities, which are more keen to distinguish between express and tacit collusion, and the focus is very much fixed on the former. It is these hard core cartels which should always be the focus of any competition authority, because if unchecked and successful, they can cause considerable damage to the competitive environment and the consumer.

## **6. CRISES**

References to ‘financial crisis’ or ‘economic crisis’ are frequent, and usually the phrases are used interchangeably (Kokkoris et. al., 2010.). However, technically speaking, these crises are different. The word ‘finance’ is defined as the management of large amounts of money, especially by governments or large companies, thus a ‘financial crisis’, in a national or international context, affects the management of large amounts of money and monetary resources. In this order of ideas, the definition of ‘economy’ is the state of a country or region in terms of the production and consumption of goods and services and the supply of money. The world has faced what has been referred to as financial and economic crises several times over the past decades; particularly resonant is that of 2007 – the US subprime mortgage crisis that derived in what is known as the credit crunch. The similarities between these two types of crisis first lay in the interplay of the different components described above (intense difficulty, turning point, emergency and decision-making). However, further similarities and differences have led to much confusion. Thus both financial and economic crises affect monetary resources, on different scales. What can start with a situation affecting the management of large amounts of public money and monetary resources can end up disturbing the whole state of a

country in terms of the supply of money, the production and consumption of goods and services: a financial crisis can lead to an economic crisis.

## **7. INTELLECTUAL PROPERTY**

Application of antitrust rules to trade secrets in the EU and in the United States is the best example of the divergences in the treatment of IP-related market distortions in the two jurisdictions (Czapracka, 2009.). Both in the US and in the EU, trade secrets are regulated predominantly at the state or national level and ‘federal’ antitrust rules trump inconsistent trade secret laws. Yet, whereas the US antitrust authorities treat trade secrets with the same deference as IP rights, the position of their EU counterparts is that trade secrets do not deserve the same level of protection as other forms of IP (Intellectual Property). The differences in the treatment of trade secrets merit a closer look, as they are a very good example of applying antitrust rules in a manner that affects substantive standards for IP protection. The decisions in which the European Commission has applied competition law to trade secrets have shaped the standards of trade secret protection in the European Union. The Commission has adopted a definition of what constitutes protectable know-how, decided what the acceptable means of its exploitation are, and asserted that trade secrets are not IP. In doing so, it was concerned predominantly with the need to ensure free competition and less with the need to secure the rights of the companies in their know-how. This process, which effectively led to the establishment of trade secret standards for the purpose of application of EU competition law, was erratic and marked by decisions that ignored the standards of trade secret protection at the Member State level. The Commission’s refusal to recognize and protect trade secrets, in line with the basic principles of national trade secret laws, considerably undermined these laws and may, in turn, diminish the incentives to innovate and impede the diffusion of new technologies. There are numerous reasons for holders of intellectual property rights to protect their brands in the context of on- and offline distribution and after-sales service (Guggenberger, 2019.). To give examples, they might want to maintain a certain quality of service throughout the entire value chain; they might want to ensure or increase brand recognition; secondary markets or repair markets might promise high returns, potentially even higher returns than the primary markets for the original product; they might want to protect their licensed merchants from unwanted competition; they might want to price discriminate between customer groups or regional markets. The representatives of brands argue that it is their natural right to determine the ways and means of the distribution of their products and that after-sales services are an integral part of the experience that the companies are offering. They emphasise a holistic approach to competition and warn that limiting the downstream influence of the ultimate holders of intellectual property would harm innovation and, eventually and inevitably, consumers. The holders of intellectual property rights realise the protection of their brands by employing direct contractual limitations, by attaching negative consequences to behaviour that circumvents the desired distribution and after-sales infrastructure or by building on practical measures. Examples of these categories are general terms and conditions dictating the business practices of licensed merchants, provisions limiting guarantees or product liability rights of consumers in cases of repairs by unlicensed providers and product design that supports vertical integration, such as non-removable batteries.

## **8. TRIPS**

The national treatment provision of the TRIPS (Trade-Related Aspects of Intellectual Property Rights) Agreement obligates each Member to treat nationals of other Members on at least as favorable a basis as its own nationals with respect to the protection of IP (Abbott, 2007.). National treatment is a common feature of international IP agreements, including WIPO (World Intellectual Property Organization) Conventions, predating the TRIPS Agreement. The most favored nation treatment (MFN) provision obligates each Member to extend the same IP

privileges and immunities granted to nationals of one Member to nationals of all other Members. Prior to the TRIPS Agreement, MFN was not included in international IP agreements largely because it did not appear likely that a country would grant to any foreigners IP privileges more extensive than it granted to its own nationals. Thus, national treatment would be an adequate standard for all treaty partners. However, the United States in the early 1990s negotiated some agreements which appeared to give rights to US nationals that were not enjoyed by the nationals of its treaty partners, and other countries began to see MFN as necessary in the multilateral context. The Appellate Body has identified national treatment and MFN as fundamental principles of the TRIPS Agreement. The TRIPS Agreement left each Member to decide on its own policy with respect to the exhaustion of rights. The point at which IPRs are 'exhausted' determines when the holders of rights cease to control the movement of goods or services in commerce. From an international trade standpoint, this is typically referred to as the 'parallel imports' issue because the rule of exhaustion adopted by each country determines whether goods first placed on the market under a 'parallel' IPR (Intellectual Property Rights) outside the country may be imported notwithstanding the presence of an IPR within the country.

## 9. ANTITRUST LAW

Since its inception in the late 19th century, US antitrust law played a pioneering role in the world, which builds on its innovative force, its subtly structured development over the years, its effective enforcement, and its impact for most large companies with a presence in the US market (Herdegen, 2013.). Nowadays, EU competition law and US antitrust law follow similar objectives with similar mechanisms. They both control restrictive agreements (horizontal agreements or cartels and vertical agreements such as exclusive dealings agreements) and other restrictive practices, the abuse of a dominant position, and mergers. US antitrust concepts like the essential facilities doctrine now form the basis for restraining the exercise of dominant positions coupled with a copyright or with technical standards in EU competition law. Under both systems, there is an ongoing discussion to what extent they should ultimately protect undistorted competition as an end in itself or rather other consumers' interests and other concerns. For some time, US antitrust practice has strongly leaned towards consumer welfare. In the European Union, and previously under German competition law, the traditional focus was on freedom to compete and on protection against distorting interferences. In the 2000s, the European Commission adopted the more economic approach, which results in considerable convergence with the US antitrust policy. The more economic approach reflects current economic thinking about competition, incentives, and efficiency. It enhances the weight of consumers' interests in the overall balance of relevant factors and increases the discretionary element in the application of competition law. Despite all the convergence, there are marked divergences. Unlike EU competition law, US antitrust law strongly relies also on private enforcement (with the incentive of treble damages) and on sanctions under criminal law. EU law tends to be more sensitive about the anti-competitive risks associated with a dominant position and the interests of newcomers in an entirely unhampered market entry than US antitrust law. The European Commission is less shy than US authorities in siphoning off the fruits of innovation. Competition law also lies at the heart of the EU legal framework for the creation and supervision of the internal market (Dunne, 2015.). Treaty provisions regulating unilateral and coordinated conduct were contained in the original Treaty of Rome of 1957, while formal merger control rules were added in 1989. There had been national competition laws in several European States from the inter-war years, and, following World War II, the US authorities implemented antitrust rules within the Occupied German Territories. Another key influence was the work of German Ordoliberal scholars, also known as the Freiburg School, which saw the role of competition law as, effectively, regulation of competition.

Although US antitrust was not the principal influence behind the adoption of the EU rules, nonetheless the shape of the provisions as adopted mirrors broadly the crime-tort model contained in the Sherman Act (1890.; The Sherman Act was preceded by various state antitrust regimes). Thus, like US law, EU competition law prohibits individual anticompetitive conduct, rather than providing a mandate for direct market regulation to address competition problems. US antitrust law adopts a wide-ranging approach to enforcement. Private parties who suffer losses due to Sherman Act violations can bring actions for damages against infringing firms, under a plaintiff-friendly system that features generous discovery rules, civil jury trials, treble damages, contingency fee arrangements and one-way fee-shifting. The US is unique amongst competition jurisdictions insofar as levels of private enforcement much exceed public enforcement. Public enforcement is undertaken by two federal agencies, alongside state prosecutors in local matters. The Antitrust Division of the US Department of Justice (DOJ) is entrusted with criminal and civil enforcement of the Sherman Act and the merger control framework. Additionally, the Federal Trade Commission (FTC) is an independent government agency, enacted under and with responsibility for enforcing the provisions of the Federal Trade Commission Act (FTCA), also of 1914. The FTC has concurrent jurisdiction with the DOJ over the merger control provisions of the Clayton Act, and it has primary responsibility for enforcing FTCA, §5, which prohibits, inter alia, ‘unfair methods of competition’. Outside the context of the US and EU systems, the goals of antitrust may become more fragmented. Efficiency is a goal pursued within most systems, to a greater or lesser extent. Yet divergent cultural norms, the influence of national circumstances, both historical and contemporary, and the potential strategic application of antitrust mechanisms to achieve, for example, social goals, can result in significant variation in terms of the aims and application of competition law across different systems, particularly with respect to developing economies. Indeed, the urgency of any need for the adoption of ‘global’ standards in antitrust, over and above the elimination of actively harmful or counterproductive rules, has been questioned. The increasing pervasiveness of economic analysis within competition law may nonetheless provide a common analytical language of sorts across dozens of antitrust jurisdictions worldwide; assuming, of course, that economics can identify a single optimal answer to the legal question at issue. The fact that law is used to protect competition has raised some difficult questions, especially since over the years the idea of competition has adapted to evolving intellectual influences as well as legal and political changes (Dabbah, 2003.). There is a considerable disagreement with regard to whether antitrust law should be concerned with regulating uses of power by large firms than with the removal of hindrances to free competition; whether it protects competitors or the process of competition; and whether it is more concerned with the interests of consumers than the interests of producers. Differences between countries around the world also exist with regard to the type of procedures and enforcement mechanism that should be relied on to enforce antitrust law. Quite interestingly, the point of using antitrust law to protect competition has been questioned. Some commentators have argued that enacting antitrust law does not guarantee competition will ensue and that competition can exist without having antitrust law. This argument is supported with reference to the high degree of competitiveness enjoyed by countries such as Japan, Singapore and Taiwan in the international arena. Those who have advocated this view have put forward two reasons why such countries nevertheless consider and adopt some form of antitrust law: first, because they are forced, due to market globalisation, to address the issue of competitiveness. Secondly, it is thought that such countries turn to antitrust law in order to ensure that powerful domestic firms do not replace former state monopolies.

## 10. CONCLUSION

Antitrust policy refers to a system of state measures of legal, economic, financial, tax, psychological nature that prevent the manifestation of anti-competitive behavior and promote

the efficient functioning of a market economy. Antitrust policy represents the activities of the state in the formation of competitive market structures with the aim of promoting the development of commodity markets and competition, preventing, restricting and suppressing monopolistic activities and unfair competition, and protecting consumer rights. Many businesses compete with each other. This means that any activity must be considered according to very comprehensive antitrust laws that prohibit monopoly and attempted monopolization, and dishonest business practices. Violations of antitrust laws can lead to injunctions, high money fines, and even prison sentences.

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# THE IMPACT OF GLOBALIZATION IN CRIMINAL LAW: BETWEEN LIBERTY AND SECURITY

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## **ABSTRACT**

*Criminal law, being the face of the identity of a certain State, reflects the most important values of a certain community. Nonetheless, the impact of globalization in criminal law has been evidently progressively more relevant, be it regarding international covenants imposing the safeguard of certain values, be it through regional instruments – as by the European Union – imposing the criminalization of certain behaviors. In other words, the community relevant in terms of criminal law has known an exponential growth. However, criminal law has its own grammar, in the sense that some ideas are co-natural to the comprehension of this legal area and its meaning in terms of the balance of the fundamental values it stands on: liberty and security. Having under regard the ultima ratio maxim of criminal law, the paper intends to analyze the pendular movement between liberty and security, considering three main vectors: the principle of legality, gender violence and terrorism. The principle of legality represents the general minimal standard of guarantee of criminal law in wider terms, considering the several international covenants regarding the intervention of the ius puniendi of the States. Gender violence, in particular as a situated cultural phenomenon, has been increasingly more relevant in terms of international protection, being in this case particularly relevant the Istanbul Convention. Finally, terrorism has been a major issue of debate with an exponential growth in terms of instruments requiring the harmonization of criminal law intervention since 9/11. These vectors of analysis, interpreted as having different incidence in the pendulum between liberty and security, can possibly allow to ascertain the main direction of the pendulum.*

**Keywords:** criminal law, gender violence, globalization, liberty, principle of legality, security, terrorism

## **1. INTRODUCTION**

Modern Criminal law, as a two-faced mirror of conflict, represents the difficult equilibrium between the safeguard of the legal interests of the public – as a whole – and the fair treatment of the offender. Nonetheless, criminal law, as a cornerstone of sovereignty, is still much synonym of local law, fact which becomes clear in criminal law literature (Fletcher, 2007:19). However, criminal law has not been immune to the process of globalization: on the one hand, scholars and stakeholders are being confronted with a non-local approach, through circulation and access to information; on the other hand, the offence has become less local, so that the criminal law response has grown from local to regional to global. This response has been visible in terms of fairness – considering the minimal guarantees to be granted to the offender – and in terms of punishment – taking into account demands for criminalization. Purporting to ascertain a global trend in the criminal law pendulum between liability and security, this paper will primarily take into consideration international (regional or global) legal instruments relating to criminal law, thus avoiding a traditional local approach. The intentional avoidance of a local approach also relates to the fact that the impact of globalization in criminal law is no longer a debate: it stands as a reality. However, it is also true that criminal law, standing for the punitive power of the States, should be regarded upon as the last resource for the States to use, since it is the law which most affects basic human rights, such as liberty.

Having this under regard, two questions become urgent:

- 1) is globalization affecting the minimal standard of guarantee of criminal law?, and
- 2) is globalization contributing to create an effective global response to crime?

A general response to either question is rendered impossible if attempted without referential points of analysis. As such, taking as a starting point the rule-of-law principle<sup>1</sup> as a minimal standard, the two axis referential points will be gender violence and terrorism.

## **2. THE PRINCIPLE OF LEGALITY**

The rule-of-law principle has a specific meaning in the context of criminal law, namely, that the fundamental rights and freedoms of the citizens are protected, on the one hand, by criminal law and that these rights and freedoms are protected from criminal law, on the other, thus fully respecting the *nullum crimen, nulla poena sine lege* principle. This principle is much influenced by the liberal ideas of Beccaria or Feuerbach (Godinho, 2017:53). As such, the principle of legality is a cornerstone of the criminal system: it is explicitly stated in several international covenants and is undisputed in the scholarly literature, such as the European Convention on Human Rights (ECHR), the Universal Declaration of Human Rights (UDHR) and the International Covenant on Civil and Political Rights (ICCPR), all of them including important provisions regarding the principle of legality and being applicable in domestic law (art. 7 ECHR, art. 11 (2) UDHR, art. 15 (1) ICCPR). The criminal law principle of legality is also an expression of the principle of democracy, since according to the principle, criminal law can only be considered legitimate if it is based on a formal law (i.e., a law enacted by the organ of the state that represents the people). The principle of legality is also an expression of the principle of culpability: a person cannot be punished for his or her actions if those actions were not defined as a crime before their commission. Taking as an example regional law, in this regard one can mention art. 49 (1) of the Charter of Fundamental Rights of the European Union (CFR):

### **2.1. Art. 49 CFR (Principles of legality and proportionality of criminal offences and penalties)**

1. No one shall be held guilty of any criminal offence on account of any act or omission which did not constitute a criminal offence under national law or international law at the time when it was committed. Nor shall a heavier penalty be imposed than that which was applicable at the time the criminal offence was committed. If, subsequent to the commission of a criminal offence, the law provides for a lighter penalty, that penalty shall be applicable.

The principle of legality in substantive criminal law is applicable to all criminal law norms. Considering the teleology of the principle, it is important to emphasise that it applies to all situations involving the punishment of the offender, including the requirements (objective and subjective) of criminal liability, such as the definitional elements of a particular crime and its penalties. In this sense, the principle does not apply to situations relating to the liberty or freedom of the offender, such as justification or excuse defences. This has consequences for all elements of the principle of legality (Godinho, 2017:56).

### **2.2. Principle of legality as a human right**

Particularly important is the nature of the principle of legality as a human right. Considering, for example, art. 7 ECHR, it is very relevant the fact that this principle is a non-derogable clause under art. 15 ECHR, meaning that it cannot be disrespected even in times of national emergency (Murphy, 2010:192). The principle of legality has several elements composing its general minimal standard of guarantee, which will be briefly mentioned (Godinho, 2017:58 ff.).

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<sup>1</sup> The rule-of-law principle is a fundamental principle of the legal system, meaning the submission of the State to law.

### 2.2.1. *Nullum crimen sine lege scripta*

This element relates to the formal requirements of criminal law. In fact, the principle of legality requires the existence of a formal law for both criminal offences as well as for their penalties. This means that, as a rule, customary law does not suffice as a basis for criminal offences and their penalties.

### 2.2.2. *Nullum crimen sine lege certa*

The requirement of reasonable clarity is addressed directly to the legislature in the sense that criminal laws have to be understandable for everyone. In other words, the addressees of criminal provisions have to know what is allowed and what is forbidden so that they can adjust their behaviour accordingly. This means that lawmakers should avoid vague and ambiguous terms to the extent possible.

### 2.2.3. *Nullum crimen sine lege stricta*

This element relates to the limits on interpretation, meaning that criminal liability cannot be the result of analogy. In fact, when enacting criminal provisions, the legislature selects the acts to be prohibited. This selection reflects the fragmentary nature of criminal law (Costa, 2017:15), *i.e.*, the interpreter of the law cannot fill the spaces left blank, since these spaces represent criminally non-punishable acts. This *malam partem* analogy is thus strictly forbidden in criminal law, since it creates a criminal offence – based on similarity – to the detriment of the offender.

### 2.2.4. *Nullum crimen sine lege praevia*

The prohibition of retroactive application in criminal law is particularly relevant in all matters relating to the temporal application of criminal law. It stands in situations in which the provision has a detrimental effect or works against the offender. This prohibition has to be read together with the *lex mitior* principle. In the framework of the temporal application of criminal law, it is thus essential the time of commission rule.

The principle of legality with its several elements thus constitutes the minimal standard of guarantee against arbitrary prosecutions and/or punishment, and aims at ensuring the balance between liberty and security.

## 3. GENDER VIOLENCE

In the scope of gender violence, Female Genital Mutilation (FGM) in particular is a grave problem arising from the intertwinement between multiculturalism and criminal law. In the international scope, FGM is a practice that has been object of a continuous movement of censorship as a violation of human rights (Godinho, 2018:147). In this context, recently was adopted a fundamental instrument on this subject, namely the Convention of Istanbul (Convention on preventing and combating violence against women and domestic violence<sup>2</sup>), adopted by the Council of Europe and opened for signature in May 2011<sup>3</sup>. Under this Convention, States must involve all relevant actors in the implementation of the Istanbul Convention, including national parliaments and institutions and non-governmental and civil society organizations.

In fact, The Istanbul Convention is the outcome of a long process that has raised increasing awareness of the problem of violence against women in Europe, and, more generally, at the

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<sup>2</sup> Available at : <http://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/210>.

<sup>3</sup> On the several sources of international human rights law on Female Genital Mutilation, <https://www.endvawnow.org/en/articles/645-sources-of-international-human-rights-law-on-female-genital-mutilation.html>.

international level. Even when committed by private parties, within domestic walls, instances of violence against women constitute a violation of human rights, and States bear due diligence obligations in effectively preventing and combating these crimes. The private-public distinction, which previously prevented States from interfering in the individual sphere, has been disrupted thanks to the provisions included in international legal instruments, the work of international and regional tribunals, and feminist theories (de Vido, 2017:72-73). The Convention, recognising, with grave concern, that women and girls are often exposed to serious forms of violence such as domestic violence, sexual harassment, rape, forced marriage, crimes committed in the name of so-called “honour” and genital mutilation, which constitute a serious violation of the human rights of women and girls and a major obstacle to the achievement of equality between women and men, establishes in its art. 38 that Parties shall take the necessary legislative or other measures to ensure that conducts consisting in FGM are criminalised.<sup>4</sup> However, FGM does not represent the full scope of gender violence, nor is gender violence *per se* a problem of multiculturalism. In fact, violence against women (v.g., rape, physical violence, sexual harassment) – all over the world, but also in Europe – is a widespread phenomenon (McQuigg, 2015). Hereto it is interesting to observe that, notwithstanding the Council of Europe’s Istanbul Convention, the European Union (EU) Treaties do not include in their crime-catalogue either violence against women or domestic violence (cfr. Art. 83 TFEU), which has made it difficult for the EU to accede to the Convention (Spurek, 2019). Hence, relying on the State-based ratification of the Convention, to date several EU Member States have not yet ratified the Convention (de Vido, 2017).<sup>5</sup> The Istanbul Convention (IC), having as a purpose to protect women against all forms of violence, to contribute to the elimination of all forms of discrimination against women (art. 1 IC), urges its parties to criminalize several actions, such as psychological violence (art. 33 IC), stalking (art. 34 IC), physical violence (art. 35 IC), sexual violence (art. 36 IC), forced marriage (art. 37 IC), female genital mutilation (art. 38 IC), forced abortion and forced sterilisation (art. 39 IC) and sexual harassment (art. 40 IC). This imposition of criminalization aims at harmonising core values under criminal law protection, promoting, in this case, the liberty and security of women (and children) even against cultural motivated practices. In fact, a ground stone of the Istanbul Convention is its milestone in defining violence against women<sup>6</sup>: “a violation of human rights and a form of discrimination against women” meaning “all acts of gender-based violence<sup>7</sup> that result in, or are likely to result in, physical, sexual, psychological or economic harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life” (art. 3(a) IC). This definition is, indeed, a “positive outcome, which fills a normative gap existing in Europe” (de Vido, 2017:75). In the case of gender violence – with strong examples as forced marriage or FGM – it is paramount to underline the awareness that international instruments as the Istanbul Convention are able to perform, especially in States where such cultural motivated practices exist outside their original culture – e.g., Sierra Leone, where FGM is culturally practiced<sup>8</sup> – because their people moved out of their countries and are settled, for example, in European States. In the case of the Istanbul Convention, it is paramount to note that, although urging States towards criminalization, it is about the protection of a core value. In another perspective, recognizing said value did not have enough protection<sup>9</sup>, the global response was to assure said protection through criminal law.

If not for the adoption of an assertive response, that would mean that a (globally) relevant core value would be left, if not unprotected, at least not sufficiently protected. In this sense, in the

<sup>4</sup> <https://www.theparliamentmagazine.eu/articles/opinion/legal-basis-istanbul-convention>.

<sup>5</sup> E.g., Bulgaria, Czech Republic, Hungary, Lithuania, Slovakia.

<sup>6</sup> Including girls under the age of 18.

<sup>7</sup> I.e., violence directed against a woman because she is a woman or affecting women disproportionately.

<sup>8</sup> On the prevalence of FGM see: <https://www.who.int/reproductivehealth/topics/fgm/prevalence/en/>.

<sup>9</sup> Or, at least, differentiated or specific protection.

scope of the problem of gender violence, the ‘global’ answer can be purported to be in the direction of ensuring liberty, since it is mainly oriented to the protection of the interest of the victim (women and girls).

#### 4. TERRORISM

On the other side of the spectrum – meaning not as a guarantee of a core value, but as an offence of core values – lies terrorism. The international instruments are aimed at persecuting the offender. Here it is not a case of international instruments aiming at safeguarding liberty, rather a set of international instruments aiming at ensuring security. Defining terrorism is undoubtedly a seemingly impossible task, if one takes into account the different variations and elements of this phenomena. These elements can be summarized as follows: the terrorist purpose, the terrorist action, the terrorist target, the terrorist method and the terrorist agent (Hodgson/Tadros, 2013:499). Nonetheless, there is some consensus that terrorism is an attack on fundamental core values of the States, reason why it enables triggering of special State power in fighting it. Equally difficult is a legal definition of terrorism (Greene, 2017; Hodgson/Tadros, 2013; Weinberg et al., 2010; Weigend, 2006; Dotti, 2005). The fact remains that there is a significant relation between terrorism and criminal law:

- What is the ‘extra’ added by labelling criminal conduct terroristic? Looking at both the national and the international levels, there are three areas where this label may make a difference: (i) the fact that an act is characterized as ‘terroristic’ can lead to increased penalties; (ii) the suspicion of terrorism can trigger or permit special means of investigation (e.g. surveillance of private conversations and other undercover operations) and restrictions of defence activities (e.g. limiting contacts between a suspect and his lawyer); (iii) mutual international legal cooperation can be intensified (Weigend, 2006:913).

The nexus between criminal law and terrorism is thus a dangerous one: if, on the one hand, there is the argument that (only) criminal law is effective in the fight against terrorism, on the other hand, the many exceptional criminal rules used in this fight undermine the guarantistic nature of criminal law:

- Furthermore, I believe that the criminal law’s actual response to terrorism is riddled with unconstitutional laws that impose cruel and unusual punishments, unjustifiably criminalize acts that do not clearly inflict cognizable harm, and significantly and inexcusably limit the due process rights of defendants charged with crimes of terrorism. (Cancio Melià, 2011:110).

Considering the first difficulty above mentioned, the principle of legality demands such a legal definition of the phenomena. In the context of the European Union, recent Directive (EU) 2017/541 of the European Parliament and of the Council of 15 March 2017 on combating terrorism<sup>10</sup> averts this difficulty and proceeds only to mention the phenomena in general in several of its recitals. This Directive only defines “terrorist group” as “a structured group of more than two persons, established for a period of time and acting in concert to commit terrorist offences” (art. 2(3) of the Directive), then listing a number of international acts, which, if committed with the aims of (i) seriously intimidating a population, (ii) unduly compelling a government or an international organization to perform or abstain from performing any act, or (iii) seriously destabilizing or destroying the fundamental political, constitutional, economic or social structures of a country or an international organization, are defined as terrorist offences (art. 3 of the Directive). Some countries have then definitions of ‘terrorist organization’ as a whole, others, like Portugal, distinguish between terrorist organizations acting against the

<sup>10</sup> Which replaces Council Framework Decision 2002/475/JHA and amends Council Decision 2005/671/JHA.

(national) State and other terrorist organizations acting against foreign States or international organizations (Godinho, 2019:38). The Directive expressly considers the “cross-border nature of terrorism”, requiring “the global character of terrorism (...) an international answer (...) and (...) a strong coordinated response and cooperation within and between the Member States” (recital 7 of the Directive); in other words, even if with a regional scope – EU– it aims at a global response to the phenomena<sup>11</sup>. Nonetheless, there are still claims on the necessity of a global covenant – as a United Nations’ Convention – aiming at the problem of international terrorism (de Vido, 2017a). Even if there is a legal definition of terrorist groups or terrorist acts, the problem remains the maintenance of the guarantistic nature of criminal law. In other words, if suspected terrorists are to be afforded the same rights as other criminal suspects. Recital 35 of the Directive states that:

- This Directive respects the principles recognised by Article 2 TEU, respects fundamental rights and freedoms and observes the principles recognised, in particular, by the Charter, including those set out in Titles II, III, V and VI thereof which encompass, inter alia, the right to liberty and security, freedom of expression and information, freedom of association and freedom of thought, conscience and religion, the general prohibition of discrimination, in particular on grounds of race, colour, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, the right to respect for private and family life and the right to protection of personal data, the principles of legality and proportionality of criminal offences and penalties, covering also the requirement of precision, clarity and foreseeability in criminal law, the presumption of innocence as well as freedom of movement as set out in Article 21(1) of the Treaty on the Functioning of the European Union (TFEU) and in Directive 2004/38/EC of the European Parliament and of the Council. This Directive has to be implemented in accordance with those rights and principles taking also into account the European Convention for the Protection of Human Rights and Fundamental Freedoms, the International Covenant on Civil and Political Rights, and other human rights obligations under international law.

Recital 39 adds that:

- The implementation of criminal law measures adopted under this Directive should be proportional to the nature and circumstances of the offence, with respect to the legitimate aims pursued and to their necessity in a democratic society, and should exclude any form of arbitrariness, racism or discrimination.

Bearing both Directive Recitals in mind, it is still true that the criminal persecution of a suspect of a terrorist-related act determines the possibility by the authorities to use a wider scope of means of investigation not available to the investigation and persecution of other criminal offences, thus leading to the use of the term ‘terrorist law’ (Hodgson/Tadros, 2013:526). The fight against terrorism increases the securitary possibilities of criminal law. The unfortunate consequence is then the decrease of liberty ‘spaces’, since the more securitary, the less liberal criminal law can be.

## 5. CONCLUSION

It is time to come to our main conclusions regarding the main direction of the pendulum in criminal law: if towards liberty or security. Ensuring the minimal guarantee standard offered by the principle of legality in criminal law, one can ask if such minimal guarantee is enough for the safeguard of the most important human rights, such as liberty. The principle of legality is a milestone of criminal law, but does not, by itself, ensure the protection of other core human

<sup>11</sup> In the wider context of the Council of Europe there is also to consider the Council of Europe Convention on the Prevention of Terrorism (2005).

rights. Thereto it is also fundamental to respect the ultima ratio maxim of criminal law and not transform criminal law into the first ratio. Regarding the two referential points taken in consideration – and having under regard the international instruments thereon – the first impression seems to be that there is more repressive than preventive concern. In other words, in ‘global’ terms, there is a graver concern with effective persecutorial measures against terrorism than with the protection of victims of gender violence. It is clear that the scope of this paper does not allow for a certainty and can only point at a tendential direction of the pendulum. Nonetheless, if this repressive trend is correct, one can only call upon the risks of such a trend, which can be a peril for the safeguard of important human rights. In a global world, we are all global citizens and only a liberty directed pendulum in criminal law can truly serve (global criminal) justice.

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## EMPLOYEE TURNOVER TRENDS IN CROATIA

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### ABSTRACT

*The labor market in Croatia is not dynamic so generally, Croatian employees are less mobile than employees in other countries. However, such situation refers mostly to external macro market problems dealing with desirable and involuntary turnover but does not fully explain internal organizational problems with voluntary turnover. Namely, voluntary intentional turnover is not mainly caused by external factors but the range of internal organizational factors where causes vary depending on the industry, organizational structure and culture, and especially on Human Resources Management. This review paper describes different types of employee turnover, employee turnover rates, as well as negative consequences of undesirable employee turnover that include visible and invisible costs. Special emphasis is paid to turnover trends in Croatia where employee turnover rates are very low compared with other European countries. Nevertheless, this is not an indicator of favorable position while Croatian employees are not mobile, labor market is not dynamic and organizations are not flexible. Dominant factors in shaping turnover decision among Croatian employees are in organizational area which means that HRM has plenty space to maneuver this undesirable organizational behavior. Very often organizations are facing first-year turnover syndrome which means they are unable to build a bond with and employee and establish loyalty in such a short time that would result in organizational engagement and more importantly, organizational commitment. Therefore, employee retention is an issue that strives for a systematic approach because it hits directly organizational productivity and efficiency.*

**Keywords:** *employee turnover rate, organizational behaviour, voluntary turnover*

### 1. INTRODUCTION

Employee turnover as a phenomenon in society and behavior in an organization cannot be viewed solely as a negative consequence of a combination of different circumstances because this behaviour has its positive sides. For the effective labor market, employee turnover is a necessary component that ensures productivity gains through better reconciliation of jobs and employees (Gray et al., 1996). The basic classification of the turnover causes is divided into internal and external factors, intrinsic and extrinsic factors, push factors and pull factors respectively. External factors refer to an economic situation, labor market conditions (employment and unemployment rates, employment legislation, etc.), but also perceived alternative job opportunities. On the other hand, internal factors refer to everything in the domain of the organization or the employee himself.

Push factors push an employee out of the organization by referring to factors that are directly related to the organization itself, such as boring and uninteresting work, while pull factors pull an employee out of the organization for reasons such as better working conditions or a payroll in another organization (Pološki Vokić, Zaninović, 2010). As much as the causes of employee turnover vary from organization to organization, person to person, and of course, context, that is, environment and situation, it is true that almost all organizations have the same top 10 causes that lead to this withdrawal behavior (Sears et al., 2017). The latest authors in a sample of over 240,000 respondents across 7 years of follow-up in 173 different organizations, found that career advancement and career development opportunities were among the top three reasons for employee turnover in 86% of organizations. In 30-40% of organizations, the other most common reasons are work-life balance, management behavior, compensation, and benefits, which suggests that as much as 75% of the reasons for turnover is in the organizational domain, that is,  $\frac{3}{4}$  causes of employee turnover can be managed by the organization. In the same study, it is found that the greatest danger to organizations is new employees who have been present in the organization for less than a year (similarly confirmed in the Allied Workforce Mobility Survey: 25% of employee turnover occurs within the first working year), so about a third of all employee turnover in the organization occurs within the first year of employment, mostly due to inadequate job characteristics. They state that leaving the organization in the first year could cost the organization more than other employees because training new employees can take 3 to 6 months before they even add enough value to offset the cost of their hiring, inclusion, pay, and benefits. During the last decade, a specific vocational training program is implemented in Croatia, where young people have an opportunity to join an organization with a one-year professional training contract. Mostly, their career in organization ends immediately after the contract expires whether it represents voluntary or involuntary quit, but most organizations do not report those losses as a withdrawal turnover behavior at all.

## **2. EMPLOYEE TURNOVER TYPES, RATE, AND COSTS**

The employee turnover rate is a measure that quantifies the level of turnover in an organization. It can be calculated on a monthly, annual or multi-year basis, and usually covers only external turnover, ie employee departures without considering internal turnover that may be horizontal, vertical or radial (depending on the transfer of employees from one workplace to another in the same organization). The monthly turnover rate is calculated as the ratio of employees who left the organization and those who remained within the organization within a month multiplied by 100, while the annual turnover rate is often used in a more complex calculation that is more detailed, so it is calculated as the ratio of the number of employees who left the organization and the sum of employees at the beginning and end of the year divided by 2 whereby the ratio is finally multiplied by 100 (Pavlou, Workable). The first step in determining the optimal turnover rate is accepting the fact that the optimal turnover rate is not the lowest possible, but rather one that reproduces the highest long-term productivity and organizational progress (Hansen, 2005), and it depends on the industry in which the organization operates (Pavlou, Workable). Robbins and Judge (2010) argue that there must be a reasonable level of employee-initiated turnover because it supports the organization's flexibility and employee autonomy, and can reduce management's dismissal initiative. Therefore, the employee turnover is divided into functional and dysfunctional, whereby functional is the one that is desirable and the dysfunctional undesirable and is determined by the turnover rate. Functional turnover refers to the loss of unproductive and less desirable or undesirable employees, while dysfunctional refers to the loss of productive and desirable employees for an organization. Dysfunctional turnover means that the organization is abandoned by people with knowledge and experience who need to be replaced as soon as possible (Robbins, Judge, 2017). The functionality criterion is also evident from an organizational point of view, in which case, the functional level of turnover in

an organization implies a movement within an acceptable organizational turnover rate. As shown, the turnover rate is calculated as the proportion of employees who left the organization relative to the average total number of employees over a period multiplied by 100. The figure is thus represented by all employees who left the organization, intentionally, unintentionally, though some authors point out that only intentionality should be considered when determining the criteria for functionality. Generally, the desirable annualized turnover rate is up to 15% and is considered as functional turnover as it allows the organization to enter new knowledge, innovate and increase motivation (TalentLyft, 2018). According to a survey conducted by LinkedIn in 2017, the worldwide annual turnover rate is 10.9% (TalentLyft, 2018). Loquerico et al. (2006), like other authors (Buzeti et al., 2016), divides total turnover into intentional and unintentional, where intentional can be functional and dysfunctional, and further avoidable and inevitable. Some authors do not consider the division of turnover into intentional and unintentional (Richard, Johnson, 2001), but it is necessary to distinguish them for employees, employers, and organizations, since the costs of both types of turnover differ significantly. Higher rates of intentional turnover reduce the financial performance of an organization, which has not been demonstrated in cases of unintentional turnover (Ulrich et al., 1991). Unintentional turnover refers to a necessary turnover such as retirement. The costs mentioned are not large for the organization as is the case with deliberate turnover as it is assumed that the organization is preparing for unintentional turnover and plans replacements or new hires on time (Karsan, 2007). Many times it is difficult to distinguish intentional from unintentional turnover. Some employees quit their current job because of family (such as moving to another city because of spouse), other employees in the organization, most often because superiors, or because of social and personal pressures such as furthering their doctoral studies, and such departures in the organization they formally classify deliberate turnover (Hom et al., 2012) although the question of voluntariness in these cases is questionable. The turnover rate of one organization will depend on the activity it is engaged in, the market in which it operates, and on all internal and external factors of the organization. In quantitative terms, from an organizational standpoint, desirable, or "permissible" or acceptable turnover rate is around the aforementioned 15%, all of which is considered a dysfunctional turnover. Extremely small percentages of turnover are not good for an organization because its success must be based on filtering organizational knowledge, and sometimes the only way to enter a new one is to leave the existing one. Considering the division explained above, it is clear that the focus of organizational behavior is to avoid avoidable, intentional/voluntary turnover most because the organization can manage it. Cases of unavoidable turnover involve serious illness, family circumstances or death, for example. Voluntary employee turnover is "a vital bridge between macro strategy and micro behavior in organizations" (Holtom et al., 2008: 232). Organizations cannot maximize their profits and be effective if they have high rates of turnover (Cole, 2014). In large organizations, it is desirable to calculate the turnover rate for each business function, division or sector, to identify deviations from the average of the organization and to more easily identify the location of the organizational problem. Total employee replacement costs can reach an average of one-third of a new employee's annual earnings (Michaud, 2000), and one study in Slovenia has shown that each employee replacement brings at least an average loss of one month's salary (Buzeti et al., 2016). In the same research in Slovenian organizations from different industries found that employers emphasize financial factors (higher salaries and better working conditions) as the most important measures of the employee retention policy, while employees prefer non-financial measures such as praise, greater cohesion, and confidence in management. In some industries, the chronic shortage of skilled employees (eg oil engineers and nurses) turnover costs are much higher than inflation costs (Holtom et al., 2008). The visible turnover costs include resignation management costs; the cost of selecting and hiring a new employee; the cost of coverage during the vacancy; and, the cost and time of training a new employee

(Armstrong, Taylor, 2017). Invisible costs are reflected in mistakes, scams, delays, idle times, employees overwork, declining production and organization efficiency, costs of new hiring, training, and most controversially, lack or loss of organizational knowledge. Indirect, invisible costs are very often hidden from managers because there is no profit and loss statement/account that would specifically cover the cost of voluntary turnover (Holtom et al., 2008). Productivity loss due to turnover is most evident when employees from higher positions leave the organization (Saleem, Gul, 2013). Dess and Shaw (2001) point out that some of the biggest indirect costs are manifested in the overload of the remaining workforce, loss of social capital and low morale in the organization. According to Hausknecht and Trevor (2001), collective turnover brings even greater losses: productivity loss (sales/output, inefficiency, costs), financial performance loss (financial and market performance, shareholder return), customer loss (wait time, customer satisfaction, service quality), safety and quality loss (accident rates, time lost, waste) (Hancock et al., 2011). Collective turnover in Croatia is present only when downsizing policy is implemented, but employees leave collectively their organizations on their initiative rarely.

### **3. EMPLOYEE TURNOVER IN CROATIA**

Employment protection legislation is very strict in Croatia and it is not easy to dismiss an employee, hiring is limited, average job tenure is long, (Rutkowski, 2003), so generally, due to high unemployment rates and uncompetitive labor market, employee turnover rates in Croatia are low. In 2015, the annual turnover rate in Croatian organizations was 7,67% (Pološki Vokić, 2015) which is below the global average. According to a survey conducted in 2003 by Pološki and Frajlić, the employee turnover in Croatia was most prominent with foreign organizations, so those with predominantly private foreign ownership in Croatia have the most mobile workforce and they also record higher functional turnover rates, replacing undesirable employees with desirable and more productive employees. Those organizations do it more frequently and faster than ones from predominantly state-owned organizations. "Croatian employees are still more protected than employees in developed countries, since the Labor Law in the Republic of Croatia, provides longer notice periods, higher severance pay and generally higher employee rights," and the dismissal rate declines with the increase thus, the employees with the highest education qualifications are the least dismissed and the intention to dismiss this group of employees is the least (Pološki, Frajlić, 2003: 11). Highly educated employees are also less likely to leave organizations voluntarily than middle and lower-skilled employees, so their overall mobility is relatively low, but generally, Croatian employees are not inclined to leave current working organizations. The same survey confirmed that foreign-owned organizations better manage their employees and have less intention of leaving their employees. Small and private organizations in Croatia create and destroy more jobs than larger and state-owned organizations and high job creation sectors tend to be high job turnover sectors (Rutkowski, 2003). "The top 10 industries in job destruction include manufacturing of RTV and communication equipment, manufacturing of basic metals, manufacturing of petrol products, manufacturing of textile and leather products" (Rutkowski, 2003: p.23). In 2010, Pološki Vokić and Zaninović, based on a sample of 414 full-time employees, surveyed Croatian employee turnover, finding that the key factors in leaving the organization were: salary dissatisfaction, stress, poor working relationships and the inability to move forward, pointing to extrinsic factors in Croatia more dominant than intrinsic, as is the case in developed countries. Zimmerman et al. (2018) point out that, despite focusing on affective connection, instrumental attachment is more important so just being enmeshed with an employer is unlikely to yield positive motivation or even long-term retention which means that salary and benefits make a difference. According to a LinkedIn survey, the largest employee turnover in 2017 in Croatia has been noticed in the software industry (ICTBusiness, Deželić, 2018).

In a sample of 10,000 employees in Croatia, the same survey found that 45% of respondents changed their jobs due to inability to move, 41% because of dissatisfaction with their superiors (leadership), 36% because of dissatisfaction with the work atmosphere, and 36% wanted new challenges. Although the new turnover trend in Croatia is worrying everywhere, due to social and global mobility trends, some industries, but also the professions, have higher turnover rates than others. It is well known that the turnover in insurance organizations is extremely high, so "turnover in sales and management staff are unbelievably high and reach up to 40 percent of total employees in some firms" (Sućec, 2017). In this case, the biggest problem for the organization is the loss of clients who "move-in" with employees, and Sućec claims that the immoral offers of other organizations are frequent, which sends a message to consumers about the instability of the organizations themselves. Employees who thus move from one organization to another state that pay is not the main driver at all, although it is not an unimportant but unfavorable work atmosphere, that is, poor communication, poor interpersonal relationships, and unfulfilled expectations. In Croatia, the turnover on trade market is also extremely high, so organizations are struggling mostly with the outflow of sellers. As a result, larger retailers have started offering higher salaries and bonuses, as well as additional incentives and rewards for bringing in colleagues (Perić, 2018). Galić et al. (2019) found that employees in Croatia retire early due to unsatisfactory quality of working life and lower job satisfaction than their younger counterparts, who primarily emphasize non-economic security and limited autonomy in decision-making in the workplace. Extension of working life is generally disapproved in the wider Croatian public. In the Republic of Croatia, those with lower education, poorer health, and financial opportunities are less likely to stay longer in the labor market, and they are numerous, while those who remain longer in employment are only encouraged by financial necessity (Ostrovidov Jakšić, Jakšić 2019). The labor market is currently flooded with people performing jobs and roles that do not suit them, and there is a widespread epidemic of mediocresly satisfied employees who are sooner or later thinking of leaving the organization (Moreland, 2013). Effectory International conducts a labor market survey each year on a representative sample of 54 countries in Europe, examining employees and employers about various aspects of business, calculating the Global Employee Engagement Index. According to the Global Employee Engagement Index, the level of job satisfaction in the Republic of Croatia in 2019 is on average in Europe, but workplace attendance is visibly lower than the European average, as is the level of organizational commitment, engagement, loyalty, motivation, and clarity of work and organizational roles. The worst results are recorded in the assessment of leadership quality, with Croatia at the bottom of the European rankings. On the contrary, there is no country in Europe where leadership is as badly appraised as in Croatia, and this is worrying because whatever may sound obvious, "people join organizations and leave managers" (Bryant, Allen, 2013: 173). Furthermore, the staying factor in the organization is also unenviable, which is also at the bottom of the scale, because the situation in terms of staying in the organization is worse only in Serbia, and in terms of the quality of the working atmosphere, only Slovakia is worse than Croatia. In order not only to the negative side, Croatian employees are more productive than their European counterparts and have better work performance, not only in Croatia but also as employees working in other countries. In its studies, Effectory International makes recommendations to organizations to increase employee loyalty, more specifically, commitment and engagement. The primary need is to set an irresistible organizational vision and direction, and the role of the organization in the company, which will inspire employees to become proficient in their business and to be fully integrated into it. This needs to be complemented by inspiring adaptive leadership depending on the situation and the teams, and the appreciation of the experts with the most organizational knowledge. Particularly imperative is emphasizing the abolition of unnecessary bureaucracy, which instantly creates frustration for employees and other stakeholders in the organization.

Transparency, information sharing, fostering social innovation and modern compensation systems, in addition to all of the above, will create an employee who will be highly satisfied and thus engaged in the business and committed to the organization without having to think about leaving the organization. A study conducted by Pološki Vokić in 2015 showed that the HRM practice of Croatian organizations is not competitive and sustainable, and is not attractive place to work for competitive, results-oriented employees so Croatian employees are not motivated to over-achieve because there are poor investments in managing employees' careers. Career development opportunities are unsatisfactorily in the tourism industry that struggles with employee retention and 'Training and Job-Socialization' is neglected in hotels in Croatia (Komenić et al., 2016). Interestingly, 'Reward System' turned out to have a very weak relationship with turnover intention (Komenić et al., 2016). One of the main prerequisites of employee retention is employee loyalty and this employee state depends on many variables such as organizational commitment and employee satisfaction. There is a significant positive relationship between loyalty and work engagement, while job satisfaction predicts engagement so engagement is a mediator between loyalty and satisfaction (Pološki Vokić, Hernaus, 2015).

#### 4. CONCLUSION

Since clear lack of recent scientific studies on employee turnover research in Croatia, one should not rely solely on the results of the aforementioned research, since the whole economic situation in the Republic of Croatia, and also on its labor market, has changed in recent years, especially since Croatia's accession to the European Union. Mobility is certainly higher, turnover rates are unquestionably rising, and time lags bring new cultural preferences to employees. However, employee turnover rates, in general, are still not high in Croatia although downsizing is a common practice in reducing costs in domestic private organizations. Many experts in the field of social psychology are increasingly employed in HR functions especially in large organizations, and their contribution is increasingly appreciated by higher education institutions in the study of behavioral economics, which in the future may only contribute to the management of undesirable behaviors in the organization. Flexible working hours and flexible space/place conditions are still unknown practices in Croatia, weekend and overtime work hours are high so salaries are not the only source of dissatisfaction. Deeper frustration usually proceeds from the poor working atmosphere, lack of recognition and promotion opportunities. In terms of the retention policy, organizations should create interesting and secure workplaces to provide an image of attractive employers with long-term orientation. Researchers in Croatia should determine whether the situation in retention policies has changed in the last five years and therefore emphasize the importance of investments in managing careers, education, training, and employee development. It is not a coincidence that "brain drain" in Croatia is understood as expected because highly educated employees are not valued and they can offer added value in creating a learning organization.

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## INCREASING THE ORGANIZATION'S RESILIENCE THROUGH PROJECT RISK MANAGEMENT

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### **ABSTRACT**

*The current turbulent business environment is not only a source of opportunities for enterprises, but also risks that threaten their business activities. Every company operating in the current dynamic environment should concentrate on increasing the security of its activities and processes. The reason is not only its primary effort to achieve positive economic results but especially responsibility which the management bears in connection with all interested parties. Due to the speed of change and fierce competition in the market, each company is forced to adapt to change more quickly than in the past. Project management represents one of the most effective methods for managing changes and for solving strategic or other important tasks in organizations. It is a summary of management tasks, elements of the managing organization, management techniques and means for realizing a project. Businesses therefore focus on developing development and innovation projects, but they do not always achieve the expected results. This is often due to insufficient risk management. Although risk management should form an essential part of each project, from the initial analysis before project preparation, to solving and evaluating the success of the project and using the experience gained in the preparation of other projects, many managers cannot define what all falls under risk management. The aim of the article is to point out the possibility of increasing the success of projects through risk management as a tool for increasing the resilience of the organization as a whole. The paper will analyze and compare selected standards and methodologies with a focus on the risk management process in projects.*

**Keywords:** Enterprise, Project, Resilience, Risk, Risk management

### **1. INTRODUCTION**

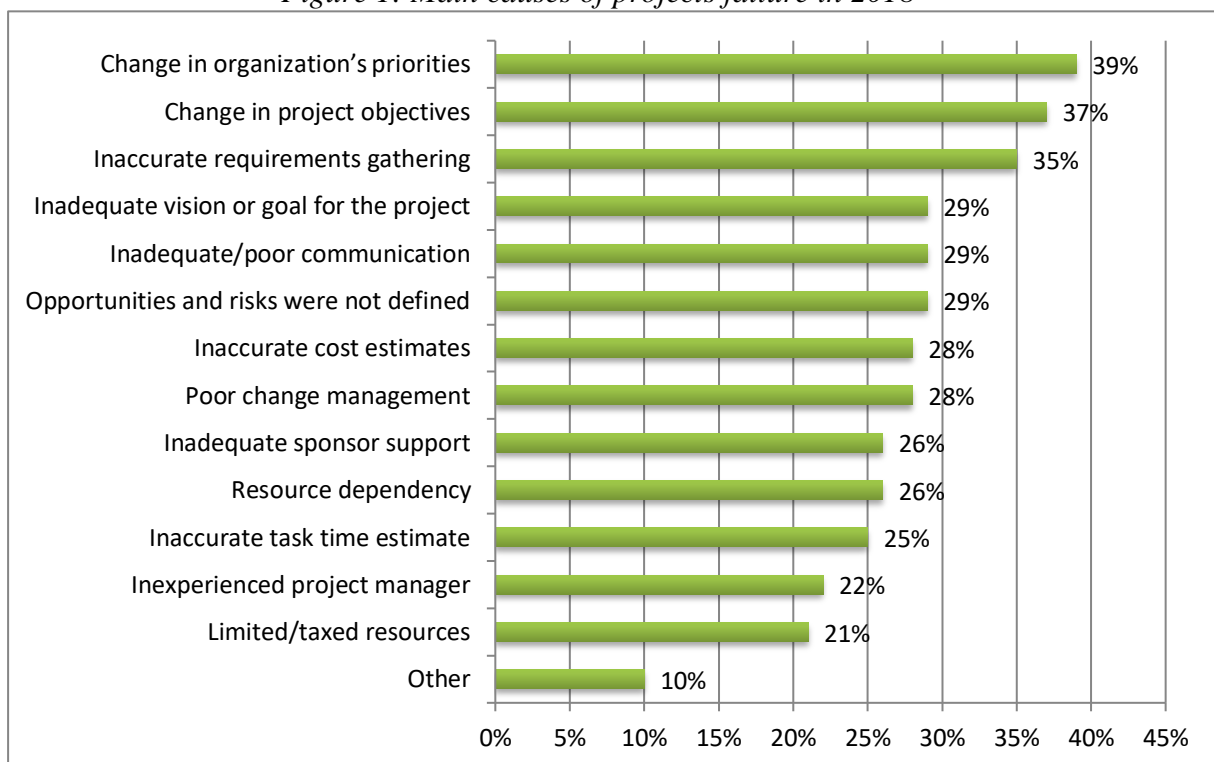
Projects are currently one of the most important tools for planning and implementing change. They are the basis for modernization and innovation of business activities and penetration of new markets (Hudáková, 2018; Kubas 2017; Havierníková, 2019). There are many definitions of the term project, which differ somewhat. Němec (2012) defines the project as “a purposeful proposal to carry out some innovation at a given end and start dates.” Havlík (2004) defines the project as “a unique process consisting of a series of coordinated and managed activities with start and end dates, that meets specific requirements, including time, cost and resource constraints.” Project management in the organization ensures the achievement of the project objectives depending on the set limits. Kerzner (2017) defines project management as “a set of activities consisting of planning, organizing, managing and controlling an organization's resources with a relatively short-term goal that has been set to achieve specific goals and objectives. „According to Project Management Institute (2013), project management is “applying knowledge, skills, tools and techniques designed to meet project requirements.” Neglecting or improper risk management is a problem in achieving project objectives.

According to Korecký (2011), project risk can be understood as "an uncertain event or condition that, if it occurs, can have a positive or negative impact on the project's objectives." According to Gido (2015), project risks can be divided into the following categories:

- technical - may include non-compliance with customer requirements, new use of technology and inability to meet quality standards,
- planning - the supplier may be delayed in the delivery of critical equipment,
- cost - may include the cost of material escalating more than expected,
- personnel - there may be situations where the necessary staff will not be available,
- external - include various weather effects, political factors, changes in customer preferences,
- customer-related - e.g. delays in approving changes, difficulties in perceiving output quality criteria, etc.

Given the pace of change and fierce competition on the market, every business is forced to adapt much faster than in the past. Projects are often used for development and innovation, but not all projects will deliver the expected result in Figure 1, the main causes of project failure in 2018 are listed.

*Figure 1: Main causes of projects failure in 2018*



*Source: based on Success in Disruptive, 2018*

Most of the problems and risks associated with project management resulted from a change in the organization's priorities, so projects often ended before the set goals were achieved. Consequently, a change in project objectives and the incorrect collection of requirements resulting from poor management and communication with project stakeholders, as poor communication itself is a frequent cause of project failure, in which several stakeholders are often of conflicting interests. There is also a lack of risk and opportunity management in the first four, pointing to the importance of risk management in an environment where changes need to be continually worked and reacted flexibly, whether positive or negative.

For other reasons of project failure, it is necessary to point out the lack of change management, incorrect planning of resources (time, costs) as well as the inexperience of project management. The quality of service connecting risks is one of the most discussed topics of today in everyday work and social life (Nedeliaková, 2018). If the wants to be successful in achieving and achieving its goals, it should have implemented risk management (Lusková 2018; Havko 2017; Sventeková, 2013). Risk management is defined according to ISO 31000: 2018 Risk management - guidelines as “coordinated activities of the organization with regard to risk” (Tranchard, 2018). According to Hubbard (2009), risk management is the identification, assessment and prioritization of risk, followed by coordinated and economic use of resources to minimize, monitor and control the likelihood or impact of negative events. Risk management in the enterprise is one of the important internal processes that increase its resilience to negative environmental impacts, strengthens flexibility already in the prevention period and is necessary to ensure process safety. Bugarová (2012) describes project risk management as a systematic use of policies, procedures and working techniques management and tasks dealing with identifying, identifying, analyzing, evaluating, managing, monitoring and communicating risks.

## **2. ANALYSIS AND COMPARISON OF SELECTED STANDARDS AND METHODOLOGIES FOCUSING ON PROJECT RISK MANAGEMENT PROCESS**

Increasing the resilience of an organization on the negative effects of factors, whether external or internal, can be achieved by implementing appropriate management tools and standards (Bugarová, 2012; Hollá, 2016). Project management has several standards through which it is possible to effectively implement project management in enterprises. These standards differ in the procedures, methods and tools used. The most used include:

- International Project Management Association (IPMA),
- Project Management Institute (PMI),
- PRINCE2,
- Active Threat and Opportunity Management (ATOM),
- Project Risk Analysis & Management (PRAM).

The IPMA standard is based on a competency-based approach to project management. It does not focus on the precise definition of processes and their specific applications, but the skills and experience of project managers. PMI is a professional association of enterprises and project managers that creates and maintains the PMBOK standard. The parameters of the standard are given in A guide to project management body of knowledge. According to the Project Management Institute (2013), project management processes are divided into five main process groups: the initiation, planning, implementation, monitoring and control and termination process groups. In addition to the process groups, the standard consists of 10 knowledge areas, which include, in addition to the knowledge areas already mentioned, the management of project stakeholders. In the context of PRINCE2, the term methodology is used, because it is more of a guide or a project development methodology. The PRINCE2 methodology is based on three main elements: basic principles, themes and processes. The guiding principles include (Bentley, 2010) the continuous merits of the investment, clearly defined roles and responsibilities, product focus, staged management, exception management, learning from experience, adapting PRINCE2 to the project environment. Korea's ATOM methodology (2011) is designed for a simple risk management process that can be scaled and applied to all processes in any industry, for any size and complexity of the project. PRAM risk management methodology is designed to identify and assess risks. Table 1 lists the strengths and weaknesses of the IPMA, PMBOK standards and the PRINCE2, ATOM, and PRAM methodologies.

*Table 1: Strengths and weaknesses of IPMA, PMBOK, PRINCE2, ATOM, PRAM*

	<b>STRENGTHS</b>	<b>WEAKNESSES</b>
<b>IPMA</b>	<ul style="list-style-type: none"> <li>• Suitable for any sector.</li> <li>• Accurate and clear definition of project manager knowledge and skills.</li> <li>• Defines different levels of project manager from the most experienced to the less experienced.</li> </ul>	<ul style="list-style-type: none"> <li>• Uses only basic project management terminology.</li> <li>• It does not elaborate, often merely lists the basic methods and techniques of project management.</li> <li>• There is no detailed focus on individual project management methods and tasks.</li> </ul>
<b>PMBOK</b>	<ul style="list-style-type: none"> <li>• Suitable for various industries and organizations operating worldwide.</li> <li>• Focuses on project management processes.</li> <li>• Generally conceived enough to be applicable to any project.</li> <li>• It is used as a global guide to project management, on which the next concept of project management is based.</li> </ul>	<ul style="list-style-type: none"> <li>• It is a project management concept; it does not provide clear guidance (method) on how to manage projects.</li> <li>• It does not deal with specific practical examples of the use of project management tools and techniques.</li> </ul>
<b>PRINCE2</b>	<ul style="list-style-type: none"> <li>• Applicable to any type of project.</li> <li>• The detailed method with its glossary.</li> <li>• Combines with other project management models.</li> </ul>	<ul style="list-style-type: none"> <li>• Does not understand project management comprehensively, does not provide answers to all questions.</li> <li>• It does not include project management methods, techniques, and project manager skills.</li> <li>• The PRINCE2 methodology setting shows a great administrative burden.</li> </ul>
<b>ATOM</b>	<ul style="list-style-type: none"> <li>• Possibility to change the scope according to the size and complexity of the project.</li> <li>• Quantitative risk analysis for large and complex projects.</li> <li>• Simplifying steps for small projects.</li> </ul>	<ul style="list-style-type: none"> <li>• For a simple risk management process.</li> <li>• Missing risk owner assignment.</li> </ul>
<b>PRAM</b>	<ul style="list-style-type: none"> <li>• Project risks can be actively managed to improve project performance compared to its key objectives.</li> <li>• Can be used for all projects, regardless of industry, regardless of schedule or budget.</li> <li>• Comparison of different risk responses and strategies.</li> </ul>	<ul style="list-style-type: none"> <li>• Missing phase in the risk management process to monitor the change.</li> <li>• The time it takes to conduct a risk analysis depends partly on the availability of the information.</li> <li>• The need for highly professional knowledge.</li> <li>• Complex separation of the costs of its implementation from overheads.</li> </ul>

*Source: based on Máchal, 2015*

The IPMA standard is based on a project management competence concept. Its strengths include suitability for any sector. IPMA defines the knowledge and competencies of the project manager, and determines the different levels of project managers. The weakness of the IPMA standard can be seen as a focus on listing basic methods and project management techniques rather than elaborating them. The PMBOK standard perceives project management procedurally. A general understanding of the project allows an application to various projects around the world. The standard serves as the World Project Management Guide. The PMBOK standard is a project management concept, it does not provide clear guidance on project

management. Shortcomings include the lack of practical examples of the use of project management tools and techniques. The strength of PRINCE2 methodology is its ability to apply to any project. The methodology is process-oriented, it presents the project processing instructions and elaborates on the project terminology in detail. Unlike IPMA, it does not deal with the competencies of a project manager. The weakness of the methodology is that it does not include project management methods and techniques. The PRINCE2 methodology lacks more comprehensive project management and at the same time it can entail a considerable administrative burden. The content of the risk management process may vary depending on the organization's project management standards used. In the ATOM methodology, the strengths include simplifying steps for small projects that may lack a risk owner allocation. ATOM is designed for simple risk management processes, it does not have to deal with complicated risks. The big advantage is the possibility to change the scope according to the size and complexity of the project. The advantage of PRAM is the possibility to apply the methodology to all projects regardless of industry or industry and regardless of timetable or budget. High expertise is needed and complications can make it difficult to separate the cost of its execution from overhead costs. Project risk management is an integral and essential component of project management. It is necessary to evaluate each project separately in terms of risks, as it can bring specific risks. The most commonly used standards for implementing the risk management process in projects using any project management standard are (Bukanová, 2019; Hudáková, 2018):

- ISO 21500: 2012 Guidance on project management.
- IEC 62198: 2013 Risk Management in Project - Application Guidelines. This standard is an update to ISO / IEC 62198: 2002, Project Risk Management - Application Guidelines.
- ISO 31000: 2018 Risk management - guidelines, which is an update to ISO 31000: 2009 Risk management - Principles and guidelines.
- STN ISO 31000: 2019 Risk management. This standard is the Slovak translation of the standard ISO 31000: 2018 Risk management - guidelines.
- ISO / IEC 16085: 2006 Systems and Software Engineering - Life Cycle Processes - Risk Management.
- ISO 10006: 2003 Quality management systems - Guidelines for quality management in projects.
- ISO 9001: 2015 Quality management systems - Requirements, that more fully elaborate the requirement to implement risk management.
- ISO / IEC Guide 73: 2009 Risk Management - Vocabulary.

Project management and risk management standards should be interrelated and form a compact whole in project management. The applied risk management standard should support the application of the standard for project management and increase its effectiveness in achieving the project objectives as well as managing the project portfolio within the organization.

### 3. CONCLUSION

Project risk management must be designed in the pre-project phase of the project life cycle. A feasibility study is one of the prevention tools that can effectively point out the riskiness of the project. It is precisely here that there is scope to determine whether or not a project in terms of risk is feasible. If we look at projects from a different point of view, namely from unsuccessful projects, which are statistically more numerous, we find that one of the most frequent and main factors that cause a project supply failure is in particular incorrect or insufficient project risk management. This is where the implementation of appropriate project management and risk management standards can provide support. Each enterprise starts with the choice of a suitable standard based on its capabilities, procedures, needs and resources.

The needs of stakeholders are often also to be taken into account. Effectively implemented project management with implemented risk management that provides adequate support to address the negative aspects of development, whether external or internal, affecting the business will not only increase business competitiveness, but also increase overall business resilience and reduce the cost of losses. However, it is a prerequisite that managers with sufficient knowledge and knowledge must be able to implement and implement these standards at an appropriate level of expertise and deliver the expected results.

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## TEAM DYNAMICS AND ISSUE RESOLUTION IN MULTICULTURAL PROJECT TEAMS: A CASE STUDY OF A GLOBAL ORGANISATIONAL TRANSFORMATION PROJECT

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### ABSTRACT

*Leading or even just participating in a project can reveal various issues regarding teamwork, communication and leadership styles, especially if the program has a global scope and the team members are located all over the world. In this cumbersome situation, team members often become frustrated and less effective in their daily work. Consequently, the project manager or team leader has to act and make the necessary measures to steer the team back to the right course. Our case study of a multinational company's global organisational transformational project attempted at finding a resolution of a set of issues of high complexity. The project team consisted of more than 20 experts, who were working on different pillars of the project, the largest teams being located in Budapest and in London (HQ). During the first 1.5 years of its operations, several issues surfaced pertaining to the project that concerned predominantly team dynamics, communication styles and project management approaches. As a constructive answer to these challenges, there were two workshops held for the project team to discuss and reveal the problems the team members were facing, trying to identify the root causes and find solutions to them. The outcome of these workshops was a consensually elaborated and agreed Team Charter, which aimed at identifying the right behaviours and ways of working together with issue resolution techniques to be adopted for use. The Team Charter was presented, discussed and welcomed by the project team. Our paper focuses on the focal points which were revealed to be persisting and recurring issues in such team set-ups only to show how the project under scrutiny of the case study aimed at resolving them. It also discusses what further steps and tasks are anticipated and what the limitations of these techniques are.*

**Keywords:** *Issue Resolution, Leadership, Multicultural Project Team, Team Charter, Team Dynamics*

### 1. INTRODUCTION

Complex international projects require thorough planning, however, when it comes to execution and project management, many projects struggle. The importance of both managerial tasks and having a leader within the project is crucial, since complex projects require a diverse team set-up. The team members are diverse in their race, age, ethnicity, religion, citizenship, location and of course in skills, experiences, personality traits and attitudes. The case study presented in this paper introduces a multinational company's global organisational transformational project attempted at finding a resolution of a set of issues of high complexity. During the first 1.5 years of its operations, several issues surfaced pertaining to the project that concerned predominantly team dynamics, communication styles and project management/leadership approaches. Our paper focuses on the focal points which were revealed to be persisting and recurring issues in such team set-ups only to show how the project under scrutiny of the case study aimed at resolving them. It also discusses what further steps and tasks are anticipated and what the



limitations of these techniques are. The paper is structured as follows: Section 2 provides a short literature review of the project and team related academic literature, which will be the basis of the evaluation of the case study presented in Section 3. Section 4 discusses the case study and evaluates the issues and provides a root-cause analysis. Section 5 concludes our claims and findings

## **2. LITERATURE REVIEW**

### **2.1. Project and project team**

Project is a social construct (Morris, 2011; Lundin and Midler, 1998), a singular problem extracted from an environment of various processes and events. The separation of the project from this messy, chaotic context is what creates social involvement and different project activities. According to Sense (2007), the definitions of projects in the academic literature revolve around two characteristics: separation and temporality. Separation, as seen in (Lundin and Midler 1998), differentiates the project from its environment, as a project is a unique, non-routine activity compared to the ongoing operations, with a specific expiry date. The project is a separate process with a finite time to complete. Turner (1993, p.5) also states that a project is “an endeavour in which human, material and financial resources are organized in a novel way, to undertake a unique scope of work, of given specification, within constraints of cost and time, so as to achieve beneficial change defined by quantitative and qualitative objectives.” To execute the tasks that contribute to the goal of the project a team shall be set up. Cohen and Bailey (1997, p.241) define the team as “a collection of individuals who are interdependent in their tasks, who share responsibility for outcomes, who see themselves and who are seen by others as an intact social entity embedded in one or more larger social systems (for example, business unit or corporation) and who manage their relationships across organisational boundaries”. From a project perspective Ricketts and Ricketts (2010) defines team as a group of people set up to work together on a common project performing different tasks using their different skills, supporting each other and meshing their functions.

### **2.2. Leadership and management**

One of the most important roles within a team is the role of the team leader which - from a functional perspective - can be divided to managerial and leadership tasks. When it comes to managerial tasks, the manager's role is related to performance and achievements and how to administer the resources of the organisation to achieve these goals (Drucker, 1998). Thus, when it comes to project management, the task of a project manager is mainly about administration, execution and performance management. On the other hand, leadership is not that technical as management, and is used in situations with non-routine decision-making, where the standard procedures cannot be applied. In essence it is a practice and not a science (Gräser, 2013). According to Kotter (1990) leadership within a complex organisation – and since a project can be considered as a temporary organisation it applies to project leadership as well – achieves its function through the following three sub-processes:

- Establishing direction through developing a vision and ensuring the change that helps in achieving that
- Aligning people through communicating this direction to cooperate and commit to achieving the goals
- Motivating and inspiring people so they move in the right direction even in hard times, mostly using the emotional intelligence of the leader.

### **2.3. Team dynamics**

During their operations teams and also projects go through five stages of development (Tuckman, 1965; Tuckman and Jensen, 1977): forming, storming, norming, performing and

adjourning. These stages produce different behaviours, feelings and challenges, i.e. the interpersonal relationships that develop in teams while performing a common activity change as the project progresses. These interpersonal relationships are what the academics, such as Forsyth (2006) call team dynamics and which can be seen in Tuckman's group development theory as well. In the Forming stage the responsibilities are not yet clear, so the leader has to be more autocratic, giving the members guidance and direction due to the lack of certainty they feel. The second stage is Storming, which is the stage of conflict and competition in order to have a clearer hierarchy, focusing on the testing and proving mentality. It revolves around disagreements, insufficient information sharing, tension and sometimes struggle in the leadership role. In the Norming stage the interpersonal relations are characterised by cohesion, solidarity and community building – i.e. trust is established, standards are set. The Performing stage is not always reached by all teams or project, as in this stage the team successfully achieves the goals, everything goes smoothly, and it is overall an effective team. The last stage – which was only later added to by Drucker – is Adjourning, where the team dissolves, since the goals have been achieved. This is the time for self-reflections and evaluations, and from an emotional perspective brings certain sadness and anxiety for the members. In many cases this last stage is not always applicable (in business-as-usual teams, which usually change in case of restructuring), however for project teams, as temporary set-ups this stage always happens.

### 3. BACKGROUND TO A GLOBAL ORGANISATIONAL TRANSFORMATIONAL PROGRAM

#### 3.1. Description of the program

##### 3.1.1. The original set-up

The transformation program ("Program") of a multinational company ("Company") started at the end of 2017 with the aim of reorganising the operations of its tax department ("Department"). The Program was focusing on realising significant benefits based on operational effectiveness, technology automation and labour arbitrage, with around 2 million GBP savings assumed to be delivered for its 2020 financial year ("F20").

In order to achieve this benefit goal, the Company started setting up a project team ("Team") in 2017, which at the beginning focused on planning, analysing the current situation in 2018 and 2019, however the Team evolved and grew as time passed and at the beginning of F20 was divided into four pillars, with a pillar lead coordinating each one:

1. **People and Change** – focusing on the HR and recruitment related tasks, transition plans and knowledge transfers and change communications
2. **Process** – focusing on lean reviews, activity trackers and setting up new, more efficient processes
3. **Risk and Controls** – focusing on implementing efficient care and risk assessment controls and risk management within the Department
4. **Technology** – focusing on developing technology for the Department that could – through automation, artificial intelligence and other tools – ensure the benefits for the Program.

From a location perspective, the Team was also divided: the leadership ("Leadership") was in the UK, while most of the Team was located in Hungary, with a few local members in the bigger SSC locations worldwide. The Program was managed by a dedicated project manager and led by a program director.

##### 3.1.2. The new set-up

After the first 5 months of F20, a new project manager was appointed and the whole Team was reorganised and the pillars became workstreams, each of them having a workstream lead directly reporting to the Leadership.

They divided the Technology pillars to two workstreams: Direct and Indirect Tax workstreams, while they merged the Process and Risk and Controls pillars to a single workstream called Governance. Setting up the new workstreams required hiring or contracting new workstream leads with project management experience, putting extra high-grade roles in place. The new project manager also implemented further changes in the Team's ways of working:

1. only the workstream leads were in direct contact with the Leadership and the work was distributed through them
2. the number and types of meetings the other team members were invited to was reduced, daily scrum meetings were introduced per workstream
3. new reporting (plans on a page, A3's) were implemented to be updated weekly

### 3.2. Issue mapping and resolution

#### 3.2.1. Issue resolution workshop

During this meeting the overall *Finance Mission* of the Company was discussed, with an emphasis on how the Program and the Team can contribute to these targets and to identify the gaps and issues in the team dynamics. There were 22 participants in person and 5 dialled in via Zoom, both the Hungarian, the UK and the regional team members were present. The following questions were discussed:

a) What excites you about the Company?

The answers focused on the Company's free and open culture, where the people are unique and diverse, and at the same time everyone is approachable and can feel included. The team members found the Company's brands and products exciting, welcomed the continuous innovation and also the flexibility and global opportunities that come with working there.

b) How does working here make you feel?

The answers on this question were overall positive, highlighting that anyone can be proud, lucky and thankful to work in such a reputed workplace with a clear purpose of making something meaningful every day. At the same time, there were some concerns that sometimes it can feel uncertain, the changes come fast and there are always some unexpected surprises around the corner.

c) What does best-performing mean?

The participants highlighted that best-performing means being better than the peers, a team that succeeds and celebrates its achievements, provides high quality work, recognises the contributions and takes pride in its actions. The best-performing team is efficient and effective by optimizing on the abilities of its members.

d) What does most trusted and respected mean?

When it comes to being trusted and respected it means acting with integrity, being motivated and empowered to do the assigned job. Trusted and respected also creates a family-like environment, where members are able to share concerns, listen to each other, give and receive feedback.

e) How will the Program deliver best performing, most trusted and respected?

From the Program's perspective the participants agreed on having clear goals, while keeping in mind the best interest of the business and the stakeholders. It includes continuous risk assessment and mitigation, thinking before acting and being honest about the progress the Team makes or the problems they face. Another important feature was the use of an agile and framework approach, rather than functioning completely pre-planned or absolutely agile.

f) What does it feel like being part of our team?

The answers to this question were quite diverse: according to positive views it is exciting that the Program delivers something challenging, which makes the members massively committed and invested, with a good atmosphere and community in the Hungarian team.

Other views highlighted the hardships of being involved in the Program referring to the continuous changes, restructuring, the Program perceived as an emotional rollercoaster, a stressful place to work. –Some answers were ambivalent: members highlighted that both respect and disrespect are present in their daily work, they are exposed and receive both positive and negative feedbacks.

g) What do we do well?

The expertise within the team is great, team members are creative, helpful, hard-working and supportive. Members are embracing the change and are able to adapt to their internal and external environment flexibly.

h) What could we do better?

There were several ideas and focus points discussed in this question. The issue of the team dynamics was raised where the Team agenda and the Team goals should be followed. It was deemed desirable that members should be more connected, the directions and responsibilities should be clearer, and the prioritisation and resource allocation should be improved as well. Many felt that not the same standards were applicable for everyone, mostly due to the location-split. It was felt that there is room for improved communication as to how members share information and how they use the A3's and other reports already available with instant feedback. –Less meetings with more focused agendas and well-defined structures were desired.

i) How would our stakeholders describe us?

As a resilient and supportive Team that works well together, however the stakeholders expect answers that the Team cannot provide in many cases –not only the requirements but also the “whys” should be communicated by the stakeholders.

j) How could we make a bigger difference?

The Team was able to show that they are one team where everyone is included, the members are fit to share information on a timely manner and delegate the right people to the right tasks. This also results in providing great career opportunities for the members of the Team. More emphasis should be on communication and feedback, both internally and externally.

The answers to the above questions reflect several issues that the Team was facing, which required further analysis.

### 3.3. The Team Charter

Based on the answers to these questions, the Team decided to set up a Team Charter (“Charter”), that could serve as a code of conduct for the future team dynamics as it became clear that something has to change. There were issues with communication, information sharing and the standards applied, which had to be addressed. The Charter consisted of the following sections:

1. a *Mission statement* for the Team, which emphasised the importance of trust in delivering the goals of the Program within the team;
2. the *Commitments* towards achieving this mission, such as embracing change, sharing information, truly collaborating with each other;
3. the *Behaviours* the Team would embrace, such as trust and transparency, the importance of communication and listening;
4. the *Focus areas* for the Team, including creating a positive environment, holding each other to the same standards, improving prioritisation and structuring the resources and information significantly.

#### 3.3.1. Acceptance of the Charter within the Team

The Charter was presented to the Team members (with the same participants as the issue resolution workshop), who got a chance to discuss and reflect on the Commitments, Behaviours

and Focus areas. The overall reaction was really positive, they welcomed having such a guidance at hand, as the things listed in the Charter are the essence of an amazing team. Some participants however raised the issue of the applicability of these guidelines under pressure and found it challenging to remember these commitments all the time. It was also visible that the many members kept silent about their concerns due to the fact that the Leadership was present at the workshop – this was raised after the workshop by several colleagues during private discussions. The members also made several personal commitments towards the goals of the Team Charter, mostly promising cooperative behaviour, structured information sharing and focus on the overall wellbeing of each other.

There were three main areas that the Team thought would be the most challenging to improve or start applying the Charter's requirements:

- **Communication:** Utilising the team meetings, daily scrums better, making information available (such as A3's, Steering Committee slides and feedback) for all team members. The challenge here is that in many cases the Leadership wants to have as few people as possible involved in confidential discussions or possessing such info, however at the same time realising that almost all team members require such information as that affects their daily work. It was also noted that the members shall also be proactive in asking for information, if they feel something is missing – at the same time this is only applicable for the "I know I don't know something" cases.
- **Decision making:** The process shall be simplified if possible, as in many cases there are too many stakeholders involved, who keep changing their positions and the Team tries to incorporate these into the plans – even after the decisions have been made. It was noted that in some cases the Team can stick to decisions, however in other cases agility is required – thus a framework type planning shall be implemented. It was also important to highlight that the "not putting our finger into everything" approach shall be considered as the members are sometimes overloaded with tasks, they don't really have anything to do with.
- **Monitoring the commitments:** Besides the above, the biggest concern was about the way the Charter will be applied and the Commitments defined will be monitored and "enforced". It is nice to have a Charter, but how will the Team make sure that the Behaviours are followed, and how they will correct the errors, mistakes and non-compliant situations?

## **4. DISCUSSION**

The case study presented about the Program reveals several aspects of leadership, communications, motivation, management and other areas of business sciences. However, in this paper focuses only on the leadership and team development issues, including the team dynamics.

### **4.1. Issues identified**

As a first step, the root causes of the issues present in the Team shall be analysed based on the answers provided and the discussions held during the issue resolution workshop. The issues could be categorised as follows:

- **Different standards applied**

It was imminent from the responses in the workshop that one of the main issues were the different standards applied for the team in the UK and the teams located either in Hungary or in the regional centres. This was not due to any favouring of anyone, but due to language barriers and cultural differences. The importance of face-to-face and efficient communication came to light. The lack of trust became an issue as during the workshop it became clear that the project manager thought that trust has to be earned first and not credited from the beginnings.

- **Inefficient information sharing**  
It was also clear that there was no structured way of information-sharing within the Team. The reports (A3's and POAP's) were not shared between the workstreams and the Leadership also missed communicating the feedback from Steering Committee and other stakeholders. This caused several issues within the Team, such as not being able to react on time to changes, working with inefficient information and inefficient allocation of resources.
- **Focus on problems and mistakes**  
Since the pressure on the team members was always at a high level, not being recognised for the hard work they had done caused issues in the Team's moral stance and its overall motivation. This highly committed Team became very negative when only the negative feedback (e.g. what was missing, blaming, etc.) was shared with the members. This resulted in the Program being also perceived negatively by the stakeholders and other teams, as the successes and positive things were not celebrated and highlighted enough.
- **Lack of cooperation**  
During the workshop it also became evident that there are serious issues in the cooperation and the one-team-mindset. Due to the high workload many focus on their own agenda, prefer working individually – which can be also derived from the lack of successful cooperation in the past and conflicts due to communication styles within the Team. The dividedness between the UK and Hungary also hinders cooperation, however it shall be noted that only a few of the team members raised this issue to the Leadership and other team members.
- **Inefficient resource allocation**  
As the Team was restructured and the program progressed, the tasks to perform became also more complex and also higher in number, on the other hand due to increasing the Leadership and not having enough colleagues to execute these tasks, the workload on several team members required working significant overtime. Since the overloaded members could not perform to the best of their knowledge, they became unmotivated, frustrated, made mistakes and of course, received negative feedback from the Leadership, putting several members to the edge of burnout by the middle of F20. It was also raised that especially for the lower grade colleagues there were no clear career paths, their positions would be eliminated at the end of F20 without having any visibility on their opportunities in either the continuity of the Program or within the Department itself.

#### **4.2. Team dynamics and the Team Charter**

When considering the five stages of team development, the team dynamics, namely the interpersonal relationships, interactions shall be analysed. Based on the answers provided during the workshops it is visible that there is a lot of tension, miscommunication and uncertainty within the team. There are unclear roles and responsibilities, which was slightly improved by introducing the new set-up. What is also evident that the attitude of the team members is really positive and proactive despite the tension and conflicts that continuously arise within the team. Based on the above using Tuckman's (1965) analogy, the Team is still at the stage of Storming, which is not really usual for project teams that had been operating for more than 2.5 years. One of the reasons for being stuck at this stage is the complex nature of the task at hand, which requires a lot of stakeholders, different needs and different skill sets and of course, colleagues working from different locations. The above team dynamics can be also due to the continuous changes in the team structure and the fluctuation of some of the colleagues and welcoming new joiners as well, however the latter is usually a natural phenomenon in all types of teams. Being stuck at the Storming phase for a long time can be actually another reason for not being able to move on to the next phase – as the uroboros, the snail swallowing its own

tail – since there is a natural need for stepping into a Norming phase with more stability, and when that does not happen it causes further turbulence and tension within the team. Of course, nothing is black and white, the teams go through these stages all the time, sometimes starting over from the first stage and sometimes struggling to move to the next stage desired. The issue at hand is that the Team is responsible for performing tasks that have significant influence on the life of over 200 employees, and if the Team cannot deliver the transformation effectively, that has turbulent effect on the overall motivation, wellbeing of the people in the Department. To deliver, the Norming, but mostly the Performing stage should have been reached, and this was recognised by the Leadership, who decided to use the Charter as a tool to get closer to this goal. Based on the overall feedback from the members, the Team charter was welcomed by the Team, which was aimed at providing norms, a way to reach the Norming phase, a guidance that would help the Team evolve. In that sense the Team has now a clearly communicated mission, behaviours that are expected and areas that require focus and improvement, which is crucial to step to the Norming phase. On the other hand, the Charter is not more than a piece of paper, a nice visual aid, which might have been useful at the beginning of the Program. On the other hand, by itself at this stage its usefulness is questionable. The Team functioned in certain ways for a significant amount of time and changing it requires a lot more than just a single Charter – this requires true leadership and guidance. Thus, the biggest challenge resides at the Leadership level of the Program: what can they do and change to make this Program perform and become the one amazing team, a high-performing team that is expected of them.

## **5. CONCLUSION: RATIONALE AND FURTHER TASKS**

The case study presented a transformational program, a complex project aimed at reforming and reorganising the operations of a tax function at the Company. Throughout the almost 2,5 years of its operations, the Team changed its structure several times, tried different reporting techniques, involved new people in its operations, however struggled to develop to a high-performing team that can deliver according to the expectations. This paper did not analyse the issues arising from the planning phase of the Project, only focused on the issues arising in relation to team dynamics and the leadership within the Program. It is visible that the Leadership was trying to work on changing the mindset within the team by introducing various measures during the years, however something was missing. And that was due to the Leadership forgetting they have to lead and not only manage. The Program was over-managed and at the same-time under-led. People had to report everything and at the same time the information was shared only in a military need-to-know basis: the information sharing was extremely hierarchical, which in such a project was not meeting the needs of the members. On the other hand, a true leader was not present, could not provide a clear mission, vision and ways to execute these changes. There was no real motivation due to the task-focus in the Team rather than a people-focus. Of course, the attitude and the intent of the Leadership is not challenged here as it was visible from the workshops that they tried their best, however they did not have the right tools to do so. Having the issue resolution workshops was one of the tools that the Leadership used, which – if used properly – could have provided important information. The obstacles of the effectiveness of the workshops was limited due to their set-up (face-to face with everyone present) not everyone had the chance or was brave enough to speak their minds. Another issue was proposing such an impersonal solution (Team Charter) to a very personal issue of team dynamics, which could not be more than a tick in a box, but from a leadership perspective that was not enough. Our future research regarding this case study will focus on this very issue: what tools and techniques are available for the Leadership to help the Team evolve to the next stage of the team development in such a complex project as the Program presented in this paper.

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# INTERACTIVITY IN THE LANGUAGE CLASSROOM AND ITS IMPACT ON THE INSTRUCTIONAL DESIGN OF ELECTRONIC LEARNING RESOURCES

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## ABSTRACT

*As informatization and digitization of a society advance, interactivity is perceived as its integral part, which is indirectly confirmed by the corresponding search query statistics available at Google Trends and Wordstat Yandex websites. Interactivity as a concept implies interaction that in educational practice encompasses a continuum of interpretations ranging from the idea of intensifying intersubjective communicative interaction in classrooms to mere increasing the repertoire of ways and means used by the education process participants to interact with the electronic learning environment. A balanced approach to understanding interactivity in learning is integrative and involves considering this phenomenon as an attribute of the direct and/or ICT-mediated interaction between all actors involved in education process - the teacher and the learning community as a whole and at the level of each of its members. Such an interpretation of interactivity determines its fundamental role in the development of learning resources from the perspective of the student in terms of learning outcomes, especially in the language classroom with adults as the target audience. The purpose of this paper is to examine the place of interactivity within the context of designing educational multimedia materials for ESP course aimed at Master's degree students majoring in finance and to discuss the important attributes of interactions from a learning perspective.*

**Keywords:** *Blended learning, Electronic learning resources, ESP course, Interactivity, Instructional design*

## 1. INTRODUCTION

Over the past two decades, 'interactivity' has become a buzzword both in pedagogy and new technologies in education within the framework of any discourse on 'pedagogical innovations'. It has obviously found its way into descriptions of media and patterns involved in creating an effective learning design in conventional and digital settings as well as discussions of major efficiency criteria for such a design. In the fields of English as a Foreign Language (EFL) and English for Specific Purposes (ESP), interactivity is recognized as an essential constituent of the teaching-learning activities (TLAs) that is viewed from the perspectives of defining the concept and the mechanisms for its implementation at the level of methods, forms, technologies and media involved in the design, development, piloting and evaluation of training courses within the paradigm of continuing language education known as Life-Long Learning (LLL). Recently, as informatization and digitization of a society advance, one of the key roles in promoting learning is claimed for ICT. Therefore, interactivity is commonly seen as its integral attribute, which is indirectly confirmed by the statistics of the corresponding keyword research provided by the special services of Google Trends and Wordstat Yandex. The first of them graphically displays a generally stable uptrend in the popularity of the 'interactivity' search term in September 2019 - from 50 to 100 on a scale of 1 to 100. Furthermore, the highest interest in this topic was recorded precisely in Russia. Here, the search volume, according to Wordstat Yandex, amounted to 2 705 searches per month. It is noteworthy that the top relevant search queries include "the concept of interactivity" (315 searches), "interactivity in learning" (207 searches), and "interactivity in distance learning" (241 searches). The high search volume in this case confirms the relevance of defining the very concept of interactivity and indicates the

need to specify its role in education, including the ICT-mediated learning. At the same time, less popular queries such as “interactivity and interactions” (92 searches), “interactivity types” (62 searches), “properties of interactivity” (36 searches), “interactivity of instructional materials” (12 searches), “interactivity of electronic educational resource” (9 searches) and, finally, “means of implementing interactivity” (8 searches) seem to indicate the need for a profound study of the related subjects within the topic under discussion rather, than the lack of interest in them.

## 2. INTERACTIVITY IN TEACHING AND LEARNING

As most buzzwords, ‘interactivity’ is doomed to a wide range of interpretations with little agreement over its meaning. However, most definitions of interactivity are related to *interaction* between those involved in teaching-learning activities. With no further specification, it may inevitably distort the concept of interactivity through its narrowing either to the issue of intensifying communicative interaction by expanding its forms and formats in conventional learning settings, or to its exclusive correlation with an increasing repertoire of methods and means used by the subjects of the educational process to interact with the electronic learning environment [3, 9]. It is obvious that a balanced approach to understanding interactivity in the classroom is integrative and involves considering this phenomenon as a characteristic of the direct and/or ICT-mediated learning interaction of all participants - a teacher (tutor, trainer, facilitator) and a learning community as a whole and at the level of each member [2, 5]. In this case, the focus is shifted towards the relationship between interactive technologies and interactive pedagogical practices in the classroom viewed by Luckin in terms of ecology of resources as ‘a set of inter-related resource elements, including people and objects, the interactions between which provide a particular context’ [7, 451]. Their orchestration or dynamic re-arrangement may be carried out by the teacher, the students, or ICT resources, often in combination to achieve the teaching-learning goals. Thus, being an aspect of the ecology of resources, interactivity embraces the range of teaching interactions among them varying from ‘authoritative’ to ‘dialogic’ at the ends of the scale. With the ICT resources integrated into the set, the interactivity scale further extends, ultimately including the following types:

- No interactivity with ICT resources merely presenting the content intended for students’ assimilation and acquisition through reading, watching or listening.
- Authoritative interactivity with the teacher and/or ICT resources ‘funneling’ [1] the students’ responses into the required form to confirm their correct understanding of an issue.
- Dialectic interactivity with the ICT used in a constructive rather than restrictive mode as the object of probing questions by a teacher within the forum discussion.
- Dialogic interactivity with ICT empowering students with greater influence over the trajectory of the activity they perform when learning through practice.
- Synergistic interactivity with ICT encouraging the independent reflective activity carried out by students who are learning through collaboration and production.

It is obvious, that the role of ICT resources used to help generate these interactivity types varies from the object of the interaction or, merely, a resource to interact about, to a participant in interaction available for interacting through prompts and feedback, and a tool for interaction enabling the teacher and/or student to orchestrate the set of resources according to the teaching-learning goals [2]. So, the evident reason for embedding digital technologies in the classroom is to enhance interactive learning and, thereby, to improve students’ success through obtaining the intended learning outcomes set by a teacher for the course, each of its modules or activities [12]. Such an understanding of interactivity, therefore, determines its fundamental role in the development of learning resources and their orchestration from the student’s perspective in terms of learning outcomes, which is paramount in the language classroom with adults as the

target audience. In this context, creating an effective learning design is determined by such attributes of interactive teaching and learning as:

- Student's proactive approach to learning.
- Emotional inclusion of all learners in productive collaborative activities.
- Use of student's experience as an increasing resource for learning.
- Sustained motivation to learn throughout the training course.

These parameters are harmoniously combined with the basic assumptions of linguistic andragogy about adult learners as self-directed, relying on their experience, ready to learn with the focus shifted from the subject-centeredness to the problem-centeredness, prone to reflection, systematic and applied approach to learning a foreign language through its immediate use in relevant communicative situations [4, 10]. Consequently, a learning design based on interactive instructional materials by their very definition should involve large amounts of learner-initiated activity and action. However, their value for the adult learner is primarily determined by the nature of the thinking such interactions encourage in him or her. It stands to reason, that interactive technologies and interactive pedagogical practices are expected to enhance learning by supporting higher levels of cognitive activity among students through decision making, reflective thinking, problem solving, project activities, to name but a few [8]. At the same time, there is no reason to suppose that the expected learning outcomes within the framework of interactive teaching should be obtained through the types of learning other than those traditionally used in education: acquisition, discussion, investigation, practice, collaboration and production. It is learners' experience in terms of engagement and learning outcomes that really changes with the interactive technologies and practices embedded into the conventional classroom. Here is the brief interpretation of each type of learning in terms of its blending with digital technology. Thus, learning through acquisition occurs when the student is listening to a podcast, reading from websites, watching animations and videos with all of them mostly referred to as objects of the interaction. Learning through discussion requires the student to express their ideas and questions, to challenge and respond to the ideas and questions from the tutor, and/or from their peers applying to chat sites, social media, discussion forums, web-conferencing tools as participants in interaction. When learning through investigation, students do their own exploration, comparison and interpretation of the documents and resources relating to the concepts and skills being taught with the digital tools for collecting, analyzing and evaluating information and ideas. Learning through practice enables the student to adapt their actions to the task goal and use the feedback to improve their next action. Here, digital quizzes, online voting, simulations, games and online role-play activities are, as a rule, most popular with students. Typically, such learning happens through students' collaboration in online forums, wikis, chat rooms or their use of Padlet for either sharing individual digital artifacts or creating a joint digital output. These activities provide students with production learning experience that consolidates their current knowledge and improves their practical skills including the use of digital resources as a tool for interaction. All six learning types have been widely applied in education and training for many years, and learners need them all combined within an effective learning design. The criteria for it might be numerous but the essential ones, according to Laurillard [12], include the following:

- Test of achieved learning outcomes through monitoring students' discussions in forums, at web-sessions, Practice, Investigate and especially Produce activities that act best as assessment tools.
- Alignment of design features by fitting the learning outcomes, activities and their assessment.
- Quality of formative feedback from peers, the teacher, or ICT resources indicating the student's progress in achieving the learning outcomes.

- Appropriate use of digital technology providing a clear benefit to learners and/or the teacher.

### **3. CREATING AN EFFECTIVE LEARNING DESIGN**

In this paper, the learning design, enhanced by using digital technology, is typified by drafting an ESP assignment for the first-year students of the Master's degree program majoring in finance. This is an introductory stage of project planning, to follow online video lesson on the global financial and economic crisis. The students have been split into groups and have specified their project aim. The assignment is designed to help students improve their fluency in the special English of business through developing their approach to project planning, reporting and discussing its preliminary results. The expected learning outcomes include improving students' skills of giving feedback, revising, evaluating and demonstrating their ability to use the appropriate language and mind-mapping skills to create and hold a properly tailored group presentation under the heading "The Global Financial Crisis from Its Reasons to Effects". The learning design is intended for learners with a general user level of ICT competence that is sufficient for working with open educational resources and recommended web tools. The essential technical requirement is the access to the Internet through a computer and/or mobile device, and the students' command of English should be at CEFR Levels B2–C1. The assignment starts with learners' acquiring new language on the topic in focus through watching, listening, reading and writing involved in doing the tasks incorporated into the video lesson on "Financial Crisis and Global Economic Meltdown" from Business English Podcast series available on the resource website or through its mobile application. Working on their own, learners take notes of the new language and its proper use in speech. At their level of English, they don't need to spend a lot of time learning grammar. What they really need is the ability to identify and use appropriate terms combining them in word partnerships (phrases and expressions) which are the basis of fluent Business English. So, the learner is to make a list of the new words presented in the video lesson and find their Russian equivalents. Then, having chosen any three terms among those on the list, he or she looks for as many word combinations using these terms as possible to mind-map them and upload to the forum of the thematic unit on the ESP course Moodle-based website. These individual digital outputs are then assessed and commented on by the peers. It is followed by each student's revision of their mind-mapped word partnerships that are later uploaded to the Glossary module of the thematic unit for the graded assessment by the teacher. The introduction of the new vocabulary is followed by its activating through a set of tasks and exercises. The initial practice task on gap-filling is available to the learners within the video lesson with the prompts and comments provided. The additional drill and practice activities are accessed through the corresponding flashcards module developed by the teacher on the platform of Quizlet mobile application that involves in the learning-teaching process as its active participant. Alongside with its tasks on learning, writing, spelling and testing the new language, it provides the game activities on matching and 'gravity' for the individual and group use. Moreover, there is a Quizlet Live option that enables the teacher to assess the students' language proficiency in a collaborative and exciting way later at class. Another way for the graded assessment of the student's individual performance in the new language acquisition is through the mobile application developed by the teacher on the Kahoot platform. With the new language acquired, the learners are then faced with the challenge to use it in exploring and discussing the concept of a global economic and financial crisis within the properly structured and mind-mapped presentation. To prepare it, they are requested to use the meta-information module which contains the links to open educational and authentic information on the subject. The group work at this stage is aimed at preparing a segment of the integrated mind-map with the focus on the particular aspect of the crisis under analysis, namely, its background, probable reasons, events, effects and recovery.

So, the students are to arrange their Skype or Zoom-based discussion to brainstorm their group assignment, generate, collect and evaluate the ideas, make their shortlist, draft the mind-map, comment on it for its further revision. The updated mind-map is then automatically posted to the specific forum assigned to each group to simplify both its further improvement by the students and monitoring by the teacher. With the mind-map created, the group members work together to combine their ideas into an agreed 2-page presentation and decide on the spokesperson who will contribute to the whole class joint presentation on the topic “The Global Financial Crisis from Its Reasons to Effects”. Such a presentation held in the classroom will finalize the introductory stage of project planning, acting as a springboard for learners’ individual projects on the particular economic crisis from those on the list recommended by the teacher. Thus, the suggested design of the ESP assignment provides for different types of interactivity within learning varying from acquisition through discussion and investigation to practice, collaboration and production under different modes of class organization (individual, paired, group and whole class work). It also includes the main criteria for evaluating the student’s output with the focus on:

- Its content or the topic coverage in accordance with the ICT resources proposed for exploration and study.
- The language adequacy and fluency.
- The structure compliance with the requirements for mind-mapping, brainstorming and presenting in English.

#### 4. CONCLUSION

The insights into the interactive technologies and pedagogical practices from the perspective of learning design of an assignment within the ESP online course, provided in this paper, suggests that any teaching-learning activity will benefit from the mixture of different types of technology supported language classroom interactions with their nature completely dependent on the learning objectives. Such an approach to the design of instructional materials allows, firstly, to maximize the teaching-learning affordances of ICT resources derived from their specific properties such as multimedia, interactivity, nonlinear information flow, informativeness and gamification. Secondly, it expands the channels of educational interaction and increases its density. Furthermore, it keeps the motivation of learning at a high level and makes the monitoring and evaluation system more transparent, thus, encouraging students' responsibility for their learning outcomes. Finally, it helps teachers shift the emphasis on the development of the student’s learning autonomy, improving their communicative and language skills according to their individual capabilities and needs.

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# SMART EDUCATION FOR THE DIGITAL ERA - WHY WE NEED TO ABANDON TRADITIONAL LEARNING STYLES AND LET DIGITAL NATIVES DO WHAT THEY DO BEST

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## ABSTRACT

*Our research focuses on a delicate but urgent issue concerning the need for radical changes in learning styles for the future of education and knowledge management. Digital immigrant teachers will be retiring soon or may already have done so. Schools are now filled with both digital native students and digital native teachers. In this paper we aim at demonstrating the mindset and learning styles of digital natives. We argue and show that they prefer both learning from visualized curricular materials and finding learning content where they usually find other things of interest. In defining our problem, we are observing three levels. (1) Young teachers inherit the old teaching materials and the old requirements that have remained old despite “formally introduced” digitalization. (2) The web-routine of students lies in finding a lot of help and tutorials as they search for solutions (e.g. YouTube, Instagram), and these routines are inapplicable to the so-called “digitalized curricular materials” used by most schools today. (3) Training “smart” teachers requires “smartly educating” universities. Our research questions are twofold: (1) How far should the “searching space” extend and whether it is expandable? (2) How can the curricular materials be included in the searching space? Our findings indicate that smart universities of the future will require properly authored, script-based curricula which allow for self-directed (essentially “buffet-style”) learning engagement. This is possible only if the educators of the educators come to understand that everything is bound to change and no traditional learning styles and methods can remain the same old ones in the Digital Era.*

**Keywords:** *digital learning environment, multi-modal content presentation, script-based curricula integrating searching space, smart universities*

## 1. INTRODUCTION

We have conducted many long conversations with our students regarding learning materials that are essentially just PDF texts and PPT presentations lumped together. During these coffee house conversations, it seemed that students agree that there is no point in learning from boring materials that aid neither learning nor passing of exams. Individuals' learning styles differ from one another, but they can converge towards the same style. The performance of students in different subjects can be affected by their learning styles and whether their styles are in harmony

with that of the teaching. When students are taught using methods and resources that complement their learning styles, their performance improves greatly (Pritchard, 2017). It was, therefore, important to discover what kind of learning styles students employ. For this we used a questionnaire method. Compared to contemporary literature review, we give a brief overview, because the essence of the concept is in books. Becker, K., (2017) goes over the theory behind game-based learning and pedagogy. Copley, P., (2013) and Herman, L., Vervaeck, B., (2019). Copley, P., (2013). Fludernik, M., (2009), present a useful introduction to the history and theory of narrative. Furedi, F., (2002;2011;2018) develops a critique of the contemporary culture of fear, and an analysis of the current state of education. Ginzburg, C., (2013). presents a microhistory of interpreting the world. McKenzie, J., (2002). puts a performance in the center of the present cultural context. Popham, W.J., (1995) writes about assessment and evaluation in education. Slavin, R.E., (2017). studies psychology in contemporary education. Uskov, V., Bakken, J.P., Howlett, R.J., Jain, L.C. (Eds.), (2018). develop a concept of Smart University. White, K., (2011) puts together a valuable compilation of thoughts on art and aesthetics by famous artists.

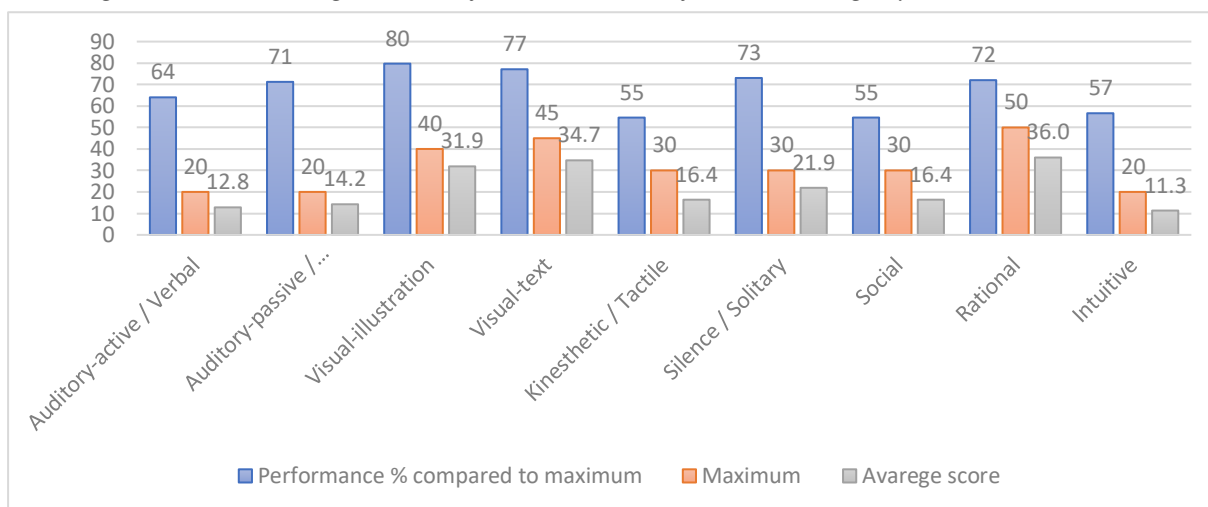
## 2. ANALYZING HOW DIGITAL NATIVE STUDENTS LEARN

Our research is a descriptive one, aiming at identifying the learning styles and the cognitive processing styles of the students involved and their possible variations. Students were asked to fill in the questionnaires by putting pencil to paper or electronically via Google Forms. Questionnaires were anonymous; participation was not mandatory. Filling in the questionnaire took approximately 20 minutes, but no time limit was imposed upon them. The overall questionnaire had a general set of instructions and the individual questionnaires had more specific ones. The research employed a three-part questionnaire. The first part contained questions regarding age, gender and studies. The second part was a Rational-Experiential Inventory (REI) (Epstein, Pacini, Denes-Raj & Heier, 1996), adapted to Hungarian (Bognár, Orosz & Büki, 2014). The third part was the Learning Styles 2 Questionnaire (orig. Hungarian Tanulási Stílus 2, developed by Bernáth, N. Kollár & Németh, 2015). The Learning Style 2 Questionnaire contained 57 items to which self-reflective answers were requested on a 5-increment Likert scale. The two extreme values were: 1 - "Not at all like me" and 5 - "Absolutely like me". The questionnaire did contain inversed items. The items relating to different factors were distributed unevenly throughout the questionnaire. The questionnaire focused on the following learning styles: **Auditory - active (verbal)**: Measures the effect of active verbal production on learning. It simply examines whether articulatory tasks help the retention of the materials. It does not examine its meaning. **Auditory - passive (receptive)**: Also a verbal form, but measures how much external auditory input helps the student in learning. This external input could come from anywhere. The student is a passive recipient in this case. **Visual - illustration**: Refers to visual knowledge structuring procedures. These are, for example, tables, diagrams, mind maps, etc. **Visual - text**: Refers to the "traditional" method of learning from a written text. In this case, it means textbooks, teacher handouts and personal notes more specifically. **Kinesthetic / Tactile**: Refers to possibilities for movement during learning. In a broader sense, this also refers to the use of tactile stimuli. To take an example, if a child is learning about plants, not just showing them the textbook (visual illustration) or just reading about it (visual text), but looking at it in its natural surroundings in real life. Laboratory tests as practice also fit into this category. It is important to note that this does not refer only to the idea that students can walk around during a class. **Silence / Solitary**: Generally, being in a silent space is conducive to learning. Noise, however, is not similarly disruptive to everyone. Students who prefer silence and have a low tolerance for noise need to be prepared during their studies that a certain tolerance for background noise is required to function well in everyday life and especially the world of work. **Social**: Refers to group and pair work during learning.



Students who prefer solo styles need to be trained in social cooperation during work, as most modern workplaces focus on collaboration within task groups (Bernáth, N. Kollár, Németh, 2015). A total of 129 people participated ( $n=129$ ) in our survey among which 70 per cent were identified as female and 30 per cent as male. It is important from a theoretical background and examination point of view that 89 per cent of the participants were born between 1993 and 1998, which means that they qualified as digital natives. The parts of the research relevant to learning styles will be presented below. The following figure shows the average scores of the subscales of the Learning Style 2 Questionnaire, taking into account the maximum possible points on the given scales. Taking into account both attained maximum and theoretical maximum, a relative (standardized) marker was created (performance) in order to facilitate comparison:

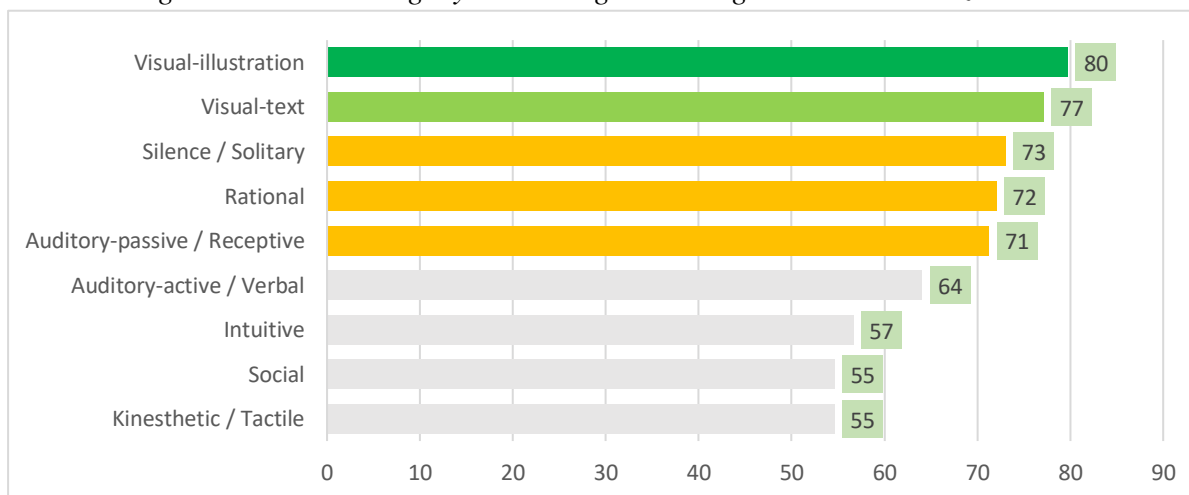
*Figure 1: The average scores of the subscales of the Learning Style 2 Questionnaire*



*Source: Own editing by Péter Fischer, 2018*

The visual-illustration style is significantly more prominent amongst those filling in the questionnaire than visual-text. The former sees an average of 80 per cent, while the latter an average of 77 per cent. This means that participants reached an average of 80 per cent of the maximum points possible on the visual-illustration subscale. We ranked the styles according to the standardized values, with colors referring to the strength of performance:

*Figure 2: The learning styles ranking according to the standardized values*



*Source: Own editing by Péter Fischer, 2018*

Based on the comparison of Visual-text and Silence / Solitary styles, the latter is only 73 per cent applicable to the participants. There is no significant difference between the Silence / Solitary style and the Rational learning subscales, just as there is no significant difference between the Auditory-passive / Receptive and the Rational learning subscales. There is, however, a significant difference between the Auditory-passive / Receptive and the Auditory-active subscales. The Auditory-passive / Receptive subscale is significantly more relevant for the participants than Auditory-active. Overall, based on the results, we can conclude that among participants of the questionnaire, Visual-illustration was the most significant of the tested learning styles. The second most significant, Visual-text, also stands out. The third most significant can be viewed as a group, all of which seem to be significant attributes. There are no significant differences between the attributes and styles within this group. It includes Silence / Solitary, Rational learning and Auditory-passive / Receptive learning styles. There seems to be a distinct pattern emerging amongst digital natives. Perhaps, now they could even be called “digital naturals.” Humans are born being able to breathe. Very few have to attend a breathing workshop. We are also beginning to understand that digital transformation means that children are able to play on an iPhone already a few months after birth; they are born into this digital environment and very few need to attend a digital gadget workshop. The technological environment that we are immersed in for work, learning and play has undergone a massive and rapid transformation in recent times, and it does not seem to be slowing down (Carr, 2011). If we think about the digital immigrants, however, we understand that they needed to go to workshops to be able to access computers and similar digital gadgets. They had to learn everything from badly written textbooks. And it is exactly from these rehashed textbooks that we are trying to teach digital naturals.

### 3. CONCEPTUAL MODEL OF SMART PEDAGOGY

Many have tried to adapt and fit things into the required conditions of a new era. In other words, most actors have tried to add something to what was available. We would rather prefer to think of it as ‘everything needs to change in order for nothing to change’. What we mean by this is not to try to change or fight the huge increase of available knowledge and the natural curiosity that arises around it, but change the way we do education completely. Learning in the digital age is not about blending old content with new technologies; rather it should focus on running newly written content on new digital devices. In our model we combine some partial models. “There are four types of learners according to Felder and Silverman with each type having two learner styles associated with them. The first dimension distinguishes between active and reflective learners as the former actively participate in order to learn with a hands-on predisposition. On the other hand, reflective learners are more the thinkers who ponder well and reflect on the issues and learning content presented to them.” (Montebello, 2019 p. 84) In our model we strive to learn from the result of our analysis, as we prefer content that is customized for learners. We think that there are no final solutions that must be practiced and used throughout a single career. If a student learns how to reflect, then he or she can learn with that style from that moment on. We can further categorize learning styles as sensing and intuitive. Here sensing and intuition play an important role in the contextualization of experiences and learning. “In the first case sensing learners tend to be good at factual and concrete learning materials, while intuitive learners are more inclined towards theoretical and abstract materials.” (Montebello, 2019 p. 84) Again, in our model we strive to learn from the result of our analysis. Digital devices give us the opportunity to produce content that stimulates most of the human senses. That is why in our model we prefer sensing. The third type integrates visual and verbal learners. “As seeing is-believing and learning works best for the latter type, while the former learn best from written or spoken textual representations” (Montebello, 2019 p. 84).

We prefer visual learning as our experience proves that digital learners find it more suitable. Lastly, sequential and global learners may have a different learning rate, where some learners prefer to learn in shorter steps, and others have a more generic style of learning, as they prefer to see the big picture. Interestingly, “big picture” realizations are born from the liberal arts. Without liberal arts knowledge, it is hard to adapt. A person’s worldview is built on a vast tradition of music, drama, rhetoric, arithmetic and logic. These arts and skills are not (directly) utilitarian. There is no direct benefit in learning the Principle of Bivalence, but in order to benefit, it is useful to learn it, as it is harder to live without it. “This idea [of categorized learning styles] has been extensively employed and found to effectively enhance the learning process when applied to design a course with styles that match those of the learners.” (Montebello, 2019 p. 84) This is the reason why we claim that curriculum development should be a collective endeavor that includes learners, domain experts and teachers. This can be developed only if the curriculum developers have a clear big picture. Stepping back to get such a bigger picture, we move from personal learning styles to interpersonal methods. While traditionally students were only seen as individual learners, research, as well as real life, has borne out the need for understanding collaboration. “In Collaborative learning, the relationship between learners should encourage positive interdependence, interpersonal skills and individual accountability. Gokhale states that this method has been shown to help students develop competencies in critical thinking, such as how to ask appropriate questions to gather and organize relevant information, to relate new information to existing knowledge, logical reasoning and re-examination of the pre-existing beliefs and finally, to draw reliable and trustworthy conclusions.” (Uskov, 2019 p. 41). In order to achieve active learning, it is important to build trust among university stakeholders and to have confidence in the content of curriculum. At this point we may need to ask: What of the relevance and novelty of content? Teaching things that have just happened, that are not even present in textbooks, is heterodoxy. It does not matter if it is about a bank transaction or parameterization of a robot. Those sitting in schools today learn what is important to them. We used to call this a blended curriculum. Learners blend as their curiosity develops. If the subject is winemaking or flower arranging, they will watch it; if it is coffee making, they will find it on YouTube. How do they find the right content? We thought it was a trial and error model, but we are not sure anymore. How does a seven-year-old kid find out how to program a refrigerator? It is a mystery. Blended curricula are already there on YouTube. Context-based learning can help students to properly define their goals and objectives as they try to overcome the current educational issues of cognitive overload, muddled learning context and application of knowledge in real life. “By explicitly addressing the social context of the learning environment and utilizing real-life examples, students can gain integrated experience with an entire problem, rather than solely a reductionist view of individual theoretical parts.” (Uskov, 2019 p. 41) We focus on solving the problem of cognitive overload, which is very common. Instead of increasing the size and/or number of cognitive chunks, we put emphasis on relevant content contextualization. This is where Problem-Based Learning comes in. “Savery differentiates between Problem-Based Learning and Project-Based Learning. He defines both methods as a learner-centered as opposed to instructor-centered approach. Here, the instructor serves as a moderator. Ill-structured, real world problems encourage free inquiry. Collaboration, self- and peer-assessment are carried out at the end of each problem.” (Uskov, 2019 p. 41) Both methods promote active learning, or learning by doing. In our case, Problem Based Learning is more useful than Project Based Learning as it tends to widen the students’ horizons. Throughout our experience we have learned that in project-based learning everything is determined (it has a beginning, well known steps, and a clear ending). This is the world of instructors rather than that of the digital learners, as it prepares students for executing a well-defined operation, or series of operations.

#### 4. PROBLEM SOLVING ORIENTED EDUCATION

We are convinced that a radical and most effective solution to the training of “smart educators” and “smart curriculum and learning material writers” is the establishment of doctoral-level training programs. These should focus on both the fundamentals of scientific and scholarly research activities and the methodology of digitalized learning materials and its didactic aspects for specific knowledge domains. The notion “discipline” has to be interpreted in two-ways: the learning styles best suited to the pursuit of knowledge acquisition in specific knowledge domains is understood as “discipline-dependent”. However, the extension of the “searching space” as discussed above, has to be carried out in a disciplined manner, keeping constant track of the scope and focus of the learning material under pursuit. Therefore, we propose a tentative curriculum for such a doctoral program. Problem solving is a central piece of the education of doctoral students. Popper’s method is the perfect guideline to start them off. Popper suggested that all scholarly discussions should start with identifying a problem (P1) to which some sort of tentative solution is offered (TS1). Then this tentative solution is tested in an attempt of error elimination (EE1). The process is iterative: the tentative solution and its critical revision give rise to new problems (P2) “... all scientific discussions start with a problem (P1), to which we offer some sort of tentative solution – a tentative theory (TT); this theory is then criticized, in an attempt at error elimination (EE); and as in the case of dialectics, this process renews itself: the theory and its critical revision give rise to new problems (P2).” (Popper, 1974, p. 152). Popper liked to emphasize that science starts with a problem and ends with a problem, to highlight the anti-dogmatic mindset necessary for scholarship. However, he also noted that he was always a little worried about the schema, as any problem arises in context and thus is embedded in the accepted knowledge (Popper, 1974, p. 153). Therefore, in the later revisions of this idea, Popper emphasized that *any* of the three components could serve as a legitimate starting point of the tentative problem solving process: “[...] I used to add that it is often from some practical problem that a theoretical development starts; and although any formulation of a practical problem unavoidably brings in theory, the practical problem itself may be just “felt”: it may be “pre-linguistic”; we – or an amoeba – may feel cold or some other irritation, and this may induce us, or the amoeba, to make tentative moves – perhaps theoretical moves – in order to get rid of the irritation. But the problem “Which comes first, the problem or the theory?” is not so easily solved. In fact, I found it unexpectedly fruitful and difficult.” (Popper, 1974, p. 153)

#### 5. TENTATIVE CURRICULUM

The Core Curriculum should have an emphasis on Transdisciplinarity. The teaching in doctoral education must be transdisciplinary. This requirement is very difficult to meet, only the best in the particular discipline are able to meet it. The greatest thing about Transdisciplinarity is that it goes beyond the disciplinary boundaries in principle, not only beyond the boundary of a particular discipline. Transdisciplinarity does not just allow us to visit a different ‘cage’; it gives us an opportunity to create new knowledge in the no man’s land between cages. Such knowledge may achieve immensely high complexity but should not be very complicated. Out of their cages, the birds now seem to be perfectly in tune, as they are together in the space between, and we hear one beautiful, harmonious, polyphonic song. We start by departing from the positivist ontological and epistemological viewpoint towards a social constructionist framework. Within this framework some major methodological approaches are examined in detail while a broad picture of the variety of qualitative methods is provided. The essential message is that qualitative methods are no less rigorous than quantitative ones, although they differ in nature as well as in how and for what purpose they can be successfully used. The participants will become able to distinguish between the various epistemological approaches, to conceptualize the qualitative modeling approaches, preparing the basis for building and using

qualitative methods. They will understand the significance of the realm beyond the measurable world and appreciate the immeasurable. Consequently, they will become able to include the 'soft', i.e. immeasurable aspects of a problem and develop models that are more inclusive and better reflect reality. The idea is not to argue against measuring and calculating in general, but to measure and calculate what can be measured and calculated, and to use qualitative methods to handle what cannot be measured. The central concept of phenomenology is the 'qualia', i.e. the subjective part of the experience that cannot be divorced from the person who experienced it and cannot be adequately articulated. The wide range of phenomenological methods is there to include the qualia in the problem-solving process through being personally invested. We tell our experience in the form of narratives and these narratives can be organized into models. In that sense, for instance, drama is a form of model. Narrative models are difficult to build but in turn they can be incredibly useful for gaining in-depth understanding of reality, revealing aspects of its nature that would otherwise be hidden. Knowing becomes an embodied understanding contextualized in the reality of practice, and thus part of our identity and, in turn, essentially subjective. Critically reflexive practice embraces subjective understandings of reality as a basis for thinking more critically about the impact of our assumptions, values, and actions on others. Such practice is important for practitioners, because it helps us understand how we constitute our realities and identities in relational ways and how we can become more collaborative and responsive. In harmony with the notion of Transdisciplinarity paramount in the core curriculum, a further elaboration of the constructionist framework enhancing the research progress guided by Transdisciplinarity needs to be carried out. Therefore, appropriately desirable subjects in the curriculum for specialization ought to be identified. In our conceptual framework some seemingly traditional subjects do have a place on their own rights with a certain amount of reservation. The subjects we include in the curriculum for specialization have a state-of-the-art version of their sub-discipline, the results of which are not only novel to the academic community, but are formulated in an adaptive manner such that their assumptions can be interpreted on a meta-level of integrated representation. Thus, Cultural Studies may include cultural linguistics of cultural narratives and social cognition, the use of new media in digital culture, gamification and new learning styles. Hermeneutics and Phenomenology ought to give room to the validation of experience in knowledge management and to context-specific interpretations in evaluating content implementation. Argumentation and Reasoning should add to improved communication skills, while Cognitive Psychology, Ethics and Aesthetics should lead to an integrated concept of cognitive and affective parameters in understanding human social behavior. Finally, it will be inevitable to develop – as the jewel in the crown – improved knowledge and instrumental practices concerning proper Curriculum Design and Smart Technologies in Education.

## 6. CONCLUSION

Currently we are trying to bridge the limitation gap considering the current state of digitalization in Hungary with the implementation of smart pedagogy. Main goals of the Smart University (SmU) are employability (work readiness) and building flexible social competences and technological skills. We think it is important to use new technologies and methodologies in learning. We also find it important for students to use their critical reflection, and become responsible citizens in the light of values inherited from the Enlightenment. Flipped classroom methods can be used as tools for blended and active learning. Learners can briefly encounter the tentative problem solving before the class by using the internet and smart software. If teachers approach new technologies as a neutral tool that can be used for many different things, the transition to seamless knowledge sharing will be much easier. We think that throughout the PhD education, teachers of the future teachers will be able to learn how to develop new content for smart education.

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## **SOCIAL ENTREPRENEURSHIP AND DIGITAL TECHNOLOGY - CASE STUDY OF THE BLOCKCHAIN FOR ZERO HUNGER INITIATIVE**

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### **ABSTRACT**

*We share the vision that social entrepreneurs around the world have been unparalleled catalysts for social change. They use market-driven strategies to tackle critical social issues in brand new ways. Through non-profit, for-profit and hybrid enterprises, social entrepreneurs have promoted a broad range of solutions focused on sustainable development, decades before they were called Sustainable Development Goals. In this paper we perform a reflexion on social entrepreneurship focused on the definition of the concept and some of the challenges of the sector. We also present an exploratory study of digital blockchain technology and the role it can play in the implementation and success of social entrepreneurship projects, namely within the framework of the United Nations Sustainable Development Goals. Also presented is the case study of the Blockchain for Zero Hunger Initiative under way in a refugee camp in Jordan.*  
**Keywords:** *Blockchain, Social Entrepreneurship, Sustainable Development Goals*

### **1. INTRODUCTION**

Entrepreneurship presents itself as an important driver of the social sector. In turn, the social sector has the exceptional ability to be a powerful means of leading social impact. This aspect is particularly relevant in the context of sustainable development and above all in the enormous potential to contribute for the implementation and success of the United Nations Sustainable Development Goals. Social entrepreneurs around the world have been unparalleled catalysts for social change. They use market-driven strategies to tackle critical social issues in brand new ways. Through non-profit, for-profit and hybrid enterprises, social entrepreneurs have promoted a broad range of solutions focused on sustainable development, decades before they were called 'SDGs (Zimmer & Pearson, 2018). For Zimmer and Pearson, the real power of social entrepreneurs is their talent for identifying market failures that are holding humanity back, and their skill in tailoring and implementing solutions. These include providing clean water, access to renewable energy, financial inclusion, high-quality educational resources and critical information that allows life-giving agriculture to flourish. As the field has matured, so too has the complexity and depth of the social issues at stake (Zimmer & Pearson, 2018). While universities, think tanks and other groups study and support social enterprise, the missing link has been candid and authentic engagement from those of us in the field. It is one thing to study social entrepreneurs; it is quite another to worry about meeting payroll, ensure your organization is continuously innovating its models and aligning staff expertise to increase impact, while often putting your health, family, relationships and even lives on the line in your quest to deliver systemic change (Zimmer & Pearson, 2018). From the point of view of opportunities, technology, namely digital technology and network communication, presents itself as an immensely fertile field for the creation of innovative projects. At the same time, the need to provide urgent answers to dramatic problems that still plague humanity (despite experiencing a unique period in history in terms of development and prosperity) such as hunger, war or dictatorships, as well as finding solutions to combat current problems such as those arising from climate change or migration, or to implement projects aimed at recovering and protecting the planet, constitute opportunities to create innovative projects based on the technologies of the fourth industrial revolution (I4.0).

Thus, this study, in addition to the conceptual approach to social entrepreneurship and blockchain technology, seeks to understand the role of digital technology in real initiatives related to social entrepreneurship – like the impact of the Blockchain for Zero Hunger. The work is structured as follows: in the next chapter, the second, the theoretical framework of social entrepreneurship is focused on the difficulty of defining the concept and its main characteristics. In the third chapter, the United Nations Sustainable Development Goals are briefly presented, since, from our point of view, it is mainly within the scope of this program that many of the innovation opportunities for social entrepreneurship currently reside. The fourth chapter is dedicated to a brief definition and presentation of blockchain technology; this is the anchor concept of the case study described in chapter five. The sixth chapter presents the final considerations. In terms of methodology, the exploratory study was chosen, a category of observational research, considered useful in real cyber systems (related to techno-social behaviors) (Edgar & Manz, 2017). In addition, a case study is used as a way of illustrating the correlation between the various topics covered where the methodology used both to answer research questions and to better understand a system for which there is no pre-conceived hypothesis or conceptual behavior (Edgar & Manz, 2017). According to Baxter & Jack the qualitative case study is a research method that facilitates the exploration of a complex phenomenon in its own context using a variety of data sources. This ensures that the subject is not explored through a personal view but through a variety of lenses that allow observing various facets of the phenomenon to be revealed or understood (Baxter & Jack, 2008). These two authors defend that there are two fundamental views on the methodology of the case study: one proposed by Robert Stake (1995) and the other by Robert Yin (2003). Both ensure that “the main theme is properly explored and that the essence of the phenomenon is revealed” (Baxter & Jack, 2008, p. 545). Overall, the study made possible to infer that social entrepreneurship projects associated with digital blockchain technology can create a highly positive social impact and have the potential to bring broad systemic change.

## 2. THEORETICAL FRAMEWORK

### 2.1. Social entrepreneurship

Social entrepreneurship as a subject of academic research only started to gain relevance from the 1990s (Dacin, Dacin, & Matear, 2010). However, as Huybrechts & Nicholls refer, “in recent years it has become fashionable” (Huybrechts & Nicholls, 2012, p. 1). In addition to transforming existing markets, social entrepreneurship was also instrumental in creating new markets and niche markets (Nicholls, 2010) (Nicholls, 2010a) with initiatives such as fair trade and microcredit (Aghion & Morduch, 2005) (Battilana & Dorado, 2010). This latter field has been understood as one of the main ‘flags’ of social entrepreneurship, “especially since the Nobel Peace Prize was awarded to Grameen Bank and its founder Mohammad Yunus” (Huybrechts & Nicholls, 2012, p. 1). Another example is that of Albert Gore Jr., who won the same award the following year (2007) for having launched, among other initiatives, The Climate Reality Project; the prize was awarded *ex aequo* to the Intergovernmental Panel on Climate Change (IPCC). Although in recent years the concept has gained adherents in academia, being widely mentioned in the media, social networks, etc., and underpinned the creation of many companies worldwide, the definition of social entrepreneurship has proved non-consensual. The main difficulty, from the point of view of several authors, is that social entrepreneurship is a set of contextual and contingent activities, subject to analysis and interpretive measurement (Bacq & Janssen, 2011) (Nicholls, 2010). Some of these characteristics or activities “are not uncommon in the field of entrepreneurship, but are considered less impactful than in other areas dealing with the social sciences” (Huybrechts & Nicholls, 2012, p. 1). The literature on the subject uses three different terms that, at first glance, may seem to be linked in a very simple way; social entrepreneurship refers to the dynamic



process by which specific types of individuals who deserve the name of social entrepreneurs create and develop organizations that they can be designated as social companies (Defourny & Nyssens, 2008) (Mair & Marti, 2006). In conceptual terms, it is important to refer to the delimitation between entrepreneurship and social entrepreneurship, since “the lack of consensus in the definition of social entrepreneurship allows other disciplines to be often confused or wrongly associated with social entrepreneurship, such as: philanthropists, social activists, environmentalists and other individuals involved in social causes often referred to as social entrepreneurs” (Abu -Saifan, 2012, p. 22). The difficulty of definition or the inaccuracy in describing social entrepreneurship stems, as Phills argues, from the proliferation of 'social things', that is, from the penetration of business ideas, management practices or market principles into the government world and for non-profit organizations where private sector concepts are juxtaposed with the word "social" as a modifying factor, for example: social entrepreneurship, social companies, social ventures (social partnerships) social capital, social innovation (Phills, 2009). Generally speaking, social entrepreneurship can be considered “the field in which entrepreneurs orient their activities to be directly linked to the ultimate goal of creating social value. They often act with little or no intention of making a profit” (Abu-Saifan, 2012, p. 22). For other authors, like Huybrechts & Nicholls, social entrepreneurship is a set of business initiatives oriented towards social objectives, supported by an innovative vision (Huybrechts & Nicholls, 2012). Without excluding the views of the authors mentioned in the previous paragraphs, in this study we share Phills' definition; according to the author, social entrepreneurship is about any new and useful solution for responding to a social need or problem that is better than existing approaches (that is, more effective, efficient, sustainable or fair) and for which the created value (benefit) is added mainly to society as a whole (Phills, 2009). In addition, understanding the profile of social entrepreneurs. According to Abu-Saifan: “the social entrepreneur is an individual motivated by a mission that uses a set of business behaviours to add social value to the least privileged, all through a financially independent, self-sufficient or sustainable entity, oriented towards entrepreneurship” (Abu-Saifan, 2012, p. 25). For the same author the social entrepreneur has several unique characteristics: he is guided by a mission; has a strong emotional intelligence; is an agent of change; opinion leader; creator of social value; attentive to society; manager; visionary (Abu-Saifan, 2012). The author argues that it is these characteristics, which combine four factors, that contribute for social entrepreneurship to be distinguished from other forms of entrepreneurship. Thus, the author considers that social entrepreneurs:

1. are motivated by missions. They are dedicated to fulfilling their mission of offering social value to the least favoured;
2. act in an entrepreneurial way through a combination of characteristics that differentiate them from other types of entrepreneurs;
3. operate within business-oriented organizations that have a strong culture of innovation;
4. operate within financially independent organizations that plan and execute financial management strategies. The objective is to create the desired social value, remaining financially self-sufficient (Abu-Saifan, 2012).

According to Dees, the social entrepreneur combines the passion of a social mission with an image of discipline, innovation and determination in business commonly associated, for example, with the high-tech pioneers of Silicon Valley (Dees, 1998). It is now important to understand some of the limitations to social entrepreneurship itself. The complexity around the sector is significant and often results from the interaction of various activities and sectors, thus creating greater difficulty and “limitations to social entrepreneurship itself” (Phills, 2009). Such limitations, according to Phills, are often related to the level of emphasis on individual capacities and personal characteristics (such as responsibility and ability to take risks), the

emphasis on the creation of new organizations and, in general, the circumscription to non-profit entities (Phills, 2009). Finally, it should be noted that in terms of dimensions that characterize social entrepreneurship, the main ones are: a) formal existence under the figure of an organization; b) private character, without belonging to the State, nor to market organizations; c) self-governance, with its own regulation and independent management; d) voluntary nature of the membership of its members; e) search for sustainability. In short, social entrepreneurship continues to be understood and promoted in different ways in different contexts. This is because, in part, it is “the result of the inherently hybrid qualities of much social entrepreneurship, which blurs the boundaries between previously well-distinguished forms and sectors” (Huybrechts & Nicholls, 2012, p. 9). In general terms, from the point of view of this study, it is intended to point out that the growth of socially entrepreneurial organizations and the growing support they receive tend to corroborate the notion that social entrepreneurship can, as mentioned in the previous chapter, “make a difference and has the potential for broader systemic change” (Huybrechts & Nicholls, 2012, p. 9). This aspect is particularly relevant in view of the current major challenges, in particular, those related to humanitarian aid and climate change. Thus, in addition to the necessary dynamization of the concept by the scientific community, Foundations and other stakeholders, there are four factors that should be related to a clearer view of the role and impact of social entrepreneurship today. These factors, according to Huybrechts & Nicholls (2012), are:

1. social, economic and environmental crises that provide new challenges and opportunities;
2. increasing global connection, allowing entrepreneurs to better identify opportunities and connect with stakeholders (such as financiers) around the world;
3. the redefinition of the role of the State, with more indirect support for private social action;
4. the decrease in government resources and traditional philanthropy that led social entrepreneurs to imagine new models of fundraising. (Huybrechts & Nicholls, 2012, p. 9).

On the other hand, according to Zimmer & Pearson six of the many obstacles hindering progress in the social sector are:

1. The structure of the sector does not promote innovation;
2. The sector does not have consistent access to capital;
3. Complex agendas;
4. Non-transparent reporting;
5. The media loves new non-profits;
6. Social sector leaders struggle with burnout;

There is certainly a longer and more complex list of issues that need to be acknowledged and addressed. The authors believe that forthright and unvarnished dialogue and evaluation is critical to addressing what is wrong with the field, learning how social entrepreneurs fail the sector and providing what is needed to support significant scaling, continued innovation and impact around the world (Zimmer & Pearson, 2018). Therefore, for the benefit of a greater good, be it environmental or social, it is important to highlight the work that has been developed and the existing opportunities to create entrepreneurial projects that interrelate all described factors. In fact, as David Gergen argues, “many people have committed themselves to social change and have done a great job. All of them must be celebrated and seen as partners in the biggest fight” cited by (Phills, 2008).

## **2.2. The United Nations Sustainable Development Goals**

The Sustainable Development Goals (SDGs) created and promoted by the United Nations (UN) in continuity with the Millennium Goals represent, according to the organization, the global priorities of the 2030 Agenda signed by more than 190 countries.

The Sustainable Development Goals define global priorities and aspirations for 2030 and require action on a global scale by governments, companies and civil society to eradicate poverty and create a life with dignity and opportunities for all, within the limits of the planet. According to the United Nations Regional Information Center (UNRIC), 2015 will go down in history as the year for the definition of the 17 Sustainable Development Goals, this is the new action agenda until 2030, which is based on progress and lessons learned with the 8 Millennium Development Goals, between 2000 and 2015. This Agenda is the result of the joint work of governments and citizens around the world that want to create a new global model to end poverty, promote prosperity and well-being of all, protect the environment and fight climate change. SDGs can be grouped according to the following broad themes:

- People: referring to eradication of poverty and hunger, promotion of dignity and equality;
- Planet: focusing on sustainable consumption and production, combating climate change and managing natural resources;
- Prosperity: with regard to personal fulfilment, economic and social progress;
- Peace: peaceful, just and inclusive societies, free from fear and violence;
- Partnerships: regarding transversal integration, interconnection and joint mobilization for the most vulnerable.

In addition to the 17 SDGs, this UN program establishes 169 goals and 230 global indicators in order to make it more agile and to measure the results of the initiatives implemented under it. The 17 SDGs are: 1. End poverty in all its forms, everywhere; 2. End hunger, achieve food security, improve nutrition and promote sustainable agriculture; 3. Ensure a healthy life and promote well-being for all, at all ages; 4. Ensure inclusive, equitable and quality education, and promote opportunities for lifelong learning for all; 5. Achieve gender equality and empower all women and girls; 6. Ensure the availability and sustainable management of water and sanitation for all; 7. Ensure reliable, sustainable, modern and affordable access to energy for all; 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation; 10. Reduce inequality within and between countries; 11. Make cities and human settlements inclusive, safe, resilient and sustainable; 12. Ensure sustainable production and consumption patterns; 13. Take urgent measures to combat climate change and its impacts; 14. Conservation and sustainable use of oceans, seas and marine resources for sustainable development; 15. Protect, recover and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, stop and reverse land degradation and stop biodiversity loss; 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels; 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development. The SDGs, according to Moyo serve as a point of reference and as a global roadmap for policy makers while navigating a complex, dynamic and difficult economic and political scenario. After all, unless the SDGs are seriously implemented, the fundamental macroeconomic trajectory and geopolitical arc of the global community will be in jeopardy. "Transforming our world" is the slogan of the 2030 Agenda for the United Nations' sustainable development goals and remains an appropriate 'rallying cry' for governments, the private sector, civil society and the majority of the world's citizens. According to this expert, the SDGs will be judged by the effectiveness with which they deal with the multiple challenges that affect the world today and threaten the world tomorrow (Moyo, 2016). From our point of view, the Agenda 2030 can become one of the biggest sources of creation of entrepreneurial projects of the beginning of the 21<sup>st</sup> century.

### 2.3. Blockchain technology

Blockchain technology is one of the most discussed topics but also the most difficult to understand in recent times in the field of technology. This technology is revolutionizing the way digital transactions are recorded and, eventually, it can change the way various industries manage their day-to-day business. The two words that quickly became part of the mainstream vernacular are bitcoin and blockchain. Although related, the two concepts refer to two different things as shown in the following paragraphs. According to Beyer “blockchain was invented by Stuart Haber and W. Scott Stornetta” (Beyer, 2018). As Beyer refers the creators describe this technology in the research study published in 1991, as a computationally practical solution for digital documents; in this solution the generated documents are registered without the option of alteration or adulteration. The system foresaw the use of a chain of cryptographically protected 'blocks' where documents are kept with a date and time stamp. Later, in 1992 'Merkle Trees' were incorporated into the project, making it more efficient and allowing several documents to be aggregated in a single block. Although innovative, blockchain technology was not used on a regular basis and the patent eventually expired in 2004 (four years before the launch of Bitcoin). Only years later, in 2008, Satoshi Nakamoto, who is credited with creating Bitcoin (although ownership is still a controversial issue) published a scientific article entitled “Bitcoin: A Peer-to-Peer Electronic Cash System”, complemented by the launch of a software called Bitcoin in 2009 (Beyer, 2018). Like many innovations, in Beyer's view, Bitcoin originated from a previous work that was neglected or undeveloped, so whoever wrote the original Bitcoin article did not steal that idea. The first authors, Haber and Stornetta are cited three times in the Bitcoin article, so it demonstrates Nakamoto's knowledge of common academic practice (Beyer, 2018). From a technological point of view, it is important to note that network computing predates 2008 and that many of the concepts used in blockchain technology are the result of previous research. However, the invention of Bitcoin - an important component in Nakamoto's work - sparked innovative advances in blockchain technology (described by Haber and Stornetta). In a more specific way, the use and framing of this new technology can be described in the individual or corporate context in which ‘contracts, transactions and records are among the structures that define our economic, legal and political systems. They protect assets and set organizational boundaries. They establish and verify identities and assign a chronology. They generate interactions between nations, organizations, communities and individuals. They guide social and administrative actions. Despite this, these essential tools, as well as the bureaucracy created to manage them, have not kept pace with the digital transformation of the economy. (...) In a digital world, the way we regulate and maintain administrative control must change. The blockchain promises to solve this problem” (Iansiti & Lakhani, 2017, p. 9). To this end, on the blockchain, contracts (or other documents) are incorporated into a digital code and stored in transparent, shared or distributed databases and without the possibility of being deleted, tampered with or reviewed (Iansiti & Lakhani, 2017). For these authors, in the blockchain “each agreement, process, task and each payment would have a registration and digital signature that could be identified, validated, stored and shared. Intermediaries like lawyers, agents, bankers are no longer needed. Individuals, organizations, machines and algorithms could freely trade and interact with each other without much friction. This is the immense potential of the blockchain” (Iansiti & Lakhani, 2017, p. 4). The five principles that underlie blockchain technology are as follows according to Iansiti and Lakhani:

1. Shared databases - each party to a blockchain has access to the entire database and its complete history. No single party controls data or information. Each party can directly check its partners' transaction records without an intermediary.
2. Peer-to-peer transmission (P2P) - communication takes place directly between the parties via a centralizing node. Each node stores and sends information to all other nodes.

3. Transaction with pseudonym - each transaction and its associated value is visible to all who have access to the system. Each blockchain user is identified by a unique alphanumeric address of 30 or more characters. Users can choose to remain anonymous or provide proof of their identity to others. Transactions take place between blockchain addresses.
4. Irreversibility of records - from the moment the transaction is entered in the database and the accounts are updated, the records cannot be changed because they are linked (i.e., chained, linked by links of a lock) to all transactions that preceded it. Several algorithms are activated and implemented to ensure that the registration in the database is permanent, chronologically ordered and made available to all users of that network.
5. Computational logic - the digital nature of registration means that blockchain transactions can be linked to computational logic and, in essence, programmed. Therefore, users can configure algorithms and rules that trigger automatic transactions between blocks.

Blockchain was created to serve as a technological base for Bitcoin, so Bitcoin is only the first manifestation of its potential (Kenigsberg, 2014). For Greenfield blockchain is a highly complex technology and, it is the first information technology that is equally difficult to understand by intelligent and highly capable people (Greenfield, 2018). In addition, you can say that it is also a technology that is considered unique because it is: a) decentralized; b) transparent; c) immutable; d) safe. In summary, blockchain technology, sometimes considered comparable to the revolution introduced by the internet, is revolutionizing the way of storing, managing and transferring documents or values between digital identities from numerous sectors and, although Bitcoin is its most well-known application, it is increasingly popular, with more uses including in innovative and entrepreneurial projects. Like any new technology it is not exempt from criticism or even flaws. Some of the criticisms are related to ethics and security in the digital world, factors that call the attention of relevant entities of the economic and social activity (ex. World Economic Forum - WEF) that lead initiatives to minimize or eliminate these failures. With regard to this study, it is important to highlight the advantages of blockchain for social projects as described in the next chapter.

### **3. CASE STUDY OF THE BLOCKCHAIN FOR ZERO HUNGER INICIATIVE**

Social entrepreneurship integrates different aspects and takes place in different contexts and organizations. The aim of this study is to understand the impact of entrepreneurial initiatives related to the use of digital technologies in the social economy and more specifically in social entrepreneurship. With many entrepreneurial initiatives linked to start-ups, we believe that it is important to understand how initiatives are promoted and streamlined within large organizations. The “Building Blocks - Blockchain For Zero Hunger” program is an initiative created within the World Food Program (WFP), whose pilot project was tested in Pakistan in 2017 and later implemented in Jordan. The project currently covers more than 100,000 people (refugees). The project arose from the need to provide financial aid to refugees where banking and telecommunications systems are precarious due to war, natural disasters, etc. Annually, the WFP transfers billions of dollars in humanitarian aid (\$ 1.7 billion in 2018). Based on these premises, one of the WFP financial managers, Houman Haddad, had the idea of using blockchain technology to improve the program's financial transfer system. The “Blockchain for Zero Hunger” Initiative is briefly described as follows:

- **Summary**  
The 'building blocks' application is probably the best known of the applications of blockchain technology applied to humanitarian support; it uses blockchain infrastructure to provide direct cash assistance in refugee camps in Jordan. Notably, the World Food Program (WFP) uses blockchain to deliver food aid effectively to 106,000 Syrian refugees in Jordan.

- **Description**  
As part of the pilot program called “Building Blocks”, the World Food Program (WFP) has been testing blockchain as a means to make money transfers more efficient, transparent and secure. Cash assistance and emerging digital opportunities empower families to meet their basic needs according to their priorities.
- **How it works**  
Users buy goods at designated stores depending on the role assigned to them. For an end user, the process is remarkably simple: they buy, usually at one of the designated stores and pay through the iris reader. The iris reading identifies the customer, confirms that he has enough balance and proceeds with the payment. The stores receive monthly payments.
- **Conclusions**  
Building The Building Blocks application is among the best expressions of systems based on blockchain technology for humanitarian purposes today. The main beneficiaries are the refugees, where anything that can facilitate cash-based transfers (CBT) is generally considered better and more dignifying. The WFP also benefits as it pays much less in transaction fees and, finally, donors also win because, from the outset, their financial contribution is applied more efficiently<sup>1</sup>.

This project, which starts from the innovative idea of a manager, captured the attention of decision makers and their peers to, in an entrepreneurial way, formulate a whole project and the respective implementation processes in a short time. From the Initiative’s description, it is possible to observe the efficiency of the blockchain in the management of a project within the social scope, more specifically, the humanitarian scope. In addition, this is a clear example of other applications of blockchain technology other than cryptocurrencies (the most well-known aspect of blockchain). In parallel, it is observed that this project also allows to verify one of the most striking characteristics of the blockchain, that is, the fact of allowing to monitor in real time all the steps of the system. In general, the advantages of the association of this technology with the management of funds oriented to social causes are highlighted, not only in terms of efficiency but also in terms of greater efficiency and cost reduction. From the humanitarian point of view, the element that stands out the most is related to the creation of conditions of greater dignity for the beneficiaries. Therefore, it is important to highlight Houman Haddad's innovative idea, proving, among other important factors, that individual entrepreneurship initiatives are fundamental and can create a positive impact, even within large organizations. Another of the great highlights of this project, in addition to the benefits for the beneficiaries - the most important, of course - is the scale, that is, after having tested the potential for replication of the project in other regions, it can benefit millions of people and at the same time maximize the financial management of monetary resources, which are often scarce and difficult to raise, given that the majority of those resources come from donations. It is also important to note that this initiative falls under the 2nd Sustainable Development Objective, so the scale factor becomes even more relevant as a way of contributing to the goals defined within this objective and to maximize its potential success.

#### **4. CONCLUSION**

In this work, several aspects related to the conceptualization of social entrepreneurship were addressed. From a conceptual point of view, after identifying the proposals of several authors, we understand that the definition of Phills (2009) is the one that most closely matches modern management strategies; for the author, social entrepreneurship refers to any new and useful for responding to a social need or problem that is better than existing approaches (that is, more

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<sup>1</sup> Sources: Blockchain4Aid: <https://blockchain4aid.org/dossier/building-blocks/#dxs-0>; Blockchain for Zero Hunger: <https://innovation.wfp.org/project/building-blocks>. Last accessed in 03.03.2020

effective, efficient, sustainable or fair) and for which the value created (benefit) is added mainly to society as a whole (Phills, 2009). Social entrepreneurs can really make a difference to change the world, they have a unique talent but, they also face enormous challenges, including at a personal level. It is one thing to study social entrepreneurs; it is quite another to worry about meeting payroll, ensure your organization is continuously innovating its models and aligning staff expertise to increase impact, while often putting your health, family, relationships and even lives on the line in your quest to deliver systemic change (Zimmer & Pearson, 2018). As for blockchain, despite being a complex technology, and still with enormous perspectives of evolution, blockchain can be used far beyond the cryptocurrencies that have been giving it more and more visibility. From the theoretical-conceptual perspective, it is important to highlight the recovery of a concept that had not been developed and that ended up creating one of the most disruptive technologies: the virtual currency. The case study made it possible to relate the blockchain technology to a project of enormous relevance in social entrepreneurship and to understand the importance of using new technologies in projects of this nature. The case study also made it possible to infer that it is possible to innovate and implement (social) entrepreneurship projects within large organizational structures such as the WFP and how the innovative idea of one person - Houman Haddad - can effectively have a positive social impact on millions of people. On the other hand, in our view, the opportunities for investment and implementation of innovative projects in the field of social entrepreneurship are numerous within the scope of the UN Agenda 203 particularly when combined with the digital area and especially. From an academic point of view, we believe that it is essential to identify and analyse available projects and to contribute to develop more opportunities to support social entrepreneurship and make a direct contribution to the UN's Sustainable Development Goals. Due to its intrinsic characteristics, it is understood that social entrepreneurship also plays an essential role in the success of Agenda 2030, with the greatest difficulty eventually being the ability to finance itself, both for the launch and for the development of this type of projects. However, in our view new mechanisms like impact investment can give a positive boost to social entrepreneurship. Hence, for future research it is also essential to study the role of impact investing in social entrepreneurship projects.

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# CRUDE OIL MARKET'S AFTER-CRISIS EVOLUTION THROUGH GAME THEORY ANALYSIS

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## ABSTRACT

*The financial crisis has led to changes that can be observed in every domain, even in the energy sector. In this paper there will be applied, on the international market of crude oil, two theoretical models from game theory on four international powers during the period following the crisis. After applying these models, it will be noticed how close to reality are the data obtained, being known the fact that the price is not influenced by the quantity on the international market of crude oil but there are other factors more important than this in terms of quality, but hardly surprised through econometric modelling. Through this paper there have been introduced new reasoning of analysis that can be used on international energy markets because applying two models from game theory on the crude oil market led to expressing theoretically the market share held by each of the four powers considered for analysis.*

**Keywords:** *Game Theory, Crude Oil Market, Market Share, Oligopoly*

## 1. INTRODUCTION

Game theory is defined as a branch of mathematics that explores issues of conflict and cooperation among companies or “players” (Arsenyan et al., 2015). In addition, this is “the study of mathematical models of conflict and cooperation among rational stakeholders” (Myerson, 2013). Game theory provides general mathematical techniques for the analysis of situations in which two or more individuals make decisions that will influence the other participants in the game. The cases studied by scholars from the fields does not contain recreational activities, as it might be suggested by the use of the word “game” in the name of this theory. “Conflict analysis” or “interactive decision theory” could be some more suitable names for this subject, but the term “game theory” is used as the name for the description of such interactions (Myerson, 2013). Like any model used to better understand a problem and its consequences, there are limitations that must be considered. Many applications of game theory require policymakers to be reasonable, meaning that they have clear preferences, form their expectations about the unknown and make decisions that are consistent with these preferences and expectations (Wood, 2011). In the cases described in this paper, countries and regions are key players in the game. Therefore, it is allegedly they have clear preferences, which are based on beneficial actions for citizens. But in reality, people have different and various preferences and decisions are taken mostly under political influence. Game theory is the science of strategic reasoning, as it studies the rational behaviour of players who are trying to maximize their utility, profit, earnings etc., in the interaction with other players, therefore, in a context of strategic interdependence. This theory is used to explain simple games such as poker, blackjack, rock-paper-scissors, but also more complicated (economic) ones, such as auctions, international conflicts or political interactions. It is also used in biology to explain the “game” between predator and prey. The modern game theory has its origins in the research conducted between 1910 and 1945 (E. Borel, 1921; Emile Borel, 1921; Neumann et al., 2007; v. Neumann, 1928; Zermelo, 1913). But the history of this branch of mathematics is much longer. Game theorists are continually trying to understand conflicts and cooperation by studying quantitative models and hypothetical examples. These examples may seem simple and unrealistic, but precisely their simplicity can make fundamental issues of cooperation and conflict more noticeable than in more complicated situations from real life.

Of course, this is an analysis of any field and any market. In this paper, after a presentation of the literature in the field of game theory, focusing on the analysis of the energy market from this perspective, being seen as an oligopoly, there will be applied on the international market of crude oil two models from game theory (Cournot and Stackelberg). After applying these models there will be noticed how close to reality is the data obtained, being known that not the amount influences the price on the international market of crude oil, but there are other factors more important than this, but hardly surprised through econometric models.

## 2. LITERATURE REVIEW

The “oligopoly” term comes from two Greek words – “oligos” (meaning a few) and “polein” (meaning sellers), being defined as a market structure in which there are a few sellers, being between the two extremes: perfect competition and monopoly (Gupta, 2002). This type of imperfect competition is characterized by a relatively small amount of companies, but always more than one, producing a homogeneous good, where the market entry is difficult. Due to the small number of companies operating, the marketing strategies of the firms will be interdependent, which implies that oligopoly firm profits will depend largely on the actions of its competitors. The oligopoly is the result of the relationship between technological conditions of production and the potential volume of sales. For many products, a company cannot get a lower production cost only if it produces much of the production from that market. In other words, economies of scale are present in oligopolistic markets. The automotive industry and the steel production are classic examples of oligopolies. Because of concerns about patents, high start-up costs and massive economies of scale, the entrance barriers are quite high in the oligopolies (Sexton, 2015). The firms that operate on oligopolistic markets may have a variety of behaviour patterns, making it difficult to have only one model of analysis. Static models are used since they present an easy way to analyse this market balances (Froeb and Werden, 1996). However, the maximization problem which companies on this market are facing will be marked by the different context of strategic interdependence under which this market works. Therefore, the company must estimate and collect reactions from its competitors concerning optimization problems as to choose the best strategy to follow. It is difficult to predict how companies will react in situations of mutual interdependence. No company knows with certainty how its demand curve looks and therefore has a limited knowledge of the value of its marginal income. To know more about the demand curve, the company needs to know how other firms will react to its prices and other policies. Then, in the absence of additional assumptions, the equivalent of the marginal cost and marginal expected revenue is transferred to assumptions. Thus, it is difficult for an oligopoly to establish the production and price that get him the maximum profit (Sexton, 2015). The first models of oligopolistic behaviour came from the assumption that companies had expectations about responses (or variations) of other companies, called conjectural variation. Cournot, Bertrand, and Stackelberg models can be interpreted as conjectural variation models, but they are known also as models in game theory. In each model, the firms control the quantity or the price. In Cournot and Stackelberg models, companies choose their level of production and the demand curve determines the price; in Bertrand model, firms choose their prices and allow market forces to determine the output (Carlton and Perloff, 2005). The Cournot model was the first model of conjectural variation (and the first oligopoly model). In the Cournot model, a firm is taking the simplest possible assumption of the behaviour of other companies: they will continue to produce at the same level of production, regardless of its behaviour. Thus, each firm assumption is that other companies are content with continuing selling their current production quantity (Friedman, 1983). This assumption leads to clear behavioural implications, but is arbitrary and may be incorrect. Firms with a smaller market power of Stackelberg model apply the Cournot conjecture. The leader, in the Stackelberg model, makes the same assumptions when making decisions (Carlton and Perloff, 2005).

In the Bertrand model, each firm chooses its conjecture so that its rivals do not change their prices in response to a change in its own price (Bora, 2002). Thus, if oligopolies must first create production and then compete in pricing, applying the Bertrand model of conjectures, being constrained by the capacity that they had established previously, these oligopolies reach the Cournot equilibrium. However, the models of conjectural variation have two limitations. First, the assumptions each company owns are arbitrary. This arbitrary character prompted Stigler to develop the theory of oligopolistic behaviour (Stigler, 1964) and game theorists to develop models. However, the cartel and game theory models have also many arbitrary assumptions (for example, firms choose their production rather than prices or other companies have certain beliefs about firms). Thus, there is a small difference in terms of the arbitrary nature of such models. Secondly, the multi-period data interpretation of conjectural variation models is implausible. Unlike models of the same type from game theory, that have credible balance strategy based on companies' beliefs, the dynamics of conjectural variation models is based on inconsistent beliefs and actions (Carlton and Perloff, 2005). The uncertainties of pricing decisions are considerable on oligopolistic market. The implications of wrong behaviour judging of competitors could prove to be detrimental to a company. Because of this uncertainty, some believe that oligopolies change prices not as frequently as operators from a market with perfect competition, whose prices can change almost continuously (Allsopp, 2006). Empirical evidence, however, do not clearly indicate that prices are changed less frequently in oligopoly (Sexton, 2015). Moreover, since the shares and profits of oligopolies are so dominated by a mutual interdependence, the temptation is great for businesses to resort to settlement - to come together and agree to act jointly on pricing and other aspects (Hurduzeu and Popescu, 2014). If companies think they can increase profits by coordinating their actions, they will be tempted to collude. Arrangements reduce uncertainty and increase the potential for economic profits (Sexton, 2015). From society's point of view, collusion can create a situation where goods are likely expensive and produced in smaller quantities than are demanded, consumers losing as a result of wrong allocation of resources. Agreements, between or among companies, on sales, pricing and other decisions are usually referred to as cartel agreements. In recent decades, the oligopolistic behaviour from the oil market was a recurring theme in the economic literature. Various theories have been tested repeatedly to understand and explain the behaviour of players on this market, particularly the one of the Organization of Petroleum Exporting Countries (OPEC). However, the results of these studies are often inconclusive and, at worst, contradictory, due to the lack of information and transparency on this market (Alhajji and Huettner, 2000; Griffin, 1985; Smith, 2005). The energy market, especially the one of crude oil, has often been analysed in terms of game theory. On the oil market, the price is set at international commodity exchanges as a result of the relationships between supply and demand of crude oil at specific moments. Therefore, it can be said that on this market, a player may fix the offered amount (production) noting what other players are doing, and taking into account the developments in stock prices. This is the motivation for the case study in this paper, the oil market being analysed using two models from game theory in which firms choose the level of production and the demand curve determines the price, namely Cournot and Stackelberg. An additional argument for this motivation comes from the literature where these models are the most commonly applied on the oil market from the perspective of game theory (Alhajji and Huettner, 2000; Catalão, 2016; Dahl, 2015; Huppmann and Holz, 2012; Labys, 2012; Loury, 1986; Ludkovski and Sircar, 2015; Salant, 1982, 1976).

### 3. RESEARCH METHODOLOGY

The Cournot model was named after Antoine Augustin Cournot, French mathematician from the nineteenth century, who was the first to examine the implications of this model. His book "Researches into the Mathematical Principles of the Theory of Wealth" was published in 1838

(Varian, 2014). The basic Cournot model is a one period model in which each firm must predict the production decision of other companies. Given its projections, each company chooses a simultaneous production aiming profit maximization (Varian, 2014). The Cournot competition type, in other words, is a form of quantities competition, which means that companies must choose production levels instead of prices favourable for profit maximization, having the belief that each competing firm is maximizing the expected profits. Also, it is assumed that the quantities supplied by other manufacturers are fixed and do not react to price changes. The competition then search for a balance, where in the Cournot models it refers to a situation where each firm finds its beliefs about other companies confirmed (Varian, 2014). The Nash equilibrium solution for optimal quantities generated by each manufacturer is provided by the Cournot model. The market price is determined by the Nash equilibrium solution, given the demand's price elasticity. The Stackelberg model is an imperfect competition model based on a non-cooperative game. It was developed in 1934 by Heinrich Stackelberg in his "Marktform und Gleichgewicht" (Market Structure and Equilibrium) and it represented a milestone in the study of market structure, especially in the analysis of duopolies because it was a model based on different assumptions and different conclusions offered by the models of Cournot and Bertrand (Tremblay and Tremblay, 2012). In game theory, the Stackelberg model is a sequentially game, and not simultaneously as the Cournot model (Shapiro, 1989). There are two or more firms that sell the same products, and are subject to the same demand and cost functions. A company - the leader – has, probably, a greater awareness and brand equity, and therefore is better placed to decide first the quantity  $q_1$  which it will sell and other competitors with less power observe this and decide on their production quantities ( $q_2, q_3, \dots, q_n$ ). To find the Nash equilibrium of the game it is needed to be used the recursive induction, as in any sequential game. The analysis begins by researching the decisions of competitors that are under the leader. This model is particularly relevant in industries that have a dominant firm or leader. In such industries, companies with less market power take decisions regarding the production only after the production selected by the dominant firm it is set. For example, General Motors had a dominant position in the US auto industry in the 1960s and Anheuser-Busch holds today such a position in the US market for the supply of beer for domestic consumption (Tremblay and Tremblay, 2012). The limitations of Stackelberg and Cournot equilibriums lie in the fact that these models are stable during a static model on one period. In a dynamic context (repeated games), the models must be reconsidered. The international crude oil market, which is analysed in this paper, is undergoing continuously through a complex and dynamic process. Governments and private companies play important roles in the transportation of crude oil from producers to consumers. National state-owned oil companies are controlling most of the world's oil reserves - 78% in 2012 - and oil production - 58% in 2012 - ("International - U.S. Energy Information Administration (EIA)," 2020). International oil companies (such as ExxonMobil, Chevron, BP, Shell, Total and ConocoPhillips), which often companies are owned by shareholders, are ensuring oil production using the world's reserves. Global oil reserves were of approximately 1.655 billion barrels in 2014 and the average global oil production of about 91 million barrels per day in 2013 ("Where our oil comes from - U.S. Energy Information Administration (EIA)," 2020). To test, from the perspective of game theory and by using the Cournot and Stackelberg models, the international market of crude oil, there were chosen for analysis four geographical regions which have a number of features that make them suitable for this case study, namely the four largest oil producing regions: the Organisation of Petroleum Exporting Countries (OPEC), Russia, the United States of America and China, which are, however, among the biggest oil consuming regions. Together, these regions provide 70.49% of crude oil production and 67.86% of the exports, and are also consuming 45.92% of the total global consumption and are importing only 31.02%. Moreover, these regions had in 2014 more than 81% of global oil reserves ("International - U.S. Energy Information

Administration (EIA),” 2020). Even if these four powers do not have the entire oil production or do not have on their territory all the remaining reserves of this fossil fuel, other countries or regions that complete the full picture of oil are in large numbers and they cannot significantly influence the price or the produced quantity in a given period of time. Observing the market shares of these four regions, OPEC holds leadership, having 41.6% of the oil market, followed by Russia and the United States that hold similar values of global production of crude oil (12.96%, respectively 11.17%). China ranked last in terms of crude oil production in 2014, with a market share of 5.37% (“Where our oil comes from - U.S. Energy Information Administration (EIA),” 2020). This ranking led to the application of a third model of analysis, namely a Stackelberg-Cournot combination. According to its market share, OPEC, as market leader, will be the player who decides first the quantity to sell, other competing players with less power noticing it and deciding on their production quantities. Thus, Russia and the United States will take decisions simultaneously, after the leader, and will choose their production quantities, following the latest decision to be taken by China, which has the smallest market share among the four players. Solving this game will be done through reverse induction, as in the pure Stackelberg model, having the following deployment of stages: player 4 (China) will make the first move, behaving as in the Stackelberg model, followed by the choices made by Russia and the US, taken simultaneously, as in the Cournot model, the last choice being made by OPEC, as leader on this market. To apply these three models at the level of the four selected players there were used two reference prices (WTI and Brent) and a composite index calculated by the IMF, namely POILAPSP (“IMF Primary Commodity Prices,” 2020; “International - U.S. Energy Information Administration (EIA),” 2020), global production of crude oil constructed as a series of monthly data, from January 2010 to March 2015 (“International - U.S. Energy Information Administration (EIA),” 2020), and the marginal cost of oil on the four markets (“International - U.S. Energy Information Administration (EIA),” 2020). These data led to the determination of the parameters  $a$  and  $b$  used in the linear equation of demand.

#### 4. MAIN FINDINGS AND DISCUSSION

After applying the three models listed above - Cournot, Stackelberg and Stackelberg-Cournot – on the four selected markets, the results listed in Table 1 were obtained (they were calculated taking into account the parameters  $a$  and  $b$  calculated within the models, according to each type of considered crude oil price):

*Table 1: Market shares of the four powers, in terms of game theory models (%)*

Market	Real market share	Market share* – Cournot –			Market share* – Stackelberg –			Market share* – Stackelberg-Cournot –		
		Brent	WTI	POILAPSP	Brent	WTI	POILAPSP	Brent	WTI	POILAPSP
OPEC	<b>41.60</b>	18.34	18.47	18.10	39.67	40.09	38.95	40.43	<b>40.82</b>	39.75
Russia	<b>12.96</b>	18.14	18.23	17.99	19.18	19.23	19.09	13.14	13.19	<b>13.05</b>
USA	<b>11.17</b>	17.31	17.19	17.50	8.16	7.85	8.71	11.68	<b>11.39</b>	12.20
China	<b>5.37</b>	17.31	17.19	17.50	4.08	3.92	4.35	5.84	<b>5.69</b>	6.10
Total		<b>71.11</b>								

*Source: Calculations based on the quantities of equilibrium specific for each model*

Note: the market share was calculated taking into account the fact that  $Q^* = q_1^* + q_2^* + q_3^* + q_4^*$

\* The market share obtained after the application of the formulas from the three models was adjusted as to obtain proportions that summarize the actual market share of the four powers. Such, the values  $q_1^*$ ,  $q_2^*$ ,  $q_3^*$  and  $q_4^*$  resulted after the application of each model, by reference to  $Q$ , led to expressing 4 resulted proportions of the 100% market share specific for each model. Their subsequent weighting with 71.11% gave the results expressed in the table above.

#### **4.1. Results achieved by applying the Cournot model**

The values of the market shares of the four powers are close to each other because they take decisions concerning the produced amount simultaneously, as a result of the assumption that producers have relatively equal powers. The obtained results are far from the actual market share since crude oil production is radically different between manufacturers, being proportional to each's strength.

#### **4.2. Results achieved by applying the Stackelberg model**

The values of the market share for Russia, the United States and China are significantly different from the actual values because it is not taken into account in this model that Russia and US have market shares very close to each other in reality, which determines the sequence of movements in Stackelberg model different from the real one (found in the Cournot-Stackelberg combined model).

#### **4.3. Results achieved by applying the Stackelberg-Cournot model**

The market shares for the four powers obtained after applying this model have values close to the actual ones, this theoretical model explaining the reality quite well. In this model, the market shares resulting from the processing the produced quantity and the WTI crude oil price shows the closest values to reality, the opposite being achieved by the POILAPSP price index.

### **5. LIMITATIONS**

Cournot and Stackelberg models provide some useful information regarding the competition on the crude oil market. But in a constantly changing environment, like that of the energy market, new market entrants, new powers choose to obtain the largest possible share of this market. Strategic decision-making is essential and this study used game theory as a tool to support a good decision making process. The models from game theory, such as those used in this paper, make also arbitrary assumptions. An example would be that firms choose their production rather than prices, or that companies have certain beliefs about other companies. In reality, this is not true because there are plenty of other factors (social, economic, political etc.) that influence the amount of goods that a company/country produces. Moreover, the information held by each player about their competitors is not, in fact, complete and correct and the application of these models can be extended to dynamic games with incomplete information. Thus, in the real world, the environment is not known and cannot be completely known. It is not possible that all players know all the rules, and therefore the assumption of complete information, in which the game takes place, is not realistic. Another limitation of these models is considering the analysis of OPEC as a single actor. In fact, OPEC is comprised of a group of 12 countries that have political, social and economic divergent systems and different oil bases. An improvement that can be made is to divide OPEC cartel's members into subgroups based on individual endowments. For example, Eckbo performed a division of OPEC in 3 groups: the core, the ones influencing the price and the expansionists (Eckbo, 1976). He believes that countries with low rates and large depletion of crude oil reserves will choose a path of lower prices than those influencing the price (Eckbo, 1976). In a similar manner, Hnyilicza and Pindyck split OPEC countries in savers (with low discount rates) and spenders (with high discount rates), and analyse the interaction between these two groups using cooperative game theory (Hnyilicza and Pindyck, 1976). The models presented (as any models) are based on imposed assumptions and limitations, such as the relationship between oil price and total production.

However, the main purpose of this work was not to provide results intended to be used always for real-world applications on the crude oil market, but to introduce a new rationale of analysis that can be used on this market and demonstrate the potential usefulness of game theory as an added-value for market players, because it can help them identify appropriate strategies under certain conditions.

## 6. CONCLUSIONS

History has shown that oil and gas industry is resilient to shocks, witnessing various periods of turbulences. Oil prices are rarely stable for long periods of time, and the industry has shown a remarkable ability to adapt and thrive during the changing cycles. Even after the analysis of market fundamentals and other variables, questions always arise:

- Will the demand continue to be moderated or to rise due to low gasoline prices?,
- Will companies become more efficient?,
- How will the global political circumstances change?.

During the period of time covered by this paper (January 2010 - March 2015), oil behaved as normal good, given the relationship between price and total oil production. The application of the two models from game theory on the international market of crude oil led to expressing a theoretical market share held by each of the four powers considered for analysis. By combining two pure models and applying the new combined Stackelberg-Cournot model on the oil market, it was noted that the obtained values were very close to the actual values, and this model can be used as a forecasting tool as it describes the reality in a fair and consistent way. After applying these models there can be seen how close to reality are the data obtained, but it is remarked also the fact that not only the amount is influencing the price on the global crude oil market but there are other more important factors which can be hardly explained qualitatively in econometric models. Games shape those who play them. Instead of changing the rules of the game, we let those rules change ourselves. At least, this is true for most players, those who have not yet acquired the knowledge of the game. The freedom to draw their own destiny lies only to those who possess the knowledge of the game to rise above it and are determined enough to change the game in their own strategic advantage. There are leaders and players with lower power and influence, there are winners and losers as well. The place where you are on the world's great chessboard depends only on how you manage your resources, think your strategies, take allies and, therefore, play your game.

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# USING THE GROUPING METHOD AND ELASTICITY INDICATORS TO ANALYZE THE PERFORMANCE OF PRODUCTION ENTERPRISES

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## **ABSTRACT**

*The paper confirms the hypothesis about the objectivity of the process of enlarging production and increasing the level of concentration in Russian industries. It is proposed to use the grouping method to analyze the effectiveness of enterprises depending on their size. The paper presents a study of the growth of the resulting performance indicators of enterprises in the engineering and metalworking industries and in the building materials industry in the Novosibirsk region (Russia), depending on their size. The results of the analysis of such indicators of industrial enterprises' performance as capital productivity, sales profitability, labor productivity, production profitability confirm the opinion that large enterprises are more efficient than small and medium ones, and indicate that increasing concentration is an objective process. Thus, the hypothesis about the priority influence of technical and technological factors on the growth of the concentration level in comparison with the peculiarities of the institutional organization of the economy (planned or market system) is confirmed. The analysis was performed for different time intervals (1999, 2002) and (1968, 1975) - the period of economic reform in the USSR. Patterns are identical.*

**Keywords:** *elasticity, concentration, market, enterprise performance, grouping method*

## **1. INTRODUCTION**

Research in the field of industrial organization theory in Russia and other countries has helped to rethink the system basis for regulating the competitive environment. Along with the structural approach to market research, a behavioral approach is also used. Alternative models of "positive monopoly" and "competitive oligopoly" have emerged that try to prove the effectiveness of high-concentration markets (Lyubyashenko, S.N., 2019, p 107). A high level of market concentration does not exclude competition, especially in the markets of innovative and high-tech industries. The transformation of markets towards a rigid oligopoly is an objective trend. This is due to the higher efficiency of functioning of larger enterprises, which is achieved by: implementing a positive scale effect; diversifying risks; financing projects that provide an innovative breakthrough; reducing the time for bringing innovations to market; and forming a successful marketing strategy. In this regard, it is necessary to conduct a comparative analysis of the activities of firms depending on their size. It is proposed to use the grouping method as a tool (Lyubyashenko, S.N. & Mamonov, V.I., 2015).

## **2. HIGH CONCENTRATION MARKETS AND COMPETITION**

The growing concentration in Russian industries is under the control of the RF Federal Anti-Monopoly Service, and the activities of large enterprises are often criticized. Giants are accused of bureaucracy, inflexibility, unreasonably high prices, inefficient use of resources, and monopolism (Lyaskin G.G., 2013). A balanced approach to large enterprises, however, cannot ignore the fact that they are the core of any modern developed economy. Their number is not more than 1-2% of the total number of firms in the USA, Western Europe or Japan, while they create from one third to half of GNP and produce more than half of all products (Tatarenko V.I., Lyaskin G.G., 2012). Monitoring transactions of economic concentration is one of the main areas of antitrust policy.

Its purpose is to prevent changes in the market structure, which could create risks of restricting competition. Economic concentration transactions have been settled both in the Russian Federation and in international communities. So, in accordance with paragraph 21 of Article 4 of the Law on the Protection of Competition, economic concentration is a transaction, other actions, the implementation of which affects the state of competition. According to clause 21 of part 2 of Appendix No. 19 of the Treaty on the Eurasian Economic Union: “economic concentration” - transactions, other actions, the implementation of which has or may affect the state of competition. As practice shows, a high level of market concentration does not always mean monopoly power, for example, in the absence of entry barriers to the industry, the presence of potential competitors and a high entry speed (Lyaskin G.G., 2001). The policy of sellers in the markets also shows an ambiguous dependence on the level of concentration. Thus, price competition in the market (for example, described by the Bertrand model) neutralizes monopoly power even at a high level of concentration. On the contrary, a cartel agreement leads to higher prices and monopoly profits at low levels of concentration. All this should be taken into account when conducting antitrust policy. To consider concentration as obviously ineffective and dangerous is not only farsighted, but also capable of delaying the development of the national economy, especially in the competition on world markets (Lyaskin G.G., 2013). Therefore, it seems quite timely to objectively evaluate the effect of structural concentration on the results of operations of production enterprises.

### 3. ESTIMATION OF PRODUCTION CONCENTRATION USING THE GROUPING METHOD

To assess the total and structural concentration of industrial production, a system of interrelated indicators is usually used, the main of which are : the volume of output, the cost of fixed assets, the number of industrial and production personnel. We restrict ourselves to considering such an indicator as the value of fixed assets, since this indicator determines the size of the enterprise (Chepunova, S. N., 2004).

We use the following notation:

$\Phi^{(t)}$  is the value of all industrial and production assets;

$\phi_i^{(t)}$  is the value of fixed assets of the  $i$ -th enterprise in year  $t$ . Then obviously

$$\Phi^{(t)} = \sum_{i=1}^{N(t)} \phi_i^{(t)} \quad (1)$$

where  $N(t)$  is the number of industrial enterprises that were on their own balance sheet in the year  $t$ .

Further,  $S_i^{(t)} = \frac{\phi_i^{(t)}}{\Phi^{(t)}}$   $i = 1, 2, \dots, N(t)$  is the share of the  $i$ -th enterprise in the value of all industrial and production fixed assets of the  $t$ -th year. We use the Herfindahl-Hirschman index, which is defined as

$$H^{(t)} = \sum_{i=1}^{N(t)} (S_i^{(t)})^2 \quad (2)$$

It's obvious that  $\frac{1}{N(t)} \leq H^{(t)} \leq 1$ .

The maximum value of this index, equal to 1, corresponds to the greatest possible concentration and is achieved when  $\phi_{i_0}^{(t)} = \Phi^{(t)}$ , that is, in such a hypothetical version of the organization of production in the industry, when all fixed assets are concentrated in any one enterprise. The minimum value of the index  $H^{(t)}$  equal to  $\frac{1}{N^{(t)}}$  (is the case of the lowest possible concentration) corresponds to another hypothetical option, when all enterprises have fixed assets of equal value, namely  $\phi_i^{(t)} = \frac{\Phi^{(t)}}{N^{(t)}}$ . Let us estimate the change in the concentration index  $H^{(t)}$  in the industry. First of all, we map the concentration index to use statistical information. Suppose that all enterprises are grouped in their size into  $n$  groups, and denote by  $I_s$  the indices of enterprises that fall into the  $s$ -th group ( $s = 1, 2, \dots, n$ ). Further  $Z_s^{(t)}$  is the share of the cost of fixed assets of enterprises of the  $s$ -th group in the value of all industrial-production fixed assets in the  $t$ -th year. Now suppose that all enterprises in the indices of the same group have fixed production assets of equal value:

$$S_i^{(t)} = \frac{Z_s^{(t)}}{N_s^{(t)}}, i \in I_s \quad (3)$$

where  $N_s^{(t)}$  is the number of enterprises of the  $s$ -th group ( $s = 1, 2, \dots, n$ ) in the  $t$ -th year. Then

$$H^{(t)} = \sum_{s=1}^n \sum_{i \in I_s} (S_i^{(t)})^2 = \sum_{s=1}^n \sum_{i \in I_s} \left( \frac{Z_s^{(t)}}{N_s^{(t)}} \right)^2 \quad (4)$$

Formula (4) can be used directly, since such information, as a rule, can be borrowed from statistical directories. As an object of analysis, we consider the dynamics of the studied indicators for two important sectors in the Novosibirsk region: mechanical engineering industry and metalworking and construction materials industry. Table 1 and 2 show the relevant data.

*Table following on the next page*

*Table 1: Grouping of industrial enterprises in the mechanical engineering industry and metalworking based on the average annual value of industrial production fixed assets in the Novosibirsk region*

№ groups	The average annual value of industrial production fixed assets, million rubles	Number of enterprises,% / unit		The average annual value of fixed assets,% / million rubles.		The average annual number of staff,% / person		Output,% / million rubles	
		t <sub>1</sub>	t <sub>2</sub>	t <sub>1</sub>	t <sub>2</sub>	t <sub>1</sub>	t <sub>2</sub>		t <sub>2</sub>
1	0-271	81,67	84,9	20,3	29,8	37,4	47,8	35,4	41,3
2	271-543	12,2	8,8	33,3	27	23,6	19,5	45,9	29,3
3	544-814	3	3,5	12,4	19	10,7	13,7	9,7	11,2
4	815-1086	0,76	0,8	4,4	6	3,6	3,9	3,4	3,3
5	1087-1357	0,76	1,7	6,6	18	3,3	14,9	5,2	14,6
	<b>TOTAL</b>	100/ 131	100/ 113	100/ 20009,2	100/ 14230,0	100/ 74557	100/ 63839	100/ 3879,4	100/ 7438,8

*Source: calculated according to the Novosibirsk Regional Statistics Committee*

*Table 2: Grouping of industrial enterprises in the industry of "production of building materials" on the basis of the average annual cost of industrial production fixed assets in the Novosibirsk region*

№ groups	The average annual value of industrial production fixed assets, million rubles	Number of enterprises,% / unit		The average annual value of fixed assets,% / million rubles.		The average annual number of staff,% / person		Output,% / million rubles	
		t <sub>1</sub>	t <sub>2</sub>	t <sub>1</sub>	t <sub>2</sub>	t <sub>1</sub>	t <sub>2</sub>	t <sub>1</sub>	t <sub>2</sub>
1	0-83	76,9	71,4	25,3	26,8	55,9	49,4	63,0	43,4
2	84-165	11,5	21,4	21,9	33,4	18,2	34,4	22,4	41,0
3	166-248	5,7	4,7	15,2	15	9,6	6,5	2,4	4,1
4	662-827	1,9	2,3	22,8	24,6	8,9	9,5	12,0	11,3
	<b>TOTAL</b>	100/ 52	100/ 42	100/ 3621,4	100/ 2925	100/ 13028	100/ 12296	100/ 921,8	100/ 1786,0

*Source: calculated according to the Novosibirsk Regional Statistics Committee)*

To determine the concentration index, it is necessary, in addition to the data in the table, to use the values of the total number of enterprises in the market and the number of enterprises in groups. In order to make the comparison of the concentration indexes more correct, it is necessary to exclude the effect of mismatch for the two years to be compared, which can be done as follows:

$$\frac{H^{(t_1)}}{H^{(t_2)}} / \frac{N^{(t_1)}}{N^{(t_2)}}$$

The calculation of this indicator indicates an increase in the structural concentration index in both sectors (Lyubyashenko, S.N. & Mamonov, V.I., 2013).

#### 4. ESTIMATION OF EFFICIENCY OF THE PRODUCTION SYSTEM WITH THE HELP OF INDICATORS OF ELASTICITY

One of the main factors determining the volume of output is the capital-labor ratio. Of course, the relationship between these two indicators, in turn, will not remain unchanged: the effect of the growth of capital-labor ratio depends on various circumstances. Consider one of them - the size of the enterprise, believing that enterprises of different sizes have unequal opportunities to

increase output depending on the growth of its capital-labor ratio (Lyubyashenko, S.N. & Mamonov, V.I.,2015). We introduce the notation.

$\Pi_s^{(t)}$  – is the volume of production of enterprises of the s-th group in the t-th year in value terms,  
 $L_s^{(t)}$  – is the average number of production personnel,  
 $\Phi_s^{(t)}$  – is the value of fixed assets,  
 $\pi_s(t)$  - is the value of the profit of the enterprises of the s-th group.

Next, we determine the following indicators for the enterprises of the s-th group in the year t:

$$w_s(t) = \frac{\Phi_s(t)}{L_s(t)} - \text{the average capital-labor ratio,}$$

$$v_s(t) = \frac{\Pi_s(t)}{L_s(t)} - \text{the average values of production,}$$

$$r_s(t) = \frac{\pi_s(t)}{\Pi_s(t)} - \text{return on sales,}$$

$$R_s(t) = \frac{\pi_s(t)}{\Phi_s(t)} - \text{profitability of production.}$$

Then you can calculate incremental indicators for the enterprises of each group for a period of time  $[t_1, t_2]$ :

$$\begin{aligned} d_s(w) &= [w_s(t_2) - w_s(t_1)] / w_s(t_1), \\ d_s(v) &= [v_s(t_2) - v_s(t_1)] / v_s(t_1), \\ d_s(r) &= [r_s(t_2) - r_s(t_1)] / r_s(t_1), \\ d_s(R) &= [R_s(t_2) - R_s(t_1)] / R_s(t_1), \end{aligned}$$

Then we use formulas 5, 6, 7 to assess the elasticity of average labor productivity, average profitability of sales and average profitability of production depending on the capital-labor ratio of enterprises of group s-th for the period  $[t_1, t_2]$  (Lyubyashenko, S.N. & Mamonov, V.I.,2013).

$$e_s(v) = \frac{d_s(v)}{d_s(w)} = \frac{\left[ \frac{\Pi_s(t_2) L_s(t_1)}{\Pi_s(t_1) L_s(t_2)} - 1 \right]}{\left[ \frac{\Phi_s(t_2) L_s(t_1)}{\Phi_s(t_1) L_s(t_2)} - 1 \right]}, \quad (5)$$

$$e_s(r) = \frac{d_s(r)}{d_s(w)} = \frac{\left[ \frac{\pi_s(t_2) \Pi_s(t_1)}{\pi_s(t_1) \Pi_s(t_2)} - 1 \right]}{\left[ \frac{\Phi_s(t_2) L_s(t_1)}{\Phi_s(t_1) L_s(t_2)} - 1 \right]}, \quad (6)$$

$$e_s(R) = \frac{d_s(R)}{d_s(w)} = \frac{\left[ \frac{\pi_s(t_2) \Phi_s(t_1)}{\pi_s(t_1) \Phi_s(t_2)} - 1 \right]}{\left[ \frac{\Phi_s(t_2) L_s(t_1)}{\Phi_s(t_1) L_s(t_2)} - 1 \right]}, \quad (7)$$

Available statistics allow us to group into five groups enterprises in the machine building industry and four groups in the construction materials industry. The calculation results are summarized by industry in table 3, 4.

*Table 3: The effect of capital-labor ratio growth on the resulting production indicators in the mechanical engineering industry and metalworking for two years*

<b>№ groups</b>	<b>Enterprises with an average annual value of production fixed assets, million rubles</b>	$d_s(w)$	$d_s(v)$	$d_s(r)$	$d_s(R)$	$e_s(v)$	$e_s(r)$	$e_s(R)$
1	0-271	6,50	2,10	1,30	0,65	0,32	0,20	0,10
2	271-543	18,40	1,68	2,76	1,81	0,10	0,15	0,10
3	544-814	0,80	2,13	0,12	0,11	2,70	1,15	0,14
4	815-1086	7,80	2,08	0,39	0,55	0,27	0,05	0,07
5	1087-1357	50,50	1,18	3,54	2,02	0,02	0,07	0,04

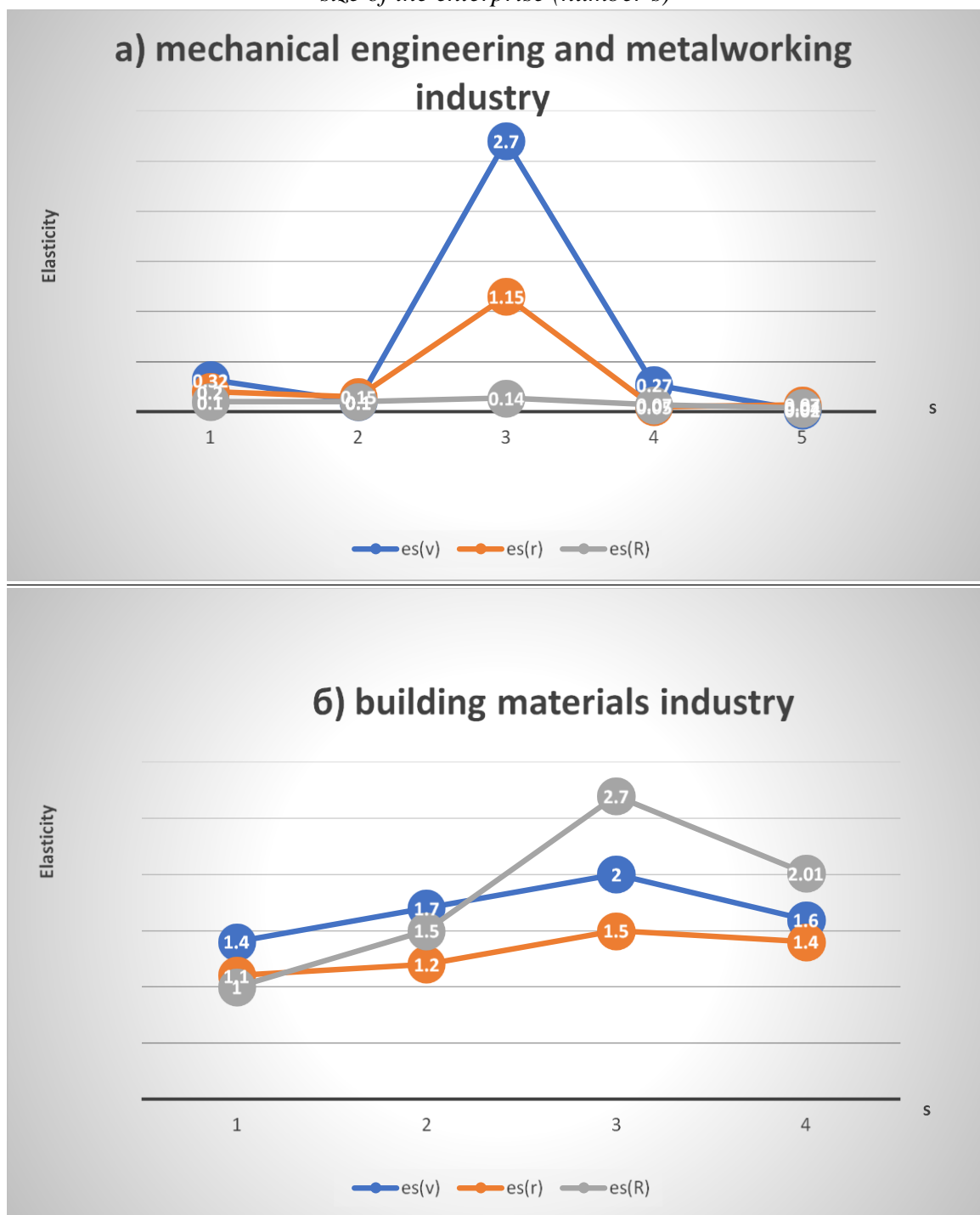
*Table 4: The effect of capital-labor ratio growth on the resulting production indicators for the building materials industry for two years*

<b>№ groups</b>	<b>Enterprises with an average annual value of production fixed assets, million rubles</b>	$d_s(w)$	$d_s(v)$	$d_s(r)$	$d_s(R)$	$e_s(v)$	$e_s(r)$	$e_s(R)$
1	0-83	3,20	4,48	3,52	3,20	1,40	1,10	1,00
2	84-165	11,00	18,70	13,20	16,50	1,70	1,20	1,50
3	166-248	15,00	30,00	22,50	40,50	2,00	1,50	2,70
4	661-744	8,00	12,80	7,20	16,08	1,60	0,90	2,01

The value shows how much percent increased output, sales profitability, profitability of production at the enterprises of the s-th group with an increase (decrease) in the capital-labor ratio of production by one percent. The data in tables 3 and 4 make it possible to graphically display the elasticity of the resulting indicators of capital-labor ratio depending on the size of the enterprise (group number s) (Figure 1).

*Figure following on the next page*

Figure 1: The elasticity of economic indicators depending on the capital-labor ratio and the size of the enterprise (number  $s$ )



The data in tables 3 and 4 allow us to make several hypotheses regarding the positive effect of concentration and integration processes. The enlargement of enterprises, including as a result of association, coordination of joint production capabilities, increases the role of mechanisms for the stable functioning of the industry. The grouping of enterprises is simultaneously associated with the geographical zoning of the market in order to maintain price discipline in the industry. Market capacity is increasingly being filled by enterprises supporting industry-wide coordination of actions and so on. It has been established that a monotonous increment of elasticity indicators cannot be detected when moving from a group of enterprises with a lower



number to a group of enterprises with a higher number. At the same time, in both sectors the largest increase in indicators of the capital-labor ratio factor is observed for enterprises of the third group. In the machine building industry, there were only four such enterprises out of 113 in the Novosibirsk region, and there were two such enterprises in the construction materials industry out of 42. The best performance of larger enterprises than medium ones are most likely closely correlated with the industry's economies of scale and may be a motivation to consolidate production by combining enterprises and creating strategic groups. This pattern confirms the objectivity of the growth of structural concentration. The same technique can be used to analyze dependencies in the pre-reform period. In connection with the ongoing reform of the socialist economy in 1965, a period of time from 1968 to 1975 was chosen. The calculation is based on data from statistical collections (Lyubyashenko, S.N., 2009).

*Table 5: Grouping of industrial enterprises according to the average annual value of industrial production fixed assets for 1968 and 1975 ( %)*

№ groups	Enterprises with an average annual value of production fixed assets, thousand rubles	Number of enterprises		Gross production		The average annual number of industrial production personnel		The average annual value of industrial production fixed assets, thousand rubles	
		1968	1975	1968	1975	1968	1975	1968	1975
1	Up to 100	16,6	9,4	0,8	0,3	1,7	0,5	0,3	0,1
2	101-200	12,5	8,1	1,8	0,6	2,9	1,1	0,7	0,2
3	201-500	23,8	19,8	6,5	2,7	8,5	4,5	2,7	1,1
4	501-3000	32,3	38,4	25,6	17,2	24,7	18,9	14,1	8,3
5	3001-10000	9,9	15,3	23	21,6	23	20,3	18,5	13,5
6	10001-50000	4,0	7,1	23,2	27	24,7	29,4	28,0	23,5
7	Over 50000	0,9	1,9	19,1	30,6	14,4	25,3	35,7	53,3

*Source: National Economy of the USSR in 1969. M.: Statistics, 1970*

Based on the statistical information provided in table 5, the elasticity of economic indicators was calculated depending on the capital ratio for all groups of enterprises. Table 6 shows the results of calculations that show that with the growth of the size of the enterprise (when moving from a group of enterprises with a smaller number to a group of enterprises with a larger number), the average productivity (in the trend) increases depending on the capital-labor ratio.

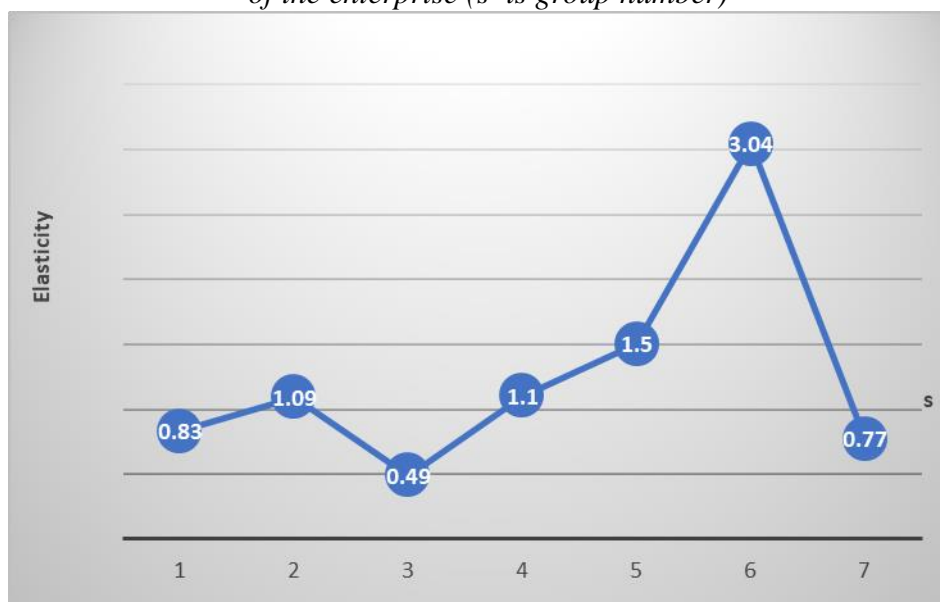
*Table 6: The effect of the growth of capital-labor ratio on the increase in labor productivity in industry from 1968-1975*

№ groups	Enterprises with an average annual value of production fixed assets, thousand rubles	$V_s$ , тыс. руб.		$W_s$ , тыс. руб.		$d_s^{(v)}$ , %	$d_s^{(w)}$ , %	$e_s$
		1968	1975	1968	1975			
1	Up to 100	5,0	8,8	1,2	2,3	76,0	91,7	0,83
2	101-200	6,6	8,3	1,7	2,1	25,8	23,5	1,09
3	201-500	8,1	9,0	2,2	2,7	11,1	22,7	0,49
4	501-3000	10,9	13,6	4,0	4,9	24,8	22,5	1,10
5	2001-10000	10,6	16,0	5,6	7,5	50,9	33,9	1,50
6	10001-50000	10,0	13,8	8,0	9,0	38,0	12,5	3,04
7	Свыше 50000	14,1	18,1	17,4	23,8	28,4	36,8	0,77

*Source: National Economy of the USSR for 60 years. M.: Statistics, 1977*

As for the dynamics of these indicators for 1968-1975, here monotony is also not found. Consider the value  $e_s$  (is elasticity of average labor productivity). Figure 2 shows its change, from which it is clear that the maximum  $e_s$  is achieved for enterprises of the 6th group, and the minimum - for enterprises of the 3rd group (Lyubyashenko, S.N., 2006). Moreover, the maximum of  $e_s$  significantly exceeds the elasticity values for other groups.

Figure 2: The elasticity of labor productivity by its capital-labor ratio depending on the size of the enterprise ( $s$  is group number)



Of course, the above calculations cannot be called faultless, since during the considered time intervals there have been noticeable changes in the motivation of the process of grouping enterprises, which are determined mainly by institutional changes in the economy. Despite its approximate nature, the above estimates can be considered as an argument in favor of the processes of concentration, integration and coordination of enterprises in industrial sectors.

## 5. CONCLUSIONS

The results of the analysis of the relationship between the level of concentration and the performance of enterprises allow us to formulate the following conclusions. The observed concentration processes (both aggregate and structural) are due to economic motivation. The results of the analysis of such performance indicators of industrial enterprises as capital-labor ratio, sales profitability, labor productivity, production profitability confirm the opinion that large enterprises are more efficient than small and medium ones. This fact indicates that the increase in concentration is an objective process (Lyubyashenko, S.N. & Mamonov, V.I., 2015). The hypothesis about the priority influence of technical and technological factors on the growth of the level of structural concentration in comparison with the features of the institutional organization of the economy (planned or market system) is confirmed.

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## SUSTAINABLE TAX SYSTEMS

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### ABSTRACT

*Environment concerns, have highlighted, since the Brundtland Report, by the United Nations in 1987, the need to make, in an increasingly globalized economy, prosperity compatible with environmental preservation, redefining the concept of economic development towards a new concept of " sustainable development ". Still, intergenerational equity imposes itself at the present moment a core concept of sustainability, typically expressed as a concern for future generations, pointing in the direction of assuring that taxpayers, in each time period, contribute to public expenditures, from which they derive benefits in accordance with their share in those benefits. In other words, they should pay their part without either subsidising, or being subsidised by taxpayers in other time periods, as well noted by Richard Mgrave but also being very felt in the current days. Tax morale of individuals and enterprises, transparent and fair tax systems, not forgetting, as pointed Mirrlees, the very point of simplification of rules which had become more and more complex to answer the global, technological and aggressive planing changes, are also important objectives to deserve special attention in the definition of tax systems, making them appropriate to the current economic, political, social and environmental context. After Adam Smith's lessons that taxes should be efficient, certain, convenient and fair, the "rewriting" of new tax codes for our 21st century must also imply sustainability concerns, meeting well the present needs without compromising the ability for future generations also meet their needs. Sustainable tax systems are those who give good answers to all those concerns, in three pillars: economic, environmental, and social —also known informally as revenues, planet, and people, always caring to meet the needs of the present generation without putting limitations on future ones.*

**Keywords:** *Sustainability, Tax systems, Sustainable tax systems*

### 1. INTRODUCTION

As Angel Gurría OECD Secretary-General, well points out "Tax is at the heart of our societies. A well-functioning tax system is the foundation stone of the citizen-state relationship, establishing powerful links based on accountability and responsibility. It is also critical for inclusive growth and for sustainable development, providing governments with the resources to invest in infrastructure, education, health, and social protection systems. Across the whole range of policy issues facing governments today, tax finds itself playing a central role, whether it is about collecting sufficient resources to fund the infrastructure of a society or acting as a policy lever to reflect attitudes and choices about such diverse areas as climate change, gender equality, education, health"<sup>1</sup>. Indeed, sustainable development is emerging as a key issue for organizations in the 21st century. In September 2015, at the United Nations Headquarters in New York, the Heads of State and Government and High Representatives, decided about new global Sustainable Development Goals (SDGs) , in a 2030 agenda, to transform the world by ensuring, simultaneously, human well-being, economic prosperity, and environmental protection. In the EU, the new Commission President Ursula von der Leyen also promised great commitment in bold climate and environmental action but also in a just and inclusive transition towards a sustainable Europe. The concept of sustainability, has been developed, refined and modified since decades, based on the so-called Brundtland report.

<sup>1</sup> Preface by the OECD Secretary-General, OECD WORK ON TAXATION 2018-19 centre-for-tax-policy-and-administration-brochure.pdf in <https://www.oecd.org/tax/centre-for-tax-policy-and-administration-brochure.pdf>

Under a general approach, sustainability focuses on meeting the needs of the present without compromising the ability of future generations to meet their needs, concept that must be integrated with three pillars: economic, environmental, and social. In brief, the economic dimension encompasses growth, efficiency and stability; the social dimension includes empowerment, inclusion and governance; and the environmental dimension concerns resilience, natural resources, and pollution. These three dimensions are informally known as profits, people and planet. In this context, and taking into account the contemporary theoretical concepts of socio economic sustainable development and priorities, there is an obvious place to discuss the role of a sustainable tax system as a part of that economic sustainable development.

## **2. DEFINING A SUSTAINABLE TAX SYSTEM**

Reviewing the original Brundtland Report's concept<sup>2</sup>, the assumption of intergenerational equity is stressed, and so tax policy has a considerable potential to change the market distribution of incomes and wealth and is therefore one important factor influencing individual well - being as well as social cohesion and environmental preservation. Nevertheless, the academic and political debate on the quality of public finances in general and of tax systems in particular have been focused, mainly, on the growth and employment-friendliness, neglecting their distribution and environmental impacts. So, a consistent approach conveying an overall picture of a tax system's contribution to sustainable development is still missing. That is to say, it is suitable that tax design incorporates, in a significant extent, related elements to the sustainability of economic, social, environmental and institutional dimensions into their structure and performance practices. The way how sustainability is 'operationalized' in tax design, together with tax tools and tax related legislative measures is a current and relevant question. Transposing the above parameters, a sustainable tax system ought to be seen as a tax system that supports meeting the needs of the present generation without limiting the future ones in the before mentioned areas, without forgetting the care of not distorting the sustainable behavior of economic agents. In an economic assessment, a sustainable tax system should generate sufficient revenues to finance government activities, tackling properly legal tax avoidance and illegal tax evasion, both in a domestic and international framework, with particular attention to the mobility of income and wealth, dramatically increased over the last few decades. Concurrently, compliance costs and costs of tax collection should be kept as low as possible. Socially, a sustainable tax system should reduce the enlarged unequal market distribution of income and wealth, and contribute to equality of opportunities. Also from the perspective of social sustainability tax systems may be used to further or to curb, respectively, the consumption or production of (de) merit goods and, once more it is required that they also minimise tax flight and be as transparent and simple as possible to ensure acceptability and legitimacy. Lastly, to contribute to environmental sustainability a sustainable tax system should discourage consumption and production activities which contribute to climate change and environmental degradation, encouraging energy transition withal.

## **3. SUSTAINABLE TAX SYSTEMS AS GOOD TAX POLICIES**

### **3.1. Taxation principles**

In his 1776 work, *The Wealth of Nations*<sup>3</sup>, Adam Smith pointed four taxation maxims: equity (and fairness), certainty, convenience and efficiency. Equity (and fairness), meaning that similarly situated taxpayers should be taxed similarly, being taxation compatible with

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<sup>2</sup> Report of the World Commission on Environment and Development: *Our Common Future*, Transmitted to the General Assembly as an Annex to document A/42/427 - Development and International Co-operation Environment in <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>

<sup>3</sup> Adam Smith, *An Inquiry Into the Nature and Causes of the Wealth of Nations*, 1776, Edwin Cannan ed., vol. 1

taxpayers' conditions, including their ability to pay seen in line with personal and family needs; certainty requiring taxpayers to be clearly informed about why and how taxes are levied; convenience relating to the ease of compliance for the taxpayers and finally, efficiency touching the collection of taxes, in a way that tax collection does not affect negatively the allocation and use of resources in the economy, and doesn't cost more than the tax revenues themselves. Two centuries after Adam Smith, it turns out the growth of the extent to which governments are able to collect revenues from their citizens, through taxes. The big economic challenges required new and different responses to adapt tax systems to globalisation and technological changes, as a "one-size-fits-all" tax system does not exist, and so tax systems differ from country to country and became more and more complex, opaque and nebulous. The (good) tax policy principles expanded and became more sophisticated, having to include information security, simplicity, neutrality, economic growth, transparency and visibility, together with minimum tax gaps, accountability for taxpayers and appropriate government revenues. Information security granting that tax administrations protect taxpayer information from all forms of unintended and improper disclosure; simplicity granting that taxpayers understand the rules and feel able to comply with them correctly and in a cost-efficient manner; neutrality, granting a minimum effect of taxes on taxpayers economic decisions; economic growth and efficiency granting that tax system doesn't hamper or reduce, induly, the productive capacity of the economy; transparency and visibility granting taxpayers the knowledge that the tax is paid by them and by all the others in the same circumstances; minimum tax gaps signifying that noncompliance is absolutely minimised; accountability granting taxpayers tax information acessibility and visibility; appropriate governamental revenues granting governments appropriate levels of predicability, stability and reliability to enable them with the knowledge of time and amount of tax revenue. The truth is that times are changing, and the current challenge is that tax policy moves up to the political agenda, being sure that governments will have to make a stark choice between raising more revenue through taxation or revisiting the scope and scale of public services. Whatever the discussion is, another challenge is, more and more, to be aware that really that matters is not only the amount of money raised but also, and mainly, how it is raised. Decades of piecemeal amendments to the tax systems have left them complicated, inefficient and beset, with perverse incentives and far from giving response to the governments' wider economic objectives and to the citizen's trust. In parallel challenges in the economy also risk making tax systems outdated threatening to roughly undermine public revenues. The conclusion seems to be: tax systems are ripe for reform. The way reform must be done raises a lot of problems to be discussed. Perhaps more than economists and statisticians' analyses are the questions about income and wealth in the current democratic debate, and so a tax system that doesn't focus, as it has been doing, on taxing labour income, particularly in the lower and middle wage sector, and that asks more of accumulated wealth and higher incomes is a real need. Of course we accept that income and wealth mobility is actually good for economic efficiency and for entrepreneurship, but we also need more transparency about them, producing reliable public information on how the different wealth groups and incomes are being dealt. Looking at each country separately is insufficient and a common tax policy, and mainly in a EU market with 18 different taxes, with 18 different public and social systems, debts and interest rates (allowing the financial markets to speculate), must be an aim. A strong middle class, both for growth and for the functioning of democratic institutions, is a goal to be pursued. Recently, on 19 February 2019, in a meeting at Brussels, some experts and tax researchers from European Commission, CEPS (Leading Indepent Think Tank on European Policies), OECD and Eurodad (European Network on Debt and Development), demonstrated the various approaches to fair and sustainable taxation in the EU from the perspective of different stakeholders<sup>4</sup>.

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<sup>4</sup> Umea University, 14 Mar. 2019, Fair and sustainable taxation in the EU, in [www.umu.se](http://www.umu.se)

What are sustainable tax principles and how the EU and OECD are dealing with these concerns are topics to be addressed.

### 3.2. Sustainable tax principles

Taking in account the three - aboved referred sustainability dimensions there are several challenges for tax systems. Towards economic sustainability, an important challenge is to grant long-term sound public finances, mainly in these times of increased international mobility of capital and profits, of demographic changes showing a great weight of aged people, of ongoing instability of the financial system, of weak employment and high unemployment. Towards socio-cultural sustainability the challenges must be related to the increasingly felt concentration of income and wealth meaning increased inequality, observed quasi globally in many countries worldwide<sup>5</sup>. Facing environmental challenges requirements refer to climate change, energy transition and the depletion of natural resources. So informed, we can argue that (i) an economically sustainable tax system should generate sufficient revenues to finance government activities, curbing tax flight (both legal avoidance and illegal tax evasion); avoid negative incentives for economic decisions in general (minimize employment barriers, particularly for women and low-wage earners); contribute to stabilize the financial system, and have a role in the internalisation of externalities as well as with regard to the production or consumption of (de) merit goods (e.g. health or education). And, the last but not the least, compliance costs and costs of tax collection should be kept as low as possible; (ii) an environmentally sustainable tax system should discourage consumption and production activities that contribute to climate change and environmental degradation, together with encouragement of energy transition. More effective use of environmentally related taxes can drive growth-oriented reform by shifting the tax burden away from more distortive taxes; (iii) A socially sustainable tax system should reduce the increasingly unequal market distribution of income and wealth, and should aim at contributing to equal opportunities. Related is the objective to contribute to the reduction of gender gaps (as fiscal policy may have an important role to play in rebalancing gender inequalities)<sup>6</sup>. And again it oughts to further or to curb, respectively, the consumption or production of (de) merit goods, minimise tax flight and be as transparent and simple as possible to ensure acceptability and legitimacy of taxation.

### 3.3. The EU FAIRTAX Project

For the last few years, OECD, International Monetary Fund as well as the European Commission, have been making efforts for enhancing the growth-friendliness of tax systems, promoting economic growth, including ecological and social/equity considerations and social and environmental “quality” of economic growth, resulting in the proposal of green tax reforms, combining environmental and employment goals, increasing ecotaxes and cutting labour taxes and in order to increase employment. The EU-funded project, known as FAIRTAX<sup>7</sup>, in accordance with the main goals of the Europe 2020 strategy, is a cross-disciplinary research project bringing together a plurality of disciplinary approaches on tax and social policies,

<sup>5</sup> Donald, Kate, *The increasing concentration of wealth and economic power as an obstacle to sustainable development – and what to do about it*, Center for Economic and Social Rights, and Jens Martens, Global Policy Forum, Spotlight\_Innenteil\_2018\_chapter1\_donald.pdf, in [https://www.2030spotlight.org/sites/default/files/spot2018/chaps/Spotlight\\_Innenteil\\_2018\\_chapter1\\_donald.pdf](https://www.2030spotlight.org/sites/default/files/spot2018/chaps/Spotlight_Innenteil_2018_chapter1_donald.pdf)

<sup>6</sup> Capraro, Chiara, Taxing men and women: why gender is crucial for a fair tax system, July 2014, christianaid.org.uk, in <https://www.christianaid.ie/sites/default/files/2016-03/taxing-men-and-women-gender-analysis-report-jul-2014.pdf>

<sup>7</sup> Gunnarsson, Asa, Nerudová, Danuse, Schratzenstaller, Margit, About Fairtax, 2019, Leibniz Information Center for Economics, , Intereconomics, Review of European Economic Policy Volume 54, May/June 2019, Number 3. Consisting of 11 partners consortium, organised in a cross-disciplinary, EU-funded project entitled, 'Revisioning the 'Fiscal EU': Fair, Sustainable and Coordinated Tax and Social Policies', known by its acronym, 'FairTax', addresses the impact of EU national tax systems on widening socio-economic and gender inequalities as well as fiscal sustainability and tax fairness issues, and intends to help the improvement of economic stability while promoting economic, social and environmental sustainability.



consisting of law, economics, accounting, economic history and anthropology. The aim is to produce recommendations on how fair and sustainable taxation and social policy reforms can increase the economic stability of the EU and EU Member States. Economically the project covers growth potential and stresses aspects of the EU New Growth Path strategy, dealing with smart growth potential, knowledge-driven economy, sustainable investment activity, fiscal sustainability and indebtedness. Socially the focus is employment, social cohesion, poverty and population growth. Environmental issues like climate change, green innovation, emissions, renewable energy, energy conservation and waste prevention are covered. And also, the factors that determine tax systems functioning: the effectiveness of tax collection, the compliance costs of taxation, the extent of the administrative burden and tax morale incentives, all together making up the components of what can be called as the institutional pillar, within the FAIRTAX project. Indeed, the institutional background interacts with the three other pillars as well as with the tax system sustainability. The framework for the functioning of the taxation system, the institutional sustainability can be considered as a crucial precondition. A central message of FairTax is the one that emphasises the importance of a comprehensive tax base perspective, both reaffirming importance of classic revenue sources, such as personal and corporate income taxes, and recognising the potential of other tax bases such as wealth-related taxes<sup>8</sup>, indirect consumption taxes and environmental taxes. Through these objectives, truly interdisciplinary, the way how tax systems must be designed and implemented will make them be perceived as fair, so that they deserve democratic support and are sustainable. What the FairTax project proposes is to replace an historic system via a comprehensive, sustainable tax base reform that addresses the economic, social, cultural and environmental dimensions of taxation.

#### 4. CONCLUSION

Classical tax theory, and connected tax policy literature, address only limited aspects of sustainability. The sustainability literature rarely takes taxes into account as tools for influencing the needs of a generation regarding the above defined economic, social, environmental and institutional pillars, together with the same needs of future generations. Current taxation literature deals with terms such as ‘fair taxation’ or ‘equality in taxation’ but do not adequately addresses them for sustainability dimensions. A new framework of sustainability-oriented taxation, with evaluation criteria set beforehand is a challenge in the beginning of this 21st century. New faced features like the aging of the population and declining birthrate, the rapid advances in globalization and the environmental crisis, ask for structural reform of tax systems rebuilding them to be must more «desirable» so that it will fit the new society of the 21st century. On the other hand, regarding public finances, the aim must be securing sustainable finances, to steadily improve the fiscal balance, looking forward in what concerns pensions, healthcare and nursing payments being expected to increase. To gain people’s understanding about tax burden, as to a means to improve the efficiency of the public sector to deal with all theses imperatives is a major prerequisite. The tax system must be reformed in a manner consistent with structural reforms, according with the “Policy Guidance,” towards a desirable tax system from both the medium and long-term perspectives. A paradigm shift in taxation is needed, with a rather new framework of appropriate tax principles to change tax rules and tax systems in order to best ensure an effective tax system based on good tax

<sup>8</sup> OECD Tax Policy Studies n° 26, *The Role and Design of Net Wealth Taxes in the OECD*, 2018, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264290303-en>. Net wealth taxes are taxes on individual net assets, aiming to improve tax revenues and wealth inequality. They, generally, have an exemption amount which is excluded from the tax base, and may adopt different wealth tax bases (v.g. France, Spain, and Sweden reported to exempt business assets from their wealth taxes due to the concern that including them in the base would discourage productive assets investment). Although wealth taxes that have been imposed in many European countries, have been subsequently repealed in several cases due to difficulties in administration and low efficiency in raising revenue, they are again in discussion and those who claim for them defend new designs – mainly a broader asset base with guardrails against tax avoidance from international migration.

policy. It is time for policymakers, public finance and tax experts to work to improve current tax systems to better incorporate the sustainability principles. In the EU, the agenda for fair and sustainable tax systems based on economic, social, gender and environmental values and objectives, includes:

- transparency, accomplished with openness and cooperation between Member States on tax issues (automatic exchange information on tax rulings and on multinationals' country-by-country reports) to prevent multinational corporations and wealthy individuals to unfairly avoid paying billions in tax, billions that are vital to feed public services and infrastructures.;
- effectiveness, leading people trust that the tax rules apply equally to all, that companies pay their fair share of taxes, and they pay it where their real economic activity takes place.”, addressing tax fraud, evasion and avoidance, boosting investment and innovation, supporting employment and improving social fairness:
- global good governance, making clear that a strong society depends on fair taxation, being aware that also implies natural resources and the environment as global public goods ought not to be diminished when they are shared, mainly a breathable atmosphere, stable climate and stable biodiversity.

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## **“REAL ESTATE” AND THE HOUSING RIGHT: FROM A STRICTLY CONTRACTUAL STAGE TO AN EFFECTIVE REAL RIGHT**

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### **ABSTRACT**

*As a fundamental right and, therefore, constitutionally enshrined, the housing right is performed either through the contract of renting, or through the real mode - bringing with the concept of “own (and permanent) housing” - but also through the minor real rights such as the “right to use and housing”, the “real right to periodic housing” - and its obligational equivalent “right of tourist housing” - and now also, as a “New Generation of Housing Policies”, the brand new “real right to durable housing”. This “real right to durable housing” as a housing policy, combines two ideas: security and stability in housing occupation - crucial for the family life development and the economy itself - and the flexibility/mobility resulting from the ever-changing nature of households' housing needs throughout their lives. Such a number of “minor” real rights concerning housing - and their specifications, as housing rights referring people living in the common economy and people living in a “de facto” union - requires comparative analysis to clarify the individuality / integrity of each one of those rights, specially this new “real right to durable housing”, well as its legal, social and economical contribution. Therefore we propose to analyze: what is the scope of each one of those minor real rights? Is there any redundancy? Are they compatible? What will happen to the traditional/legal concept of “resident”?*

**Keywords:** *contract, housing policy, housing right, legal regime, real estate*

### **1. INTRODUCTION**

Housing is a fundamental right, as enshrined in the Constitution (art. 65 - Housing and Urbanism), and for this reason it remains on the government's priorities. It contributes decisively to the competitiveness of cities and social and territorial cohesion and, therefore, it is “the foundation on which citizens build the conditions that allow them to access other rights such as education, health or employment” (sic DL n° 1/2020 of January 9). It is, therefore, a fundamental right that brings with so many other fundamental rights. Housing or housing rights can take several legal formulas: contractual, with simple obligational force and limited to the contract object- it is the creation of a personal right of enjoyment (or enjoyment), despite the fact that the law recognizes some defense rights provided for the owner (real status); and also by a real mode, that is, with absolute effectiveness, revealing itself essentially as the right to dispose, to alienate or to encumber the right itself - this is a real right of enjoyment.

### **2. THE HOUSING RIGHT IN STATUTORY LAW**

#### **2.1. The obligational form**

In the portuguese legal system, the housing right, in obligational terms, can be achieved through several legal ways, among which the traditional lease contract (article 1022° CC) stands out as “a contract by which one of the parties is obliged to provide the other with the temporary enjoyment of a real property, by means of retribution”. But there are also other obligational possibilities such as the sublease contract (article 1060° CC) when the “sublessee enters into the contract based on the lessee's right that comes from a previous lease agreement”; the “tourist

housing right” (as a obligational variant of the real periodic housing right); the accommodation contract (generally in private housing up to a maximum of 3 guests, otherwise you must report to a hotel establishment under the terms of DL 167/97 of 04-07 or based on a lease agreement under the legal terms of article 1093° 1 b) and n° 3 CC, up to a maximum of 3 guests); local accommodation; accommodation in hotel establishments (hotels, motels, pensions, apart-hotels, inns, etc.) as tourist undertakings designed to provide, for a fee, temporary accommodation and other ancillary or support services, with or without the provision of meals; accommodation in hostels (youth, for example) with an eminently free character; and even the lending agreement (art. 1129° CC) as “a free contract by which one of the parties delivers to the other a certain thing, movable or immovable, so that it can be used and redelivered”.

## 2.2. The real (estate) form

More restricted, the housing right is achieved through the real estate, where the right to property stands out as the most relevant traditional option to implement the economic and social concept of “own and permanent residence”: in fact, more than 70% of portuguese people are owners who exercise their right to housing in their own home through (very) long-term bank financing. And it stands out unfolding in several figures: individual real property, joint ownership, horizontal property, surface property. The usufruct (art. 1439° CC) as “the right to enjoy temporarily and fully a third person's right or thing, without changing its form or substance” can allow the housing right by the real way. Like the traditional and very personal right of use and housing (art. 1484, 1 and 2 CC) as “the ability to use something from someone else and have the respective fruits, according to the needs of both the owner and his family” and which, “referring to the home address, is called housing right”. Demonstrating the relevance of protecting the right to housing in very specific situations, there is a (real) housing right (and real right to use stuff) given to the surviving spouse (art. 2103°-A, B and C of CC). As well, the right to housing is also provided as a protection for people who live in a common economy, that is, in table and housing communion for more than 2 years and have established a common experience of mutual assistance or sharing of resources (art. 2nd Law 6/2011 of 11-5), which results in a “common home” to be protected and, similarly, the real right of housing as protection of the “family home” in the context of de facto unions, that is, the legal situation of two people who, regardless of sex, have lived in conditions similar to those of their spouses for more than 2 years (art. 1 n° 2 Law 7/2011 of 11-5): in both cases, and as protective measures of the right to live in the house that was common or of the family, the legislator assigns real right to housing, real right to use the filling and even preemptive right in the sale of the property - which represents a real right of acquisition - or even now in the obligational context, right to transfer the lease (art. 4° n° 1 point d), 5th n° 1 Law n° 6/2011 of 11-05 and 1106° CC; article 3, paragraph a), 4 and 5 Law 7/2011 of 11-05). In the recent past, the portuguese legislator has also enshrined the so-called “real right to periodic housing” (DL n° 275/93 of 05-08) with the intention of boosting the tourist housing market, but with a real character: it means the faculty to use, for one or more certain periods of time, each year and for housing purposes, an accommodation unit integrated in apartment hotels, tourist villages and tourist apartments, upon payment of a periodic installment to the owner or assignee of the enterprise or whoever administers it. It is, in fact, a matter of enjoying fractions of time in a given housing space - hence the commonly used expression of “time-sharing”. It is a real property right which, unless in exceptional circumstances (article 3° DL n° 275/93 of 05-08) keeps perpetual; obeying the traditional rules, it is granted by public deed or by a certified authenticated document (art. 6th DL mentioned); it is naturally subject to registration in the land register (article 8° DL cited); it is liable to be encumbered by guarantee real rights, or of transmission by act inter vivos or even mortis causa (art. 12° cited above). The declaration of resignation, which must be notified to both the owner and the General Directorate of Tourism, will be effective only 6 months after

the notifications, and it is the only unilateral way for the holder to free himself from the real right of periodic housing and, even so, without recovering his investment.

### **3. THE MOST RECENT “REAL RIGHT TO LONG HOUSING”**

Brand new, the DL n° 1/2020 of January 10, and the so-called DHD or “real right to long housing”. It is a diploma that, in a special way, seems to combine the (real) right to housing (art. 1484° ss CC), the usufruct (art° 1439° ss ex vi art° 1490° CC) , as well the obligational dimension of the lease and, finally, even a financial product. The legislator expressly says that this new real right takes part of the NGPH - a new generation of housing policies, alongside the legal regime of housing cooperatives ( DL n° 502/99 of 19/12), as a guarantee of security of the housing solution in cases where the acquisition of property is not justified: the idea will be to reconcile the needs for stability and security in the occupation of accommodation, crucial for the development of family life, with those of flexibility and mobility, which derive from a greater mutability in people's life paths (...) because, if in many cases the housing regime has proved to be inadequate due to its rigidity, the hard investment it represents and the difficulties in accessing it, on the other hand, the tenancy regime is not always conducive to the desirable stability and security ( ...) (sic DL 1/2020 of 09-01). According to the legal concept, the DHD, regulated by this special diploma, DL 1/2020 of 09-01 and, alternatively, by articles 1484 and following of the Civil Code, which regulate the traditional real right of use and housing, consists of providing one or more individuals / the enjoyment / of a someone else's / home / as their permanent / residence / for a lifetime / upon payment / to the respective owner / of a pecuniary guarantee and periodic counterparts.

#### **3.1. The so called “DHD” and the traditional “real housing right”**

It cannot be forgotten, however, the close (and express) connection between this brand new DHD and the real housing right provided for in art. 1484 and following CC. Moreover, the instituting legal diploma itself states the alternative. Nor can some differences, or specificities, be ignored. That, however - we ask ourselves - will or will not be such as to give legal and scientific autonomy to the new figure of DHD.

##### *3.1.1. Matching regimes*

From the outset, the concept underlying the traditional real housing right, which predates DHD and is provided for in article 1484° CC, presupposes, according to paragraph 1, the ability to use something from others and have the respective fruits , according to the needs of both the owner and his family, adding its number 2 that when this right refers to houses of address, it is called housing right. The first conclusion to be drawn is that the scope of this right to use implies a restriction of the powers of enjoyment inherent in the real right, this one created over the property right of others: the use can only be exercised directly by the user, and depending on the needs of both the holder and his family (Articles 1486 and 1487 CC), thus taking into account individuals. The second conclusion to be drawn is that the right of use, after all, is divided into two distinct rights: the real right to use itself and the real right to housing (when the object of use is a home address). But the first is broader than the second: in fact, the user of a building can inhabit it , you can even install in it an establishment, for example, but the resident user, that is, the holder of the real housing right, can only use the building to live in it and, even so, strictly according to family needs. Therefore, the concepts of “resident”, “family” and “personal needs” are determinant. Besides, the family of this resident is exclusively made up of the spouse, who is not legally separated, unmarried children, other relatives to whom food is owed and those who, living with the respective holder, are at their service or at the service of designated persons (art. 1487° CC). It should be noted that, this concept of “family”, contrary to what happens with the urban lease contract regime (article 1040° n° 3 and 1079° n° 2 CC) -

where the family concept for that purpose is imperative - has got a supplementary character (art. 1485° CC in fine). Finally, the personal needs of the usuary resident, determined according to their personal condition, are the right measures. What to say, then, about DHD scope? DHD excludes “personal needs” ; unlike the traditional real housing right - which can also be achieved by Will, by legal provision and only excludes adverse possession (art. 1440° CC) - is exclusively created by contract mode, which terms are regulated in detail (art° 5° 3 DL 01/2020 of 09-01). It also excludes the concept of “family” (art° 1487° CC), replacing it with “housing” as a group consisting of people who have their permanent residence in the same dwelling and may keep family ties, stable coexistence and /or dependence, as well with the situations determined by contractual bond that implies common residence or habitation (article 3° point a) DL 01/2020 of 09-01). It is, therefore, a broader reality. It admits situations that are beyond the family relationship provided for in traditional real housing law. Maintains the anchor concept of “resident” now in a necessarily more restricted context and even, why not say it, depersonalized: the resident becomes that person or persons in the household that are included in the contract as holder or holders of the DHD of a given housing (article 3, paragraph c) DL 01/2020 of 09-01). It specifies the concept of “permanent residence”, constituting the DHD: housing used, in a habitual and stable way, by a person or by a housing unit as an effective center of their personal and social life (art. 3° g) DL 01 / 2020 of 09-01), a concept that, although naturally implied in most cases, is not a common validity condition (or even of maintenance of the right, contrary to what may happen with DHD and the possible exercise of the right of contractual termination) of the traditional real housing right (article 9° n° 1 point a) and n° 2 DL 01/2020 of 09-01)). DHD is concerned with a certain type of “housing”: urban building or the autonomous fraction of an urban building, as defined in paragraph 2 of article 204 and articles 1414 and 1415 of the Civil Code, legally able to be used for housing purposes (article 3 paragraph b) DL 01/2020 of 09-01). It makes it clear that, in the resident's counterpoint, the obligor is the “owner” (owner or co-owners of the property's right to housing) and not any holder of another minor real right – in spite of these rights natural limits , they are quite broader than DHD (example, usufructuary, superficial).

### *3.1.2. The DHD contract*

We have mentioned above that, in spite of so many possible ways to stand a real housing right, DHD can only be settled by contract. This contract, which, in accordance with the real nature of the this right which object is immovable, is registered in the land register (article 5° no. 4 and article 22° DL 01/2020 of 09-01), in fact as it is the usual way. However, it happens that, contrary to the rule regime and all the legal construction around real rights over real estate - or even the enjoyment of fractions of time in real estate, as the real right of periodic housing, as mentioned above - the DHD legislator established that the contract is signed by public deed or by a private document in which the parties signatures are (personally) identified (art. 5° n° 3 DL 01/2020 of 09-01). Furthermore, this same form becomes applicable to the act or contract that determines the acquisition of the property by the resident or the retransfer of its rights to the owner (article 5° n° 8 DL 01/2020 of 09-01). That is, the requirement of authentication of the private documents is required by law (alongside the public deed) for acts of recognition, constitution, acquisition, modification, division or extinction of rights of a real nature (article 22° of DL n° 116/2008 of 07/04 protects the provisions of a special law). The simple identification is not enough. Nevertheless, DHD regime does not demand authentication, simply identification. But, the entity must verify that the amount of the deposit complies with the limits established in paragraph 1 of article 6 DL 01/2020 of 09-01: which means that, the identification includes special mentions (article 153 of the Notary Code (DL n° 207/95 of 08/14).

### *3.1.3. DHD and the main pecuniary obligations: cash bond, monthly and annual installment*

Speaking of cash bond, this is not an essential element of the traditional real housing right, although it may be applicable to it under the extensive regime of usufruct rights (art. 1468° b) ex vi art° 1490° CC). But even when it may be required, cash bond does not define usufruct right. On the contrary, it has become an essential building block of DHD and, even more so, in a new formulation. Which, in our view, reflects the essential core that defines this new real right: it is a figure that is intended to be appealing, in a mix of real status, lease, financial product. In fact, traditionally, the cash bond aims only to guarantee the fulfillment of the obligations proposed by the holder of the minor real right, but, under the DHD, it also represents a financial advantage for the owner, who can manage that money as he wants (art. 8th paragraph e) DL 01/2020 of 09-01). It should be noted that DHD is a real right of a lifelong nature, thus approaching the trend duration of the traditional real housing right, although this can be agreed for a shorter term (art. 1443° ex vi art° 1490° CC). It differs, however, from the latter in that the lifelong character of DHD is an assumption. Thus, and with DHD's lifespan as an assumption - which may or may not be fulfilled - the time factor in this contract gains relevance elsewhere. From the outset, such cash bond, which is mandatory, cannot be replaced by any other guarantee, cannot be used in any other way (article 2, 5, 5 paragraph a), 7, article 6, DL 01/2020 of 09-01) and is provided for a period of 30 years. It consists of the establishment, by agreement between resident and owner, of an amount between 10% and 20% of the median sales value per square meter of family housing, by parish, applicable depending on the location of the dwelling and the area contained in the respective property book. , according to the latest update released by the National Institute of Statistics, IP, considering the value of the smallest territorial unit for statistical purposes in which housing is located in case of unavailability of the value per parish (art°6° n° 1 DL 01/2020 of 09-01). Besides, the principal obligations of the resident holder are also pecuniary: the monthly installment, an amount freely agreed between owner and resident, updated annually (quite similar to the rent under the lease) and the annual installment, for each year. actually elapsed from the 11th year to the end of the 30th year, corresponding to 5% of the initial cash bond and paid by deduction in that amount (article 7, paragraph 1, points a) and b) DL 01/2020 of 09-01) which, in the act of the constitution of DHD, had been deposited with the owner (article 6 DL 01/2020 of 09-01). Such cash bond amount represents a owner income, under the terms of article 6° n° 3, 4 and 5 DL 01/2020 of 09-01. And, in fact, as mentioned above, you can apply it, financially, as you see fit (art. 8 (e) DL 01/2020 of 09-01). However, you will have to consider the supervening possibility of returning the cash bond (at least of the respective balance, after the 11th year of DHD's validity or / and in case of outstanding payments) in case of the extinction of DHD, by any of the foreseen ways. Consequently, and from a financial point of view, DHD implies for the resident the following pecuniary charges directly on behalf of the owner: delivery of a cash bond for a period of 30 years; monthly payment; annuity payment corresponding to 5% of the initial cash bond and to be subtracted in the amount of this one from the 11th year until the end of the 30th year.

### *3.1.4. DHD and the traditional real housing right: other obligations*

Beyond those cash amounts, the resident is responsible for the payment of municipal fees, municipal property tax, and also for the cost of the ordinary maintenance house works(article 9° n° 1 points b) and d) DL 01/2020 09-01). This does not bring anything new in relation to the real right of traditional housing (art. 1489° CC and art° 1472° ex vi 1490° CC)). As for the owner, he remains responsible for the payment of all the expenses related to his status: if the house is installed in an autonomous fraction, he will bear the cost of works and other charges related to the condominium and, in the case of a regular condominium, he will pay the contributions and will fulfill the other obligations as a joint owner, namely as mandatory insurances (article 8, paragraphs b) and c) DL 01/2020 of 09-01).



Nevertheless, owner and resident can agree differently; however, their agreement remains as a simple contractual obligation (not real obligation). The owner is also responsible for the extraordinary conservation works in the dwelling (article 8, paragraph d) of the aforementioned DL), which also confers on the real right to traditional housing (article 1473° ex vi 1490° CC).

### 3.1.5. *A highly personal character*

The traditional real housing right, provided for in article 1484° no. 2 CC, remains very personal, and that incidentally stems from its own legal formulation: it is a real right conferred according to the direct needs of the resident user and his family. As such, when fixed and upon the resident's death, it expires (art. 1476° no. 1 point a) ex vi art° 1490° CC) and it is non-transferable in any way, and not encumberable with any real guarantee (art. 1488° CC). The new DHD adjusted this intuitu personae character of the real right. That is, as a fixed right, it expires upon the resident death (art. 16° DL 01/2020 of 09-01), therefore it cannot be transferred mortis causa. However, it validates a possibility of inter vivos transfer, which, incidentally, is a direct result of its special legal regime: according to the art. 12 and 13 DL 01/2020 of 09-01, if the resident needs to contract financing to pay the amount of the cash bond, with an implied guarantee to be provided (mortgage), this is legally authorized, thus opening the consequent hypothesis of possible non-compliance with the debit obligation, which may give rise to the execution of the mortgage and subsequent right transfer. It should be noted that, as DHD represents a real burden on the property, there is no way to prevent the free transferability of property (onerous or free) to others. However, pending the DHD's validity, the owner cannot create other minor real rights, nor real rights of guarantee.

### 3.1.6. *DHD legal regime and the „indeterminate concepts”*

The traditional real housing right, according to the legal regime of usufruct rights (art. 1490° CC), implies respect for the form or substance, as well as the economic fate of the used thing, in this case, inhabited ( 1439° and 1446° CC), like a “bonus pater familias” would do, a legal concept relatively and intentionally imprecise, in order to allow flexible assessment of real situations. The idea is to adopt a prudent approach, so as not to prejudice the (real) owner right while the real right of housing lasts. Hence, and as a way of having a reference point for the operative “bonus pater familias” concept, the supplementary legal regime establishes (beyond the possibility of providing a guarantee, as mentioned above) the resident obligation (which some authors, as Prof. Oliveira Ascensão understands to be rather a pure burden), when taking care of the thing and with the owner assistance, to relate and declare its state (art. 1468° a) ex vi 1490° CC ). This is an enumeration and description, which will work as preconstituted evidence. As a special version, DHD introduces somewhat indeterminate concepts such as “average level of conservation” without, however, clarifying which are the reference parameters so that the “average” character of the level of conservation of the house can be assessed (art. ), 5th No. 2, 8th Point a), 10th No. 3, 15th No. 1, 17th No. 1, 20th No. 1 and 3, DL 01/2020 of 09-01). Therefore, it is not a matter of describing the state of the dwelling, but, more than that, certifying its at least “average level of conservation”. The legal creation of the DHD depends on an act of "prior assessment" of the state of conservation of the dwelling (article 4° DL 01/2020 of 09-01), which in turn must be carried out by "architect, engineer or technical engineer" registered in the respective professional order, which is not in any situation of incompatibility or impediment within the scope of the evaluation process - however, it is not specified which area of specialty in engineering. The aforementioned prior assessment, which in the context of the DHD is promoted by the owner, will appear in an “assessment form” (art. 4° n° 2 DL 01/2020 of 09-01) and will be updated every 8 years, at the initiative of the resident (article 10° n° 2 of the mentioned DL).

The aforementioned prior assessment form will be the subject of the resident's declaration of acceptance of the housing conservation status, which will appear as a complementary document to the contract (art. 5º nº 5 point b) DL 01/2020 of 09-01).

### *3.1.7. DHD, contractual resolution and pecuniary obligations*

Once again privileging the pecuniary obligations owed by the resident, DHD articulates arrears, definitive default and contractual resolution practically tracing the urban lease contract regime, that is, the most common and obligational version of the right to housing exercise: it is sufficient, therefore, to compare the provisions of art. 14º 1 to 4 and artº 18º 1 to 6 DL 01/2020 of 09-01, with the provisions of the New Urban Lease Regime (NRAU), namely, in art. 1083º and 1084 CC and 14th and 15th of the NRAU. Still, and continuing with the tonic emphasis on the fulfillment of the pecuniary obligations emerging from DHD, but now under the responsibility of the owner, the issue gains relevance regarding the eventual obligation to return the amount (total or residual) of the deposit. In effect, the extinction of DHD will, as a rule, give rise to the obligation of the owner to return the balance of the cash bond whose management had been entrusted to him (art. 15º nº 1 DL cited). This obligation, when not fulfilled, may give rise to arrears, definitive non-compliance and exercise of the right of contractual termination under the terms of articles 14º 1, 2 and 5 and 18º nº 1, 2 point a), 3 and 7 DL 01/2020 of 09-01. Besides, as well as in the urban lease contract regime, the owners resolution notification to the resident, accompanied by the DHD contract and copies of the communications regarding the definitive non-compliance, represents an executive title for delivery and /or payment of a certain amount (article 18º no. 6 DL quoted). This same regime applies in case of express waiver of DHD if the owner does not pay the resident the balance amount of the cash bond (art. 18º nº 7 DL mentioned).

### *3.1.8. DHD conditioned extinction causes*

Article 1476º ex vi 1490º CC gives us the extinction causes related to traditional real housing right. Among such causes, it is foreseen the resident right waiver, meaning a potestative right exercise, as it does not implies owner acceptance (art. 1476º nº 2 CC). The DHD's special regulation also enshrines the right of withdrawal as a potestative right but on certain conditions: by means of a registered statement letter, sent to the owner at least 90 days prior to the date of dwelling delivery. It is also necessary a housing assessment form proving the level of conservation in the minimum; if the DHD is encumbered with the mortgage provided for in article 13, paragraph 1, its essential the mortgagee statement authorizing the mortgage cancellation (article 17, paragraph 1 and 15, no. 3 DL cited). Depending on these conditions, the waiver declaration will be effective and DHD extinct. This brings up the owner obligation to return the balance cash bond amount - which may even consist of its full amount if the waiver operates before the 11th year of validity of the DHD - as exactly specified in article 17º nº 2 of the aforementioned DL.

### *3.1.9. DHD mortgage and execution*

Not only taking into account the special regime that allows the resident a mortgage on the DHD referred to above, but also in case of a mortgage on the own property right, article 21º DL cited provides for the special foreclosure regime, in either case. And, in the course of the execution, the owner may use two chronologically distinct rights: a DHD “call option” right under execution and, in the executive sale context, a preemptive right in the respective acquisition (article 21º nº 1) and 7 DL cited). At the same time, and only in the context of property executive sale, the resident can use the right of first refusal in the respective acquisition (article 21º nº 9 DL mentioned).

### 3.1.10. DHD extinction and the next „precarious occupation”

When DHD is extinguished, or the declaration of resignation effective, there is the obligation to deliver housing to the owner, free of people (and goods). In view of the special construction of this durable housing right, the housing delivery regime presents several and possible cases (art. 19º cited above), but all of them give the owner the right to receive a cash compensation. It is calculated from the date of the effective right extinction until the moment of dwelling delivery. This compensation concerns the dwelling use on a precarious basis for a maximum period of three months, or six months in case of the extinction of the DHD due to the resident death. The extinction of DHD due to the resident death implies the articulation of the DHD's heirs in the respective regime. Not for the purpose of transferring the right, which, as mentioned above, is non-transferable, but only for the purposes of establishing the obligation to report death under the aforementioned heirs and, also, for the settlement and payment of outstanding credits or debts. due to the extinction of DHD. Of course, although the legislator is expressing the fact that the eventual occupation of the housing by members of the household that do not have the status of residents in the contract or by the heirs of the deceased resident, between the date of the extinction of DHD and the effective delivery, being a precarious occupation, this does not prevent the subsequent occurrence of different legal phenomena, such as, for example, the inversion of the title of possession in order to acquire other real rights of a limited nature.

## 4. CONCLUSION

Essentially, DHD is based on the traditional real right of housing, to which, incidentally, it is referred to. Although primarily regulated by its instituting instrument and this may well be the contract under the terms of article 1445º and 1440º ex vi 1490º CC, most of the mandatory aspects involved in the DHD and which are essentially extended to the payment of cash benefits would always be susceptible of inclusion, under contractual autonomy, in that same contract. DHD - real durable housing right, as it is conceived and according to the above, is a real mix of real law, of mandatory rules based on leasehold relationship, and of financial product. As an instrument of the new generation of housing policies it aims to join two worlds apart: that of those who own the property as an asset to be monetized, and that of those who need it to set up their effective center of personal and social life there. It is sought to be an alternative and mitigated solution in relation to the acquisition of property using bank financing, which may be more rigid, heavy and difficult to access. Time will let us know whether it will (or not) be succeed.

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## PROTECTION OF SOFT TARGETS AS ACTUAL SECURITY AND SOCIAL PROBLEM

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### ABSTRACT

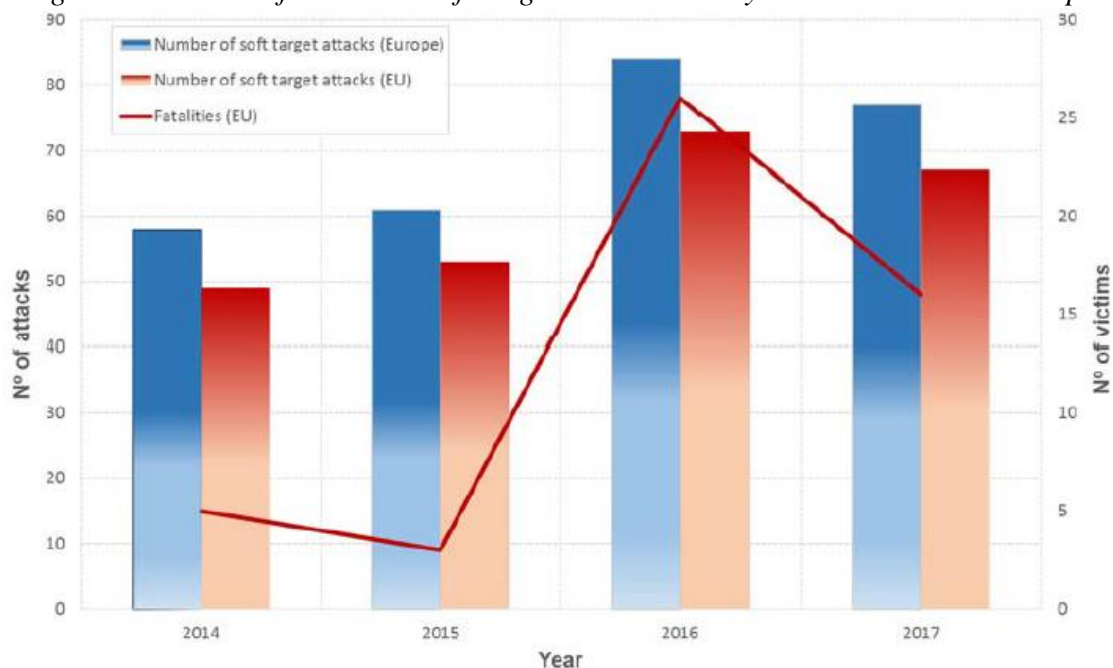
*The paper is dealing with the issue of security and increasing the level of soft targets protection. The term soft targets usually refers to objects, premises or events characterized by the presence of a greater number of people and, at the same time, the absence or low level of security against violent attacks of different nature. Such objects, places and events are selected purposefully as the target of serious violent attacks (often terrorist attacks). Most soft targets are able to ensure their security much better (e.g. better knowledge of environment, contact with nearby entities, presence of personnel on site but also funds to ensure security, etc.) than the state alone. The aim of the paper is to present the characteristics of potential targets, the most common means of attack and the main principles of securing soft targets, as well as the basic diagnostic factors for choosing security measures and the possibilities of increasing the resilience and level of securing soft targets. The knowledge contained in the paper can be used not only to get acquainted with the security management and protection of soft targets but also as a guide to the threat assessment systems at their current level of security.*

**Keywords:** *Soft targets, Security Diagnostics and Assessment, Soft targets protection, Resilience of soft targets*

### 1. INTRODUCTION

The term soft targets usually refers to objects, premises or events characterized by the presence of a greater number of people and, at the same time, the absence or low level of security against violent attacks of different nature. Such objects, places and events are selected purposefully as the target of serious violent attacks (often terrorist attacks). The consequences are usually fatal and often affect a larger territory. When defining potential targets, attack scenarios and security measures to prevent or reduce the impact of an attack, coordination of multiple security forces is always necessary. By attacking soft targets, it is relatively easy to cause high casualties, serious health and property consequences and thereby attracting expected attention of media and public. The worldwide rise of terrorism has been accompanied by a series of attacks against targets that were characterized by limited protection measures. A tendency has appeared for assaults at unprotected places of people congregation, irrespective of the gathering purpose (recreational, political, religious, commercial etc.). The recent terrorist attacks in Paris, Brussels and Barcelona in 2015 – 2017, led into the realization that areas with high people concentration (metro and train stations, airports, means of mass transportation, stadiums, concert venues, shopping malls, pedestrian areas etc.) are becoming potential bombing and/or armed assault targets of terrorist groups (Karlos, V., 2018). The number of attacks and the number of victims from soft target attacks that were performed in Europe is presented in Fig.1.

*Figure following on the next page*

*Figure 1: Number of victims in soft target attacks in the years 2014-2017 in Europe*

*Source: Karlos, V., 2018*

The graph shows that there exists a recurrent targeting of crowded places and that over the 2014 - 2017 this has resulted in a significant increase in the death toll. The paper contains a definition of the term soft target, characteristics and the most common ways of attacking objects, premises and events as potential targets and the main principles of securing soft targets. The next part contains the definition of basic diagnostic factors for the choice of effective security measures and the possibility of increasing the resilience and level of soft targets assurance through expert assessment of the vulnerability degree of soft targets. The above mentioned knowledge can be used not only to get acquainted with the content and basis of the issue of soft targets protection but also as a guide for defining and implementing a simple system for assessing the level of their vulnerability.

## 2. SOFT TARGETS – POTENTIAL TARGETS, TYPES OF ATTACKS

A soft target is term commonly used by the security community to designate places with a high concentration of people and a low level of security measures against the execution of a violent attack and its possible consequences. These are primarily tourist attractions or various social (especially sport, political, religious or cultural) events and traffic nodes (stations, airports) or means of transport. In the wider definition of soft targets, schools, hospitals, as well as swimming pools, sport fields and other objects are considered to be such objects.

### 2.1. Definition and potential targets

According to (Security Policy, 2016), the soft targets are "objects, spaces or actions characterized by the high concentration of people, an absence or a low level of security measures against violent attacks and non-inclusion between critical infrastructure objects (Řehák, 2019). According to (Beňová et al, 2019) "Soft targets are objects (buildings, premises, open spaces, etc.) in which a large number of people are grouped together at a certain place. These objects do not apply any or only slightly specific security measures to prevent a violent attack on the lives of persons in these objects, to ensure a rapid response to the attack, or to assist in managing a potential attack without losing people's lives. A violent attack on this target could cause death or injury to a person or more persons who are near the destination".

Based on the above mentioned, as well as (Kalvach, 2016), it is possible to include among the soft targets mainly:

- major traffic nodes train and bus stations, airport terminals,
- shopping centres, markets and business complexes,
- hospitals, clinics and other medical facilities,
- sport halls and stadiums,
- cinemas, theatres, concert halls, entertainment centres,
- school facilities, dormitories, canteens, libraries, community centres,
- cultural, sporting, religious and other events,
- public gatherings, processions, demonstrations, pilgrimages,
- cultural and religious monuments, museums, galleries,
- bars, clubs, discos, restaurants and hotels, ...

The most important fact for the state is that there are many soft targets. Just this fact significantly limits practical possibilities of their securing only by the state or public administration and increases the need for security measures taken by their owners /operators. Most soft targets are able to ensure their security much better (e.g. better knowledge of environment, contact with nearby entities, presence of personnel on site but also funds to ensure security, etc.) than only state bodies and institutions. In the (Karlos, 2018) sources of guidelines and other informative material concerning the protection of soft targets against terrorist attacks are collected and presented. The illustrated informative sources cover a wide range of vulnerable places that may become the target of malicious attacks. The list included in Karlos (2018) is divided in categories based on the soft target type and contains practical guidance originating from a variety of countries. As noted, in the European Union detailed documentation on security upgrade options for specific soft targets (facades, education/religious facilities, drones) is rather limited. It is considered that special care should also be paid to the citizen involvement in the event of terrorist attacks. The future guides to be produced should aim at providing advice to the security stakeholders for reducing the risk of an attack and introducing proper measures for mitigating the damage and other consequences, should such an incident occurs.

## **2.2. Types of Significant Attacks**

For the state, the most important fact is that soft targets are large number. This significantly limits the practical possibilities of ensuring their security only by the state/public administration and increases the necessity for the implementation of the security measures by the soft targets themselves (Potential Terrorist Attack, 2008). Most of them are able to secure their security much better (e.g. better knowledge of the environment, contact with surrounding entities, presence of staff on site but also funding to increase security, etc.) as the state itself. An analysis of terrorist attacks, according to data from the Global Terrorism Database (GTD) also reveals the priority ways of attacking. When analysing threats, defining scenarios and defining a security system for soft targets, considering the following ways of potential attacks is needed:

- cold weapon attack (knife).
- explosive attack (except when using a vehicle),
- suicidal attack by an explosive,
- explosives in postal packets.
- explosive in a parked vehicle.
- arriving a vehicle with an explosive with a suicide attacker.
- incendiary attack.
- attack by shooting weapon (pistol, submachine gun, etc. - active shooter).

- taking up the hostage and barricade situation.
- attack on soft target by crowd.
- attack by arriving vehicle.

The only source of information which is verified and regularly updated is the Global Terrorism Database (GTD, 2020). This database is a comprehensive overview of the terrorist attacks committed between 1970 and 2019. Moreover, it is an open-source database including information on terrorist attacks around the world. The GTD includes systematic data on domestic as well as transnational and international terrorist incidents that have occurred during this time period and now includes more than 180,000 cases. For each incident, there is information available on the date and location of the events, weapons used and nature of the target, the number of casualties, and, when identifiable, the group or individuals responsible. Main characteristics of the GTD are:

- contains information on over 180,000 attacks;
- includes information on more than 88,000 bombings, 19,000 assassinations, and 11,000 kidnappings since 1970;
- includes information on at least 45 variables for each case, with more recent incidents including information on more than 120 variables;
- over 4,000,000 news articles and 25,000 news sources were reviewed to collect incident data from 1998 to 2016 alone (National Consortium for the Study of Terrorism and Responses to Terrorism -NCSTRT) (Beňová, 2019).

### **3. MAIN PRINCIPLES OF SOFT TARGETS PROTECTION**

Soft targets are a large and very diverse group of subjects. They are characterized by security - relevant characteristics that differ them from other targets but also among themselves. Typical ways to commit terrorist attacks have been identified and therefore it is possible to define the most of the relevant measures in advance. This makes it possible to target the protective and defensive elements more precisely, to formulate the principles of security and to recommend specific measures.

#### **3.1. Establishment of an appropriate measure**

To set up a functional soft target security system, it is needed to (Leitner, 2020):

1. Clarify protected interest  
At this stage, it is necessary to define what we value, what we do not want to lose, what could possibly damage us. Primarily it is about the health and life of people (violent attacks), property, information, social values, and also e.g. a good reputation.
2. Define possible sources of danger (threat) to protected interest  
It is necessary to identify specific groups or categories of persons with potential motivation to attack. This is used to analyse previous similar attacks and to consider potential sources of threat. It is always necessary to take into account the specifics of a particular object / action and usually specific threats (e. g. presence of VIP, risk date, pyrotechnics, media interest, resilience of buildings, effectiveness of current measures, etc.).
3. Specify threatening ways of attack  
The basis of a high-quality soft-target security system is to define as precisely as possible the sources of threat. The security system must be the result of a thorough analysis of interests and potential threats. It is characterized by a systematic analysis of the threats to a specific target and then by setting up appropriate measures. This is a procedure based on relevant threats.
4. Analyse specified threats by threat and risk analysis methods and identify priority threats.



The basic principle of relevant methods is to compare the likelihood of threat activation and impact rates (consequences) for individual threats. The threat rate overview is often expressed by a matrix which makes it possible to allocate resources to address priority threats more efficiently. Prioritization of threats makes it possible to determine their importance and to determine for which of them the resources will be allocated.

5. Design and application of security measures

Based on prioritization of threats and determination of appropriate measures, measures to increase the resilience of the object are applied. There are, for example, installed technical elements, elaborated specific security plans, determining not only preventive measures and routine procedures but also reaction if the crisis situation has not been prevented and its consequences have to be minimized.

### 3.2. Incident timing

With all the planned incidents, it is necessary to work in three phases of time (Kalvach, 2017).

1. What can be done before the occurrence of the incident so that the likelihood of its occurrence and the extent of the consequences are reduced or the incident has diverged from the target.
2. What can be done when the incident is in progress.
3. What can be done to mitigate the impact when the incident has already taken place.

Before the incident: *Prevention - deterrence*

- Preventive measures - reduce the likelihood of an attack, increase the speed and intensity of the response, and limit the extent of the consequences and reduce them more quickly.
- Deterrence tools – lead the attackers to decide not to choose the target.
- Crisis communication - leads to a calming situation and a mitigation of the conflict.

During the incident: *Detection - immediate reaction*

- Immediate detection of unwanted activity or disturbance of protected zones - preferably before the attack itself.
- Immediate reaction of security personnel or other members of the security system - best according to a pre-planned Plan.

After the incident: *Mitigation and adaptation*

- Follow-up to the prepared coordination plan for management and its defined priorities for each phase after the incident.
- Early renewal of the organization's activities and learned from a negative event.

The mentioned focus of security measures is the basis of a practically focused approach: DRRM – Deter / Reveal / Respond / Mitigate Impacts (Kalvach, 2016). It is a methodological tool that verifies the effectiveness of security measures and reducing the level of threat the impact of which we want to reduce. The nature of the method: to list of possible incidents (which were rated relevant to the object and we want to minimize them), we will assign measures to deter, early detect, and respond as well as reducing impacts after an incident. The final form of the security system needs to be re-verified to determine whether it can reduce the threat rate before, during and after an incident. An immediate reaction that would stop an attacker (physical defence) is mostly only in the power of professional teams who are able tactically and technically eliminate the attackers while working with other people around. However, such teams are not usually available for soft targets. However, instructed soft-target personnel or other public present in the incident may play a non-negligible role during the immediate reaction phase. In the case of a proper response, he may call for assistance, divert passers-by from the attack site, separate the

attacker from by locking the area, warn others and also eliminate the attacker by his / her own strength within the necessary defence (Leitner, 2020).

#### **4. SECURITY DIAGNOSTICS AND ASSESSMENT OF SOFT TARGET RESILIENCE**

In order to select the appropriate security measures, each objective needs to be assessed individually, particularly with a view to clarifying the security relevant factors affecting two essential criteria:

1. Attractiveness of the target from the perspective of the attacker.
2. Real possibility of its security.

##### **4.1. Basic diagnostic factors for selecting security measures**

The basic factors in terms of the properties of soft targets:

1. *Openness to the public.* Especially if it is an outdoor action, a closed object or a public object. Such characteristic has an impact on the concept of security - whether measures can be taken at the entrances or in the open space.
2. *Own security personnel.* Using the own staff for security tasks significantly extends the security system's capabilities. The presence of security staff or organizational services reduces the attractiveness of the target.
3. *Amount and concentration of persons.* For a soft target, the amount and concentration of people at a certain point in certain time is primarily a factor influencing the focus of the security system and the preparation of security procedures.
4. *Presence of the police.* Police is a major deterrent; its presence decreases the attractiveness of the target. Usually, the police are present only short time, locally or only to maintain public order. If there is a permanent police in the building, it is not a soft object.
5. *Presence of the media.* For terrorists or otherwise motivated attackers, the media presence is very attractive. Especially, if it is an important event with transmission in real time.
6. *Target symbolism.* If the entity is a symbolic target for attackers, the threat of the subject increases significantly. For a soft target, this means taking into account in the security plan the ways in which the attacks of specific violent groups are carried out and adapting their security strategy to extreme threats.

Important factors in self-protection:

7. *Organizational structure.* It has a significant impact on the ability to formulate and implement a security policy, to develop a realistic security plan, and to manage the implementation of security measures for soft target. More entities in one vulnerable location (such as a business centres) create a need for coordination of individual entities. This is related to voluntary activity for common security interest and sharing possible costs.
8. *Resources and finances for security.* The budget for security and the appointment of a security manager, i.e. person in the organizational structure of the organization responsible for the security agenda and the definition of measures.
9. *Ability to identify risk situations.* It examines whether the subject is able to assess which activities and situations are at risk, what to focus on, what to consider as significant and to solve by their own choices.

Based on the above factors, every soft target can clarify what are its strengths and weaknesses and what are its opportunities or risks (e.g. using the SWOT analysis) it is possible to determine what should be the primary focus for the development of own security.

## 4.2. Improving of soft targets resilience

Soft targets protection requires a completely different, specific approach as defined e.g. for security of critical infrastructure objects (Řehák, 2019; Bernatík, 2013). This requires at the:

- *Conceptual level*; the establishment of cooperation between the state, the self-government and the private entities.
- *Tactical level*; new training methods for the police, a new way of communicating with the public, identifying priority soft targets and their gradual resilience increasing.
- *Operational level*; e.g. organization of the actions it is needed to involve the available personnel in the security management system, consult the police with security measures before each major action and progressively improve the management of the foreseen threat scenarios.

Soft targets can be secured by using security components. According to guidelines (Kalvach, 2016) the security components were divided into three basic categories (Fig.2)

*Figure 2: Basic security components for soft targets protection*

Physical security	Electronic devices	Mechanical devices
Physical security plays a key role, e.g. staff checking people at the entrances to buildings, execution of walks or operator and security technology in the control room.	Electronic security equipment (e.g. a camera system used to monitor the internal and external spaces and movement of persons, alarms and alarm systems, detectors of metals and explosives), as well as access and attendance systems that serve, in addition to registration purposes, also to "complicate" the entry of an unauthorized person or to restrict its movement in objects.	Mechanical security equipment (e.g. security doors, in the case of external actions, concrete blocks and columns preventing the entrance of vehicles, or turnstiles that serve in the buildings) to arrange and authorize the entry and exit of persons.

*Source: Authors*

Physical security is a system of measures to prevent or ensure the difficulty of access by unauthorized persons. In the entertainment industry, for example theaters, cinemas, stadiums, clubs, etc., there is always at least one guard member who lets people in and check their tickets, or in the case of bigger events the guard member checks personal belongings. The question remains whether he could avert a terrorist attack. As a rule, they are not trained and experienced workers who can respond to an emergency situation. Well-trained security staff is a very effective security tool to deter potential attackers and immediately respond to mitigate their impact, especially in case of an emergency with mass health disabilities (Kalvach, 2016). Electronic devices are a system of measures to capture the suspect in a timely manner, possibly identifying and capturing an attacker after an attack has been committed. The most common electronic devices are camera systems, which can identify a suspect behavior before entering the object, or can help identify the perpetrators of an attack. At bigger events such as football matches or festivals, guards can be seen using portable X-ray devices to detect weapons and explosives (Beňová, 2019). Mechanical devices are systems of measures serving mainly to prevent the entry of potential attackers, or their authorization while entering the facility. The most frequently used mechanical devices are fences serving to prevent the entry of unauthorized persons, and turnstiles for identification of people entering the building (Leitner, 2020).

### 4.3. Threat assessment of soft targets

An interesting and logical approach to assessing the threats to soft targets is given e.g. in (Kalvach, 2019). This methodology is intended primarily for managers and operators of soft target who decide on the quality of the security system of a particular soft target. The purpose of the threat assessment according to the above mentioned methodology is not intricately prepared table based on various statistical formulas. On the contrary, it is a simple but very purposeful thought process that will lead the user in a systematic and proven way to a better understanding of what the protected interest actually threatens. And just such knowledge and clarification of key questions in the process of processing the evaluating table (not the table itself) is the purpose of the process of assessing the vulnerability of each soft target. Quality implementation of the soft target threats assessment process can reveal real threats, their specific form, expected intensity, duration, and many other parameters. The role of soft target operators is therefore essential in such perceived security management system.

## 5. CONCLUSION

The term “soft targets” is typically adopted to indicate vulnerable places that may be selected by terrorists in their effort to maximize casualties, thus inflicting fear to the population and attaining media coverage. The methodology of the attackers has shifted during the last years by placing the citizens as their main target instead of hardened structures, which would require better planning, larger support and funds, and where the chances of success could be lower. In response to this threat, considerable attention has been drawn by many countries to methods and techniques for enhancing the security of soft targets and providing protection to places that would otherwise remain fully unprotected. Several published papers (CISA, 2020; Kalvach, 2019; Protecting, 2014; Beňová, 2019; Kalvach, 2017; Leitner, 2020, and many others) focused on the security and protection of soft targets have shown that the greatest weakness in building security system of soft targets is not a lack of funds or material equipment but rather their ineffective spending and, in particular, ignorance of the real needs of a particular object, space or event. It is the purposeful and relevant assessment of the threat to any protected interest that is one of the fundamental pillars of any quality and effective security assurance system. However, a more detailed discussion of the issue of threat assessment of soft targets will be next time.

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## RISK MANAGEMENT AS A TOOL FOR BUILDING A RESILIENT ENTERPRISE

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### ABSTRACT

*In the current turbulent environment, enterprises are exposed to different kinds of crises. In most cases, enterprises are not ready for crisis management. One of the tools that help to prevent crises and contributes to higher resilience of the enterprise is also a form of prevention, specifically the application of enterprise risk management. The authors confirm these findings based on the results of their own empirical research carried out in 2019 in Slovakia. The aim of the paper is to assess the level of application of enterprise risk management and its impact on strengthening the resilience of the enterprise. It also assesses the level of required knowledge and skills of managers needed for effective application of risk management. The results are processed on the basis of scientific, mathematical and statistical methods. Based on the processed survey results, propose a methodology for a more effective application of enterprise risk management. Describe the activities undertaken by the Faculty of Security Engineering (UNIZA) to support and assist in the implementation of enterprise risk management. The results of the survey show that in enterprises in Slovakia, owners and managers do not pay enough attention to the application of risk management and do not have knowledge and experience with the application of risk management. The results presented should contribute to the need to convince owners and managers that investment in risk management can increase the resilience and performance of their business, achieve greater stability and competitiveness of the entrepreneurship. The authors of the article join other experts whose aim is to support, train and assist managers in the area of enterprise risk management.*

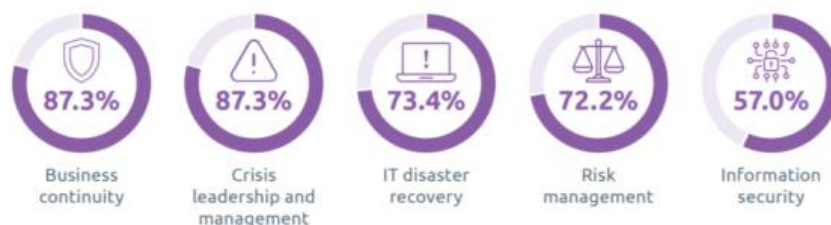
**Keywords:** Risk, Enterprise risk management, Knowledge, Skills, Resilient enterprise

### 1. INTRODUCTION

The principle of resilience is starting to gain credibility among enterprises. In the current turbulent environment, enterprises are exposed to crises of various kinds (e.g. natural disasters, scandals, social and government problems, etc.). Enterprises are judged by how they handle expectations and how they respond to difficulties (Stefancova et al., 2017). In most cases, enterprises are not ready to deal with similar crises because they do not have the specific methods and tools and skills (Luskova, Bujanova, 2011). One of the tools that helps prevent crises and contributes to greater enterprise resilience, is the application of risk management (Figure 1) (Business Continuity Institute, 2020). There are a number of definitions of the resilience of an enterprise, which differ only from the nature examined. The spectrum is wide - from psychology to crisis management. The definition of resistance according to National Academies (2020) is the ability of the enterprise (system) to maintain or regain a dynamically stable state that allows it to continue to operate after an accident and / or the presence of constant stress. Author Whitehorn (2020) defines resistance as - the ability of an enterprise to plan and adapt to change or failure through anticipation, protection, response capacity and recovery capability. According to Business Continuity Institute (Business Continuity Institute, 2020) a resilient undertaking is such a: capable of achieving enterprises aims and realizing

opportunities, even in adverse circumstances. The basic idea of resistance is derived from Darwin, who states - it is not the strongest species that survive, nor the most intelligent that survive, it is the one that is most adaptable to change (Klučka 2015). These definitions imply that a resilient enterprise should cope with adverse circumstances such as: failure, accident, generally called incident.

*Figure 1: Top five organizational functions important to the foundation of a resilient organization*



*Source: Business Continuity Institute 2020*

An incident can be defined by a sequence of activities aimed at increasing preparedness, increasing the efficiency and effectiveness of the response, and reducing the consequences. According to Szabados (2008) the incident is a situation that may cause disruption, loss or crisis. A disruption is any expected or unexpected event that may cause disruption to the normal provision of the organization's services or products. The solution is not to implement one activity. What is essential is the systemic approach to security expressed in terms of resilience. From a time point of view, we can allocate phases to the incident as follows: before the incident - prevention, during the incident - response, after the incident - recovery. Action in the prevention phase is aimed at implementing measures that increase preparedness for the possible occurrence of an incident and reduce the consequences in the event of an incident (Klučka, 2015). It is the right application of risk management in the enterprise. If the enterprise wants to prevent crises, it has to assess and manage the risks that are the potential crisis source comprehensively (Nedeliaková et al., 2018). The entrepreneurial risks are an inseparable part of the business activity. Risk management according to STN ISO 31 000 represents coordinated activities serving for the management and control of the enterprise with respect to risks (De Oliveira, 2017). The risk management process is the systematic application of the management of policies, procedures, and practices in the framework of communication, consultation, the establishment of context, identification, analysis, evaluation, processing, monitoring and review of risk (Brachert et al., 2017). According to Hopkin (2013) risk management means a holistic, integrated, forward-looking and process-oriented approach, managing all key risks and opportunities, not just financial ones, to maximize value for business shareholders as a whole. Risk management is a tool that helps businesses to ensure prosperous management without shocks and crises. It requires the adoption of risk identification, risk prevention, and risk management measures to cause as little loss and damage as possible (Bugarová, Lusková, 2015).

## 2. RESEARCH METHODOLOGY

The key methodological source is the results of our research. It was realized empirical research in Slovakia within the project KEGA - Research of Risk Management in Enterprises in Slovakia to create a new study program Risk Management for the FBI University of Zilina in 2019. The main objective of the research was to identify the key business risks of enterprises in Slovakia, the current state of application of the risk management process in enterprises, assess the sources of identified risks and assess the level of ability and skills of managers to apply enterprise risk

management. In 2019 participated in survey 370 owners and managers. The structure of the sector was following: 21.4% trade, 17.6% industry, 15.7% building industry, 11.1% transport and information, 10% other services, 6.2% agriculture, 5.7% accommodation and boarding, 3.2% trade services a 10% remaining services. Various scientific methods such as baseline analysis, querying, and statistical methods for data evaluation were applied to meet the stated objective of the paper. The baseline analysis was used in the process of identifying and solving the researched issue, e.g. an analysis of knowledge from professional domestic and foreign literature and scientific papers to elaborate on the current state of the solved issue. The basic methodological starting point is the assumption that the permanent and turbulent changes in the broader entrepreneurial environment can be a source of risks and crises for the enterprise that are not prepared for them. The comparison of the current knowledge and approaches to enterprise risk management confirms the high necessity of solving this area. The query method was applied using the online questionnaire tool. The online questionnaire allowed more efficient collection, sorting and evaluation of data. The advantage of the online questionnaire is the more efficient collection in terms of time, location and response speed. The online questionnaire was created using the Google Form platform, which provides a suitable environment for data collection, as well as their sorting and export to MS Excel. Google Form provides a convenient environment for questionnaire creation, data collection, presentation of results, and easy evaluation (Calonge-Pascual, 2019). The individual questionnaire questions correspond to the main objective of the paper. The composition of the questions was based on the authors' own experience with the above-mentioned issues within the framework of solving various projects at University in Žilina, an analysis of the current state of the solved issues in the world and the work experience. The questionnaire consisted of 24 questions. The addressed owners and managers of enterprise in Slovakia identify a maximum of three risks from the selection of seven entrepreneurs' risks, which they consider to be key in their entrepreneurship. They identified problems, lack of knowledge and skills, as well as the need and benefit of the enterprise risk management application in terms of ability and skills of managers to apply the enterprise risk management process. Basic statistical methods (percentage of data, graphical representation of results, etc.) were used to evaluate the data. The methodology of processing results:

1. Evaluate the level of risk management application in the enterprises and assess its impact on strengthening the enterprises resilience.
2. To assess the level of required knowledge and skills of managers needed for effective application of risk management.
3. Design of methodology for an effective application of enterprise risk management.
4. Describe the activities undertaken by the Faculty of Security Engineering to support and assist in the implementation of enterprise risk management.

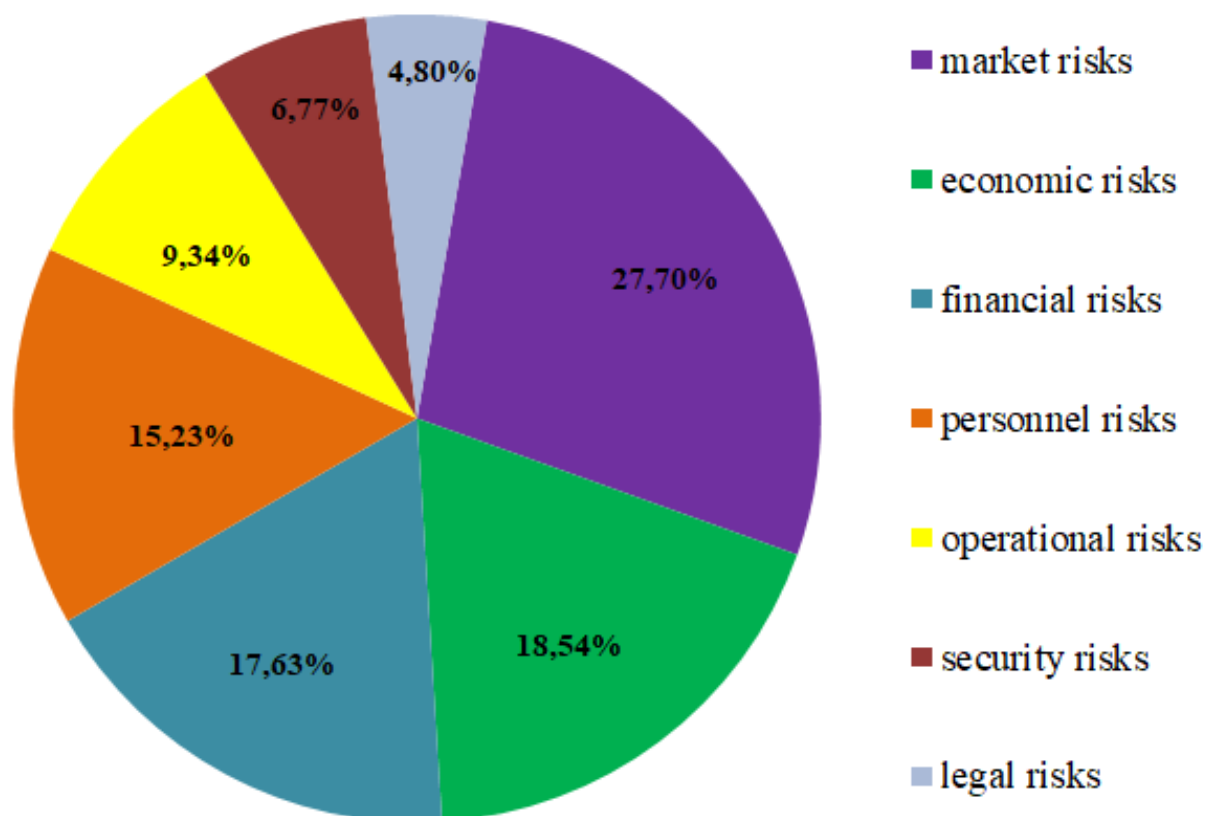
### **3. RESULTS**

#### **3.1. Evaluate the level of risk management application in the enterprises and assess its impact on strengthening the enterprises resilience**

It is possible to summarize results based on the survey, which was realized in 2019. The addressed owners and managers of enterprises in Slovakia should identify a maximum of three risks from the selection of seven business risks, which they consider to be key (being the key) ones in their business. Of the total number of 370 of the addressed enterprises, the share of identified key risks for enterprises in Slovakia was identified: market risks 27.70%, economic risks 18.54%, financial risks 17.63%, personnel risks 15.23%, operational risks 9.34%, security risks 6.77%, and legal risks 4.8% (Figure 2).



Figure 2: Percentage of identified key risks perceived by managers and owners of enterprises in Slovakia in 2019



Source: authors

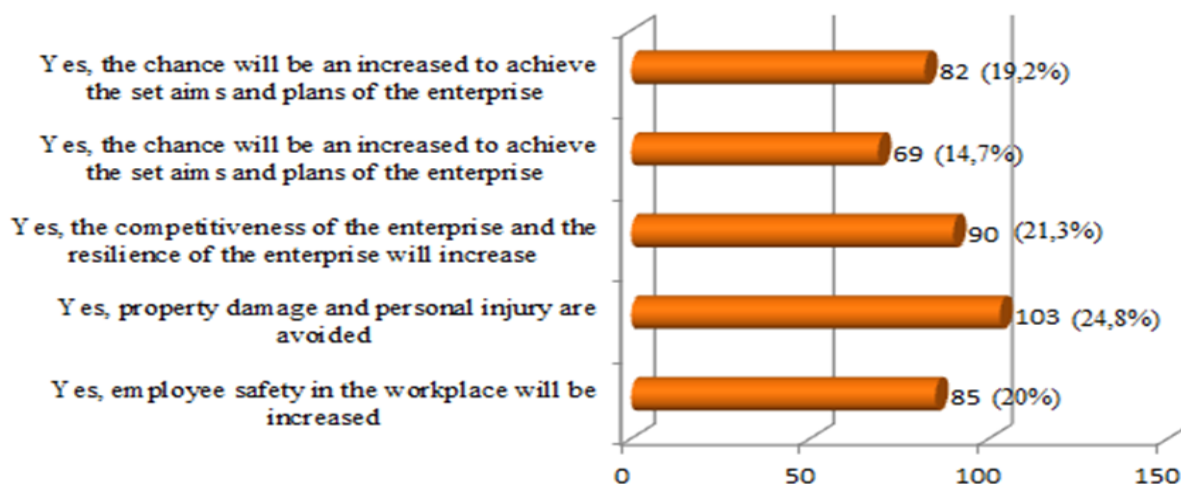
From the point of view of Slovakia, the overall research results show that the current state of implementing enterprise risk management is not positive. The owners and managers of the enterprises are aware of the risks; however, they do not deal with them:

- they do not deal with the risk management in the enterprise in a sufficient extent,
- they do not perceive the risk management as a strategic advantage for the enterprise,
- they do not create a sufficiently large space for discussing about the key risks,
- they have no risk catalogue in their enterprise,
- they usually look for the risk sources only for the most serious risks,
- they do not utilise particular methods and techniques of the risk management,
- they do not provide the education in the risk management area for their employees.

This research shows other detections from the point of enterprise risk management in Slovakia. Owners and managers of enterprises believe it is necessary to assess (identify, analyze, evaluate) the risks and be prepared to reduce them i.e. the right application of risk management expects that (Figure 3):

- 24.8% yes, property damage and personal injury are avoided,
- 21.3% yes, the competitiveness of the enterprise and the resilience of the enterprise will increase,
- 20% yes, employee safety in the workplace will be increased,
- 19.2% yes, the cost of prevention will be lower than dealing with the consequences of negative events...etc.

*Figure 3: Percentage of perceptions of owners and managers of enterprises about the need and benefits of risk management*

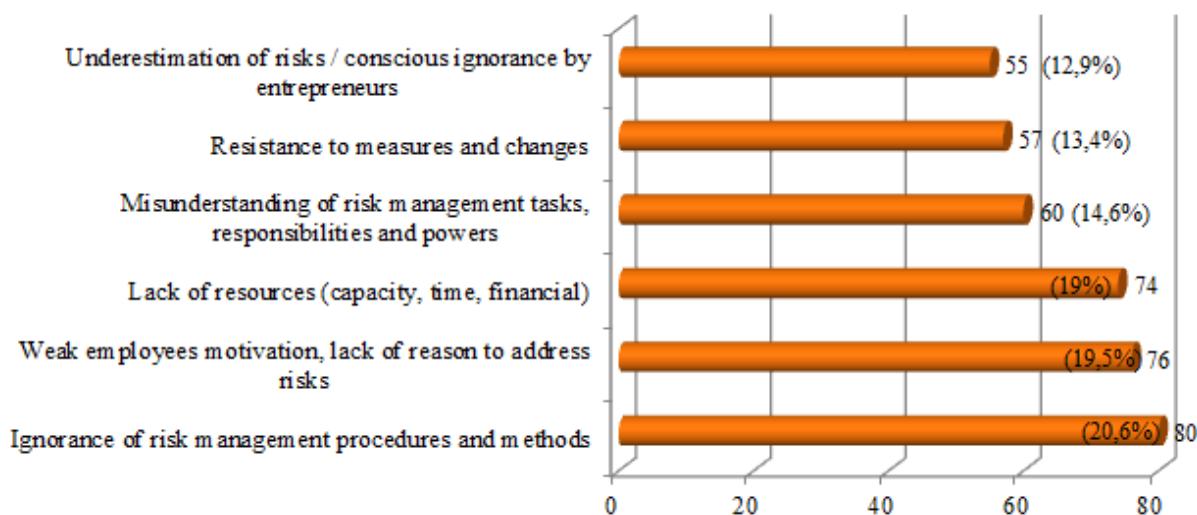


Source: authors

Owners and managers of enterprises perceive certain causes (reasons) that prevent them from paying more attention to the risks in enterprise (Figure 4):

- 20.6% ignorance of risk management procedures and methods,
- 19.5% weak employees motivation, lack of reason to address risks,
- 19% lack of resources (capacity, time, financial),
- 14.6% misunderstanding of risk management tasks, responsibilities and powers...etc.

*Figure 4: Percentage of perception of causes by owners and managers of enterprises that prevent them from paying more attention to risks*

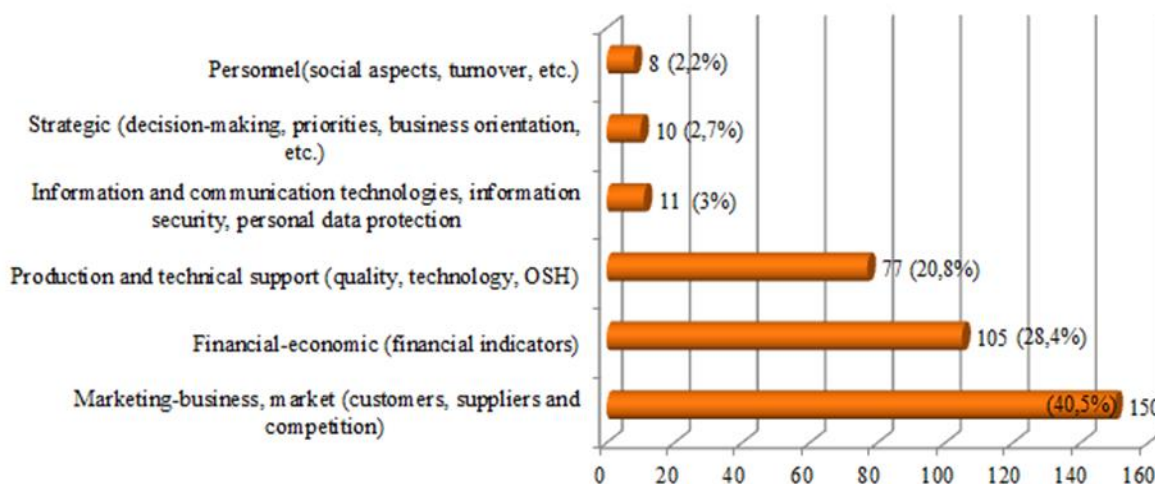


Source: authors

Owners and managers would like to see risk monitoring in the following areas of enterprises management (Figure 5):

- 40.5% marketing business, market (customers, suppliers and competition),
- 28.4% financial-economic (financial indicators),
- 20.8% production and technical support (quality, technology, OSH),
- 3% information and communication technologies, information security, personal data protection...etc.

*Figure 5: Percentage of enterprise management area where owners and managers want to monitor risks*



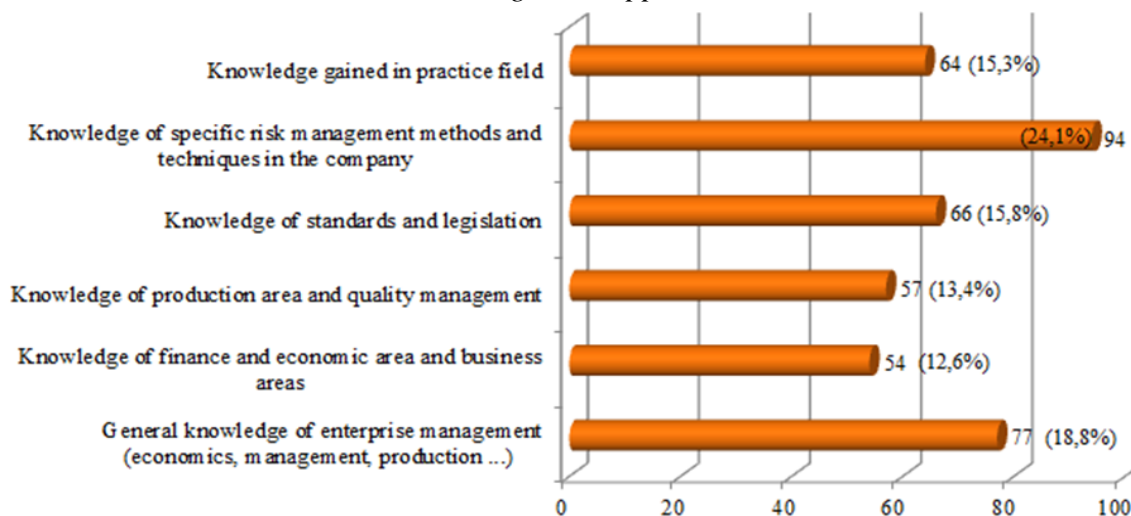
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### 3.2. To assess the level of required knowledge and skills of managers needed to effectively apply risk management

The biggest reason that prevents owners and managers from applying enterprise risk management is the lack of knowledge of risk management practices and methods (20.6%). It follows that managers do not have sufficient knowledge and skills to effectively apply risk management in the enterprise. This is also confirmed by our research results i.e. there were identified lack of knowledge by enterprises managers or authorized specialists to effectively identify and analyze of risk management (Figure 6):

- 24.1% knowledge of specific risk management methods and techniques in the enterprise,
- 18.8% general knowledge of enterprise management (economics, management, production),
- 15.8% knowledge of standards and legislation,
- 15.3% knowledge gained in practice field...etc.

*Figure 6: Percentage of lack of knowledge of managers for effective enterprise risk management application*

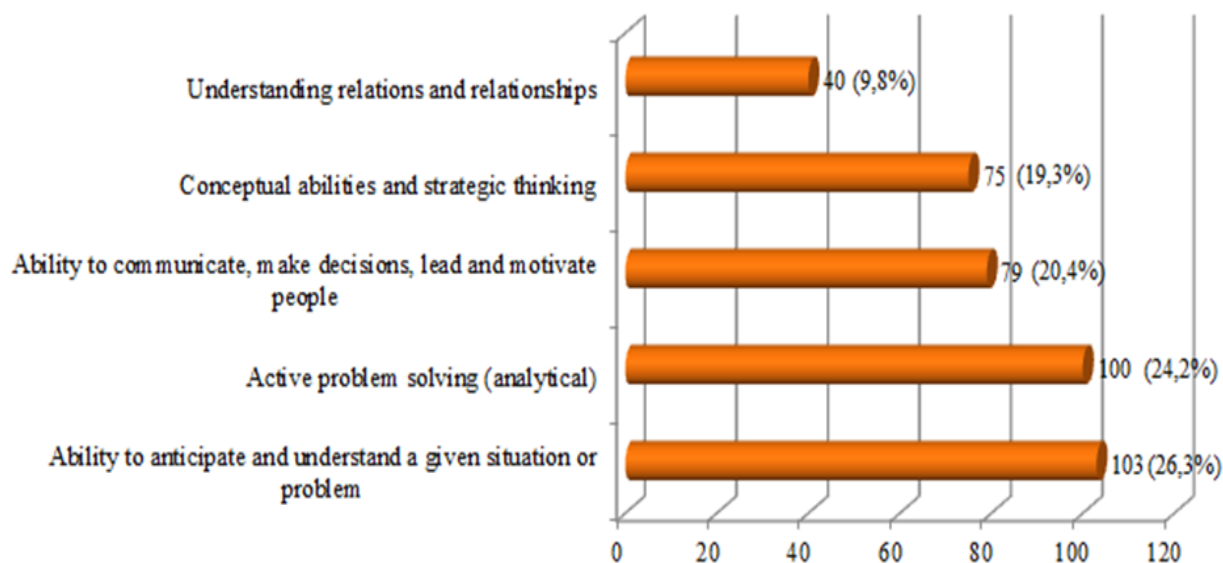


Source: authors

Also, there were identified the lack of skills, abilities and experience of enterprises managers and / or authorized specialists to effectively identify and analyze identified risks (Figure 7):

- 26.3% skill, ability to anticipate and understand a given situation or problem,
- 24.2% active problem solving (analytical),
- 20.4% skill, ability to communicate, make decisions, lead and motivate people,
- 19.3% conceptual abilities and strategic thinking...etc.

*Figure 7: Percentage of lack of managers' skills, abilities for effective enterprise risk management application*



Source: authors

### 3.3. Design of methodology for an effective application of enterprise risk management

Based on the results of the empirical research, on the current state analysis in both the theoretical and practical level and other results from individual projects of the scientific and research activity at the Faculty of Security Engineering of University of Žilina (UNIZA) we can design a methodology for implementing the risk management in the companies. The basis of this methodology is the international standard ISO 31 000 Risk Management – Principles and Guidelines adapted into a form for an easier and more concrete instruction for implementing the risk management in the Slovak companies. The designed methodology can be used in various types of enterprises. It assumes a rational adaptation of the risk management implementation to the concrete company conditions (Hudáková, Masár, 2018). The methodology of implementing the risk management in an enterprise is created by the following nine steps (Hudáková, Masár, 2018):

#### 1. Stating the strategy, principles and responsibility for the risk management

The most important thing for enforcing the risk management in the enterprise is to have sufficient support of the top management. Managers should define an adequate policy and risk management strategy. It is necessary to define the responsibility for the risks to the top management and responsible managers of the company key processes.

#### 2. Analysing the environment and stating the risk criteria

This step is to work out an analysis of the external and internal environment of the company. Furthermore, the managers should define the risk criteria by which the individual risks will be assessed.

3. Identifying the risks and risk sources

In this step, it is necessary to identify the risks, to recognise and describe them. Then it is necessary to work out the identification of all risk sources (causes), events and their potential effects.

4. Analysing the risks and determining their priorities

In this step, we have to work out the analysis of the identified risks by two factors – the probability and the effect. Risk level = probability x effect. The probability of occurrence can be defined as small, medium or large or we can choose five assessment levels. The analysis of effects can be evaluated from the point of view of the: non-financial character - financial character.

5. Assessing the risks and creating the catalogue of risks

This step compares the probability of occurrence and effects with the defined criteria from the first step. The responsible managers should decide which risks are to be reduced. The managers can use: creating a risk assessment matrix, stating the priorities of the risks and determining the acceptable and unacceptable risk, and creating the catalogue of the risks.

6. Working out and realising a plan of preventive measures

In this step it is necessary to propose preventive measures for reducing the risk. It is necessary to deal with the unacceptable risks. The managers should move the unacceptable risks to the group of the acceptable ones. The acceptable risks should be monitored due to the possible future changes.

7. Assessing the effectiveness of the preventive measures

In the next step it is necessary to investigate the risk management process on condition that the communication, consultancy and reporting are effective. The managers should ensure the control of the proposed measures for reducing the unacceptable risks, and the control of the risk management system and the fulfilment of its plan from the point of view of the continual improvement.

8. Ensuring the monitoring of the environment and the risks

The next step of implementing the risk management in the company is to ensure permanent monitoring of the company key processes, the state of the risks identified and new risks. Managers will ensure the early identification of the risks from the point of view of impacts through indicators, the analysis and assessment of the risks from the point of view of the impacts on the determined goals, the information transfer to the responsible managers etc.

9. Taking a positive attitude to the risks

The last step is the requirement on the top management to create values in the framework of the corporate culture that will lead the managers to a positive attitude to the risks and their prevention in the company. It is important to adjust the communication about the risks, values for correct motivation, mutual collaboration (team management), consultancy regarding to the risks.

### **3.4. Describe the activities undertaken by the Faculty of Security Engineering to support and assist in the implementation of enterprise risk management**

The Department of Crisis Management (DCM) is one of the departments of the Faculty of Security Engineering (FSE) of University of Žilina which guarantees scientific education and organisational preparation of crisis management specialists educated through the Civil Security study programme, field of study Crisis Management. The graduates of the study programme Crisis Management are experts with university education able to carry out the position of the crisis manager. The study programme also deals with the risk management area in the conditions of the public administration and entrepreneurial subjects. The graduates are able to assess (identify, analyse, evaluate) the risks and threats of the natural, social, economic and technological processes as well as to design procedures for their reduction.

Currently, DCM at FSE of the University of Žilina provides activities to support and support risk management in enterprises in the following areas (Hudáková, Titko, 2018):

1. Working out final works linked with practical problems  
Theses topics in undergraduate and postgraduate studies are realised in cooperation with the Crisis Management Department in Žilina, as well as with business entities which are open to solving the issue of crisis and risk management in their enterprises. Currently, we can observe an increasing demand for cooperation from Slovak and Czech companies which are dealing with these issues.
2. Cooperation with companies in the form of solving common projects  
The department has been cooperating in the long term with Slovak Rails - ŽSR, ŽSSK a ZSSK Cargo, with companies QUADRIQ, s. r. o., L. Mikuláš, GOSSIS, s. r. o., Nitra, LYNX Košice. Other organisations include Nemak Slovakia, s. r. o. Žiar nad Hronom, Geodézia, s. r. o. Žilina, Distribúcia SSE, a. s. Žilina, Žilina Region, KROS, a. s. Žilina.
3. Creating research centers  
The Department of Crisis Management has two specialised centers at its disposal at the FSE. The first one is the Crisis Management Simulation Centre, which creates conditions for independent scientific and research activities. The center focuses on providing students with practical experience and skills in the form of simulation of crisis scenarios in a given situation. The other one includes research laboratories at the University Scientific Park FSE UZ designated to provide efficient and complex training of crisis management specialists with the help of software simulation technologies.
4. Reversed cooperation  
A good example is our cooperation with the company Bel Power Solution, s.r.o., by involving the students in the project of manufacturing a new product in the company. The student became part of the team and took part in regular meetings with the project managers of the company. The student's role was to implement the risk management to the project, i.e. to assess the risks of producing a new product in the company and to design measures for their reduction.

#### 4. CONCLUSIONS

From the point of view of Slovakia, the overall research results show that the current state of implementing enterprise risk management is not positive. The owners and managers of the enterprises are aware of the risks; however, they do not deal with them. Enterprises are most vulnerable to the market environment, which results in the most serious market risks (27.7%). As a result, up to 40.5% of enterprises expect to monitor risks mainly in the marketing-business (market) area of enterprise management. Owners and managers perceive the benefits and need of application of risk management of the enterprise. Only 21.3% of enterprises perceive that effective risk management can increase enterprise competitiveness and enterprise resilience. On the other size, the biggest cause (reason) that prevents them from paying more attention to the risks in the enterprise is the ignorance of risk management methods (20.6%). Managers lack knowledge of specific methods and techniques of risk management in the enterprise (24.1%) and the skills, abilities to anticipate and understand a given situation or problem (27.3%). This implies that enterprises in Slovakia are not sufficiently resilient to the enterprise environment (especially the market environment). The overall results of the empirical research underline the importance of dealing with the assessment of the entrepreneurial risks of the enterprise in Slovakia. They emphasise the need of active and systematic work with the risk and preparation for the traps of the current entrepreneurial environment. Therefore it is necessary to increase the level of knowledge about possible causes and effects of the risks as well as the implementation of the adequate measures for their reduction. Therefore the improvement of the risk management level requires achieving theoretical knowledge about the risk management

process, the methods and tools usable in the risk management area in Slovakia. It is important for the managers to be sure that an effective risk management ensures fewer negative surprises, a higher financial stability, company performance and enterprise resilience. The owners and managers of the enterprises should create a space for the risk management and to change their attitude towards positive thinking about the risks. The effort of the authors is to take gradual steps towards enforcement of the risk management enforcement in the companies in Slovakia for them to get closer to the global trends.

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## ORGANIZATION AND PUBLIC RELATIONS IN SMALL COMPANY FOR PROJECT - CONSULTING ACTIVITIES

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### ABSTRACT

*After the social changes in the 1990s, the Croatian construction industry experienced major structural problems, loss of the market and a reduced number of employees. Emerging small businesses are not sufficiently accumulating and are developmentally unprepared. A similar fate has been experienced in the pre-investment and project documentation business, as well as construction and consulting business. Therefore, an efficient and productive organization should be established, a quality product i.e. service should be set up and constant contact with the target market maintained. One option of improvement is effective marketing through promotion and its public relations tool. It is public relations that is the starting point of this consideration, and as an object there is a small project-consulting company. The organization, marketing and information - communication process of public relations is proposed in order to keep in touch with the target market.*

**Keywords:** *Construction, design, public relations, information and communication*

### 1. INTRODUCTION

It is a well-known fact that construction activities are part of the national economy that are directly related to development and to promoting development. It is also known that civil engineering in the Republic of Croatia has undergone several changes after the social changes in the 1990s. Some markets were lost, but in the period of restructuring and privatization, large construction systems collapsed, and a large number of smaller companies were founded. Similar flows followed the design activities, which harmed their development. In addition, global economic developments in the construction industry have implied specialization, a high level of quality and expertise, and labor productivity. Given the fact that small companies in design and consulting cannot provide the means for development, then marketing costs are an even greater problem. In this case, promotional tool known as public relations is considered. Namely, the design and consulting company should pay particular attention to this promotional component. Such companies must be the first to be informed of future investment projects. That is why every such company must be prepared with the minimum but highly professional staff in order to be able to bid for pre-investment studies, projects and consultancy in the construction and maintenance of the facility. In this way, the company participates in a project from planning to maintenance, thus ensuring long-term cooperation with investors. The target public and method of communication where proposed where the main carrier and tool is the Internet.

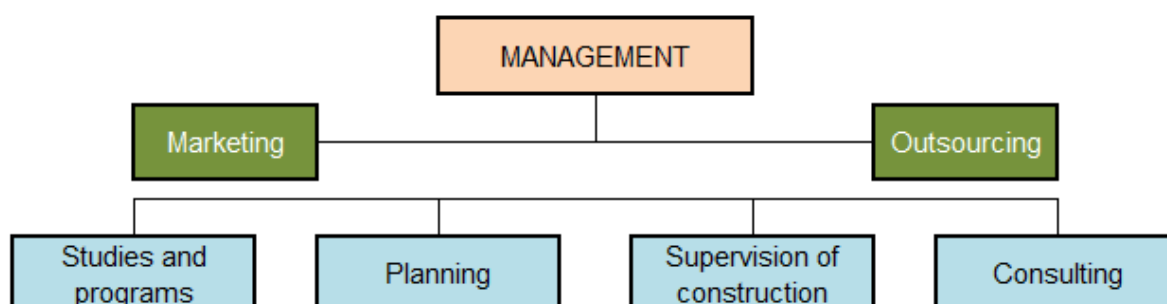
In this way, constant contact with all target stakeholders in the investment activities is ensured at minimal cost. In addition, attention is paid to determining the effectiveness of public relations.

## 2. SMALL BUSINESS

Most national economies, and especially developed economies, have a large number of small businesses. It is expected that a similar situation will be observed in countries undergoing major structural changes, i.e. whose economies are in transition. There are still major changes happening in these economies where the present is painful and tomorrow is uncertain. The restructuring process is emerging as a necessity for change because of a troubled past and, currently, still not foreseeable future. In any case, small businesses have and will certainly have their place, and as such they should be given attention, even in the activities involved in the preparation of investment documentation, design and construction supervision, as well as consultations related to the construction and maintenance of facilities. Respecting the basic elements of definition, already in 1953, the US Congress created an agency, but also small business administration that set the following criteria for defining small businesses <sup>1</sup>:

- total assets,
- share capital,
- annual sales revenue,
- number of employees.

According to the Croatian Chamber of Commerce, small companies are considered to have assets up to HRK 7.5 million, revenues up to HRK 15 million and up to 50 employees. Meeting two of the three criteria enters the category of medium-sized enterprises<sup>2</sup>. On this occasion, we would highlight the number of employees as one of the most important and recognizable criteria. The criterion of a small number of employees can be particularly emphasized when it comes to a small company engaged in design activities. In addition, such companies have a high level of employee expertise. It follows that for the efficient operation of a company performing design and similar works, the best combination of activities is as shown in Figure 1.



*Figure 1: Organization of a company performing design and consulting activities*

Figure 1 shows the organization of one company of about fifty employees performing market research activities where the main products or services are as follows<sup>3</sup>:

- Development of studies, plans and programs covering: investment programs, investment feasibility studies, “benefit-cost” studies and support studies,

<sup>1</sup> (Kalogjera, 1996.)

<sup>2</sup> (Poslovni.hr, 2020)

<sup>3</sup> (Lacković, 2017), str. 189.

- Preparation of project documentation from conceptual design and project, general and implementation projects and construction projects, but only architectural and construction projects. Installation and other projects are outsourced to specialized companies,
- Technical studies for special purposes related to heat, acoustics, various insulations, noise and protection at work and protection from fire,
- Execution projects that are various forms of project documentation which is important when making adaptations and should have documentation for the maintenance of facilities, especially installations,
- Supervision of construction,
- Consulting includes consulting services for construction and maintenance of the facility. Consultations in the field of visualization, modelling and refinement of the process of construction and maintenance of the facility can be especially emphasized.

The proposed organization involves architectural and structural design, while other consulting services projects are outsourced, as well as pre-investment documentation and part of construction supervision. A special innovation in designing is the modelling and visualization of construction and maintenance and the use of lean tools. Modelling assumes an already well-established BIM<sup>4</sup> method that integrates construction, information and modelling already in the design phase. Particularly new is the proposal of consulting services to apply known new methods called “lean” for continuous improvement of quality. Lean or lean line means less power, less effort and capital, less time and storage, so less cost and unnecessary losses. In this sense, methods have already been established, of which the following should be given particular attention in the design, construction and maintenance of facilities<sup>5</sup>:

- TQM management system aimed at continuous quality improvement.
- JIT- (Just-in-time) - delivery of resources at exactly the right time.
- "5 S" - the default model; sorting (sieri), order (seiton), cleaning (seiso), personal contribution (seiketsu), self-discipline (shitsuke)
- Standardizing as many operations and procedures as possible.
- Kaizen-continuous process improvement.
- Kanban Inventory Management System.

For such organized companies, it is especially important to have a broad and permanent market awareness, as well as the general public. Continuous contact with the general public is necessary to keep the company informed about the investment plans of the economy, local and state administration. Therefore, the company needs to communicate more effectively with the community and its surroundings. If information technologies are used effectively then the market segment does not really have a geographical restriction. Therefore, special attention should be paid to promotional activities known as public relations.

### **3. THE ROLE OF PUBLIC RELATIONS IN MARKETING**

The aforementioned proposal of the company organization particularly emphasizes marketing activities that derive from the very definition: “Marketing is a dynamically irreversible process, so it can be stated that it consists of activities of individuals and organizations that enable and accelerate exchange in a dynamic environment by creating a product and distributing it, promoting it and pricing”<sup>6</sup>. It all starts with market research with product offerings, appropriate pricing, promotions and effective distribution as elements of the marketing mix.

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<sup>4</sup> (Stober,D., Dolaček-ALDUK,Z., Vukomanović,M., Radujković, M., Kolarić, S. , 2015)

<sup>5</sup> (Žvorc, 2013.), str. 700.

<sup>6</sup> (Dibb, S.,i dr., 1995), str. 4.

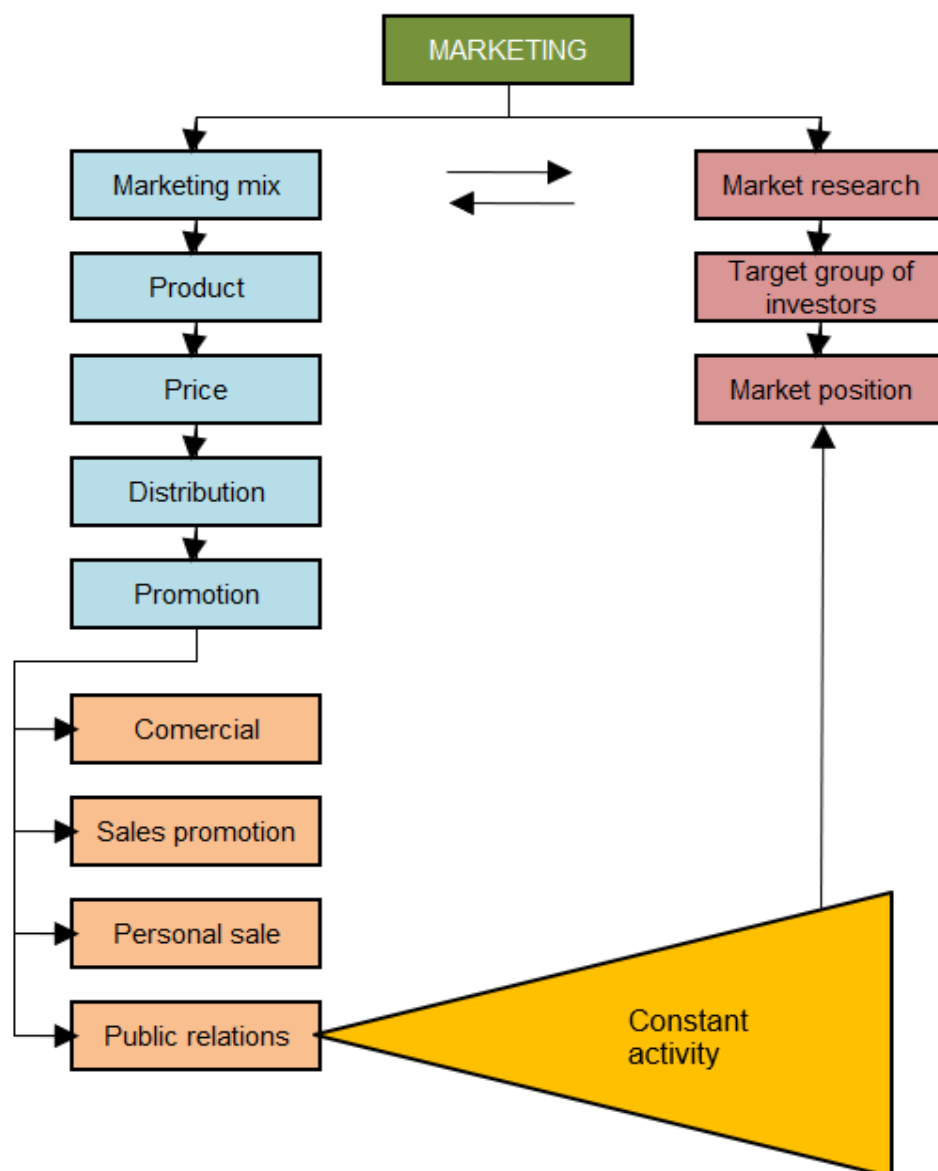
Promotion is a fundamental tool of market research consisting of propaganda, publicity, public relations and after sales activities. In this case, the starting point is to consider public relations as a tool of promotion and market research, because of constant communication with the business public, as shown in Figure 2. The figure shows the place of public relations in the marketing process. The process consists of market research in order to select the target special group of investors according to the type of offer by the company. The company can specialize in special construction objects such as tourist, commercial or public buildings. Therefore, its market segment is not too geographically limited, but the market potential of the target group and occupation of a position or share of the total value of investments in the segment is estimated. Asset and support are elements of the marketing mix as: product, price, distribution and promotion known as "4 P". In this case, the focus is on the promotion and its tool known as public relations or PR. It is one continuous activity that has the following objectives<sup>7</sup>:

- creating the reputation of a company or institution,
- improving the business image of management team members,
- raising public awareness and better image of the brands of products and the company that manufactures them, or performs them,
- build prestige in the eyes of the audience over the competition and increase the value of the company,
- supporting the achievement of other business goals and strengthening good public attitudes already achieved,
- creating a favourable climate in the company,
- raise public interest in a business by thinking differently about it than in the past,
- changing negative public attitudes into positive ones,
- turning the unknown into the known,
- creating a generally better image of all phenomena and events that are in any way related to the activities of the corporate organization or institution since its inception.

*Figure following on the next page*

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<sup>7</sup> (Osredački, 1995), str. 29



*Figure 2: Public relations in the marketing process*

Figure 2. just shows the location of public relations activities within the marketing and design company and similar activities. Given that the proposed organization is designed to be able to provide a complete service and aspire to the global market, one continuous activity is needed in order to maintain symbiosis with the market, namely public relations. In this regard, it is necessary to set up an information and communication process that, with the help of information technologies, will ensure the symbiosis of the company with the environment at the least cost.

#### **4. INFORMATION AND COMMUNICATION PROCESS IN PUBLIC RELATIONS**

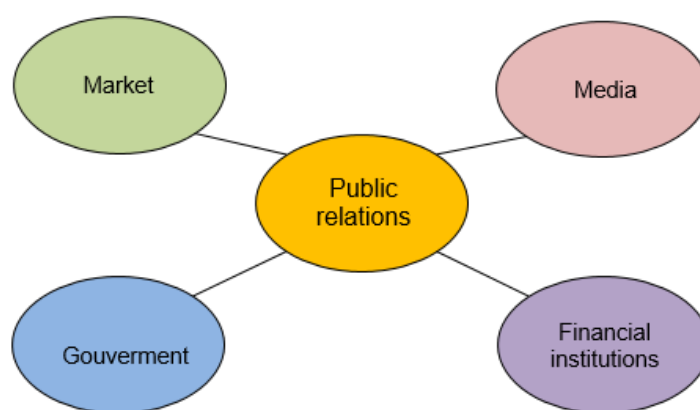
##### **4.1. Planning**

Public relations are one form of communication with employees and the environment. Such communications should be carefully planned to ensure a lasting information connection. The company itself avoids misunderstandings and creates and maintains a favourable image of the company in the environment. Planning should take into account rapid changes in the environment. In addition, major public relations instruments and tools should be identified. Final planning is an instrument for controlling the success or results of the public relations process.

## 4.2. Targeted public

As already stated, there is internal and external communication. Internal communication is carried out between the members of the company or managers and employees in order to avoid negative charge in the company. The bad climate in the company has a bad effect on the environment, so this should be avoided. First of all, it is important to inform, educate and motivate employees. This can be achieved by working meetings at different levels of the enterprise. External communication consists of communicating according to Figure 3. with the following target groups of the enterprise environment<sup>8</sup>:

- media,
- market,
- authorities,
- financial institutions.



*Figure 3: Target groups in external public relations*

Depending on the type of activity, project companies, regardless of size, must ensure ongoing investor contact that begins with design, continues with construction consultations and is permanently connected to maintenance. In this regard, the media is becoming an increasingly powerful means of ongoing communication with customers. Media development enables the use of an increasing number of tools for successful communication. The following approaches should be avoided when dealing with the media<sup>9</sup>:

- lack of connection with local and regional developments,
- “over – advertising” style,
- too long and cumbersome marketing,
- information arrives too late to be useful.

The role of television and the internet can be particularly emphasized. It is important to emphasize the partnership with journalists, which means constant contacts, talks, training of journalists, in order to get acquainted with the achievements and benefits of new communication technologies and the company itself, in terms of business philosophy and working methods. With familiarity comes understanding, and by such a process, the set goals are easier to achieve. Contacts with journalists must be systematic and not often tied to an event or contract<sup>10</sup>.

<sup>8</sup> (Wikipedia, 2020)

<sup>9</sup> (Osredački, 1995), str. 67

<sup>10</sup> (Kesić, 2003) , str. 435

Relations with the market, that is, with current, former and future partners, is especially important communication in order to continue cooperation. This improves relationships, avoids problems and ensures long-term partnership. The basic communication tools are written communication and the Internet organized by the marketing department. The target group in public relations is communication with the authorities and associations of the economy. Given that the government at the state and local level is investing heavily or indirectly, each project company should maintain constant communication with the authorities. This is primarily about gathering information on plans for state administration and local self-government, but also for participating in discussions and lobbying for some investment projects. Design and consulting companies should definitely be in constant contact with the financial public. Namely, with their professional potential, they can play an advisory role in the formation of financial resources for investment projects. In this case, this is direct communication in order to consult with the centres of financial institutions combined with national and local strategies and plans. One form of organization is to advise managers from financial institutions with representatives of government and the economy.

#### **4.3. Choice of communication methods and tools**

Communication with the public must be two-way in order to ensure that the information sent to the target groups is corrected. Of course, it is necessary to maintain targeted connections with target groups through classic forms such as press releases with appropriate visualizations and programs. But smaller companies can achieve the same effects through information technology at a much lower cost. With the development of information technology, two-way is possible because technical capabilities allow it. In particular, the development of the Internet enables communication with all target groups. Other forms of communication are not continuous and mutual, so they can only be support for the Internet. Communicating with the public over the internet or online can be divided into three categories<sup>11</sup>:

- communication activities within the web site,
- communication with online news media,
- communication with social media.

Web sites typically create content that describes the business and innovations of the company. If needs and financial possibilities allow, then certain information is created through the media and also through the creation of company blogs, as well as direct links with investors and centres of financing. In view of the activities of the company for designing and consulting services in public relations via the Internet, the following activities should be especially noted<sup>12</sup>:

- planning online PR activities - online communications;
- creating your own content in relation to the goal of the online appearance of the company;
- review events in the online environment that are of company interest;
- creating and maintaining a section on a media site;
- send press releases to online news media;
- upload images such as: presentations and white papers, audio and video material to the services provided to enable this;
- communication within influential blogs of visited social networks and forums.

The effectiveness of public relations can be achieved through two-way communication. In this sense, there is a model as shown in Figure 4. The picture suggests raise of awareness of targeted public, i.e. informing them.

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<sup>11</sup> (Ružić,D., Biloš,A., Turkalj, D., 2009) , str.232

<sup>12</sup> (Ružić,D., Biloš,A., Turkalj, D., 2009), str. 237. 237

The fact that part of the target public has an interest in the subject and some don't should be kept in mind. Therefore, messages should be sent in order to maintain interest and to make new offers that would raise interest and willingness to cooperate with the company. Understanding and accepting information with a target group of clients defines their investment potential and readiness for future cooperation.

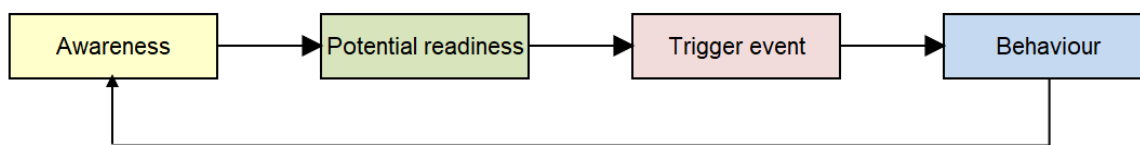


Figure 4: Communication model of public relations

The model of public relations presented here shows how the plans will be realized with the target groups. The implementation of the public relations plan is achieved in a two-way communication process where a constant exchange of information takes place. Given that in this case it is a small but highly professional company, the best tool and access is public relations via the Internet. The reason for this is the minimal cost but also the target partners who are also prone to internet communication.

#### 4.4. Communication process

Building a long-lasting image and business is only possible through constant contact with each other, and a quality communication process should be established. Figure 5 shows one common way of electronic communication where a post-war process is established through information technology that can take place without any galvanic network.

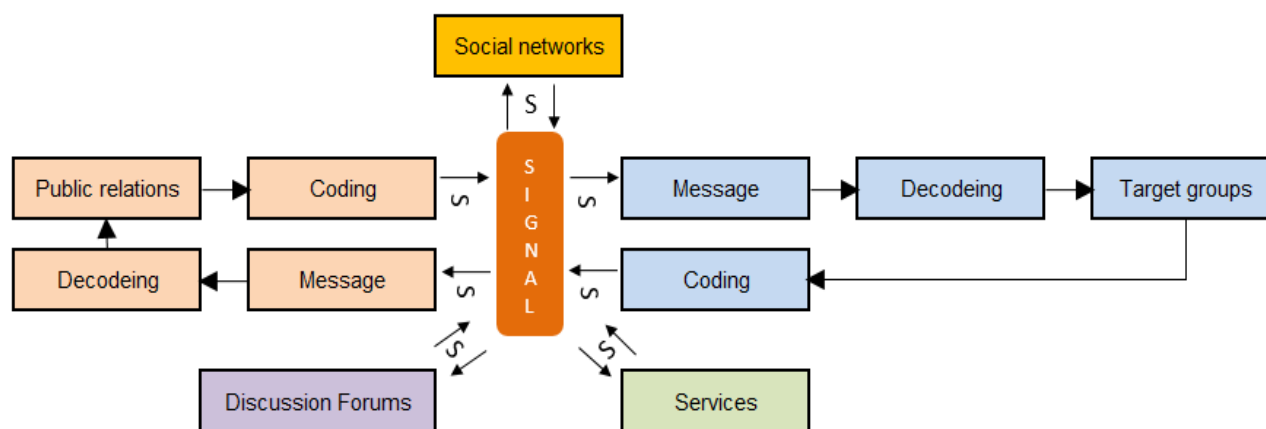


Figure 5: Information and communication process of public relations on the Internet

This example is one of the possibilities for successful online two-way communication with the following options according to <sup>13</sup>:

- using discussion forums where the company must have people trained in this type of communication with members of selected target customer groups;
- social networks that have their own communication rules can be used to learn more about the needs of their target groups;
- services that allow you to set up your own content viewed by a large number of individuals, businesses and institutions. This can be an effective tool for promoting additional content created by the company.

<sup>13</sup> (Ružić, D., Biloš, A., Turkalj, D., 2009), str. 238-239



#### **4.5. The effectiveness of public relations**

Marketing activities are carried out at certain lower or higher costs. Regardless of the fact that the cost of public relations through the media is lower, it is necessary to determine the effectiveness. This refers to the benefits expected in the short term but especially in the long term. The effectiveness of marketing communication through the media or the Internet can be established to some extent by testing. In this regard, the following public relations tests are available through electronic media<sup>14</sup>:

1. A day-after-memory test
2. Message hypersensitivity test
3. Single source tracking study
4. Media monitoring.

A day-after-memory test is the determination of the recipient's memory and is of great value because of the representativeness of the test sample. The message hypersensitivity is tested by determining the targeted content by comparing the other content and then repeating the desired content. One medium that is developmentally promising can be selected and monitored in several criteria to determine the effectiveness of public relations. Media monitoring can be organized at intervals, where by testing clients' memories, interests and attitudes can be identified. There are opportunities to measure the effectiveness of interactive media in the following ways<sup>15</sup>:

- log records,
- click-through,
- website ranking services.

A log record is a mouse click registration that registers information between web users. A separate page or file systematically stores logs and determines media performance. Click-through is a method of measuring the frequency of contact by each user, which determines the importance of the target public, the time of contact and also the elements of contact creativity. Information technology also enables the ranking of contact with the target public in order to determine the quantity and creativity of the relationship. Although these methods are not exact enough, they give the company insight into the quality of public relations, but also open up new opportunities. Specifically, design and consulting companies need to constantly and actively find new methods and resources in order to have the right information about investment projects.

#### **5. CONCLUSION**

Several conclusions can be drawn from previous considerations. First of all, it is a fact that the design and consulting business can be efficient and competitive in the market if they are organized by essential professional staff. As a small business, marketing activities must be carried out with minimum cost and maximum efficiency. Such opportunities are provided by information technology. Given the offer, these companies must be prepared to offer a complete investment service from the preparation of investment studies, design and construction supervision, as well as consulting services in the construction and maintenance of the facility. In this way, the company ensures long-term cooperation in the market. Marketing activities with a particular focus on public relations enable a very effective ongoing relationship with current and future clients. Precisely effective two-way communication of the company with the public is an important contribution of this consideration. The development of information technology will enable an even more effective connection between the companies and the target

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<sup>14</sup> (Ružić, D., Biloš, A., Turkalj, D., 2009), str. 93.

<sup>15</sup> (Kesić, 2003), str. 522.

public in the future, thereby increasing the quality of the relationship on the one hand and reducing costs on the other. It may be noted in particular that the proposed approach is relatively simple to implement in concrete practice.

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## THE IMPACT OF PSYCHOGRAPHIC SEGMENTATION ON THE PERCEPTION OF GREEN MARKETING

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### ABSTRACT

*Based on the segmentation process, the market is divided into several segments representing customer groups with similar requirements for quality, price, technical parameters and other specific product characteristics. Psychographic segmentation is focused on definition a market segment according to people's lifestyle, personality character and hierarchy of values. And just in the case of implementation green marketing principles in the most efficient way, it is important to take into account the psychological aspects of consumer buying behaviour. These psychological aspects include consumer's lifestyle, his social standing as well as his activities, interests and opinions such as the rate of his environmental mindset. The aim of this article is to define the theoretical basis of the impact of psychographic segmentation on the perception of green marketing principles from the viewpoint of domestic (Slovak) and foreign authors. This includes an analysis of the perception of green marketing in practise in relation to psychographic characteristics of consumers. The secondary data for the analysis were obtained from annual companies reports, statistical tables and published professional publications. In order to determine the perception of the green marketing in relation to psychographic characteristics of consumers, a questionnaire survey was conducted among Slovak consumers. General scientific methods were applied for the processing of the data, as well as mathematical methods to evaluate the data collated from the results of the questionnaire survey. Based on this, benefits of green marketing taking into account psychographic characteristics of consumers are highlighted, and proposals are put forward for its efficient implementation within the companies.*

**Keywords:** *Buying behaviour, Company, Consumer, Green marketing, Psychographic segmentation*

### 1. INTRODUCTION

The topic of sustainable development belongs among the most up-to-date but also sensitive issues (Lizbetinova et al., 2019). The general public is largely interested in increasing problem of the environment pollution, and finding out the solutions how to protect it. Green marketing as a part of environmental management has become a new marketing philosophy of many companies. It includes more than just a simple building of corporate image but it also becomes a modern idea of the enforcement of actual environmental trends to a broad spectrum of business activities.

The field of action of green marketing tools is relatively extensive, starting with the protection of the environment, production and sale of products and services with ecological conditions and requirements, through the final consumption of environmentally friendly products, which affects the quality of life and health of the whole society (Lirn et al., 2013; Perotti et al., 2012). Environmental issues are now a core competitive factor in product market (Papadas et al., 2017). In the case of implementation green marketing principles in the most efficient way, it is important to take into account the psychological aspects of consumer buying behavior. These psychological aspects include consumer's lifestyle, his social standing as well as his activities, interests and opinions such as the rate of his environmental mindset.

## **2. LITERATURE REVIEW**

The issue of the green marketing has been researched and analysed by many foreign and domestic authors, and remains actual. Green marketing was first mentioned by Lazer (1969) as the societal dimension of marketing in terms of finite environmental sources, societal and environmental impacts of conventional marketing, and greening of the different aspects of traditional marketing. Green marketing in its core represents the holistic managerial approach and does not refer solely to promotion and selling of products with environmental characteristics. As well, green marketing involves more than just building a positive corporate image. This way of perception, the definition of Peattie confirms. He emphasizes the holistic perception of green marketing, and he defines it as the holistic management process tailored to identifying, anticipating, and satisfying requirements of various stakeholders in profitable and sustainable way (Peattie, 1995). These facts also the definitions of green marketing presented at the web sites of The American Marketing Association emphasize. Its retailing definition says that green marketing is the marketing of products that are presumed to be environmentally safe. From the social point of view green marketing represents the development and marketing of products designed to minimize negative effects on the physical environment or to improve its quality and finally the environments definition says that it is the efforts by organizations to produce, promote, package, and reclaim products in a manner that is sensitive or responsive to ecological concerns (American Marketing Association). This organization as well as the first represented the official definition of green marketing in 1975 at its workshop, despite the fact that at that time the term "ecological marketing" was preferred. The ecological marketing was defined as the study of the positive and negative aspects of marketing activities no pollution, energy depletion and nonenergy resource depletion (Polonsky, 1994). Over the years, further definitions have been created, and the concept has evolved and become more structured. In connection with the main aim of marketing – to facilitate to satisfy consumer's needs, Polonsky (1994) defines green marketing as all activities designed to generate and facilitate any exchanges indented to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment. According to Krizanova et al. (2013), the main goal of green marketing is to present consumers with the importance of protecting the environment in the context of product consumption, placing emphasis on building long-term relationships based on communication not only with consumers but also other stakeholders and create a natural need to be environmentally responsible. Similarly, Xia and Zhang (2017) claim that the concept of green marketing requires businesses to protect the environment as the leading business ideology. It requires companies to fulfill the principle of linking their own interests in business, consumer interests and environmental interests, the principle of linking the business from design to recycling (Wu, 2013). Grant's definition of green marketing emphasizes its basic attributes which, according to his opinion, are: intuitiveness, integrity, innovation, initiative and awareness (Grant, 2007). Groening et al. (2018) have created a definition of green marketing that contains the basic elements of marketing such as price and promotion combined with the goal of reducing environmental

impact, although not necessarily with the goal of reducing consumption, rather to persuade the consumer to purchase green products and services. Thus, green marketing consists of actions directed to all consumers, and incorporates a broad range of marketing activities, such as price, planning, process, production, promotion, and people, designed to demonstrate the company's goal of minimizing the environmental impact of its products and services. Nowadays there are many definitions of green marketing preferred among researchers or marketing practitioners, but any of them is not universally accepted. However, together point out a holistic and responsible approach, which consists of identifying, anticipation and searching for opportunities to meet needs of stakeholders (in generally) without any negatively impacts on the society and environment. Another perspective of green marketing is the demand of green consumers. Green consumers are in the epicenter of green marketing strategies and a large part of green marketing literature focuses on the determinants of their environmental behaviour, green buying behaviour and post-buying behaviour (Rypakova, M. et al., 2015). Several studies of green consumers have shown that consumers who protect the environment, respond to the behaviour of environmental responsible companies, and this fact influences their buying behaviour (Willness, C. et al., 2012; Sroka & Szanto, 2018; Golec, 2018). Over the years, several authors have dealt with the impact of psychographic segmentation on the perception of green marketing. According to Mostafa (2009), the major variables affecting the perception of green marketing by consumers are related to altruistic values, environmental concern, environmental knowledge, skepticism towards environmental claims, attitudes toward green consumption, and intention to buy green products. Paco and Raposo (2009) highlighted the importance of market segmentation, together with a presentation of the most relevant criteria for differentiating individuals in terms of their environmental behaviour. The results of their study show that there are consumers who buy green products and that certain psychographic (such as environmental mindset) and demographic variables are significant for differentiating between the "greener" segment and the other segments. Verma (2017) focused on the niche segmentation of green consumers as a solution to the psychographic or demographic predicament. His findings indicate multiple niche young segments with demographic as the primary criterion and psychographic as the building block and may be used for effective targeting and positioning strategy of green marketing. According to Kotler and Armstrong (2004), psychographic segmentation criteria divide consumers into different segments based on belonging to particular social classes, based on different lifestyles or types of personalities. Their goal is to explain the differences in market manner based on the psychological and social predispositions of consumers. It seeks to uncover the reasons why some consumers with the same descriptive characteristics show different buying behaviour (Moravcikova et al., 2019). In terms of green marketing, it means that members of a particular segment are characterized by similar shopping behaviour and environmental mindset (Nielsen, 2015). Different segments have different preferences in consumer behaviour (Kicova et al., 2018; Moravcikova, 2018). Consumer behaviour is to a large extent influenced by the lifestyle of customers, on the other hand consumer behaviour reflects their lifestyle (Kotler and Armstrong, 2004). Paco and Raposo (2008) have defined nine basic factors within the psychographic segmentation that have a significant impact on the buying behaviour of green consumers.

These factors include:

- Environmental-friendly buying behaviour
- Environmental activism
- Environmental knowledge
- Consumers' fear of pollution
- Recycling rate
- Perceived effectiveness of environmental behaviour

- Saving resources
- Economic factor
- Skepticism

In the comprehensive marketing segmentation regarding to environmental sensitivity of the customers, Ottman (2011) has divided the population into five groups:

- LOHAS (Lifestyles of Health and Sustainability)
- Naturalists
- Drifters
- Conventionals
- Unconcerned

Next, she has added the extra four dee-green sub-segments that are mostly depend on psychographic segmentation of customers such as their activities and hobbies. It includes:

- Resource Conservers
- Health Fanatics
- Animal Lovers
- Outdoor Enthusiasts (Ottman, 2011)

### **3. METHODS**

The aim of this article includes a literature review on the issue from the perspective of both domestic (Slovak) and foreign authors. By using methods of description, comparison, deduction, induction, it discusses the essence of green marketing as well as the impact of psychographic segmentation on the perception of green marketing principles and also analyses the perception of green marketing in practise in relation to psychographic characteristics of consumers. Based on the analysis and the results of the marketing survey, the benefits of the application of green marketing principles are highlighted, and proposals are put forward for the more effective implementation of the underlying principles within the companies. The secondary data for the analysis was obtained from annual companies reports, statistical tables and published professional publications – both in print and electronic media. In order to determine the perception of the green marketing in relation to psychographic characteristics of consumers, a questionnaire survey was conducted among Slovak consumers. General scientific methods were applied for the processing of the data, as well as mathematical methods to evaluate the data collated from the results of the questionnaire survey. When examining and identifying the utilization of the principles of green marketing, the definitions of the approaches and concepts that are mentioned above were maintained. The aim of the questionnaire survey – both electronic and personal - was to analyse the perception of the green marketing in relation to psychographic characteristics of consumers. The sample size was determined using the Sample Size Calculator that forms part of Creative Research Systems' survey software and which is provided as a public service. The calculator determines how many respondents need to be interviewed in order to get results that reflect the target population as precisely as possible. This is necessary to avoid any distortion in the survey information. The process requires a base file to work from, which in this case consisted of population data for the Slovak Republic, and in particular data on those aged 15 and above. The confidence interval was set at 5%, with a confidence level of 95%. This means that for the questionnaire survey a 5% margin of error is assumed. The sample size calculated by the calculator was determined to be 384 respondents. In total, 425 respondents participated in the questionnaire survey. The questionnaire survey was conducted during the second half of 2019. The selection of the respondents in the sample set took place at random and was based on the number of Slovak inhabitants aged 15 years and

above that represent the target groups of consumers. The quantitative assessment method was applied to the processing of the information obtained from the questionnaire survey. The data were processed empirically in the form of percentages, with additional written comments and comparisons.

#### 4. RESULTS AND DISCUSSION

The total number of respondents was 425, of which 238 (56% of respondents) were female and 187 (44% of respondents) male. Based on the information that defines each category in terms of the year of birth, we identified generational categories of Generations Baby Boomers, X, Y and Z. Subsequently, we categorized customers and calculated their responses by generational categories:

- Generation Baby Boomers 1946 – 1964, (43 respondents – 10%);
- Generation X 1965 – 1979 (115 respondents – 27%);
- Generation Y 1980 – 1995 (174 respondents – 41%);
- Generation Z 1996 – 2009 (93 respondents – 22%).

The results of the marketing survey show that 87% respondents (all generations) think it is beneficial for the environment if companies use the concept of green marketing, only 13% respondents are of the opposite opinion that the concept of green marketing does not contribute to environmental protection. Of the respondents who positively perceive the use of green marketing in companies, 49% are actively interested in environmental protection (especially Generation Y and Generation Z), 42% are only interested in selected environmental problems (especially Generation X) and only 9% are not interested in environmental protection at all (especially Generation Baby Boomers). In environmental protection activities, most respondents of all generations identified waste recycling (42%), reducing electricity, water and gas consumption (35%), favouring environmentally friendly transportation (25%) and purchasing environmentally friendly products (24%). When examining the perception of the green marketing in relation to psychographic characteristics of consumers, the results of the marketing survey show that respondents who are actively interested in environmental protection, can be divided into different segments based on Ottman's segmentation of green consumers:

- 34% respondents (mainly Generation Y and Generation X) belong to Resource Conservers. They hate wasting and therefore try to do everything to minimize it, reuse plastic bags, drink water from reusable bottles and try to save energy by installing solar panels. In addition, they share their experience with other people to help them reduce wastage and consumption.
- 25% respondents (mainly Generation X and Generation Baby Boomers) belong to Health Fanatics. They take care of their health, use products and practices that can reduce the negative impact on their well-being. They prefer organic, eco-friendly or non-toxic products and are willing to pay more for them.
- 17% respondents (mainly Generation Z and Generation Baby Boomers) belong to Animal Lovers. They take care of their health as well as their family members and friends, but show the greatest interest in animals. A large part of these are vegans or vegetarians and buy products that are not tested on animals.
- 24% respondents (mainly Generation X, Generation Y and Generation Baby Boomers) belong to Outdoor Enthusiasts. They represent an active group of people who spend a lot of time in nature and outdoor sports. They can also be called 'eco-tourists' because they avoid waste and try to minimize their negative impact on the environment during outdoor activities.

It follows that psychographic segmentation as a method used to group prospective, current or previous customers by their shared personality traits, beliefs, values, attitudes, interests, lifestyles and other factors can be using in green marketing. It could be a powerful way to reach people from otherwise different demographics groups, geographies or other characteristics by highlighting the specific product properties that are in interest of the particular segment. Based on the above, it is possible to state that the interest on green marketing activities in each segment can grow in the future, as long as their awareness is enhanced and the quality and positive benefits associated with the using of green marketing in companies are highlighted. Increasing awareness and confidence in green marketing activities will help reduce skepticism and consumer mistrust, which may increase the demand for green products and services as well as consumer interest.

## 5. CONCLUSION

Increased interest in environmental protection is a positive trend compared to how large its pollution is, largely due to human factors. If companies will use green marketing as an opportunity, they can ensure a strong position between growing competition. However, in development, constant control and innovation is needed, since any hesitation will cause it to lag behind competitors. The implementation of green marketing principles taking into account psychographic characteristics of consumers represents a number of benefits:

- Strengthening the company's image and goodwill
- Building a strong market position
- Increasing the brand value
- Increasing interest in green products and services
- Reducing consumer skepticism
- Increasing their confidence and loyalty
- Increasing the number of consumers with the environmental mindset

If the company will apply all green marketing activities correctly, without negative impact, and perceive them as an opportunity, it will be an important fact for maintaining competitive advantage and achieving its environmental goals. The issue of the impact of psychographic segmentation on the perception of green marketing principles has the potential for deeper research in the future - both qualitatively and quantitatively. To obtain statistical relevance, it would be appropriate to investigate the findings of qualitative research quantitatively. A further qualitative investigation would be appropriate for expanding knowledge and comparing the impact of each factor of psychographic segmentation on the perception of green marketing principles.

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## SPECIFICS OF TEACHING FRENCH AS THE SECOND FOREIGN LANGUAGE AT THE UNIVERSITY

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### ABSTRACT

*The article analyzes the types of interference that English exerts on French among Russian learners during the french learning process. Learners of a second foreign language make interference errors, some of which come from the first foreign language by analogy, habit or automatism. In the process of learning foreign languages, every learner is positively or negatively influenced by another language. This is mainly due to the similarities and differences that exist between languages. If two languages have similar structures like vocabulary, word order, etc. and if the learner uses correct language forms inspired by another foreign language, this is called "positive transfer". And vice versa, if the students use wrong forms of lexical, morpho-syntactic or phonetic order, this is about "negative transfers or interferences". Interference can be observed at different linguistic level of the language. Negative transfers are especially frequent in phonology, lexicology and syntax. This phenomenon generally influences perception, learning new words and therefore oral and written communication when students learn French as a second foreign language in the University. The teacher in class should tell the students that error, being a natural phenomenon of the learning process, is inevitable but correctable. The teacher also must anticipate, describe and explain the errors and difficulties due to the influence of the native language or the first foreign language. The teacher must take into account the similarities and differences between 3 languages. In the process of learning foreign languages in the university English is the first foreign language, French is the second foreign language and Russian is the native language, and also exploit the phenomena of transfer of from one language to the other, taking care to minimize interference. The authors of the article examine the interference errors made by learners of French as a foreign language by analyzing their oral productions to prevent, anticipate and reduce the most frequent errors.*

**Keywords:** *error, french language, interference, negative transfers, positive transfers*

### 1. INTRODUCTION

Language interference is one of the current problems in foreign language teaching. The practice of teaching foreign languages shows that when teaching a second foreign language (French), students transfer their knowledge from their native language (Russian) and from the first foreign language (English). In this case, the transfer of knowledge can both speed up the process of learning foreign and cause interference. In linguistics, the phenomenon of interference occurs when three languages come into contact: the native language, the first foreign language and the second foreign language. Under the influence of some language levels, the norms of another language structure are violated. The reason for the cause of interference is the fact that a person builds his speech according to the norms of his native language or the first foreign language and establishes unusual connections and relations between the separate linguistic facts of the second foreign language.

## 2. INTERFERENCE PHENOMENON

Linguists estimate that in French, approximately 70% of words of Latin origin, words that come from English, make up 3% of the vocabulary in it. In modern English, about 75% of all words that speakers understand and use are French and Latin in origin. In addition, the active vocabulary of Russian, English and French totals about 10% of international vocabulary. Based on the foregoing, it can be argued that the ability to identify and analyze the lexical coincidences of the Russian, English and French languages, as well as the creation of favorable conditions for the work of memory while mastering vocabulary, facilitates the process of mastering these languages. However, only with visual perception and recognition of words can a positive transference be possible. If the meaning of the words does not match in French and English, the phenomenon of interference occurs, both in perception and in oral and written communication. In the meantime, there are many examples of positive transfer:

Word in french	Word in English	Translation
gouvernement	government	правительство
peuple	people	народ
autorité	authority	власть
crime	crime	преступление
bataille	battle	сражение
cousin	cousin	двоюродный брат
plaisir	pleasure	удовольствие
fleur	flower	цветок
table	table	стол

When three languages are in contact: Russian (native), English (first foreign language) and French (second foreign language), the phenomenon of interference occurs, that is, the influence of the norms of one language on another. The consequences of the influence of one language on another, both in oral and in written speech, arise because a person builds his speech according to the norms of his native language or a foreign language of the first (English) and can establish unusual connections and relations in a second foreign language (French). There is interference on different language levels: phonetic, spelling, lexical and grammatical and generally affects both the perception, word acquisition and the oral and written communication when teaching French as a second foreign language.

### 2.1. Phonetic interference

In phonetics, the most common type of interference is analogy interference, associated with the direct transfer of pronunciation Russian or English language skills to the corresponding French word. This applies to both vowels and consonants. Starting to learn French as a second foreign language, students, first of all, encounter difficulties associated with the formation of phonetic, pronunciation skills. The languages studied belong to different groups, and this explains the numerous errors in articulation and intonation. Mastering the correct pronunciation of sounds is important because replacing one sound with another can lead to phonetic and phonological errors: the former distort the sound quality, but do not violate the meaning of the statement; the second - distort the content of the statement and thereby make the speech incomprehensible to the interlocutor. So, words that sound the same, but are written differently and have different meanings, that is, phonetic homophones, are many in French: “ces” (indicative adjective “these”) – “sait” (the form of the verb «savoir» “know”). Students learning French need to learn how to pronounce French sounds correctly, learn to read and hear French. Thus, based on our experience, the initial stage should begin with an introduction to the distinguishing features of French pronunciation from Russian.

«... articulations of a foreign language should be studied in constant correlation with the pronunciation skills of the native language». Unlike the Russian language the most important features of French sounds come to the following:

1. French sounds are characterized by a greater clarity and energy of articulation in comparison with Russian ones.
2. Lack of stunning and softening; (in French, only two phonemes are exceptions – [k], [g]);
3. Lack of reduction in vowels (change in vowel quality in unstressed position).
4. Lack of diphthongization (overtones) or homogeneity of vowel quality.
5. French vowels sound the same from beginning to end, there are neither overtones nor bifurcations.
6. Lack of palatalization (softening) of consonants before vowels.
7. Longitude and brevity. French vowels can be short and long.
8. Vigorous opening of final consonants, due to that final consonants sound clearly;

### *2.1.1. Spelling interference*

Examples of spelling influence are analog words. In writing, the interference is caused by incomplete graphic correspondences in English and French: “a text - un texte, a verb - un verbe, an exercise-un exercice, an example-un exemple, an address-une adresse”. Full graphical correspondences include: “a question-une question, a table-une table, a page - une page”. In French classes, first you need to enter the word-full correspondence, and as you memorize, start work with incomplete matches.

## **3. GRAMMATICAL INTERFERENCE**

Despite the fact that grammatical systems of Russian, French and English have a lot in common it's necessary to observe grammatical interference while comparing parts of speech. Firstly, discrepancy in gender of nouns: wall = стена (fem.) – un mur (mas.), chair = стул (mas.) – une chaise (fem.), book = книга (fem.) – un livre (mas.). Translating or interpreting of sentences with adjectives and adverbs also make difficulties connected with the particularities of their formation, degrees of comparison and their position in the sentence. The definite article of French superlative adjectives corresponds to the gender and the number of main noun. As the gender of noun in Russian can differ, it can lead to interference. Possessive adjectives also present a problem. In Russian possession does not change depending on the person («у меня своя машина, у тебя своя квартира и т.д.») while in French it is defined by the person of pronoun (j'ai ma voiture, tu as ton chat). There are difficulties with the system of determiners, in particular, with articles. Russian has no them while in French they are more complex than in English due to the gender and the number. Such grammar topics as regular and irregular verbs, simple and complex verb tenses, the sequence of tenses, passive voice, verb mood, non-finite verb forms can be considered as positive transfer from English to French. It explains availability of these grammar structures learning. The past tenses present more problems. Russian has only one form of past tense whereas English and French have four ones. To overcome grammatical interference it's necessary to define similarities and differences as well as interlingual equivalents for their successful implementation.

### **3.1. Lexical interference**

The influence of the norms of one language on another occurs at the lexical level, causing language errors, that is, lexical interference. The intervention of the vocabulary of one language system into another is accompanied by difficulties arising in the process of using certain words and causing typical errors: Lexical biases are defined as diaphoronymy, or “false friends of the translator”.

French	correct form	false friend of translator
Intelligent	Умный	Интеллигентный
Une fougère	Папоротник	Фужер

In French and English, there are a large number of words that have the same latin origins, same sound and writing, but different meaning. For example, the French verb “ignorer” does not coincide with the English verb «ignore»: the first means “do not know, be ignorant”, and the second means “ignore”. The difficulty of using vocabulary for students is often not in the assimilation of new concepts and terms, but in knowing the volume of meanings of the words of the French language and those combinations into which they can enter with other words. So, when learning the lexical units of the French language, students encounter the following difficulties:

- 1) the polysemy of the French word: the verb "prendre" has the meaning "to take, eat, drink." The phenomenon of the polysemy of the French word is associated with a wide compatibility of words: “prendre un avion – fly on a plain, prendre le pouls - measure pressure”;
- 2) the meaning of the French word is often determined by context, for example, the adjective “juste” can have the following meanings: 1) fair; 2) righteous, lawful; 3) correct, faithful, accurate; 4) true, real; 5) tight, narrow; 6) insufficient, too small;
- 3) lexical compatibility. Each word of the language can not be combined with any other word, even if the meanings of these words are compatible: “brown eyes” - “les yeux marron”, not “les yeux bruns”, but “les cheveux bruns” and not “les cheveux” marron "; “Un bel arbre”, not “un joli arbre”.
- 4) the presence or absence of generalizing generic concepts (hyperonyms). For example, in French, along with the words “un grand-père / une grand-mère” there is a common name for grandparents “les grands-parents”, in Russian there is no such generic name.
- 5) the presence of lacunae - lexical spaces, when for a word of one language there is no correspondence in another language. In this case, the lacunae are transmitted by descriptive expressions: un aoûtien / un juilletiste (vacationer taking a vacation in August / July).

When working on vocabulary, it's necessary to take into account the grammatical features of words that do not overlap with the phenomena of the English and Russian languages:

- 1) the number of nouns of the Russian and French languages: “watches - une montre, trousers - un pantalon, scales - une balance”;
- 2) the omission of the verb "to be" in Russian: My family is big - Ma famille est grande; In English and in French the use of link-verb is required;
- 3) the use of adjectives in front of a noun in Russian and English: - Это голубая рубашка - It is a blue shirt; But C'est une chemise bleue;
- 4) the irregularities of verb combination: Она помогает своей маме- Elle aide sa mère instead of Elle aide à sa mère. Зрители аплодируют артисту - Les spectateurs applaudissent cet acteur instead of Les spectateurs applaudissent à cet acteur.

Any language is a means of communication between people, in which vocabulary is its "building material", and grammar is a mechanism that allows construct a sentence and convey the meaning of words. The vocabulary of any language is the most changeable and rapidly developing part of it. Retention of a foreign language is, first of all, learning the meaning of a word for its correct use in speech. The formation of the lexical skill involves a clear definition of the meaning of the lexical unit, acquirement of the rules for its correlation with other lexical units in the thematic group, with synonyms and antonyms, choice and use of a lexical unit in a speech statement.

In order to cope with lexical difficulties, it is necessary to use new lexical units in various phrases and associative relations, as well as to determine their semantic capabilities using exercises that reinforce the semantics of new words and phrases. All components of the lexical skill should be taken into account both when introducing lexical units, and when forming this skill in the process of working with the dictionary, with text, lexical exercises, and using vocabulary in foreign language.

#### **4. CONCLUSION**

In the course of teaching a second foreign language, it is methodologically advisable to regularly use the method of comparison associated with understanding the differences and similarities that exist between English and French. Thanks to this technique, students will be able to see what is common and special that is characteristic of each language, to realize their structural differences. This approach involves encouraging students to compare and contrast languages, identify similarities and differences between them. The consistent use of transference can greatly facilitate the mastery of the French language as a second foreign language, since the larger the vocabulary of students in English, the more support they can get when learning French. There are great opportunities for the positive transfer and intensification of the process of teaching French on the basis of English. The comparative approach, while remaining one of the priority in the system of teaching French as a second foreign language, plays a different significance role throughout the entire course of study. With the development and improvement of the quality of skills in English, there is a gradual decrease in the influence of languages on each other. Over time, students begin to realize the internal laws of building a French language system,

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## **AN EMPLOYER BRANDING STRATEGY: DEVELOPING A TALENT ATTRACTION MODEL THROUGH ACTION RESEARCH**

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### **ABSTRACT**

*Organizational difficulties in attracting talent should alert to the need of employer brands to present characteristics differentiating them from competitors. Employer branding is a fusion area between human resources and marketing, which aims to build an organization's reputation as a great place to work. The future of organizations depends on the quality of the workforce they can attract (Chhabra & Sharma, 2014) and people, as brands, are the most important assets in a company (Backhaus & Tikoo, 2004). This research aimed to conceive and test a talent attraction model of graduated engineers for a large business group with decades of experience in industry and automotive sectors, in Portugal. Action research was performed in two cycles, consisting in focus group, intervention (detailed organizational presentation) and a final survey with 6 questions about organizational attractiveness of the organization in study. The Employer Attractiveness Scale by Berthon, Ewing and Hah (2005) was used as a guiding paradigm. Twenty recent graduates and finalists participated, with an average age of 23, male, from Mechanical, Automotive Mechanical and Industrial Management Engineering degrees of two Oporto Schools (Portugal). Data was collected personally, by researchers on campus. NVivo Content analysis and descriptive statistics were used, and intervention improvements were introduced before the second cycle. Results showed that: (i) The most valued dimensions by participants were development and economic; (ii) Before the intervention, students didn't know the organization well, neither in terms of business areas or size; (iii) Post-intervention, participant's opinion about the organization improved, with an average of 6.4 (1-7 likert scale); (iv) After the intervention 90% would consider the organization as their employer. Based on the two cycles and organizational information, a model for engineer attraction was proposed, however, it's overall principles might be adapted and applied to other areas of talent and different organizations facing similar challenges.*

**Keywords:** *Employer Branding, Talent attraction, Enginnering, Action Research*

### **1. INTRODUCTION**

Organizations are considering new ways to build their brands, endowing them with attributes that classify them as employers and that differentiate them from competitors. Corporate investment in Employer Branding (EB) is a recent and relevant trend for organizations, since



one of the biggest corporate challenges is the search and struggle for qualified talent (Chhabra & Sharma, 2014; Wilden, Gudergan, & Lings, 2010). To attract talent, organizations must become attractive to potential employees, by clearly defining their attributes, in comparison to their competitors, creating an Employee Value Proposition (EVP) - which encompasses everything they offer as employers, from the global level compensation, to the work environment. A new big challenge is the generational hodgepodge and the fact that they have to attract an increasing number of millennials, with job expectations quite different from other generations (Garibaldi, 2014). Following new approaches of merging Human Resources (HR) and Internal Marketing (IM) approaches (Araújo, Fernandes, Martins & Mendes, In Press; Rafiq & Ahmed, 2000) organizations will work with focus on capturing and developing strategic competencies for the satisfaction of the internal customer (customer centric strategy). Attracting talent strategic vision aims to increase EB attractiveness through people management oriented to the needs of customers (Sousa, Arriscado & Noutel, 2019). In this paper, we present a research that aimed to reinforce the EB of a Portuguese group, which has been feeling the constraints of recruiting and positioning as an employer and has had to review their people management guidelines and HR politic and practices. Action Research was used to investigate engineering students' perceptions about the group's employer brand, to increase positive opinions of potential workers (intervention) about the brand and, finally, to create a model for talent attraction for future HR and Internal marketing practices. The research presented in this paper was first presented to a Master Thesis research (Noutel, 2019).

## **2. INTERNAL MARKETING, BRANDING AND EMPLOYER BRANDING**

### **2.1. Internal Marketing (IM)**

IM is a recent and polysemic concept (Rafiq & Ahmed, 2000) which may justify the fact that organizations are only now becoming aware of its importance and potential applications (Rundle-Thiede, 2015). IM's goal is to treat employees as a group of customers (Kotler, 2000), the internal client. In this way, it is possible to have a workforce committed to the values and objectives established by the company (Backhaus & Tikoo, 2004). It is a strategic process to create brand ambassadors within the organization, who represent it as the best place to work in the external market (Asha & Jyothi, 2013). It is necessary for decision makers to understand the role that internal clients can play in external clients (customers) satisfaction, through their commitment and involvement with the organizational cause (Kelemen & Papasolomou-Doukakis, 2004). Two perspectives have dominated Internal Marketing's thinking (Rundle-Thiede, 2015). Berry's (1981), who considers that employees should be treated as internal customers because they have, like external customers, desires and motivations that must be realized, and Grönroos' (1983), who believes that the orientation towards client must be achieved through influence, instead of satisfying and motivating employees, as suggested by Berry (1981). The dimensions most valued by Grönroos have an external orientation, while Berry's have an internal focus (Rundle-Thiede, 2015). It was with the definition created by Leonard Berry, in 1981, that the term gained popularity. He affirmed that IM is about viewing employees as internal customers and viewing jobs as internal products (Rafiq & Ahmed, 2002). The American Marketing Association (AMA) defines IM as Marketing for employees, which acts as a guarantee that they are effectively developing work that they enjoy doing. Organizations should consider IM in all their activities, from writing emails to disseminating corporate information (Kaplan, 2017). IM promotes the idea that no management function can't act alone and joint action should be taken between functions and departments, such as Marketing and HR, with the common point of view in satisfying the internal customer (Rafiq & Ahmed, 2003).

## **2.2. Branding**

Branding emerged as a management need in the 1990s, due to a growing perception that brands are one of the most valuable intangible assets that companies have (Keller & Lehmann, 2006). Even today, brand management is one of the biggest challenges for a company (Rodriguez, Lopez, & Lores, 2014). Keller (2013) points out that the first function of a brand is identification. However, he also clarifies that a brand is not a symbol or a logo, but something that, in addition to identify, adds other variations and creates awareness and promotion in the market (Keller, 2013). Kotler (1991) defined brand as a name, term, sign, symbol or design, or a combination of them, that identifies the goods or services of a seller or group of sellers and differentiate them from the competition. The American Marketing Association (2017) classify a brand as a name, term, design, symbol or any other resource that identifies the good or service of a seller. So, a brand is a sample of perceptions related to the attributes, benefits, functions and symbols of a brand, that exists in consumer's mind (Keller, 2013). The loyalty to a brand is a link that the customer has with it and that makes him less likely to think about changing one brand for another (Aaker, 1991). Consumption does not comprise brands only for their functional attributes, but also for their symbolic ones. For those who drive a brand, it matters to understand the meaning of the brand inside consumer's mind (Lievens & Highhouse, 2003). The approach of employment to the reality of brands results from the demanding challenges in attracting and retaining talent, which makes essential to develop a communication strategy for recruitment (Elving, Westhoff, Meeusen and Schoonderbeek, 2013) and an inherent EB strategy, applying the principles of branding to employment (Sousa, Arriscado, Ferreira and Quesado, 2016).

## **2.3. Employer Branding**

The concept of brand has evolved in terms of definition and scope, being initially confined to products and services and now extended to ideas, events, sites and employers (Kapoor, 2010). Jobs must now be managed in a similar way to a product, using marketing techniques to design job offers, so that the needs of potential employees and employers intersect (Wilden, Gudergan & Lings, 2010). All organizations must be aware that they have an employer brand, whether they work it actively or not (Minchington & Thorne, 2007). Currently, one of the biggest corporate challenges is the search and competition for the most qualified talent (Chhabra & Sharma, 2014; Wilden et al., 2010) and human capital, alongside brands, constitutes one of the most important assets of a company (Backhaus & Tikoo, 2004). Competitiveness in the labor market has made it imperative for organizations to create differentiation as employers, to stand out from the competition (Kapoor, 2010). It is from this need that the EB approach emerged in the 1990s by Ambler and Barrow (1996), who defined it as the package of functional, economic and psychological benefits, provided by employment and identified by companies. The original focus of the concept was to ensure clear and coherent thinking in defining a value proposition for employees, in the same way that it was done for consumer brands (Mosley, 2007). EB emerges as a new approach for organizations to differentiate themselves and gain competitive advantage (López, Tarodo & Lores, 2014) and its function is to provide a coherent management framework, to simplify and focus on priorities, increase productivity, improve recruitment, retention and commitment (Ambler & Barrow, 1996). The employer brand is the result of the application of several concepts of Marketing, especially Branding, and HR, to highlight a certain positioning of a company in its role as an employer. The intention of this Marketing process is similar to any other commercial brand: to attract new customers and keep the current ones. But attention should be paid not only to the issue of attraction, but also to retention, since it is more effective, cheaper and more efficient to keep the current ones, than to recruit new customers (Ambler & Barrow, 1996). The complexity of an EB building process is due to the fact that it is not an end in itself.

“Employer's brand is about continuous Marketing, which does not end with the signing of a contract” and, therefore, sporadic attempts to work an employer brand are futile and without results (Kapoor, 2010, p.54). This construction results from a complex process, based on multiple contributions, such as brand awareness, its positive and negative attitudes, loyalty, trust and the feeling that the brand is there for the employee, when he needs it. For all these reasons, the employer brand is the one with which an employee establishes a close relationship (Ambler & Barrow, 1996). As in all Marketing processes, building or installing perceptions about a brand is not an easy process. The employer's brand must therefore build a company identity as an employer, unique and identifiable, differentiated from competitors (Backhaus & Tikoo, 2004). For an organization be able to transform itself in a benchmark employer, that goes beyond successful recruitment and retention, it must be supported by committed employees with the organization's mission, vision and values (Kapoor, 2010). These kinds of feelings will bring employees' loyalty to an employer brand. This loyalty depends on the transfer of employees from an employment contract to a psychological contract (Chhabra & Sharma, 2014). This relationship that is built between the organization and the employee translates into several exchanges of mutual benefits. The employer brand provides the employee with useful personal and professional development activities - functional scope - monetary or material rewards - economic scope - and the feeling of belonging to a certain organization - psychological scope (Ambler & Barrow, 1996). Indeed, for Backhaus and Tikoo (2004) the elements that constitute an employer brand are: the functional and the symbolic benefits. Functional benefits are those elements of the job itself, which are desirable in objective terms, such as salary or flexible benefits. As for the symbolic ones, they are related to perceptions about the company, such as the prestige or the social approval that a candidate feels when entering a certain organization. In a recruitment context, potential candidates will be attracted to an organization based on beliefs about desired attributes and not just functional benefits, which are not enough to provide a first attraction to a particular company (Backhaus & Tikoo, 2004; Lievens & Highhouse, 2003). If the potential employee has insufficient and inconsistent information or wrong beliefs about the potential employer, he can perceive high risks regarding the integration in the organization and, consequently, remove it from the range of employer options and choose another one, of which he has more and better information and therefore perceive less risk. Thus, the sharing of clear and consistent communication signals must be included in the employers' investments, so that they can guarantee a place at the top of the thoughts of potential employees (Wilden et al., 2010). In this process, employees have a decisive role in the successful construction of the employer brand, and their behavior may reinforce the brand values or, on the other hand, make the job messages conveyed fragile (Berthon et al., 2005).

### 3. METHODS

A Case Study of a Portuguese industrial group was implemented (Yin, 2013) and Action Research (AR) was the elected methodology. This AR aims to develop a talent attraction model, specifically conceived and tested for a company within the field of Engineering. AR is a designation first time used by Kurt Lewin, in 1946 (Saunders, Lewis & Thurnhill, 2009) and it's a methodology that allows studying the resolution of a practical organizational problem and possible to investigate, involving those living situation (participative perspective), through a cyclical sequence of events, that intend to reach a solution for given problem, resulting in both learning and contributions to scientific knowledge (Coughlan & Coughlan, 2002). Specifics goals are: (a) Identify most valued employer attractiveness scale (EmpAt) (Berthon et al., 2005) dimensions by the participants; (b) Determine students' perceptions of the organization as an employer; (c) Measure the impact of the action taken in the action-research cycles.

### 3.1. Participants

Participants were students, finalists or recent graduates, in the field of Engineering (a core area for the organization), from two colleges in Porto. Twenty male students participated, mainly finalists or recent graduates of the Mechanics and Industrial Management courses (Table 1).

*Table 1: Characterization of participants*

AR cycle	Number of participants (n)		Degree/ Course	Situation (in relation to the course)	Age (Mean)	Min. Age	Max. Age	Gender
First cycle	10	5	Mechanical Engineering	2nd year	21.8	19	22	Male
		2	Automotive Mechanical Engineering	Recent graduates				
		3		Finalists				
Second cycle	10	2	Industrial Management Engineering	Recent graduates	24.4	21	26	
		8	Mechanical Engineering	Finalists				
TOTAL	20		-	-	23.1	-	-	

### 3.2. Data Collection

All our AR approach was based on the Employer Attractiveness Scale (EmpAT) dimensions and items (Berthon et al., 2015), which assesses employer attractiveness through 5 dimensions and 25 items: (a) interest dimension, related to the innovation practices and products quality and services; (b) social dimension, about the work environment and the relationship with colleagues and supervisors; (c) economic dimension, related with the salary, compensation plan and opportunities within the organization; (d) development dimension, includes feelings such as self-confidence and happiness derived from working for a specific organization; (e) application dimension, related with social responsibility and customer-orientation.

#### 3.2.1. Focus Group

Two focus groups were held, both with 10 students, from various courses and years of schooling, as shown in Table 1. The guidelines were built in two parts: first part with two introductory questions (What are the main factors that motivate you in choosing an employer? and My ideal employer...) and the second part, based on the dimensions of the EmpAT scale and with suggestive images of each one, to spark the discussion.

#### 3.2.2. Questionnaire survey

The survey consisted in 6 questions, divided in 2 groups. The first group had two questions about the participants' knowledge of the organization before the session, and a last third one about their opinion after the session, through a scale of 1 to 7, in which 1 means nothing interesting and 7 means totally interesting: (a) Did you know the organization before participating in this session?; (b) Were you aware of its dimension?; (c) To what extent, now, after the session, would you like to have an organization as your employer?. The second group intended to evaluate the potential of the organization as an employer, through the evaluation of each dimension, also on the same scale of 1 to 7. The objective was to obtain the average evaluation of each dimension. The questions were: (a) Now, thinking about the organization as your potential employer, give us your opinion about how you feel about each of the dimensions; (b) Which dimension is most attractive to you?. The last question was: (a) How did your opinion of the organization as an employer change for better after the session?. Sociodemographic data, age, professional experience and situation regarding the course (recent graduate, finalist or other), were requested.

### 3.3. Procedure

This research was developed within a Master thesis (Noutel, 2019) and was carried out with the supervision of the company and the thesis supervisor from IPAM (Portuguese Institute of Administration and Marketing).

The universities selection and the field of study - Engineering - was made considering the company's difficulties in talent attraction. This was possible thanks to the help of academic services and student associations, which also helped in choosing dates according to school hours, so as not to disturb and achieve the greatest possible adhesion. The first cycle of investigation took place on May 22, 2019 and the second on June 4, 2019. Both had an approximate duration of 1 hour and 15 minutes. Both sessions started with the focus group, led by the researcher, followed by the presentation of the company (corresponding to the action of the research-action cycle), made by an element of the organization's Human Resources, which consisted of the presentation of the organization, of its various business areas and respective companies. Lastly, the questionnaire was applied. There were difficulties contacting with colleges. In the first cycle, contact was made through academic services, which helped communicating with the students and provided the material for the session (room and projector). In the second cycle, although the contact was initially with academic services, we ended up organizing the sessions through the students' association, with whom contact was easier, and who provided all the material for the session (room and projector) and helped communicate with students. Overall, students were cooperative: Focus-group and company's presentation lasted 30 minutes each and the survey took about 5 minutes.

### **3.4. Trustworthiness: Validity Techniques in Qualitative research**

Since direct contact between the researcher and the studied situation is implicit (Ceballos, 1998) and qualitative techniques were used, reflections on trustworthiness must be made following recommendations by Whitmore, Chase and Mandle (2001), and so, several trustworthiness measures were applied: (a) research design according to objectives; (b) choice of a non-probabilistic sample for convenience, validated by the organization; (c) triangulation with colleagues (four master students) and thesis supervisor, on all decisions throughout the research; (d) pre-test of material: this pre-test was also implemented in a supervised session with four marketing management master students which attended the simulated presentation, and then debated difficulties in understanding the content, design, power point exactness and logic; (e) temporal and space triangulation, since data collection was in different places, universities and time-frame; (f) full transcript of focus group sessions; (g) use of NVivo software to help in qualitative analysis; (h) use of quotes from participants to support evidence taken from the investigation process.

### **3.5. Data Analysis**

CAQDAS (Computer Assisted Qualitative Data Analysis) was used, through NVIVO software to analyze the data obtained in the focus group sessions. Descriptive analysis of the data collected in the questionnaire survey was performed using Excel.

## **4. RESULTS**

### **4.1. First Action-Research cycle**

The responses of the participants were analyzed considering the dimensions of the Empat scale. The most mentioned words in this cycle were (a) career (n=10); (b) dimension (n=8) and (c) training (n=6). They correspond to the development dimension (n=36), considered the most important in this cycle. These words were analyzed separately to understand the context. The word career was associated with the desire to have a better understanding of career possibilities, plans and functions in the organization. Training was associated with the desire for constant learning, provided by an employer with training and skills development programs. The second dimension considered most important was the economic dimension, with a frequency of 12. They say it is a decisive dimension in choosing an employer and the importance of flexible benefits was unanimous.

As for the other dimensions, the participants considered the social dimension to be important, namely the relationship with the boss, but, in general, they do not consider it fundamental to the choice of an employer. The application dimension was also not considered essential, although they do not neglect the importance of Social Responsibility initiatives. The interest dimension was considered very relevant, especially regarding the innovation of products and services. Ninety percent revealed to know the organization before the session, but only twenty percent had idea of its size. After the session, the majority (8) of students would like to have the organization as an employer, having selected options 6 or 7, on a scale of 1 to 7. Regarding the opinion about the organization and if it changed for better after the session, the average was 4.8, on a scale of 1 to 7. Considering the same scale, the best rated dimension was the economic one (6.2), followed by development (6.1), interest and application (5.9) and, finally, social (5.4).

#### **4.2. Improvements introduced**

After researchers triangulation, improvements were introduced for the second cycle: (a) reduction of the organization's indicators, such as number of employees, sold units, etc.; (b) introduction of a new section about industrial components and innovation processes and developments; (c) more information about the trainees' program; (d) video testimonials by former trainees that stayed in the company after internships and others with consolidated careers in the organization. All improvements are supported by the first cycle participants: (a) disclosure of innovation processes; (b) I would like to know more about the functions performed in each company, mainly in the industry; (c) be close to the colleges, planning visits to the facilities, proposals for summer internships and themes for Master's theses; (d) greater relationship with young graduates, through the internship program; (e) greater clarification regarding the functions or positions that a future Automotive Mechanic Engineer can perform in the Group and career prospects.

#### **4.3. Second Action-Research cycle**

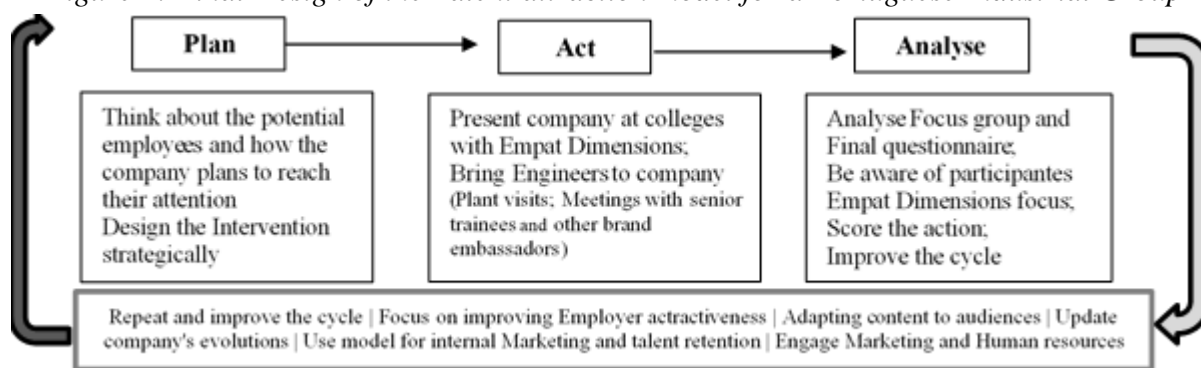
The most mentioned words in this focus group were remuneration (n=10), dimension (n=6) and environment (n=5). These references correspond, respectively, to the economic dimension (19 references) that was considered the most important in this cycle, development dimension (19 references) and social dimension (14 references). Remuneration was considered very relevant because it is the visible part of an organization and, therefore, relevant in the choice, due to the little knowledge that one has of other aspects before arriving at a company. They highlighted the compensation plan as crucial for attracting and retaining candidates. The dimension of an employer was mentioned because it is considered a good attribute for choosing a large and recognized company, instead of a smaller one. The work environment was considered important, particularly in the relationship with the boss and the autonomy that may result from it. About the application dimension, aspects such as Social Responsibility were not considered essential, since, according to the participants, these aspects do not affect the work and they would consider working in a place without this type of practices. As for the interest dimension, they consider innovation very important, since they intend in their work to develop solutions to practical problems. Ninety percent of participants said they already knew the organization before this session and 20% were aware of its size. After the session, most students would like to have the organization as an employer, having selected options 6 or 7 on a scale of 1 to 7. Regarding the opinion about the organization and if it changed for the better after the session, the average was 6.4. The evaluation of the organization by dimensions had the economic dimension as best classified (6.5), followed by the development (6), interest (5.7), application (5) and, finally, the social dimension (4.5). The organization's overall rating went from 4.8 to 6.4.

We can therefore consider that the changes – which consisted in more information about the industrial component of the organization - had a positive impact on the action, having increased the employability attractiveness of this Portuguese group.

#### 4.4. Talent attraction model

This research main objective was the creation of a model (Figure 1) for the organization to become more attractive as an employer.

*Figure 1: Final Design of the Talent attraction model for a Portuguese Industrial Group*



This model was effective and improved participants opinion and therefore, positively impacted the organization's employer brand. At the end of the cycles, most participants would like to have the company as their employer (Noutel, 2019).

#### 5. CONCLUSIONS AND DISCUSSION

After this investigation process, we can conclude that the model works: (a) students were surprised and impressed by the size of the organization and the variety of businesses; (b) they improved their opinion about the organization as an employer; (c) most of them would not mind having the organization as an employer; (d) the intervention by researchers changed the participants opinion about the company for the best. In addition to this, we also became more aware of the dimensions that they value most and the aspects that we should improve. In general, we can say that the amount of information they have about a company is directly proportional to the desire to work there, since the unknown does not attract potential candidates. Therefore, the integration of HR strategies and processes with communication and marketing plans is very important. This model can be implemented and improved in the future, in several areas of the organization. The process of building an Employer Brand must be articulated and consistent with the corporate brand and the product brands of an organization (Ambler & Barrow, 1996; Backhaus & Tikoo, 2004). It is due to its relevance that it should not be left solely to marketers or HR managers. This integration must consider Marketing, Communication and Human Resources, whose actions will impact the organization's branding objectives (Ambler & Barrow, 1996; Kapoor, 2010; Wilden et al., 2010). In fact, during the two Action-Research cycles we could hear student's voices asking a better disclosure of the trainees programme because most of them affirmed that only knew its existence in that day. They also agreed that job fairs model is outdated because does not allow students to talk properly with company's staff as much as they want to, in order to know better about specific functions of other Engineers in the company. In fact, this construction can only be successful when organizations understand all the factors that contribute to the attractiveness of the employer, namely those to which this investigation led us. Disclosure of career plans, knowledge of the company through social media and another events beyond job fairs that could put them in contact with employees are the major suggestions made by the participants.

Even though this study was conducted based on a specific organization, with a specific geographical location and using a specific area of talents' attraction and retention, it should be able to draw attention to the need for organizations to make their more robust employer brands, bringing marketing and communication knowledge and techniques to the HR area. The organization can test this model in the future with other engineering students or even in other areas where they feel the constraints about talent attraction. The organization can also try a better content analysis, to understand students' opinions and their suggestions. The action of researchers in social sciences must be in the sense of giving more and more prominence to EB, validating it as a useful premise in HR management (Backhaus & Tikoo, 2004). Further investigations should be conducted to help organizations successfully implement their EB, based on valid criteria, with appropriate tools and techniques. Actually, the possibility that, in the future, competition for the best employees will be as significant as the competition for customers should reflect for this theme's urgency (Berthon et al., 2005).

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## **PEDAGOGICAL SUPERVISION AND CHANGE: DYNAMICS OF COLLABORATION AND TEACHER DEVELOPMENT**

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### **ABSTRACT**

*The present study aims to analyze how pedagogical supervision can contribute to the change and innovation of the dynamics of collaboration and professional development of teachers in an educational community. After a decade of innovation and change in Portuguese schools, with the implementation of new collaborative supervision practices, it was interesting to carry out an analysis of the respective potentialities and constraints, with regard to teacher professional development, focusing on collaborative work between peers. In the research, carried out in schools in the district of Porto, mixed methodological, qualitative and quantitative procedures were used. As a qualitative strategy, interviews with supervisors were conducted and analyzed, and as a quantitative strategy, surveys were applied and analyzed by teachers, aiming at the triangulation of the information collected. The results prove the potential of supervision, regarding the change in collaborative supervision practices, in peer work, with effective construction of learning communities and improvement of school success. Both supervisors, as middle managers, and teachers positively highlight teamwork, especially in sectoral meetings and in the observation of classes between peers, valuing feedback, reflection, action research and the improvement of pedagogical intervention in the classroom. However, despite the recognition of the advantages of peer training supervision, the constraints of supervision still understood as evaluative are confirmed, showing the confusion between supervision and teacher performance evaluation. Indeed, some teachers continue to associate supervision with evaluative and bureaucratic procedures, which affects interpersonal relationships between supervisors and teachers, especially with regard to class observation. Overall, supervisory action, based on democratic management practices, collaborative and thoughtful work, is considered essential for the reinforcement of continuous teacher training and the evolution of the dynamics of schools, as educational communities.*

**Keywords:** *Supervision, pedagogical collaboration, educational community*

### **1. INTRODUCTION**

Today's society requires teachers to be able to respond to new educational realities. As such, teachers are required to respond effectively, based on continuous training, with a deepening of scientific and pedagogical skills, competences and knowledge, essential to the exercise of supervisory functions in schools.

In addition to classroom supervision, the functions of class management, department and disciplinary area coordination and teacher performance evaluation are highlighted. As mentioned by several authors, it is important that teachers are able to foster the quality of the teaching and learning process, in connection with their professional development, in the context of a reflexive and democratic school (Alarcão, 2009; 2003; Martins et al., 2015). In this way, the school is viewed as a community, in which students and teachers interact and collaborate, building paths of knowledge and sharing (Alarcão and Canha, 2013; Alarcão and Roldão, 2010; Sá-Chaves, 2011). Teacher development should be based on a collaborative environment, enabling the teacher to improve practices, from a contextualized process of reflection and experimentation. In recent years, new educational policies and the reorganization of schools into clusters have led to significant changes in school life, which have highlighted the importance of supervision and peer work. Recently, the enactment of Decree-Law No. 55/ 2018 established the curricular and pedagogical foundations of the Autonomy and Curricular Flexibility Project, to be built in learning communities, reinforcing collaborative work in schools (Senge et al., 2000). In this way, supervision refers to the creation of environments that promote the construction and development of professional autonomy, in a reflexive environment, favorable to the growth of the teacher, supervisor and student (Alarcão and Roldão, 2010; Cosme, 2018; Glickman et al., 2017). In this understanding, it is imperative to carry out a more in-depth analysis of the new contexts of action, with regard to the dynamics of supervision, collaboration and teacher development in the educational community.

## **2. CONCEPT(S) OF SUPERVISION**

The concept of supervision has evolved over time, in relation to the purposes of educational intervention. In Portugal, supervision emerged in the 1980s, associated to teachers' initial training. Gradually, following international trends, supervision has taken on new meanings, including continuous teacher training. According to different supervisory scenarios, the joint work of class observation, with supervisor and teacher working together, generally presents cycles of observation – action – reflection that are specific to action-research (Zepeda, 2017). Thus, pedagogical supervision can be defined as the theory and practice of teaching and learning regulation in an educational context, with pedagogy as its object, and aimed at improving educational action and the skills of the teacher in training. Supervision can then be characterized as an articulation between reflective practice and pedagogy for autonomy; reflective analysis of theories and practices in the community; planning, implementing and evaluating teaching and learning projects; creation of conditions and spaces for collaboration between peers; supervision and collaborative evaluation of the processes and results of professional development and continuous training (Alarcão and Tavares, 2010; Pawlas and Oliva, 2008; Vieira, 2009; Vieira and Moreira, 2011). Currently, the concept of supervision is broader, encompassing two interconnected levels in institutional supervision, focusing on the mediation of the teacher's professional development, as well as on the organizational development of the school (Glickman et al., 2017). So, supervision includes not only the classroom context, but also a reflective school, as a learning community. In this understanding, the school is redefined, in the tradition of Schön (1983) and Zeichner (1981), as a reflective organization in its mission and structure, in the course of a simultaneously evaluative and formative process of pedagogical and institutional regulation (Alarcão, 2003; Nolan and Hoover, 2011). Thus, the concept of supervision places the improvement of pedagogical practice within an educational community, in a democratic perspective based on collaboration between peers, in the context of a school capable of integrating and applying, individually and collectively, strategies for reflection, autonomy, mediation and leadership. The purpose of supervision lies then in the better quality of teaching and learning, linking the development of students, teachers, supervisors, and the school itself.

### **3. SUPERVISION, COLLABORATION AND TEACHER DEVELOPMENT**

Supervision can be characterized as a reflective, collaborative and contextualized practice, which provides the teacher with a didactic and pedagogical improvement, involving values, attitudes, knowledge and skills, in initial or continuous training. This development of human qualities and professional skills is essential to the performance of teaching functions and must be carried out collaboratively (Alarcão and Canha, 2013; Pawlas and Oliva, 2008). The particularities of supervision, regarding the dynamics of collaboration between teachers, are anchored in the specificities of each school's culture. Moreover, the professional teaching culture, constituted by the set of beliefs, values and habits of each teacher and the way teachers relate to each other and to their work, decisively influences the development of teachers and schools (Fullan and Hargreaves, 2001). Therefore, it is necessary to consider the challenges posed to supervision, regarding the dynamics of collaboration and teacher development, starting with the construction of professional learning cultures, and the support of “critical friends” or “helpful friends” (Nolan and Hoover, 2011). One of the challenges concerns the process of evaluating teacher performance in Portugal. Many teachers still confuse teacher evaluation - a professional judgment and assessment concerning teachers' performance and competence, in which the roles of the evaluator and the evaluatee can never be merged or blended - with teacher supervision – in which partners work together, in a collegial relationship, and roles can be blended and exchanged, in order to improve professional skills and to maximize student learning. The problem lies mainly in the observation of classes, common to supervision and teacher evaluation. Classroom observation is understood as an intrusion, inspection and control, something which undermines the implementation of collaborative supervision, grounded in democratic principles of autonomy and freedom (Silva and Dana, 2001; Roldão, 2007; 2006). This problem persists in schools, which means that an effective supervisor must understand the processes of teacher supervision and evaluation separately, as well as understand how the two are related in a high-quality teacher supervision and evaluation system (Nolan and Hoover, 2011). A more recent challenge has emerged with curricular flexibility, due to the promulgation of Decree-Law No. 55/2018, which established the curricular and pedagogical foundations of the Curricular Autonomy and Flexibility Project; it focuses on action strategies that favor the construction of the Domains of Curricular Autonomy and Project Pedagogy, based on teacher cooperation and active methodologies. With students, parents or guardians, teachers, supervisors, coordinators, and directors as interveners, it links the appropriation of curricular heritage to the deepening of training for citizenship, based on education for values (Cosme, 2018; Zepeda, 2017). By involving students and teachers in interdisciplinary projects, classroom doors are opened to supervision and collaboration between teachers from the same or different disciplines, something which is sometimes understood as an invasion of the teacher's individual work (Glickman et al., 2017). Another challenge lies in the fact that some of the interactions between teachers, considered collaborative, are insignificant and isolated, given the frequency, interactions, occurrence of conflicts, and influence and manipulation of some elements within the group (Pawlas and Oliva, 2008). Thus, when aiming towards the implementation of a collaborative culture, it is necessary to develop a whole path of dialogue, reflection and work between peers, of leadership and management, without which changing traditional dynamics of individual work, or overcoming partial collaboration, is impossible. In this type of collaboration, which Hargreaves (2004) calls “comfortable collaboration”, teachers choose to perform collaborative tasks that they consider more comfortable in some way, as well as less likely to generate situations of tension or conflict, such as sharing materials and exchanging ideas and advice. These collaborative practices have a practical character and are undertaken for short periods of time. In this way, as characteristics of supervision anchored in a collaborative school culture, the following stand out: availability of teachers to support themselves in the pedagogical work within the classroom; collaboration in the planning,

implementation and evaluation of class and school activities and projects; systematic sharing of opinions, work and practices; team teaching in the classroom; observation of classes between peers; dialogue, reflection, constructive criticism and collaboration between supervisor and teacher; regularity of action-research; shared responsibility for professional work; visibility of a collaborative culture in the school's structural documents; strengthening the school as a learning educational community; democratic and participative leadership in a reflective school (Fullan and Hargreaves, 2001; Alarcão and Canha, 2013). In Hargreaves' theory (2004), the existence of learning communities implies what the author calls an “adult profession”, in which teachers act collaboratively as demanding professionals, so that critical positioning is encouraged, and conflict is seen as a learning enhancer. The school must be able to guide its action towards a specific purpose(s), defined collectively in its structuring documents, and to develop the capacity to establish itself as a community, with a culture of professional learning. The construction of a learning and democratic educational community will only be possible in a school that is also a dynamic and reflective organization (Martins et al., 2015; Silva and Dana, 2001; Zepeda, 2017), in which its members share common goals and the same vision.

#### **4. METHODOLOGY**

Pedagogical supervision, based on collaborative work in schools, is currently one of the priority themes of educational policies, as explained in the literature review. Thus, this study aims to analyze how pedagogical supervision can contribute to change and innovation in the dynamics of collaboration and professional development in the educational community. In the research, of mixed nature, qualitative and quantitative, the opinions of 130 teachers and 9 supervisors from six schools in the district of Porto were collected and analyzed, regarding the advantages and constraints of exercising collaborative supervision in schools, within the framework of public policies in force. In a single study, we linked sequentially quantitative and qualitative methods and data, using both numbers and words, inductive and deductive thinking, for a better understanding of teachers and supervisors' viewpoints. In fact, “mixed methods research provides strengths that offset the weaknesses of both quantitative and qualitative research” since it can offer “more evidence for studying a research problem than either quantitative or qualitative research alone” (Creswell and Clark, 2011, p. 12). So, for the purposes of understanding and corroboration, using mixed methods research can deepen a way of looking at reality. Initially, the quantitative strategy of the study was implemented through a questionnaire survey applied to 130 teachers from six schools in the district of Porto. This instrument was selected due to the breadth of the sample, also presenting the advantages of objectivity of quantification, with statistical treatment of results (Punch, 2011). In this article, and given the length of the survey, only a few closed and open questions were considered to triangulate the opinions of teachers and supervisors. In a second step, the qualitative strategy of the study covered the analysis of data from a semi-structured interview survey (Flick, 2009) applied to eight supervisors in order to analyze perceptions and enable a more comprehensive view of supervision and collaborative work in the community. This tool facilitates the subject's expression, in terms of representations, values and social processes, “so meaning can be learned and significance shared. In this way (...) interviews offer a path to discovery and greater understanding” (Mears, 2012, p. 171). The analysis fits into the interpretative paradigm, with thematic codification of the content of the supervisors' discourse, involving researchers in the meanings of categorical analysis (Flick, 2009; Yin, 2011). After transcribing the interviews, data were imported into the qualitative analysis software NVivo version 12 Pro, where after defining the codebook was carried our coding and analysis.

## 5. PRESENTATION AND ANALYSIS OF RESULTS

### 5.1. Results of the quantitative analysis

The presentation and analysis of the results of the questionnaire survey begins with the characterization of the subgroup of teachers, with 130 teachers. Most teachers are female (79%), teach different subject areas and have 20 or more years of service. In terms of academic qualifications, a degree (70.8%) prevails, followed by a master's degree and a doctorate. The majority (82.3%) do not hold positions of supervisor or pedagogical coordinator. Then, in the closed questions with propositions, the teachers expressed their degree of agreement, using the Likert scale with five points. On the question of "what profile the supervisor should have", 67.7% agrees that the supervisor should facilitate dialogue and sharing of experiences, 63.1% that he should have specific training to enable him to do so, and 59.2% that he should have a thorough scientific knowledge of the disciplines he supervises. Regarding the "dynamics of supervision and pedagogical collaboration in community", the majority of teachers (61.5%) highlight the annual, medium and short-term planning and, with 59.2%, the preparation of classes among teachers teaching the same subject and year. Only 39.2% indicate reflection on the effectiveness of strategies, activities and projects. It is worth mentioning that 30.8% of those surveyed indicated "I disagree" with regard to the teaching and observation of classes between peers, assistance or exchange of classes. This reveals the difficulty of many teachers in working collaboratively, as some authors point out, exposing a culture of partial collaboration, which still prevails in schools (Hargreaves, 2004; Nolan and Hoover, 2011; Roldão, 2007). In the next question, "What kind of collaborative culture do you think exists in your school?", although most teachers say they do not agree with the culture of individualism, 27.7% recognize this kind of culture in their school, as some teachers continue to work in isolation. As for the culture of collaboration, and with percentages between 33% and 33.8%, teachers mostly list examples of partial collaboration, visible in meetings and group work in each cycle, year and subject area. As a result of recent educational policies (Decree-Law No. 55/ 2018), which reinforce supervision and collaboration between peers, interdisciplinary project work is mentioned, involving autonomy and curricular flexibility, innovation and leadership, with increased roles for supervisors and pedagogical coordinators (Cosme, 2018). On the question of the "importance of collaborative supervision", teachers agree (48.4%) that it fosters reflection on practices and the improvement of teachers' performance, contributing to the implementation of effective and innovative practices. In addition, they indicate that it can provide for learning by doing, if there is a climate of constructive dialogue, humility and frankness, between supervisor and supervised. However, they recognize that collaborative supervision is difficult to achieve (41.5%). Interestingly, some (19.2%) point out that collaborative supervision is "a utopia, because the supervisor and supervised are in different hierarchical actions". This proves the confusion that still persists between supervision and evaluation of teaching performance, which limits the observation of classes and a culture of collaboration, as mentioned in studies mentioned above (Alarcão, 2009; Glickman et al., 2017; Pawlas and Oliva, 2008). Finally, on the open question of "the influence of supervision in building the school as a learning educational community", globally 72% of teachers (T) explicit the positive influence of collaborative supervision. Thus, and including some teachers' voices, T128 states that "supervision is fundamental to improving the educational process, provided that an assessment is made to improve educational practices". For T127, "it can be a strategy of excellence for student success, because if it really works, and not virtually, it contributes to a true culture of school and collaborative work". In opposition, some respondents are of the opinion that "supervision, in the current parameters, does not influence or have an impact on the educational community and its practices" (T33), affirming one of the teachers that "I am not aware that supervision has an influence on increasing the quality of teaching" (T99).

Thus, and despite some disagreement, a vision of the positive influence of supervision in the educational community prevails, as reiterated in the literature review.

## 5.2. Results of qualitative analysis and triangulation

The presentation and analysis of the results, relating to the interview survey, begins with the characterization of the supervisors. This is coincident with that of teachers in the predominance of the female gender, in the diversity of curricular groups and in 20 or more years of service, which is relevant for the significant teaching experience in both subgroups. The content of the open questions of the interviews was coded in 5 central categories, defined according to the concepts mobilized in the study, whose results are presented.

### 5.2.1. Profile of the pedagogical supervisor

According to the interviewees, the pedagogical supervisor should gather a set of personal characteristics, have acquired specific knowledge and skills and play a set of roles. Among the personal characteristics identified are: flexibility and empathy, sensitivity, availability for colleagues, motivation, belief in changing the educational system, experience and demand. With regard to knowledge and skills, academic training and continuing education were mentioned as a guarantee of up-to-date scientific and didactic knowledge and innovative techniques and strategies. In addition to theoretical and technical knowledge, a set of observation, dialogue, collaboration, reflexive capacity and critical spirit was developed. Regarding the roles to be played in supervision (Figure 1), the supervisor must be a facilitator, an employee of the supervised, a mentor, motivator for the adoption of innovative practices, a link, a promoter of critical reflection and a mediator of interpersonal relationships - according to one of the interviewees, one of the most difficult roles in supervision "especially when it comes to classroom observation". But he is also given the roles of intermediate manager (based on the regulations) and evaluator. Triangulating the two strands of the study, this profile is similar to that outlined by teachers, and coincides with the literature review, with both subgroups, supervisors and teachers, being more concerned with class observation.

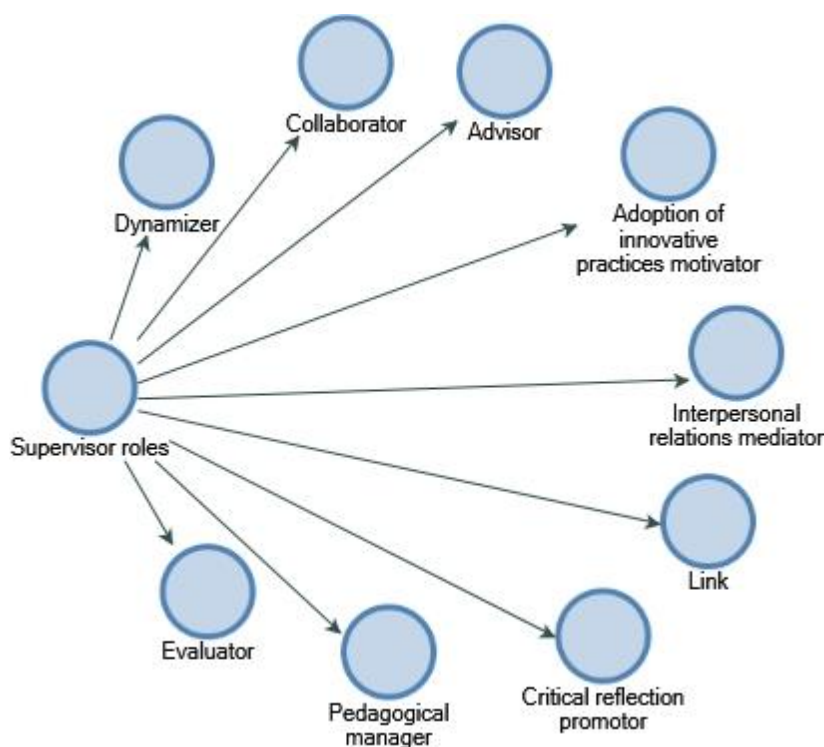


Figure 1: Map of the Supervisor's roles

### 5.2.2. *Development of supervision*

When asked about the evolution of supervision in the last 5 years, the opinions of supervisors were quite different. The range of opinions encompasses both the perennial denial of any evolution, the absence of formed opinion and a mitigated evolution due to the "progressive collage" of the concept with the evaluation of teaching performance, object of some resistance, despite the recognition of a certain evolution, sustained by more technical and scientific knowledge, but variable from school to school. The words of one of the interviewees somehow summarize the opinions: "it has been seen as something that has to be done" a "path to follow where humanism and rationality prevail". However, it is not yet considered a consolidated practice in most educational communities. Confronting the opinions of teachers and supervisors, some confusion is evident between supervision and evaluation of teaching performance, which makes supervision among peers difficult, as some authors have pointed out (Nolan and Hoover, 2011; Pawlas and Oliva, 2008).

### 5.2.3. *Collaborative Culture at School*

With one exception, all interviewees recognized the existence of a collaborative culture in their schools, evident in their willingness to plan and prepare activities together, to share assessment tools and ways of acting in certain situations, to plan and implement projects and to exchange opinions. The existence of forms of "comfortable collaboration" is confirmed (Hargreaves, 2001), also recognised by the teachers surveyed. In addition, a significant proportion of participants admitted that collaborative culture is not widespread, but is restricted to certain departments or groups of teachers, indirectly highlighting the dependence of collaborative culture on individual teachers' attitudes. Individual culture was also identified by some teachers, confirming a traditional view of teaching work (Glickman et al., 2017).

### 5.2.4. *Importance of Collaborative Supervision*

Although one interviewee claimed to be unaware of the concept of collaborative supervision and another omitted any evaluative judgment of its importance, he merely confirmed that it is a practice "*instituted in schools*" in general, and in theirs in particular, most interviewees, like teachers, recognised the importance of collaborative supervision in a generic way. Some of the interviewees were concerned to go further, specifying that the collaborative context is essential to the educational process, enriches and makes teaching more sustained, contributes to the affirmation of identity and promotes professional teaching growth. This last idea, as well as the one mentioned above, of the dependence of the collaborative culture on individual attitudes, is clearly evident in the following interview excerpt: "*an added value if the supervisor has the ability to adapt supervision to the style of the teacher being supervised and if he or she is a peer-recognised teacher whom they trust and feel comfortable asking questions. Collaborative supervision will be more successful if the supervisor is seen as a facilitator and collaborator in the professional development of the supervisor*" (S07).

Once again, and as analysed above regarding the profile of the pedagogical supervisor (see Figure 1), the importance of a set of scientific and didactic-pedagogical skills should be highlighted. In particular, supervisors and teachers value dialogue, reflection, collaboration and critical thinking skills, and view the supervisor as a "mediator of interpersonal relationships", due to the demands of the roles to be performed among peers (Nolan and Hoover, 2011; Vieira, 2009; Vieira and Moreira, 2011).

### 5.2.5. *Influence of supervision in the School as a learning educational community*

With regard to the influence of supervision in the school, as a learning educational community, the interviewees recognized that supervision is, among other things, the "main foundation of



school construction"; it promotes the improvement of scholastic and social results: "better and greater concretization of the principles and values of the PE", "improvement of the quality of the students' learning", "fundamental for obtaining results"; it regulates and accompanies the educational and formative activity of the teachers: "reflection and self-regulation of one's own work"; "critical stance toward educational postures" and, finally, promotes reflective practices, which, in the words of two of those interviewed, favor the "assumption of the school as a community capable of generating learning", "more human and democratic". Triangulating the opinions of supervisors and teachers, a positive opinion predominates about the influence of supervision on school construction as a learning educational community. As Senge et al. (2000) state, it is necessary to transform each school into a learning community, in which teachers can learn together, valuing the knowledge and experiences of all, in order to build a collaborative and democratic culture.

## 6. CONCLUSION

The study concludes that new dynamics of peer supervision, based on collaborative practices, reflection, curricular flexibility, autonomy and innovation are changing teachers and schools. Indeed, after crossing quantitative and qualitative data collection and analysis, similar opinions of teachers and supervisors are confirmed, regarding the profile of the pedagogical supervisor, the importance of a collaborative culture and the influence of collaborative supervision in the construction of a reflexive and democratic school, as a learning educational community. Despite a mostly positive view of collaborative supervision, three factors contribute to the mistrust of some teachers, which is echoed in the difficulties faced by supervisors and pedagogical coordinators in the face of the new educational policy guidelines. Firstly, individual culture persists in the lonely work of some teachers, according to a traditional view of teaching. The result is the coexistence of a plurality of cultures in schools, from individual culture to partial or full collaborative culture. Secondly, teacher performance evaluation continues to overshadow pedagogical supervision, by the confusion between supervision and evaluation and between peer and hierarchical relationships. In addition, therefore, there is an urgent need for more continuous training for supervisors and positive reinforcement of interpersonal relations in the community. Thirdly, peer observation is still considered by some teachers as an intrusion into the classroom, conditioning curricular flexibility, reflection, constructive criticism, research-action and the sharing of good practice. Therefore, and in order to analyse the recent implementation of the new guidelines in schools regarding autonomy and flexibility, based on supervision and collaborative work, this study could be a starting point for a later evaluation study on the evolution of the dynamics of supervision and collaboration. In summary, we conclude that working collaboratively and sharing pedagogical action is currently emerging in new contexts of action, as one of the great challenges of being and teaching know-how. In this understanding, collaborative supervision has gradually enhanced the educational quality and professional development of teachers in the learning community.

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## THE POSITIVE PSYCHOLOGICAL BASIS, MEASUREMENT AND OUTCOMES OF COVEY'S 7HABITS

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### ABSTRACT

*The effectiveness of corporate personal development trainings (CPDT) is to be explained by means of work-related positive psychological constructs. Moreover, training specific measurements of attitudes and behaviors are to predict personal levels in these underlying or related psychological resources. In this article we take Covey's 7Habits training program as example and explain its effect in terms of the basic need satisfaction motivation model of Self-Determination Theory (SDT) composed of Autonomy, Competence and Relatedness. We set out to develop a psychometrically valid 7Habits measurement tool, which is further analyzed with mediation models and shows the theorized relationship to the Self-Determination Theory framework. We conducted a study to test the positive associations between the proposed 7Habits construct and established positive psychology resources such as SDT, PsyCap and Thriving at Work. Results of multiple regressions show that the 7Habits construct is a significant predictor of both PsyCap and Thriving at Work even after controlling for basic need satisfaction. This paper contributes to the efforts to bridge the gap between academia and corporate best practices. Initial evidence is provided that the 7Habits training material is in line with the Self-Determination Theory of personal growth, and that the 7Habits is a measurable and coherent construct that predicts important work-related psychological resources.*

**Keywords:** *Construct Validation, Corporate Personal Development Programs, Covey's 7Habits, Psychological Capital, Self-Determination Theory, Thriving at Work*

### 1. INTRODUCTION

Positive psychology, first conceptualized and formulated by Abraham Maslow (1954), then institutionalized by Martin Seligman and Mihály Csikszentmihályi (2000) is the science of human psychological wellbeing, leading to "potentialities, virtues, achievable aspirations, or full psychological height" (Maslow, 1954, p. 354). Since then, there has been growing evidence that psychological wellbeing and flourishing have positive work-related outcomes such as increased performance and organizational loyalty (Luthans, Carolyn and Youssef, 2017). The discipline focusing on the intersection of organizational behavior and positive psychology was named positive organizational behavior (POB) by Luthans (2002a, 2002b). Thus, theories that link psychological resources (attitudes, behaviors) to positive work-related outcomes belong here. Among the several constructs available in the work-related positive psychology literature for the purposes of this study we invoke Self-Determination Theory (Deci and Ryan, 2000) as a fundamental theory linking psychological need satisfaction and performance through motivation. We will also refer to Psychological Capital (Luthans, 2004) as a multidimensional higher order psychological resource at work, and the Thriving at Work construct (Porath et al. 2012) measuring learning and vitality at work. At the same time, while such scientific theories were developed, the practitioners came up with applications loosely linked to theory. These practices became widely popular in the form of employee training programs or self-help books.

Covey's 7Habits framework (1989) of personal effectiveness is one among the most popular corporate trainings worldwide. In terms of content and purported outcomes the 7Habits belongs to POB insofar as it is a collection of ideas and practices about personal flourishing leading to increased levels of effectiveness that benefit to whole organization. Since the ideas and practices proposed by Covey have considerable face validity and are similar in many ways to the mentioned positive psychology constructs, we were curious how they relate to each other. Driven by this objective, (i) we made steps to link Covey's 7Habits framework to extant positive psychological theories (most notably, SDT), and (ii) we created a pool of items for the measurement of the 7Habits which were used in a subsequent study to develop a psychometrically valid measurement tool. Finally, (iii) we run a series of statistical analysis (regression, mediation and ANOVA) to show that the proposed 7Habits construct positively relates to the extant work-related constructs while, at the same time, it is also distinct from them.

## **2. HYPOTHESES DEVELOPMENT AND LITERATURE REVIEW**

### **2.1. The 7Habits' content and related literature**

Covey's 7Habits framework (1989) of personal effectiveness is primarily a book which presents the seven habits that one should master for long term personal and social effectiveness. However, from an organizational point of view, it is more significantly an employee training program applied internationally in corporate settings with great success. Covey's theory of the 7Habits is a story that starts with the dependent self (ineffective, controlled from outside and unhappy) discovering the power and the freedom to become independent (effective, internally controlled) and subsequently moving even further to a state of higher-level effective interdependence (a state characterized by win-win deals and synergy with other people). According to Covey, the 7Habits entail a paradigm shift (attitudinal change) for each habit which leads to long term effectiveness in all areas of life. We recapitulate in a condensed form Covey's 7Habits framework (Covey 1989). Habit 1 is "Be proactive". Individual attitudes towards life have an enormous effect on one's success and happiness. This simple realization is often sufficient to shift one's focus from grievances and helplessness to ownership. Habit 1 is about realizing that each of us is the programmer of their lives and thus we do not have to keep running the program that others wrote for us, but we can write our own. Habit 2 is "Begin with the end in mind". This is about planning short term and long term. Once we have realized that we are the programmers of our lives, we need to write the program that we want to live. Heavy emphasis is put by Covey on meaningful goals to plan for as opposed to simply useful or self-serving goals such as money or success. Human relationships and learning are proposed to be at the center of our planning. Habit 3 is "Put first things first". Once we have written the program, it is time to execute it by living each day based on those priorities we planned out for ourselves. These three first habits are collected under the category or dimension of Independence. Independence however is not the maximum of long-term effectiveness. Habit 4 is "Think win-win". This habit puts focus on human relationships and warns against both wanting to win at the expense of others (Win-Lose), and letting others win at the expense of us not winning (Lose-Win). Habit 5 is "Seek first to understand then to be understood". This habit is both about understanding others and influencing others. Covey recognizes that we can best influence people who first have sensed that they have influenced us. Habit 6 is "Synergy with others". This habit is about building on the strengths of others. Habit 7 is "Sharpen the saw". This habit is about regeneration and responsible resource management. Habits 4 to 7 are the habits of Interdependence which is the state – according to Covey – in which humans thrive (Covey, 1989). The organic anthropology of the 7Habits, that is the view that people are made for being independent and thrive in social Interdependence with others, and that everybody naturally has all the resources required, is very similar to some of the positive psychology

theories. While it is difficult to imagine a fully comprehensive and testable theory for the kind of practical content captured in the 7Habits, it may be possible to link the framework in general elements of it to existing tested theories. To date, no such attempt has been published, in fact, no definitive endorsement or rejection was found in the extant literature related to the content and outcome of the 7Habits. That peer reviewed articles that treat the 7Habits are not evaluative in this sense. Jackson (1999), for example, gives a rhetorical critique the 7Habits and the movement it established. Jackson's main concern is that the 7Habits comes with certain ideological roots and that the system built by Covey is quasi-religious. This arguably is more a critique of the 7Habits movement than the book or the training material. As for the content of the 7Habits, Jackson admits that the white magic of Covey consists in presenting obvious and known facts as revelations. In a backhanded way, this could be interpreted as an endorsement of the 7Habits framework because it acknowledges its validity. McCabe (2011) counters the fear of Jackson (1999) and others that have been vocal critiques of management gurus like Covey. The point of McCabe's is that guru ideas transform poorly into training and understanding among the trainees. This observation, while it may represent a practical problem for training settings, is of no consequence for the content validity or measurability of the 7Habits that is at the focus of this article. Some other publications (Starck, 1995; Millar, 2013) describe organization-wide 7Habits programs, but no measurement tool or construct development is attempted. The lack of attempts to link the 7Habits to existing psychological theories, given the training programs popularity, may be a gap and a missed opportunity in the literature. Approving or disproving of the content of expensive programs involving so many people in so many organizations based on psychological theories would be useful information for both organizations and practitioners. Given the complexity of the 7Habits the opportunity to ground it in psychological theory presents itself on the level of details (each habit separately) and on the level of the composite 7Habits. In this article we try to look holistically at Covey's framework and try to ground it in one suitably complex psychological theory of personal growth, namely Self-Determination Theory.

***Hypothesis 1:*** *Self-Determination Theory provides psychological explanation to why the 7Habits framework as described by Covey could be conducive to personal growth.*

## **2.2. The psychological basis of the 7Habits – perspective from Self-Determination Theory**

The 7Habits could be conceived of as a multidimensional construct that encompasses both personal and relational effectiveness. Because of the strongly articulated private and-public facets of the 7Habits, only theories that observe people in their complex individual and social reality could be considered. Psychological Capital (Luthans, 2007), for example, although itself a multidimensional construct and with similarities in many aspects, is lacking the social dimension that is required to account for the complexity in the 7Habits. In fact, most psychological constructs have a narrow focus on specific psychological qualities in order to increase precision. Any grand theory behind the 7Habits should be such that it explains the seven habits in unity and does not contradict or exclude any of them and should have a similarly positive and organic anthropology. Self-Determination Theory (SDT) is theorized to be a good fit to ground the 7Habits in psychological theory. According to SDT, as elaborated by Edward L. Deci and Richard M. Ryan (2000), motivation arises continuously in order to satisfy the three basic psychological needs: autonomy, competence and relatedness. These are necessary conditions for psychological growth, integrity, and well-being. When these needs are being satisfied higher level quality of human behavior occurs, which is conducive to better learning and work performance. In SDT Autonomy is the principal factor that accounts for most of the consequences and autonomy is the need that if it is satisfied it can to some extent substitute the satisfaction of the two other basic needs.

The satisfaction of the competence and relatedness basic psychological needs is necessary for self-determination to be a lasting experience of the individual. The three basic needs together explain better the behavior and motivation of people than any of them alone or in pairs. (Deci and Ryan, 2000). SDT distinguishes between different levels of motivation that are best understood as regulatory processes that are of consequence to the quality of the behavior and the resulting degrees of need satisfaction. Intrinsic and integrated regulation are conducive to the highest quality of behavior and need satisfaction, when a deliberately chosen activity is done out of sheer interest (for example: flow (Csikszentmihályi, 1990)) or is understood to be very important, proper, good or necessary and is willingly carried out. This is called internal motivation. The more externally regulated a behavior is the less need satisfaction comes of it. There are several possible links between the Habits and the basic psychological needs. It is theorized that the first three habits leading to Independence are linked to Autonomy and Competence among the basic needs while the habits of Interdependence are principally linked to Relatedness but also to Autonomy and Competence. It is further theorized that acting out the 7Habits results in need satisfaction and leads to higher quality behavior. If personal responsibility for one's decisions and actions is accepted as per Habit 1, more so if acted out, then Autonomy needs are being satisfied. Habit 2 is about planning, that is making decisions for the future, and about slicing up one's complex situation into roles, mission statements, hierarchies of values, short and long-term plans. This further increases the sense of Autonomy. Habit 1 and 2 can be strong catalysts of the intrinsic and integrated regulation leading to higher quality behavior in SDT. Habit 3 is about executing Habit 2 starting with what's most important not what's most urgent. With the sense of accomplishment resulting from this, Habit 3 ties the first three habits to Competence need satisfaction as well. Habits 4 to 6 tie into Relatedness. Although Relatedness need satisfaction can come from many things beyond what's implied in Habit 4 to 6, it seems evident that these habits of thinking win-win and seeking to understand others and building on the strengths of others are naturally leading to Relatedness need satisfaction. Given the sufficiently complete and overall strong association between the 7Habits and SDT, we can conclude that Covey chose a framework to organize his ideas that seems justified psychologically and as its outcomes increase personal well-being, effectiveness and other psychological resources can be expected. We thus, find theoretical support for Hypothesis 1. Further evidence-based support will be provided in the Results section (4.2.) about the relationship between the 7Habits components (Independence and Interdependence) and the Self-Determination Theory basic need satisfactions (Autonomy, Competence and Relatedness). Also, based on the face validity of the 7Habits as a complex yet unitary framework and its overall match to Self-Determination Theory, we hypothesize that it is possible to create a psychometrically valid 7Habits measurement tool that draws on all seven of the habits and mirrors the unitary framework suggested by Covey.

***Hypothesis 2:*** *A valid measurement tool can be developed from questionnaire items representing the 7Habits framework.*

### **2.3. 7Habits and increased psychological resources as outcomes**

The 7Habits, just like any other CPDT, is typically used by organizations to improve employee motivation, behaviors or attitudes. In the previous section detailed account was given why the application of the 7Habits could indeed lead to increased levels of basic need satisfaction, thus to more intrinsic and integrated motivation. Through similar mechanisms, we expect that the application of the 7Habits could lead to increases in Psychological Capital and Thriving at Work. PsyCap composed of four dimensions, namely: Hope, Efficacy, Resilience and Optimism, at face value is strongly related to the habits of Independence: 1. Be proactive, 2. Begin with the end in mind and 3. Put first things first (see the elaboration in section 2.2.)

Likewise Thriving at Work composed of Vitality and Learning at face value is related to Independence as in Covey's framework. The habits of Interdependence – although maybe in an indirect or mediated fashion – are also expected to relate to both PsyCap and Thriving. These psychological resources, PsyCap and Thriving as well as SDT are established predictors of important work-related variables such as performance and satisfaction with work. The positive effect of the 7Habits on work-related variables would be possible to explain through the expected relationship between the 7Habits and SDT, PsyCap and Thriving, which in turn then explain the work performance and satisfaction. The direct link between the 7Habits and these work-related variables was not possible to test in our study, so we rely on this indirect link to underline the work-related outcomes of the 7Habits. Therefore, we formally hypothesize that the 7Habits will be a significant predictor of PsyCap, Thriving and SDT.

***Hypothesis 3: The 7Habits will positively relate to basic need satisfaction at work (SDT, PsyCap and Thriving at Work.***

For the 7Habits construct to be useful on top of simply being meaningful we have to test its distinctness from SDT, which is the construct with which it shows the most similarity. It would not be of much use if we had simply reproduced the Self-determination framework albeit under a new name starting from Covey's framework. We theorize that our 7Habits construct will be significantly predicting PsyCap and Thriving (outcome variables) even after controlling for SDT.

***Hypothesis 4: The 7Habits will positively relate to PsyCap and Thriving at Work even when controlled for the effect of SDT basic need satisfaction.***

### 3. METHOD

Beyond the theoretical framework developed in previous chapters, where we set out to explain the 7Habits training material on the basis of positive psychology, or more specifically in terms of the Self-Determination Theory, and study was conducted in order to develop and validate the 7Habits as a psychometrically valid construct. This study was done in a Budapest based local office of a large Dutch-American tech company. The sample size (n=58) reflects the total population of the office. Beyond several established scales like Thriving at Work, SDT Basic Needs at work, and PsyCap, a newly developed 7Habits scale was also inserted in the self-report questionnaire. The surveys were conducted in English with the original language of the questionnaires. This was not deemed to be a blocker because English is the work language for all employees, since this office is a local pocket of a large international community. Statistical analysis such as regression models were executed with R basic package (R Core Team, 2017). Mediation models were created with the Psych package for R (Revelle, 2019). Confirmatory Factor Analysis was done with R statistics software Lavaan package (Rosseel, 2012). The study beyond serving scientific purposes was also used as an employee survey for the company measuring employee well-being.

#### 3.1. Sample

The Budapest office of the tech company comprises in total 58 people (31 male and 27 female employees). A total of 53 people were knowledge-workers in the fields of IT and business. HR, finance and assistance make up 5 people. Given the relatively small sample size, no distinction was made between areas of responsibility within the employee survey. Although the surveys were not obligatory, management recommended highly to participate, therefore 52 people (~90%) filled in the employee survey. The final sample size for the analysis was 52.



### 3.2. Measures

All questionnaires were used in the surveys with a 6 point Likert-like scale in order to minimize the bias deriving from the answer format. Scales went from 1 “Strongly disagree” to 6 “Strongly agree”. The order of the questions was randomized in order to eliminate order bias from the responses.

- *Thriving at Work*

It was thought that any construct validation for the Covey’s 7Habits could be more robust by comparing results to constructs developed for similar situations. Thriving at Work was measured with the scale developed by Porath et al. (2012).

- *Self-Determination*

Autonomy, Competence and Relatedness, the facets of Self-Determination were measured with the Basic Psychological Need Satisfaction at Work Scale (Ilardi, Leone, Kasser, & Ryan, 1993; Kasser, Davey, & Ryan, 1992). SDT is theorized to be the psychological context in which Covey’s 7Habits can be worked out as a coherent construct despite its complexity.

- *Psychological Capital*

PsyCap was considered as a potential framework in which to ground the 7Habits, however, the cooperative dimension of Habits 4-7 seems not included, but rather complementary to the personal focus of PsyCap, while the first 3 Habits of personal effectiveness are also argued to be distinct from PsyCap. To measure PsyCap the 24 item PCQ was used developed by Luthans, Avolio et al. (2007) and Luthans, Youssef and Avolio (2007).

- *The seven habits*

Covey’s framework was measured with the 7Habits 12 item scale that was developed by the authors of this paper, after not having found a psychometrically valid extant scale in the literature for the seven habits. See details of the scale development and construct validation in later sections.

## 4. RESULTS

The topic advanced in this paper required the development of a theoretical framework within positive psychology for the 7Habits training material, which subsequently was tested in a study with quantitative methods. The section below focuses on the results of the study conducted: results for Hypotheses 2, 3 and 4 are developed. Theoretical results for Hypothesis 1 related to the match between Self-Determination Theory and the 7Habits framework was provided in the first part of the paper, in this section additional evidence of the match theorized is presented in Table 3 and the mediation models in Figure 1, 2 and 3.

### 4.1. Construct Development of the 12 item 7Habits scale

We theorized that it is possible to develop a psychometrically valid 7Habits construct and a related measurement tool because of Covey’s conceptualization of the 7Habits as a holistic system and because we could undergird this claim by demonstrating how the 7Habits matches existing psychological theories. Initial consideration was given to the Personal Effectiveness Questionnaire (PEQ65) which is the standard questionnaire with which the Covey related training organizations measure participants effectiveness. However, due to the length of the questionnaire and to the fact that several questions could be theorized at face value to relate strongly to more Habits the idea to use PEQ was dropped. A new 7Habits scale was therefore developed by the authors based on Covey’s book. A 28 item pool of items was created with the exigence to include all major ideas for each habit while eliminating redundancies. For the employee survey all items were included. This data set was then used for psychometric validation of the 7Habits construct and measurement tool. A series of factor analyses was carried out for several factor combinations initially including all items then gradually dropping

the once with low loadings and relatively lower face validity. (Stanton et al, 2002). Finally, a 12 item measurement tool was created representing all 7 habits. The confirmatory factor analysis (CFA) results for these 12 items in the one 7Habits factor model are CFI=.991, RMSEA=.014 and SRMR=.086. Two of the three fit indices show good fit, while SRMR is slightly above the cut off, demonstrating overall acceptable fit for this model as per Bentler and Hu (1999). By further reducing the number of items the fit index SRMR could have been improved to also meet the cut off criteria at the expense of significant face validity reduction. The 12 items demonstrating sufficient model fit were concluded to be necessary to claim acceptable face validity, that is to cover sufficiently the 7Habits theory. The Cronbach's Alpha for these 12 items is above the conventional cut off (.72), thus we conclude that the 12 item 7Habits scale meets the psychometric criteria to be used for the purposes of this study. Psychometric properties of the 7Habits scale are shown in Table 1.

*Table 1: CFA of the 7Habits(12) Construct*

Source	X <sup>2</sup>	df	p	CFI	RMSEA	SRMR	Alpha
One factor 7Habits model	54.566	54	.453	.991	.014	.086	.72

*Source: The authors' creation*

As for the face validity of the scales, the 12 items capture important segments of Covey's framework and they touch on all seven of the seven habits. While more comprehensive tools could be developed in the future, our effort already confirm that the seven habits can be organized in a meaningful psychological construct. Thus, the aim of creating a short yet psychometrically valid and coherent tool to measure the seven habits, was met, providing evidence for Hypothesis 2. Items of the 7Habits(12) scale are listed in Table 2. Items marked with an "(R)" at the end of the text are reversed items.

*Table 2: Items of the 7Habits scale*

Item No.	Item text / Habit
	1. Be proactive
1	I focus on things that have an impact
2	I feel responsible for what I do and don't do
	2. Begin with the end in mind
3	Before starting something new, I think about how it helps me achieve my goals
4	I feel motivated by my goals
	3. Put first things first
5	I start with the difficult tasks that have the most added value
6	I am often overwhelmed by urgent tasks and requests (R)
	4. Think win-win
7	I am open and clear about what I need and what I can do for others
8	I believe that life is full of opportunities for everybody
	5. Seek first to understand then to be understood
9	While listening to somebody I am already thinking about what my response will be (R)
10	I make sure that the other person feels understood by me
	6. Synergy with others
11	I build on the strengths of others to get something done
	7. Sharpen the saw
12	I engage in lasting relationships and friendships

*Source: The authors' creation*

#### 4.2. Construct Validation with mediation models

Both SDT and the 7Habits are complex yet coherent theories. As self-determination has three distinct basic psychological needs (autonomy, competence and relatedness) also the 7Habits framework has two main dimensions: Independence and Interdependence. In order to complement the theoretical work by which we grounded the 7Habits in Self-Determination Theory with empirical study results we assumed and tested the following relationships between the main dimensions of the two main constructs. Independence from the 7Habits framework would relate strongly to autonomy and competence while the effect of Interdependence on autonomy and competence is mostly mediated by Independence. Interdependence on the other hand would relate strongly to relatedness while the effect of Independence on relatedness will be almost completely mediated by Interdependence. Because of the overall strong relationship between the 7Habits and SDT components shown in Table 4, our focus in this section was on demonstrating how Independence and Interdependence mediate each other's effects in relation to SDT individual and social dimensions. Table 3 shows the multiple regression results while Figure 1, 2 and 3 demonstrate the mediations analyzed with standard bootstrapping method in R Psych package (Revelle, 2019).

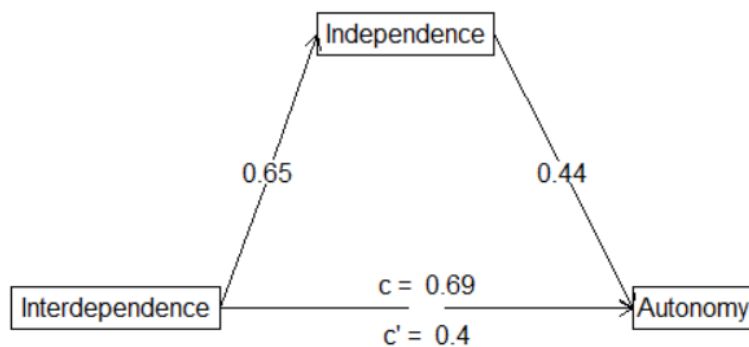
*Table 3: Multiple Regression Analysis of SDT and 7Habits primary dimensions*

Dependent variables	Step 1			Step 2		
	<i>beta</i>	<i>p</i>	<i>R</i> <sup>2</sup>	<i>beta</i>	<i>p</i>	$\Delta R^2$
Autonomy (SDT)						
Step1: Interdependence (Habit 4, 5, 6 and 7)	.69	.000	.234	.4	.069	
Step2: Independence (Habit 1, 2 and 3)				.444	.03	.07
Competence (SDT)						
Step1: Interdependence (Habit 4, 5, 6 and 7)	.6	.000	.269	.32	.059	
Step2: Independence (Habit 1, 2 and 3)				.42	.008	1.001
Relatedness (SDT)						
Step1: Independence (Habit 1, 2 and 3)	.619	.02	.104	.081	.789	
Step2: Interdependence (Habit 4, 5, 6 and 7)				.959	.005	1,4

*Source: The authors' creation*

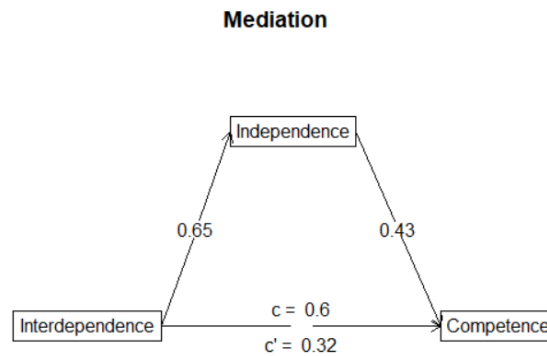
*Figure 1: Independence strongly mediates the relationship between Interdependence and Autonomy*

#### Mediation



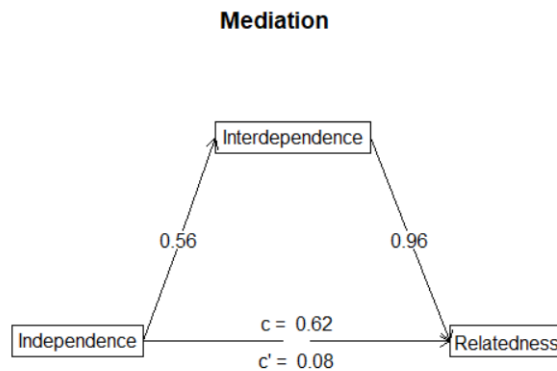
*Source: The authors' creation with Psych R package*

Figure 2: Independence strongly mediates the relationship between Interdependence and Competence



Source: The authors' creation with Psych R package

Figure 3: Interdependence strongly mediates the relationship between Independence and Relatedness



Source: The authors' creation with Psych R package

#### 4.3. 7Habits outcomes

In two steps - with regression analysis and ANOVA - we set out to demonstrate the close relationship between the 7Habits construct and other well established positive psychological constructs such as SDT, Thriving at Work and PsyCap, but also the distinctness of the new 7Habits construct from these. When developing new constructs that are theorized to belong to a family of similar constructs, it is important to demonstrate the close relationship between them. In our case, as we are discussing the 7Habits construct created for a corporate personal development training, we theorize established positive psychology constructs as outcomes of the individual 7Habits levels. Table 4 shows the regression results all of which are significant and reveal positive association between the 7Habits construct and the dependent outcome variables.

Table 4: Regression Analysis of the 7Habits and theorized outcomes

Dependent variables	<i>beta</i>	<i>se</i>	<i>t</i>	<i>F</i>	<i>df</i>	<i>p</i>	<i>R</i> <sup>2</sup>
Basic Need Satisfaction (SDT)	1.299	.211	6.15	37.82	1, 49	.000	.435
Autonomy (SDT)	.423	.091	4.65	21.62	1, 49	.000	.306
Competence (SDT)	.376	.07	5.335	28.47	1, 49	.000	.367
Relatedness (SDT)	.499	.141	3.525	12.42	1, 49	.000	.202
Thriving at Work	1.059	.173	6.121	37.47	1, 49	.000	.433
Psychological Capital	1.499	.222	6.734	45.35	1, 49	.000	.48

Source: The authors' creation

*Table 5: ANOVA of the work-related psychological outcomes of 7Habits, controlled for SDT basic needs*

<b>Variables</b>	<b>F-Value</b>	<b>p-Value</b>
PsyCap		
Control for SDT basic needs	17.41	.000
7Habits	9.386	.003
Thriving at Work		
Control for SDT basic needs	16.69	.000
7Habits	5.54	.022

*Source: The authors' creation*

As the 7Habits construct was shown to be a psychologically sound framework through matching it to Self-Determination Theory, it is necessary to demonstrate the 7Habits distinctness from SDT in order not to reinvent the wheel. Table 5 shows that the effect of the 7Habits is significant on top of the basic need satisfaction effect on the other two outcome measures: PsyCap and Thriving. In both cases when comparing with ANOVAs the models where only self-determination predicts the outcomes and the model with 7Habits added, the latter model emerges a significantly superior, thus we find evidence for Hypothesis 3 and Hypothesis 4.

## 5. DISCUSSION

In this paper we started off with the assumption that corporate personal development trainings (CPDTs) have underlying psychological working mechanisms that explain why the CPDTs positively affect employee attitudes. It was further assumed that CPDT working mechanisms are associated with positive psychology, because this is the branch of psychology that aims at building on positive qualities (in contrast with other traditional branches of psychology that try to improve negative psychological qualities) (Seligman and Csikszentmihályi, 2000). We looked at Steven Covey's *The Seven Habits of Highly Effective People* as a widely known and recognized CPDT (Covey, 1989) and tried to explain why the training application of Covey's framework would be conducive to personal growth. Due to the complexity and holistic approach of the 7Habits which encompasses personal growth in general, we tried to match it with a similarly holistic psychological theory. We theorized that the Self-Determination Theory (SDT) of motivation would give a good explanation of the reported benefits of the 7Habits trainings. Thus, our Hypothesis 1 was that Self-Determination Theory provides psychological explanation to why the 7Habits framework as described by Covey could be conducive to personal growth. Theoretical support for this hypothesis was provided in section 2.2 where we successfully identified a similar personal growth mentality at the center of SDT and the 7Habits that recognizes growth and flourishing as the natural state of the human person that is reached through the satisfaction of the basic psychological needs of Autonomy, Competence and Relatedness (SDT), or through the personal Independence and social Interdependence (7Habits). On a more detailed level of the two theories, in section 2.2 we explained why practicing the 7Habits may lead to basic need satisfaction, thus to personal growth. Further evidence was provided of the match between SDT and the 7Habits when we used multiple regression and mediation models to analyze the relationship between the dimension of SDT (Autonomy, Competence and Relatedness) and the dimensions of 7Habits (Independence and Interdependence) which we measured in a study described in the Method section. This was necessary in order to confirm if the internal structure or the dimensionality of SDT and the 7Habits is as per expectations according to the individual and social components. The expected relationship between the components or dimensions of SDT and the 7Habits was that the first three habits in the Independence dimension are foremost related to Autonomy and

Competence in the SDT framework, but also that Interdependence is positively linked to Relatedness through a strong mediation effect of Interdependence. Regression and mediation models in section 4.2. confirm these relationships. Similarly, it was expected that the second four habits in the Interdependence dimension are foremost linked to Relatedness in the SDT framework, but also that Interdependence is positively linked to Autonomy and Competence through a strong mediation effect of Independence. This is also confirmed in section 4.2. In order to measure the 7Habits we developed a pool of 28 items covering all 7 of the habits capturing the most important ideas from Covey's framework. Subsequently, we conducted a study to measure these 28 7Habits items and underwent a scale development process described in section 4.1. Hypothesis 2 was that a valid measurement tool can be developed from questionnaire items representing important ideas in the 7Habits framework. A 12 item 1 factor 7Habits scale emerged including items from all 7 of the habits with significant face validity. Items are listed in Table 2. This 12 item scale also demonstrated sufficient internal consistency and good model fit reached with confirmatory factor analysis. The successful creation of this 7Habits(12) scale provides further evidence to Hypothesis 1 because it shows that the 7Habits framework is suitable to be thought of as a unitary psychometric construct despite the complexities of the 7Habits. More elaborate and perhaps better measurement tools for the 7Habits are certainly possible to develop in the future. In this study we were content to use this 12 item scale as initial evidence of the 7Habits construct validity and based on this we went further to analyze the internal relationship of the 7Habits' dimensions to SDT basic needs as described in section 4.2. and to analyze the outcomes of the 7Habits in terms of established positive psychological resources as well as the discriminant validity or usefulness of the 7Habits construct. It has already been expressed in detail how the application of the 7Habits is expected to increase basic need satisfaction (SDT), in fact, this mechanism is the basis on which we theorize that 7Habits is overall is a psychologically sound framework to enhance employee personal development. We further theorized that the 7Habits is positively related to other positive psychological resources and constructs such as PsyCap (that includes Hope, Efficacy, Resilience and Optimism) and Thriving at Work (which is composed of a vitality and a learning dimensions). Hypotheses 3 was that the 7Habits construct would be positively related to these psychological resources. Convergent validity of the 7Habits construct to these established constructs was demonstrated based on the study we conducted and shown in Table 4. In order to establish also the discriminant validity of 7Habits from the SDT at work construct, that is, to show that the 7Habits is distinct and useful on top of the established SDT measure we compared regression models with ANOVAs to see if the 7Habits construct predicts any variance of the PsyCap and Thriving as outcome variables even if we control for SDT. Our Hypotheses 4 was that the 7Habits significantly predicts both PsyCap and Thriving even after controlling for SDT. Table 5 shows our result confirming Hypotheses 4.

## 6. LIMITATIONS AND FUTURE DIRECTIONS

The psychology of the 7Habits of Covey has not been captured in its full complexity in this paper. We aimed at finding a psychological theory that would overall support the unitary structure of the 7Habits. Future studies may focus on each habit and find narrower theories explaining – or even contradicting – specifics in Covey's work. Also due to our sample size (52), we were not able to develop multi-factor constructs of the 7Habits with confirmatory factor analysis. Larger sample size would enable more items and multi-factor solutions for the 7Habits construct that would in turn reflect more precisely Covey's framework. Also, no direct link to performance or satisfaction with work was tested in our study. The positive relationship between these and the 7Habits is assumed because of the mediation effect through PsyCap and Thriving at Work. Finally, despite discussion trainings and increased level of psychological resources, no trainings and no increased levels of any variable were observed as this paper

focused on content validity and measurability of the 7Habits and only the statistical relationship of the 7Habits' with psychological resources was established. Testing the effect of 7Habits trainings is the logical next step for future research after the theoretical and construct validity have been established in this paper.

## 7. CONCLUSION

In this paper we aim at looking at the Seven Habits of Highly Effective People (Covey, 1989) training material that has been widely popular as a corporate personal development training (CPDT) from a positive psychological perspective (Seligman and Csikszentmihalyi, 2000). We assumed that the primary psychological reason why CPDTs work is because such trainings stimulate positive psychological resources of the trainees which then in turn lead to increased performance and satisfaction with work. In the theoretical part of this paper we provided evidence that beyond the face validity of the 7Habits framework it is reasonable to expect the satisfaction of the three basic psychological needs that lead to increased self-determination (Deci and Ryan, 2000) with all its motivational and mental health benefits. To follow up the initial theoretical evidence, we also set out to develop and validate through a study a 12 item 7Habits measurement tool. The 7Habits construct that we created manifest good psychometric properties and acceptable content validity to measure personal effectiveness as it is conceived in Covey's work. Statistical analysis conducted based on the same study confirmed that the personal levels of the 7Habits are powerful predictors of established work-related psychological resources such as PsyCap and Thriving at Work even after controlling for the effect of basic need satisfaction (Self-Determination Theory). Our results provide initial evidence that the 7Habits of Covey is a psychologically meaningful training that can increase personal effectiveness and well-being. As we have shown, it is possible to bring to the fore the psychology behind CPDTs, and we argue that this is a worthwhile effort to pursue in the future. Studies focusing on the psychological foundations of corporate trainings would likely be a win-win (Habit 4) for the parties most concerned bringing psychological clarity to the best practices of business and large samples of working adults as well as new research opportunity for academia.

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## BENCHMARKING ON DIGITALIZATION / INDUSTRY 4.0 STRATEGY IN SMES

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### ABSTRACT

*The purpose of this research is to see the difference of implementation for digitalization / Industry 4.0 in a practical way in Small Medium Enterprises (SMEs) in two countries, Hungary and Indonesia which located on different continents. SMEs play an essential role in the economic development of a country, as they account for more than 95% of all companies in each country. The research examines significant yet at present, the utilization of digitalization / Industry 4.0 still being understudied. Descriptive analysis is being used that employed questionnaire for 92 Indonesian SMEs and 266 Hungarian SMEs to identify and describe the variability of implementation of digitalization / Industry 4.0 in the different setting. Mainly, issues are explored under the strategy of the organization, digitalization / Industry 4.0 and the relation between those two. The research outcome has shown that the majority of SMEs in Indonesia are more aware of their organizational strategy compared to Hungarian SMEs especially in terms of utilizing digitalization / Industry 4.0. In Indonesia most of SMEs utilize digitalization to expand the market, in addition to minimizing manual work to have better efficiency. Another finding has been seen that the implementation of digitalization / Industry 4.0 is commonly from customers' ideas or pressure for Indonesia's SMEs. In contrary Hungary's SMEs more towards suppliers' ideas or pressure. This research will contribute academically to provide an actual presentation for digitalization / Industry 4.0 in SMEs. On the other hand, in practical implication, the study provides useful guidelines for practitioners take decision based on how SMEs facing digitalization and Industry 4.0. The SMEs that being covered in this research are not coming from all over the area in those 2 countries.*

**Keywords:** *business, digitalization, industry 4.0, strategy*

### 1. INTRODUCTION

Rapid development of the Internet and technologies have had various impact on organizational strategy and social activities. Many business organizations, including small and medium sized enterprises (SMEs), have started to adopt digitalization / Industry 4.0 to improve their efficiency and gain market (Li et al., 2009). Digitalization / Industry 4.0 enables several innovative functions by accessing networks and the cyber world to develop a new business, process and methods of working (Rejikumar et al., 2018). SMEs are considered as the support of economic growth in all countries. In Indonesia, SMEs account for 97% of domestic employment and for 56% of total business investment (OECD, 2018). In addition to acting as a supplier of goods and services for larger companies, SMEs also provide employment opportunities for the surrounding community. Most of SMEs still have a simple way of working that allows them flexibility, quick decision making, faster response to their customers compared to larger

companies. Due to faster development of Internet and technologies drive SMEs to sustain their competitiveness in local and global market. These changes pressure companies to stay competitive which makes an impact strategy changes (Singh et al., 2008). First, the concept of Industry 4.0 originates from Germany. It builds momentum and high expectations of the results if implemented in an organizational strategy. There have been several definitions of industry 4.0. Based on Schuh, et al. (2015) Industry 4.0 is the process of assembling electronic components, while other research states that Industry 4.0 is an established idea that utilizes innovation (Strozzi et al., 2017). Whereas Gilchrist (2016) claims that Industry 4.0 utilizes the latest mechanical advancements, corporate data and continuous improvement for better tasks. Moreover, Industry 4.0 can improve the levels of digitalization computerization which impacts business greatness (Rejikumar et al., 2018). Accordingly, this study's main contribution lies in addressing several shortcomings in the digitalization / Industry 4.0 literature. First, digitalization / Industry 4.0 is still a rare subject to be discussed. Most of the studies exploring Industry 4.0 concept and its application benefits. Second, previous study started to measure the awareness level and the perceived difficulties faced when adapting to Industry 4.0 in Turkey's companies (Yaşar and Ulosoy, 2019). The result stated that most companies had knowledge of Industry 4.0, but many were doubtful about investment, owing to the high investment costs and lack of preparation thus far. Another study related to the readiness of Industry 4.0 implementation in Czech companies said similar pattern (Kopp and Basl, 2017). Third, only a few studies (Szozda, 2017 and Basl, 2016) have addressed different cultural background utilizing a cross-country comparisons perspective in this case from different continents. The current study addresses these realities by – 1) utilizing distinct samples from two different countries (Hungary, a developing nation in Europe and Indonesia, a developing nation in Asia), and 2) for the first time look deeper at the reason of digitalization / Industry 4.0 implementation and the benefit for the business and see the result between those two countries. Comparison between these two countries may offer an insight for not only academic field but also for practical toward actions in digitalization / Industry 4.0 process as well as future innovations. As Hungary and Indonesia are two significantly different cultures, such differences might influence the industry in many ways. Likewise, Indonesia that has abundant commodities such as coal, gold and gas. But the side effect is the country's dependence on raw commodities for export activities. Downstream industry development is still lacking even though the Indonesian central government is currently trying to encourage the development of this downstream industry. World Bank also stated in their Doing Business 2020 report that these countries are still categorize as countries that do not have easy regulation to do business. Hungary achieves as 53<sup>rd</sup> rank indication of an economy's position relative to that of other economies, on the other hand Indonesia as the 73<sup>rd</sup> rank (World Bank Group, 2020). Understanding such fact may in turn lead to valuable prescriptive insights with respect to enhancing the adoption of valuable future innovations in distinct cultures with distinct implementation of digitalization / Industry 4.0. The primary objective of this research is to examine the issue – How does the implementation for digitalization / Industry 4.0 in a practical way for Small Medium Enterprises (SMEs)? In summary, to accomplish the objective, this study utilized survey research to examine the difference between Hungary and Indonesia. The paper is organized as follows. Following the introduction above, we discuss digitalization / Industry 4.0 in developing countries and the cultural differences between Hungary and Indonesia. Then, we provide a brief overview of the theoretical framework for our research and the research methodology employed. We present the results from the data collected, and provide conclusions, along with this study's limitations and suggested future research directions.

## 2. LITERATURE REVIEW

### 2.1. Organization Strategy in SMEs

Previous research related to the changes of organization strategy was mentioned by Nummela et al. (2006). The changes divided into external and internal organization strategy. External changes can be seen from outside such as export strategy (products, markets, operations), however internal changes are organizational structure, finance and personnel. SMEs that operate in international market will compete globally with the support of digital development. The effect of digitalization / Industry 4.0 creates a chance for SMEs to build their cooperation and interaction to create, deliver, and capture value with their customers, partners, suppliers, and internal stakeholders (Salo et al., 2018). The size of SMEs can influence how the company develops capability through digitalization / Industry 4.0 strategy use. Larger SMEs tend to develop more the level of digitalization / Industry 4.0 capabilities compared to smaller counterparts. The main barrier for smaller SMEs is the cheaper alternative of external information process and limited learning on digitalization adoption itself. However, the main barriers for larger SMEs is the complexity to implement digitalization / Industry 4.0 due to larger organizational structure in all sectors simultaneously (Neirotti et al., 2018). The use of digitalization / Industry 4.0 of companies emphasize more the changes of companies' strategic behavior and business environment that leads to competitiveness in SMEs market. This organizational change also leads to the improvement of the companies' performance. In result, they should have a clear business strategy to differentiate themselves on the market as well as to create value for their customers (Tuanmat and Smith, 2011). However, a new study reveals that SMEs still do not give their attention to develop their effective strategies and quantifying their competitiveness. The focus currently is in the area of assets, process and performance benchmarking in its industry (Singh et al., 2008). Furthermore, digitalization / Industry 4.0 triggers changes in SMEs business model. Research by Müller et al. (2018) that has been done in Germany resulted 4 implications, (1) Industry 4.0 covered three dimensions (high-grade digitization of processes, smart manufacturing, and intercompany connectivity). (2) how digitalization / Industry 4.0 will impact to the three business model elements (value creation, value capture, and value offer). (3) the implementation that already happened in the company will motivate other companies related to also implement the same. And (4) this research created four categorized SME position towards Industry 4.0 (craft manufacturers, preliminary stage planners, Industry 4.0 users, and full-scale adopters).

### 2.2. Digital Transformation – Industry 4.0

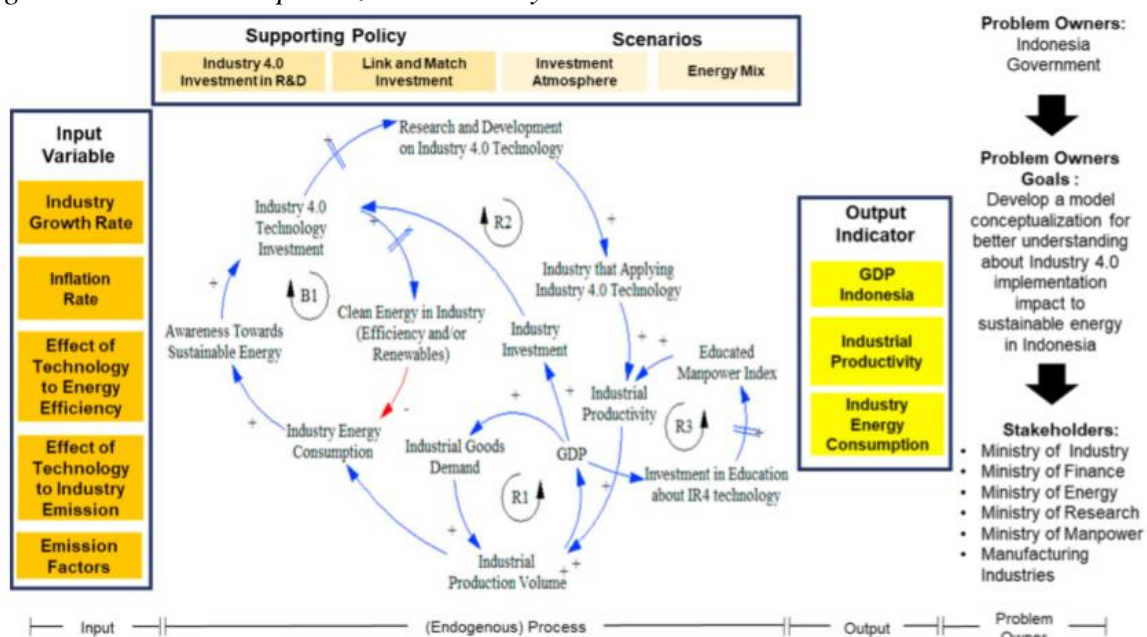
Hermann et al. (2015) and Roblek et al. (2016) define Industry 4.0 as having four concepts of technology that are usually implemented in an organization or company. It consists of Internet of Things (IoT), Internet of Services (IoS), Smart Factory and Cyber Physical System (CPS) (Andulkar et al., 2018). IoT is the latest web evolution combining several devices, such as cameras, sensors, Radio-Frequency Identifications (RFIDs), smartphones, and wearables. Owned by different organizations and people who are deploying and using it for their own purposes (Georgakopoulos and Jayaraman, 2016). On the other hand, IoS means technology that able to monitor product life cycle, technology that able to take decisions based on the data that has been gathered such as product flow and reliability of machines and products (Andulkar, et al., 2018). However, CPS is an interconnection of a physical system (Valliammal and Shaju, 2018), it delivers functionality of controlling physical entities depending on a specific situation (Parvin et al., 2013). The new technologies applied in organizations or companies (IoT, CPS, etc.) are the foundation of smart factories and they will bring several changes to the industries. The changes are required to meet the increasing customer requirements and expectations of the global market (Odważny et al., 2018). In the current globalization trend, one of the tasks of strategists is to understand and cope with competition.

The pressures are intensely coming from several parties. New entrants are bringing innovation and usually would like to gain market share that puts pressure on price, cost, investment, etc. On the other hand, the pressure can also come from suppliers that have strong power which influences higher price, limiting quality or service, or shifting cost to industry participants. Inversely, power of buyer can force down prices, demanding better quality or more, and generally playing industry participants off against one another. Our substitute players and current competitors can give a pressure as well due to price competition, similar quality or scarcity of the product (Porter, 2008). Based on this, the implementation of digitalization / Industry 4.0 is very important if the company cooperates with their business partners (Hofmann and Osterwalder, 2017). Horváth and Szabó (2019) have seen that SMEs had higher drivers and barriers to implement digitalization / Industry 4.0 compared to Multinational Enterprises (MNEs). The five barriers faced by SMEs are unskilled workers with competence required in the future; financial resources and profitability; intense market competition; resistance from the internal organization and lack of cooperation in terms of communication protocol inside organizations and companies. However, if they implemented digitalization / Industry 4.0 in their organizational strategy it would improve the workflow making it more transparent, decentralized, and less hierarchical. Besides, it will also improve flexibility in time and space.

### 2.3. Hungary's and Indonesia's Research of Industry 4.0

There is only a little research in these two countries related to Industry 4.0. The latest research in Indonesia exploring Industry 4.0 has been about the implementation impact on the industry sustainable energy (Hidayatno et al., 2018). The aim was to support sustainability in the industry. Indonesia has a goal to enter into Industry 4.0 era. However, the level of readiness is still categorized as “Nascent”. The outcome of the model conceptualization lies on the Causal Loop Diagram that has four loops, developed from three sustainability components: (1) economic, (2) socio – technology (with triple helix focuses on industry energy consumption), (3) Industry 4.0 development, and (4) impact to environment. The model is expected to have better understanding of how Industry 4.0 could or could not support the transition to a more efficient used of energy and the use of renewable energy in Indonesia. This model can be used as the pioneer reference model for the next line of research in the future (Hidayatno et al., 2018).

Figure 1: Model Conceptualization Industry 4.0 in Indonesia to Industrial Sustainable Energy



On the other hand, the latest research in Hungary for this Industry 4.0 subject has been about the readiness in Hungary with the scope of car companies (Nick et al., 2019). The aspects of Industry 4.0 being asked was related to their production. The results show that Hungarian companies are striving to use product data collection, 78% of them had at least partial data collection, primarily for quality control and production statistics purposes. Moreover, they are still far away from the utilization of revenue generating potential of the additional services developed on this basis. Most of the companies are ahead of long familiarization, technical development and innovation process which made an impact on the entire operation in terms of business model and integration of the new technologies (Nick et al., 2019). Horváth and Szabó (2019) investigated the drivers and barriers to implement digitalization / Industry 4.0 with a sample of Hungarian companies. The authors found that the challenges are categorized into human resource where they need appropriate competences and skilled workforce, financial barrier of return and profitability, shortcoming tender process as well as long evaluation period of tenders, etc. On the other hand, for the drivers of productivity and efficiency have been the improvement of lead time, efficiency and ensuring reliable operation.

### 3. RESEARCH METHODOLOGY

#### 3.1. Sample and Data Collection

To understand the implementation of digitalization / Industry 4.0 in organization strategy of SMEs in Hungary and Indonesia, the insight from managers or board of directors were needed. Data collection period was four months in 2018 in Hungary and two months in 2019 in Indonesia by means of the previously noted online survey, for each of the consumer segments under study. First, a mailing survey questionnaire was created and sent to several SMEs communities in both countries. During the design phase of this survey questionnaire, content validity was performed by a pre-test. The sample frame consisted of top management and strategic decision makers in SMEs. On the other hand, reliability test also being established by comparing the result between English and Indonesia as well as English and Hungarian languages (Saunders et al., 2009). The outcome from the pre-test was reviewed. After the instrument had qualified as valid and reliable, a new mailing list was compiled – again targeting top management or strategic decision makers in SMEs. The companies surveyed included micro companies with up to 10 employees, small companies with 10 to 49 employees, and medium sized companies with 50 to 249 employees (Eurostat: Structural Business Statistics). For Hungary, this research received a complete result from 266 respondents however 92 from Indonesia's respondents. In the beginning of the survey, a cover letter explained the purpose of the survey, contact information and instructions on how to complete the questionnaire. Responses were treated confidentially and reported only after aggregated findings. Three set of questions regarding organization strategy and digitalization / Industry 4.0 were asked to the representative sample. In addition, the background of company's information and respondent's data were also being asked.

*Table 1: Sample Demographic*

Measure	Items	Hungary (n <sub>1</sub> = 266)		Indonesia (n <sub>2</sub> = 92)	
		N	%	N	%
SME's Type	Micro	86	32%	64	70%
	Small	116	44%	22	24%
	Medium	64	24%	6	7%

*Source: Own Development*

### 3.2. Instrument Translation

The original questionnaire was designed in English and then translated into Hungarian and Indonesian to be used for SMEs respondents. To ensure the quality of response for this research, translation of the questionnaire is a key to validate the information. Forward-backward translation is one of the ways to validate the similarity of the meaning of the questionnaire (Bates and Khasawneh, 2005). The objective of the translation process was to make sure that the Indonesian version and Hungarian version had the equivalent meaning to the original English version. The goal was to have an equivalent translation and not an identical word-by-word translation of questions. The method used was comparability of language and it was used Likert scale ranging from 1 (extremely comparable) to 7 (not at all comparable). For Indonesia's questionnaire, the rating process was implemented to the 11 native Indonesian speakers that fluent in English. They did comparison between the original question to back-translated question rated for functional equivalence. Comparability of language refers to formal similarity of phrases, meaning and sentences. If the question is identical, then they put score as 1, vice versa. Mean score from each question was calculated and any mean score >3 (7 is worst result and 1 is best result) should be reviewed by the researchers (Sperber, 2004). It resulted that no mean ratings fell below threshold. For Hungary's questionnaire, the discussion has been made with one of high position in large enterprise. If there is any misleading question, then wording revision will be made directly.

### 3.3. Measurement

#### 3.3.1. *Strategic strength of enterprise*

The questionnaire asked respondents to understand better their change on organizational chart, company's strategy and all function that appear in the organizational chart. SMEs that that a route on internationalization or globalization most probably will change their organizational chart and strategy regularly (Nummela et al., 2006). In this section, respondents were asked about the adoption of digitalization / Industry 4.0 in their company's strategy. Operational efficiency and improvement of the company's performance will be beneficial for the companies that already implemented digitalization / Industry 4.0 (Salo et al., 2018). If they already had digitalization / Industry 4.0 in their current strategy, they made a sequence answer in between new financial or investment resource, restructuring the organizational structure, reengineering the main process, and restructuring the labour structure for the main important factor to be adopted. Employees' experiences do matter for employee reaction to change (Ceptureanu, 2015).

#### 3.3.2. *Digitalization/Industry 4.0*

The core question of the following questionnaire was about the implementation of digitalization / industry 4.0 in SMEs. Industrial automation and production are one of the future expectations of Industry 4.0 (Sevinç et al., 2018). Based on that, the first question of this section is about the deal by decision makers for digitalization / Industry 4.0 implementation about ideas or pressure that coming from suppliers or customers. The next question, respondents were asked in which function that most affected by digitalization / industry 4.0. Sequence answer was being expected for production, logistic, marketing, sales and customer relations and other management functions (accounting, human resource, information technology). Cooperation in using digitalization / Industry 4.0 is required between companies' partnership, therefore 5 Likert scale was implemented for this relationship whether it is not required (1) until urgently required (5). According to Porter (2008), five forces that shape industry competition come from the threat of new entrance, the power of suppliers and buyers, threat from substitutes or our current rivals.

#### 4. RESULT AND DISCUSSION

The focus of the questionnaire is to see the current implementation and situation of digitalization / Industry 4.0 in SMEs at the macro level in Hungary and Indonesia. In the first section of the questionnaire, participants were asked about the detail size, type, and the financial structure of their organization. The second section related to the organizational strategy. As Table. 2 shows that the different perception towards digitalization / Industry 4.0 between those two countries where most of Hungary's SMEs strategy are not include digitalization / Industry 4.0, however the opposite of, Indonesia's SMEs include its aspect into their strategy.

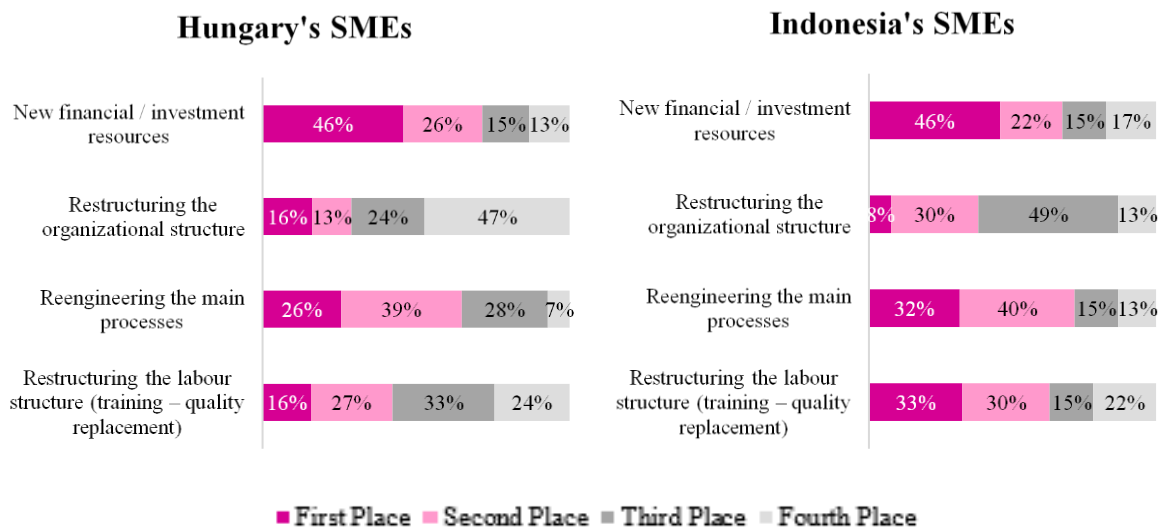
Table 2: Question: Does your strategy include an industry 4.0 and/or digitalization chapter or sub-chapter?

Measure	Items	Hungary (n <sub>1</sub> = 266)				Indonesia (n <sub>2</sub> = 92)			
		Yes	No	Yes (%)	No (%)	Yes	No	Yes (%)	No (%)
SME's Type	Micro	9	77	10%	90%	50	14	78%	22%
	Small	30	86	26%	74%	20	2	91%	9%
	Medium	20	44	31%	69%	3	3	50%	50%

Source: Own Development

In this figure 2, it reflected the management point of view related to the sectors that required to support the implementation of digitalization / Industry 4.0. Interestingly, common answer from both countries stated that the first requirement to support the implementation came from new financial / investment of resources with the following aspect of reengineering the main process (Figure 2).

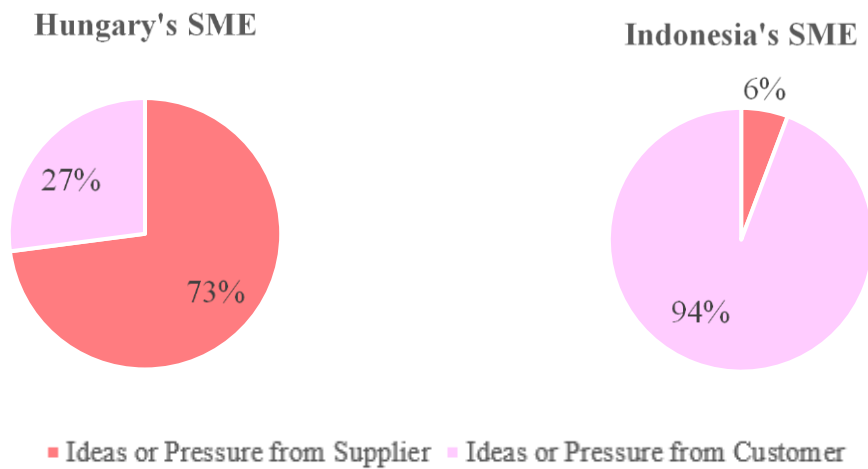
Figure 2: Question: From a management point of view, what is primarily required to adopt digitalization / Industry 4.0? (Put the answers in sequence) between New financial / investment resources, Restructuring the organizational structure, Reengineering the main processes and Restructuring the labour structure (training – quality replacement)



Source: Own Development

The next question was about the beginning of digitalization / Industry 4.0 implementation related to the ideas or pressure that company should deal from other parties. The result shows significantly different where for Hungary's SMEs the ideas or pressure mostly coming from their supplier. On the other hand, for Indonesia's SME the ideas or pressure mostly coming from their customer (Figure 3).

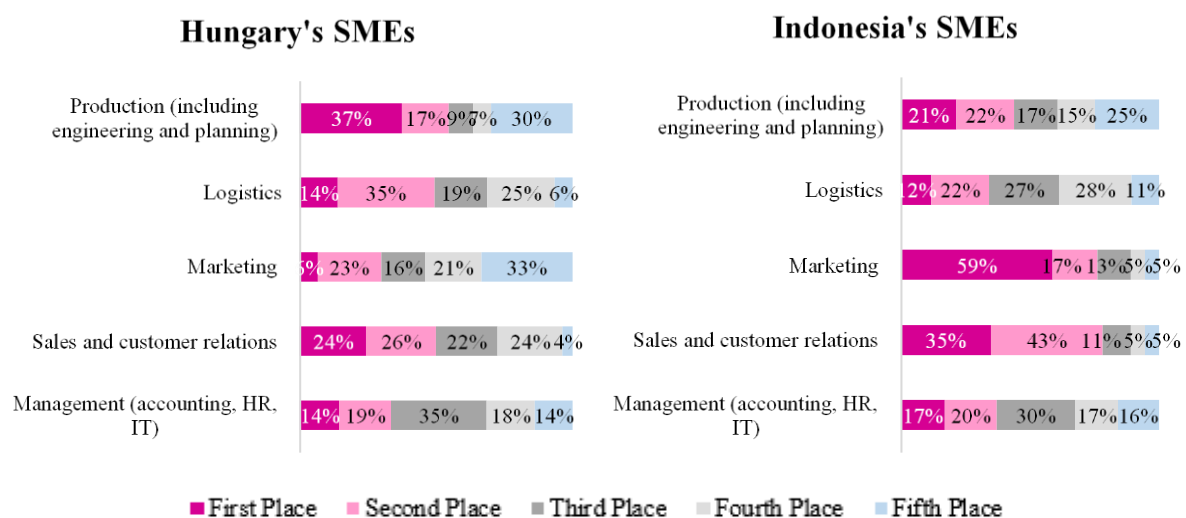
Figure 3: Question: Where will the pressure come from to deal with digitalization / Industry 4.0 at your company? Between Ideas or Pressure from Customers or Suppliers



Source: Own Development

Following up to the previous question, the next question is about to find out the reason of digitalization / Industry 4.0 utilization within Indonesia's SMEs. Top management of SMEs stated that using digitalization / Industry 4.0 can (1) maximize the market expansion (19%), (2) staying up to date to the market changing (17%), (3) building database and have better future analysis (13%), and (4) able to minimize manual work to have better efficiency (8%) following by several other reasons. In case of the most affected areas by digitalization / Industry 4.0 in a company, this research revealed that logistics and production areas are the most affected compare to other areas for Hungary's SMEs. On the other hand, marketing and sales – customer relations areas are the most affected ones for Indonesia's SMEs. It can be seen from this below Figure 4.

Figure 4: Question: Which areas are most affected by digitalization / Industry 4.0? (Please put them in sequence) between Production, Logistics, Marketing, Sales and Customer Relations and Management (accounting, HR, IT)



Source: Own Development



According to Porter (2008), forces that shape strategy come from new entrants, buyers, product substitute, suppliers and existing competitors. Based on this, in order to have a better chain, a company should collaborate more within its supply chain, especially with suppliers and customers. The research is questioning about the requirement of inter-company partnership. The result showed that small enterprise of Hungary's SMEs skewed more towards "required very much the partnership" compare to other type of SMEs. However, in Indonesia SMEs, micro enterprises skewed more on that statement compare to other enterprises (Table 3).

*Table 3: Question: To what extent do you think the application of digitalization / Industry 4.0 require inter-company partnership?*

Measure	Items	Hungary (n <sub>1</sub> = 266)		Indonesia (n <sub>2</sub> = 92)	
		Average	St.Dev	Average	St.Dev
SME's Type	Micro	3.38	1.21	4.05	0.84
	Small	3.54	1.06	3.73	0.88
	Medium	3.40	0.94	3.50	0.55
Total		3.45	1.08	3.93	0.85

*Source: Own Development*

## 5. CONCLUSION

This article analyzed the differences in the implementation of digitalization / Industry 4.0 among SMEs in Hungary and Indonesia. It started from the importance factor to adapt digitalization / Industry 4.0, then inter-company partnership for the application of digitalization / Industry 4.0. Furthermore, we analyzed the most affected area in organization after the implementation of digitalization / Industry 4.0. Our research contributes to the management of organizations on how SMEs face digitalization / Industry 4.0 and the management could take a decision based on the result of this study. Our main conclusions are as follows. Different result has been seen based on the utilization of digitalization / Industry 4.0 in the organization strategy. In Hungary, SMEs still don't really amplify digitalization / Industry 4.0 however in Indonesia they already put its aspect to their strategy. New financial or investment resource and reengineering the main process are two top aspects that required to adopt digitalization / Industry 4.0 in both countries. Finding reveals that another different result coming from pressure of dealing with digitalization/Industry 4.0. The research shows that most of Hungary's SMEs get the pressure from their suppliers, on the other hand Indonesia's SMEs are getting pressure from their customers following by their own will. The result is likely caused by high market demand in Indonesia which has many populations compare to Hungary. This finding has confirmed that within internal organization the most affected area by digitalization / Industry 4.0 are more towards production and logistic for Hungary's SMEs. However, Indonesia's SMEs are more into marketing and another management area. Although it has different perspective of implementation digitalization/Industry 4.0, in general both countries were still thinking that the application of inter-company partnership required, they shared the same urgency. In conclusion, the results of this study, while exploratory, do shed light upon a number perspective towards the implementation of digitalization / Industry 4.0 in two different settings. It's predicted that the results are influences from different national cultures and number of populations that can influence into management perceptions and decisions toward digitalization / Industry 4.0.

## 6. LIMITATION AND FUTURE RESEARCH

This study has several limitations. First, this study samples only used two countries, Hungary and Indonesia. In addition, general comparison has been done in this study from the two countries, due to difficulty to match the samples in terms of business large scale, which might

affect to the end of the result. Second, different proportion of business that being captured in this study. Most of Indonesian SMEs are micro and small business however in Hungary it's more likely stable of proportion between micro, small and medium businesses where might as well affect the result of the study. Third, the current study is utilizing internet users only (reaching them through email and online communication). Indonesia as an emerging country still has significant numbers of people and business owners that still not use Internet, especially older, uneducated people and also the one who live in the village or east of Indonesia since the communication infrastructure is still not develop well. Fourth, this research is not able to cover whole area in those countries. In Indonesia, most of the population and market concentrated in west Java therefore more than 50% of the data coming from that area. The findings from this study lead to the future research. First, expanding the area of research in those two countries, since most of the companies located in west then need additional samples that coming from east of the countries which probably affect the result of its research. Second, case study for those two countries for several companies specific scale of business and do deep analysis on the implementation of digitalization / Industry 4.0 to measure how far they implemented those things and find out the struggle that they faced in the beginning of the implementation. Besides, it can be measured the financial preparation to build the system. The objective is to build a certain model to be a reference for another business that still not used digitalization / Industry 4.0. Third, as we've seen the result most of the companies have the awareness of digitalization / Industry 4.0 however lack of implementation currently, therefore further research could explore the drivers and barriers to utilize it from the management point of view to understand company's interpretation towards the concept of digitalization / Industry 4.0. Alternatively, future research could also take into consideration more countries involved in this research. Not only from Asia and Europe continents, but maybe from other continents as well as not only developing countries but also from developed countries. Afterwards the comparison can be made with strong analysis.

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## SCENARIOS EVALUATION OF FUTURE WORKPLACES

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### ABSTRACT

*Due to the big picture of the impact of Artificial Intelligence, we would like to present the possible scenarios of future workplaces and economies. Though it is impossible to make exact predictions of how the future workplaces will look like, it is inevitable to consider the scenarios of how the working life and economies might change. Through a comparative analysis method of the available scenarios based on a white paper by the World Economic Forum, we intend to make a matrix on how three variables that has the biggest impact on labour market (technological change, learning evolution and talent mobility) might affect the future workplaces and societies. With the help of these three variables we compare ceteris paribus others' statements on how the future workplaces and the world will form. By using this criterion system, we then can narrow down and compare the most likely realized changes, taking into consideration the insights on how others see the future in this matter. We are now able to see that the two most common expectations are a world of empowered individuals and a polarized world. It is also important to highlight that all of the presented scenarios might come true even at the same time in different countries. Our limitation is that these studies are not always satisfying the scientific expectations, but we believe that it is a good starting point as by these insights they are influencing the trends and the behaviour of the corporations.*

**Keywords:** *scenarios, future workplaces, behaviour, labour market*

### 1. INTRODUCTION

Due to the big picture of the impact of Artificial Intelligence, we would like to present the possible scenarios of future workplaces and economies. Though it is impossible to make exact predictions of how the future workplaces will look like, it is inevitable to consider the scenarios of how the working life and economies might change. We intend to clear the broad whole picture of these scenarios through a comparative analysis method of the available scenarios based on a white paper by the World Economic Forum. Thus, we intend to make a preliminary analysis on how three variables that has the biggest impact on labour market (technological change, learning evolution and talent mobility) might affect the future workplaces and societies. With the help of these three variables we compare ceteris paribus others' statements on how the future workplaces and the world will form. By using this criterion system, we then can narrow down and compare the most likely realized changes, taking into consideration the insights on how others see the future in this matter. We are now able to see that the two most common expectations are a world of empowered individuals and a polarized world. It is also important to highlight that all of the presented scenarios might come true even at the same time in different countries. Our limitation is that these studies are not always satisfying the scientific expectations, but we believe that it is a good starting point as by these insights they are influencing the trends and the behaviour of the corporations.

## 2. APPROACH

Our first step included a tracking of the literature review in this topic. While our mission was to build an own model, we found a white paper by the World Economic Forum which covered our thoughts. It included the three biggest impact factors on the Labour Market and compared all of the outcomes one by one. We thus chose this as our starting model. Then, we compared writings on this matter from entities with different backgrounds such as PwC, Inc, Thera and Harvard Business Review (and many more) and tried to fill their views in the first chosen model. This was not an easy task as we had to compare scenarios with different starting points, but we managed to find the similarities which enabled us to gather all these future scenarios into one matrix. We believe that in order to have a clear view and to be able to make classifications on how these firms believe the future of work will look like, our matrix makes it easier to organize these different thoughts. Without being exhaustive we think that this matrix will give a broad and overall picture for further discussions. In order to understand the phenomenon, it was essential to define the "level of reality" (Nicolescu, 2010). Each level has a thesis and an antithesis. (Baracska Dörfler 2017, 74) and by observing the decision maker we can see a Homo Calculator (A), the person who mainly does mental accounting, or a Homo Ludens (non-A), a playing man, who is playful and curious like a child, who allows her-/himself to admire the worlds wonders. As a synthesis, we can see a Homo Sapiens (T), a wise man, who finds the harmony between playing and calculating. We have chosen the personal level, so that here and now we do not look at the organizational or social level of the phenomenon. The essence of the new conceptual framework is to replace old concepts and the relationship between them. Today, the world uses the following terms more or less correctly: "AI (Robotization) based Technological Change", "Profession Change (Learning Evolution or Informal Learning)" and "Workplace Change (Talent Mobility)". There are many scenarios, but somewhat less conceptual frameworks, of the relationships between these concepts. It is impossible to pull out a consistent conceptual framework from the concepts of a single discipline, but we must go beyond discipline (Nicolescu, 1996).

## 3. CONCEPTUAL MODEL – THE EIGHT FUTURES OF WORK

The world of working and jobs are undergoing a period of dramatic change, as artificial intelligence and other new technologies, are developing in an unpredictably fast way, and it has a significant impact on multiple industries. It will widely change jobs, tasks and skills required within each sector. "Concurrently, a number of other factors, such as labour mobility and migration, demographic change, changes in the delivery and quality of education and skills and growing talent needs in sectors such as infrastructure, healthcare and education are also changing the nature and quality of work."(World Economic Forum) Through the white paper of the World Economic forum created in collaboration with the Boston Consulting Group, we present the eight possible scenarios of how the future of job markets and society might look like if we consider three of the variables which we think has potentially a high impact on such: the speed of technological change, learning evolution and the mobility of the workers. These are the most critical factors for labour supply and demand over the coming years. These scenarios are formed around the most volatile variables (most impactful and most uncertain). Impactful variables are those that would have the greatest influence on the future, as determined by their influence in the past and by projections of their likely future impact. (World Economic Forum, 2). Technological change in this sense presents how quickly and broadly the developments of Artificial Intelligence, Big Data and robotics are adopted and how quickly they impact business models, which then determines the relative stability or volatility of future labour markets. For simplicity, two outcomes are considered for this trend: one in which technological change and diffusion progress at the current or slower pace than in recent years ('steady'), and one in which they accelerate significantly ('accelerated').

Learning evolution on the other hand shows the extent to which the working population acquires the right skills in the present and in the future to get the required tasks done in the workplace. This is the most impactful and uncertain variables for the future of work. This factor evolves by the development of updated and agile education in basic, the access across geographies and socio-economic groups, retraining opportunities within a company and the mindset toward lifelong learning. The two outcomes in this model where the learning is in line with the ‘status quo’ is called ‘slow’ and where a rapid evolution takes place is called ‘fast’ in this matter. Talent mobility in the current economic climate has become a topic of widespread debate, and its likely extent in the future remains unclear. The movement of workers between and within countries may be affected by the availability of economic opportunities, travel regulations or crises, and can have a significant and sometimes conflicting impact on labour markets in different geographies. The two outcomes of this trend in the model is where labour concentration stays mostly where they currently are (‘low’), and where labour is highly mobile within and between national borders, for instance by the opportunity to work remotely (‘high’). While in purpose of generating the range of scenarios, these variables were treated independently, they have some causal interactions. Internal consistency was created within these scenarios by considering some of these interconnections and interactions between variables. While these scenarios were designed to create a basis for discussion among policy-makers, businesses, academic institutions and individuals, and to support them in anticipating and preparing for the changes to come, they are not predictions, but a demonstration that the future is not pre-determined. All 8 scenarios are possible, none is certain and are determined by the combination of different industries, societies, geographies and other variables. The purpose of an explorative scenario is to show how these three chosen forces or trends could influence them. „Different scenarios might play out simultaneously in different geographies, industries, age cohorts or socio-economic groups” (World Economic Forum, 2). While none of the actors can choose to bring about any scenario that they might prefer on their own, through collaboration they can seek to manage the changes underway already and influence the future, by pushing their actions in the direction they desire. While presenting these eight frameworks, we will intend to correlate these scenarios to the predictions of firms with different backgrounds (PwC, Inc, Thersa, Harward Business Review). In the first table, we managed to put together the variables with the possible outcomes. We believe that the chosen four professional services networks have the resources to make such predictions and by adumbrating their scenarios, they eventually form the market’s behaviour too. In the next chapters we aim to present how the initial model fits to others views and by matching these scenarios we will get a clearer picture on how these professional firms mostly expect the future of work to change. These scenarios can help organizations think through possibilities and how they will prepare to meet them (Hesse, 2017).

*Figure following on the next page*

*Figure 1: Initial model*

Name of the new era	Technological Change		Profession Change (Learning Evolution)		Workplace Change (Talent Mobility)	
	Steady	Accelerated	Slow	Fast	Low	High
Workforce Autarkies	Steady		Slow		Low	
Mass movement	Steady		Slow			High
Robot Replacement		Accelerated	Slow		Low	
Polarized World		Accelerated	Slow			High
Empowered individuals	Steady			Fast	Low	
Manufactures (Skilled Flows)	Steady			Fast		High
Productive Locals		Accelerated		Fast	Low	
Agile Adapters		Accelerated		Fast		High

### 3.1. Workforce Autarkies (Steady technological change, Slow learning evolution, Low talent mobility)

In this scenario, a large-scale automation of manual and routine tasks is discernible but most medium- and high-skilled roles remain relatively untouched by disruption of technology, particularly those which requires non-cognitive skills and the completion of complex tasks. However, the pace of learning evolution has also remained slow. Businesses are facing ever-increasing talent shortages as many displaced low-skilled workers have been left competing for fewer roles suited to their skill sets. Reacting to the worries of displaced workers, governments made restrictions on international labour mobility and tries to fulfil internally their economies' talent needs. Some local city and regional governments have created similar policies to protect local jobs in the short term. Though these workforce autarkies have provided a short-term relief to their lower-skilled workers, they made it harder for employers to find the right on-site talent for higher-skilled roles. Therefore, lower skilled workers continue to depend on state protectionism, and large multinational employers have taken their higher-skilled roles abroad, to countries which have larger, unrestricted talent markets. The resulting reduction in knowledge transfer and continued talent shortfalls for local companies reduces growth and dynamism over time, reducing the capacity of all local labour markets (World Economic Forum, 3).

### 3.2. Mass Movement (Steady technological change, Slow learning evolution, High talent mobility)

Similar to the previous scenario, there is a large-scale automation of manual and routine tasks but most medium- and high-skilled roles remain relatively untouched by disruption of technology, particularly those which requires non-cognitive skills and the completion of complex tasks. However, the pace of learning evolution has also remained slow. Businesses are facing wide talent gaps and as there are no limits to mobility and as remote online working is still a relatively marginal phenomenon, there has been large-scale movement of workers in



search of opportunity. Displaced lower-skilled workers has two choice in advanced economies: some are heading to the emerging world in search of better means of making a living, with steadier incomes and lower living costs, others depend on state-sponsored welfare systems. High-skilled talent flows to wherever the latest and most lucrative opportunities are —often concentrating in large metropolises around the world. This phenomena helps urban local businesses to access the best talent and enhances knowledge transfer, but increases competition between workers at all skill levels, and across regions, which is why societal cohesion has become harder to achieve (World Economic Forum, 4).

### **3.3. Robot Replacement (Accelerated technological change, Slow learning evolution, Low talent mobility)**

Accelerated technological change in this scenario means that machines in the workplace have become capable of performing routine and non-routine tasks and can perform a range of manual tasks which does not require cognitive skills. Due to this, there is an emerging need for human workers to complement the machines, specialized in new kinds of roles. However, the pace of learning has evolved slowly, which means that the workforce cannot keep up with the changes. These workers face a rapidly shrinking field of opportunities as their skill set, and the lack of appropriate talent for emerging new roles has led to increasing pressure to automate even further. Robotics, algorithms and machine learning which is now can be managed only by a few, have begun to do most of the world's production and distribution. Widening talent gaps continue to dampen economic growth as business lose faith in human talents, which has led to deep and growing inequalities, polarized values and divided views about technology. The attempts of the governments who face this issue is now focused on efforts to keep jobs within borders via tightly controlled movements between cities, states and countries. As income flows to a limited few, the economy of the past has disintegrated and conflict is on the rise. Governments are increasingly challenged to resort to radical new, often untested, policy interventions, from nationalization of technology owning monopolies to far-reaching redistribution schemes (World Economic Forum, 5).

### **3.4. Polarized World (Accelerated technological change, Slow learning evolution, High talent mobility)**

Accelerated technological change in this scenario means that machines in the workplace have become capable of performing routine and non-routine tasks and can perform a range of manual tasks which does not require cognitive skills. Due to this, there is an emerging need for human workers to complement the machines, specialized in new kinds of roles. However, the pace of learning has evolved slowly, which means that the workforce cannot keep up with the changes. These workers face a rapidly shrinking field of opportunities as their skill set, and the lack of appropriate talent for emerging new roles has led to increasing pressure to automate even further. Robotics, algorithms and machine learning which is now can be managed only by a few, have begun to do most of the world's production and distribution. Large-scale movements of people is in trait, within cities, regions and also across international borders, in desperate search for job opportunities. High-skilled people from lower-income countries migrates to high-income and skill enclaves. As a result, a cluster of globally-dispersed urban 'super-economies' are forming and trading ideas, knowledge, goods and services with each other. National economies of the past are disintegrating, previously affluent leftbehind regions are formed. These communities are reverting their efforts to local self-subsistence while a large segment of increasingly disenfranchised lower-skilled workers barely get by, by serving a privileged few (World Economic Forum, 6).

### **3.5. Empowered Entrepreneurs (Steady technological change, Fast learning evolution, Low talent mobility)**

In this scenario, a large-scale automation of manual and routine tasks is discernible but most medium- and high-skilled roles remain relatively untouched by disruption of technology, particularly those which requires non-cognitive skills and the completion of complex tasks. However, the pace of learning evolution has also remained slow. Concerns about the disruptive potential of rapid technological change have led to long-overdue reforms in the education systems. Companies are investing heavily in training systems and reskilling. Lifelong learning is embraced especially in the younger generations. The fast pace of learning evolution enables more and more workers to contribute a wider range of skills to society and the economy. With large supplies of skilled, eager, curious lifelong learners in many geographies and industries, a dynamic market forms for workers to create opportunities for themselves, attracting steady flows of investment capital. Having invested heavily in high-skilled talent, many economies decided not to lose it, therefore migration becomes restricted. With this low level of labour mobility, online platforms offer an additional outlet for accessing global markets, other entrepreneurs are turning to their local markets for opportunities, creating new products and services in local ventures (World Economic Forum, 7).

### **3.6. Skilled Flows (Steady technological change, Fast learning evolution, High talent mobility)**

A large-scale automation of manual and routine tasks is discernible but most medium- and high-skilled roles remain relatively untouched by disruption of technology, particularly those which requires non-cognitive skills and the completion of complex tasks. However, the pace of learning evolution has also remained slow. Concerns about the disruptive potential of rapid technological change have led to long-overdue reforms in the education systems. Companies are investing heavily in training systems and reskilling. Lifelong learning is embraced especially in the younger generations. The fast pace of learning evolution enables more and more workers to contribute a wider range of skills to society and the economy. With large supplies of skilled, eager, curious lifelong learners in many geographies and industries, a dynamic market forms for workers to create opportunities for themselves, attracting steady flows of investment capital. As remote working is still a marginal phenomenon, there has been high mobility of workers between cities, regions and countries, which has become the norm, therefore certifications and degrees are becoming internationally standardized. But due to the steady technological change, labour markets with better local access to technology has the advantage to create higher value with fewer resources, compared to out-competing countries that has lower technological expansion for talent and production capabilities. Inequality between countries and technological ‘haves’ and ‘have-nots’ continues to increase (World Economic Forum, 8).

### **3.7. Productive Locals (Accelerated technological change, Fast learning evolution, Low talent mobility)**

Accelerated technological change in this scenario means that machines in the workplace have become capable of performing routine and non-routine tasks and can perform a range of manual tasks which does not require cognitive skills. Due to this, there is an emerging need for human workers to complement the machines, specialized in new kinds of roles. Concerns about the disruptive potential of rapid technological change have led to long-overdue reforms in the education systems. Companies are investing heavily in training systems and reskilling. Lifelong learning is embraced especially in the younger generations. The fast pace of learning evolution enables more and more workers to contribute a wider range of skills to society and the economy.

With large supplies of skilled, eager, curious lifelong learners in many geographies and industries, a dynamic market forms for workers to create opportunities for themselves, attracting steady flows of investment capital. Having invested heavily in high-skilled talent, many economies decided not to lose it, therefore migration becomes restricted. With this low level of labour mobility, online platforms offer an additional outlet for accessing global markets, many economies are thriving. However, talent shortages continue to impact business growth as companies encounter skills gaps that cannot be met either locally or online and the lower level of mobility have dampened the exchange of new ideas and expansion of markets, keeping technologies and livelihoods firmly dependent on local economies (World Economic Forum, 9).

### **3.8. Agile Adapters (Accelerated technological change, Fast learning evolution, High talent mobility)**

Accelerated technological change in this scenario means that machines in the workplace have become capable of performing routine and non-routine tasks and can perform a range of manual tasks which does not require cognitive skills. Due to this, there is an emerging need for human workers to complement the machines, specialized in new kinds of roles. Concerns about the disruptive potential of rapid technological change have led to long-overdue reforms in the education systems. Companies are investing heavily in training systems and reskilling. Lifelong learning is embraced especially in the younger generations. The fast pace of learning evolution enables more and more workers to contribute a wider range of skills to society and the economy. With large supplies of skilled, eager, curious lifelong learners in many geographies and industries, a dynamic market forms for workers to create opportunities for themselves, attracting steady flows of investment capital. High talent mobility within countries and across borders, combined with the widespread opportunities for working online, has created a global workforce that is highly agile, productive, rapidly diffusing values, ideas, technologies, goods and services around the world. Harmonized workforce and social policies and internationally standardized certifications and degrees have contributed to help economic dynamism and growth. Yet this rapid pace of change and globalization has contributed to a feeling of being disconnected and dislocated. With globally hyper-connected systems and a diminished sense of local belonging, people are continuously challenged to react and adapt to global economic, technological and societal shocks (World Economic Forum, 10).

## **4. CONCLUSION**

Now let's focus on the matrix assuming the learning evolution is fast. This means that the extent to which the working population acquires the right skills in the present and in the future to get the required tasks done in the workplace. It is foreseeable that it is perhaps the most impactful and uncertain variable for the future of work. This factor evolves by the development of updated and agile education in basic, the access across geographies and socio-economic groups, retraining opportunities within a company and the mindset toward lifelong learning. We need to highlight once again that none of these scenarios are certain and they are determined by the combination of different industries, societies, geographies and other variables. The purpose of an explorative scenario is to show how the trends might change the game of the society of workers and companies.

*Table following on the next page*

*Table 1: Scenarios considering fast profession change*

<i>Scenarios considering fast profession change</i>			
		<b>Technological change</b>	
		<b>Steady</b>	<b>Accelerated</b>
<b>Workplace mobility</b>	<b>Low</b>	World of humanness (Empovered individuals)	World of humanness (Productive locals)
	<b>High</b>	Polarized world (Manufacturers / Skilled flows)	Individualism (Agile Adapters)

#### 4.1. World of humanness

When workplace mobility is low, regardless of the volume of technological change (firms adopt technology and automation on mutually beneficial terms), collectivist impulses thrive in a fragmented world — workers and companies seek out for greater meaning and relevance. Humanness is highly valued; thus we named these two scenarios the era of humanness. Workers find flexibility, autonomy, and fulfilment, working for organizations with strong social and ethical records because there is a strong desire to contribute to the common good. The traditional core functions of HR are held by business leaders, the collective, or taken on by new worker guilds. The concept of fair pay predominates, and companies are broken down into collaborative networks of smaller specialized organizations who operates on a low impact-high technology model with a goal to maximize flexibility and minimize cost. Conflicts between technology and automation, and humanness and individuality will usually be resolved in favour of the latter, providing workers with autonomy and a variety of ways to work. Employees are not taking traditional career paths and staying with the same company for years but rather work in a contractual frame. Because customers are likely to resist automation, companies will offer human driver options on self-driving taxis or put stamps on products to indicate they were made by people rather than by machines. Similar to when highlighting when a product was produced within a country's borders. Workers are loyal to other people with the same skills or cause, not only to their organization. "This is the perfect breeding ground for the emergence of new worker guilds — far more powerful than today's unions — that develop in order to protect, support, and connect independent workers, and often provide training and other benefits that have traditionally been supplied by employers. Guilds assume responsibility for members' well-being, pensions, training, and even their university educations." (PwC, 2019) On demand labour grows as firms have a better picture of who their workers are, what they need, at what times and at what skill level (RSA, 2019). The public's attitude towards technology deteriorates as the risks become more apparent, also reflects the growing number of Millennials showing up at the job market (Morgan, 2016)

#### 4.2. Polarized World

In this Polarized world (an individualized and integrated world), global corporations take center stage, becoming larger, more powerful, and more influential than ever — some even have more sway than nation states. Companies assume that their size and influence is the best way to protect their profit margins against intense competition from their peers and new market entrants. Human capital is valuable, and managers has to understand the connection between technology and performance. Top talents are fiercely fought over, thus HR need to use advanced metrics to predict future talent demands and to measure and anticipate performance and retention issues because these "star" talents are being able to change workplaces whenever they receive a better offer. Companies prize a small group of "super-workers," who maximize their productivity with physical and medical enhancement techniques and equipment. As most people are struggling with temporary work, a corporate career separates the "haves" from the "have-nots." Companies provide many of the services, from children's education, eldercare and health care, that previously came from the state or other sources.

Those who thrive under the relentless pressure to perform will reap excellent rewards, as will in-demand contract workers with specialized skills (PwC, 2) Not only super-workers and super-companies prosper and exist, but on the other hand, unskilled and unprepared workers and firms are lagging behind. Those without a corporate career find it much more difficult to obtain those services, sinking into a lower social class serving and satisfying the needs of the top, highly agile workers. This means that some territories and even countries might fall behind, forming a highly polarized and more and more unequal world.

#### **4.3. Individualism**

In World of Individualism or where agile adapters thrive, “small is powerful”. Accelerated technological change allows tiny start-up businesses to tap into the vast reservoirs of information, skills and financing reaching what were formerly available only to large organizations. Innovation and people are inseparable, which will trickle down to how companies find, manage and reward workers. Full-time “permanent” employment drops to an insignificant level as automation and digital platforms become the norm to find talent and to match workers with employers, and skills with demand. The competition for talent who has the in-demand skills receive the highest rewards but not only as compensation, but factors such as the ownership of their intellectual property and the freedom to work. Workers self-rise independently, building their expertise and developing their deficiencies. Performance is mainly judged on short-term results, therefore this world exalts fast and agile workers rather than slow and steady persons. Yet these workers need to be alert full time, they might find themselves disconnected and diminished even if technology might make them feel connected (PwC, 2019)

### **5. DISCUSSION**

It's going to be a big problem if a lot of people are just pretending to work. The only bigger problem than this is to fire the workers due to the lack of work. Work must exist, as it is the one thing that can drive our society as we know today. Do we even work when we do nothing? In Rutger Bregman's book *Utopia for Realists*, it was highlighted that philosopher John Stuart Mill, economist John Maynard Keynes and playwright George Bernard Shaw were thinking that people will work less in the future. We would rather say, that they would work less at their workplaces. It is not clear enough how much time they will spend there. “The English farmer worked a 1500 hours a year in 1300, and later a factory worker in Manchester twice as much. Shaw in 1900 said that by 2000, workers will work only 2 hours a day” (Bregman, 2017, page 139). Let's learn how to be bored - because those who have to pretend to be visible in an organization cannot find their place. If the organization manager learns to get bored, then there will be no need to encourage others to take further action. Even when you are bored, you think about nothing - just nothing, but it usually becomes something. “A truly grown-up man is who learns to be bored without being offended by this condition” (Sándor Márai). The predictable world has disappeared. Despite many people seeks a predictable future, they understand that in a world of such there are no opportunities, chances, and therefore it becomes boring. People does not enjoy doing the same thing for a long time on a same level. The Indians migrated not only when resources were exhausted, but also when abundance made their lives too predictable. Boredom as an antique experience stems from the fact that everything is predictable. In over-regulated organizations, the leader tells us in every detail what we need to do. Discomfort can start when the expectations outlined or what we have are not in line with our knowledge. We feel threatened by this position (lack of security) if we recognize that the knowledge required exceeds our existing knowledge. Signs suggesting this are not typical. Everything can be boring if we are docile. Successful boredom often fails to emerge from boredom, leading to anxiety. Anxiety as an anti-experience undermines the intellect.

Emotional distress has a devastating effect on thinking. People eager for more in the past, for better life conditions, food, to end the sufferings of those time. They would not even think of a better world than what we have now and they desired different things – because it was not „normal” at that time. They would not have desired to have a new phone for example, simply because they did not know what it was, nor would they care if they had lack of food, or any other shortage. We are now living in the land of plenty, with different tasks to solve, more diverse than it was ever in the history of manhood. The book reflects that utopias has to be taken into consideration with much caution and it is not intended to predict the future. We are living in a paternalistic world which, despite all its welfare it provides, shifts its focus of our discontent to the symptoms and economies are focusing on constant growth. But economy only does not have the answer for that knowledge of what it means to live well. „Ce qu'on voit et ce qu'on ne voit pas” (Frédéric Bastiat) – We do not see the Gross Domestic Product, nor the change of its number. We do not see shadow economies, unpaid labour, mental illnesses, drug use, etc. It also does not calculate the growth and advantages of knowledge. It's a privilege of the rich to rank other goals ahead of growth, but „for most of the world's population money takes the care”. The meaning of the term national has never been fixed and every era has an idea of what defines a country's wealth, but as long as something carries a price tag, it will raise the GDP, but not necessarily welfare (f.e. Jersey shore). GDP came very handy during war as it is reasonable to „borrow from the future”, but as soon as war is over, it is not possible to express prosperity in simple currencies - happiness seems no one-dimensional as GDP and measures as such ignores culture, prosperity, and well-fare – ce qu'on ne voit pas. While the public sector services bring hidden benefits, the private sector is riddled with hidden costs, but may not be able to afford the consequences of falling costs – the absurdity of our performance-driven economy is absurd. Money and economic welfare however are only a guarantor of welfare until the minimal life qualities are met, after that, equality comes in picture. Relative poverty is the key in this matter, for example if inequality goes up, social mobility goes down. Although inequality is inevitable at some degree, but our modern society exceeds far what could reasonably be deemed desirable. Today, jobs at the bottom of the pyramid (supermarkets, fast-food chains, nursing homes) are considered safe for the moment, but what future jobs will the artificial intelligence bring? In order to get a Silicon-Valley job, you have to be talented, lucky and ambitious – which brings us to the „labour market polarization” which is strongest in the US, eventuating the middle-class crumbling. Inequality will continue to increase, and everyone who hasn't managed to master a skill that machines cannot do, will be side-lined. The major source of job growth will be making high earners feel better. People with a higher education will move closer to live with other people with high education (f.e. Spanish tech people moving to Germany). As long as machines can't go to college, a degree offers higher returns than ever (Bregman). This phenomenon needs a radical solution. We must imagine a world in which paid labour is not the be-all and end-all of our existence – and if we cannot imagine it, it doesn't mean that is cannot be done. If we want to hold on to the blessings of technology as a society, we have to massively redistribute resources such as time (shorter working week), money (basic income), taxation (on capital instead of labour) and of robots.

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# OUTSOURCING AS A METHOD OF RECRUITMENT IN THE TSL SECTOR

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## ABSTRACT

*The development of information technologies, globalization of economic processes, recessions in financial markets, along with many other phenomena characterizing dynamic changes on global markets, have an impact on the perception of the world and people. These phenomena are also considered the sources of needs for the social and professional roles of employees. Competent, talented staff has become a strategic tool leading to competitive advantage. As a result, recruitment processes have become more important than ever before. Transport, shipping and logistics are one of the oldest sectors of the economy. Despite the fact that employees in these markets often work in low-exposed positions, they are a fundamental pillar of the economy. Economic sectors such as manufacturing and trade would not be able to function effectively without efficient transport, supply and distribution. Employees in the TSL sector are also a warrant of delivery of the necessary materials and raw materials to manufacturers. Most industries would collapse without properly organized logistics and shipping, which is why employers are looking for new effective methods to recruit the right employees. One such method is recruitment process outsourcing. Outsourcing concerns the commissioning of tasks that were previously carried out internally in the company. This initiative can therefore be viewed as a measure taken usually as a result of restructuring operations. The purpose of the article is to determine the conditions for choosing outsourcing in the recruitment of TSL companies, with particular emphasis on the case of Poland. Using the survey method and a questionnaire, the extent will be studied to which Polish companies from the TSL sector use outsourcing to recruit job candidates.*

**Keywords:** *Outsourcing, Recruitment, TSL sector*

## 1. RECRUITMENT PROCESS OUTSOURCING

Recruitment process outsourcing means entrusting responsibility for the recruitment process for selected or all jobs to an external supplier. It includes finding optimal ways to attract job candidates and process applications for job interviews. On one hand, outsourcing helps save time, relieves HR staff allowing it to engage in activities with greater added value, and brings in the professional knowledge of the service provider. On the other hand, the recruiter's potential inability to cope with certain issues off-site and possible loss of control over the process may be cited as disadvantages (Armstrong, 2011, p. 127). Recruitment and employment of a skilled worker quickly enough to maintain the continuity of efficient business operations is one of the most difficult and important tasks related to conducting business activity (Journal of Laws 2004 No. 99, item 1001). Developing organizations suffer from the insufficient number of qualified workforce, including experienced employees skilled in recruitment, selection and employment. For this reason, many organizations separate recruitment from among their scope and entrust it to specialized entities with experience in the field. While the use of recruitment process outsourcing ultimately depends on contractual arrangements, it generally refers to the separation of the following tasks:

- preparing and posting job offers,
- accepting and reviewing applicants' professional resumes,
- holding preliminary job interviews,
- verifying references,

- presenting the best group of candidates to management (Cook, 2003, p. 117).

These tasks are time-consuming and require properly skilled employees, which is why outsourcing them can mean cost savings for the company. Organizations, however, decide to outsource recruitment because reaching candidates with the right qualifications is challenging while recruitment itself is a highly complex process. Recruitment agents are usually quick and effective in their work, although also quite expensive. Third-party companies may also end up providing unsuitable candidates, the reason why it is so important for companies outsourcing recruitment to share a detailed profile of who they seek (Armstrong, 2011, pp. 456). A decision to outsource recruitment, selection and employment of workers is preceded, among others, by analyzing the local job market with a view to getting a better idea of the type and level of qualifications among available candidates. If the pool of properly skilled candidates is large and the company has experienced staff to handle recruitment, it will most likely not opt for outsourcing. If, however, the job market is weak and recruitment of new employees would be done more effectively by specialists, the organization should consider outsourcing as an alternative (Cook, 2003, p. 118). If a company decides to separate the recruitment process, it must specify the detailed scope of activities that it intends to outsource. When choosing the service provider, several potential partners should be consulted, asked for references and verified. Nationwide companies usually have highly qualified staff and quick order uptake, but their services are also more expensive. To avoid that, a smaller agency could be found whose staff would be equally skilled and whose recruitment services would be less expensive. Having said that, quality should not be sacrificed for the sake of cost-saving, as this may reflect later in the qualifications of new employees and thus the overall performance of the enterprise. Improvements that are often indicated by companies who use recruitment process outsourcing, and which are the result of such cooperation, include:

- reducing the duration of the recruitment process,
- objectifying and rationalizing the search for candidates,
- the security offered for the initial activities of new employees,
- cost optimization, system specialization and employment process specialization in the company,
- transferring responsibility to the recruiter (Drela, Sokół, 2011, p. 152).

These elements form into a logical system that generates added value to the organization, provided of course it is run by an experienced person. The advisory role of the external partner is also an important factor here. Professionalism gives the opportunity to indicate to the recruiter the appropriate approach to the search and selection process. Often problematic in this cooperation, however, is the high fees charged by the recruiter and the long waiting time for locating candidates. It may also happen that recruiters misunderstand their client's needs. There is a significant difference between outsourcing the recruitment process and hiring an on-site recruiter. Enterprises that normally wish to keep this process within their own organizational structure may still want to outsource recruitment in periods of increased turnover. This recruitment aid can be sought among self-employed HR specialists or employees working for recruitment agencies. Conducting the recruitment process by a contract employee is not the same as recruitment process outsourcing (Cook, 2003, pp. 126).

## 2. CHALLENGES AWAITING TSL COMPANIES

The TSL sector is understood to comprise a group of enterprises offering transport, shipping and logistics services, thus indicating a combination of separate past activities (Radziejowska, 2011, p. 258). The changes currently taking place in this industry show how companies are expanding their offer to meet customer needs for logistic services and how they develop their

skills not to lag behind the competition (logistics operators, shippers, carriers) (Skiba, 2019, pp. 250 -256) (Karaś, 2019, pp. 17-24). A ManpowerGroup study<sup>1</sup> shows that employers in Poland predict in the first quarter of 2020 a rise in employment across all ten main sectors of the economy. A moderate +7% increase in net employment<sup>2</sup> is expected for the transport, logistics and communication sectors. Compared to the previous quarter, employment plans in the sector did not change. The forecast points to the least favorable trend in this industry in over six years, down 3 p.p. from the last quarter and 11 p.p. from the first quarter of 2019 (ManpowerGroup, 2019). In the study, more than 58,000 employers from 43 countries and territories were surveyed to predict employment trends for the first quarter of 2020. The survey showed that employers in 42 out of 43 countries and territories expect job growth lasting until the end of March 2020. Compared to the previous quarter, employment plans have improved in 15 out of 43 countries and territories. In 23 countries, employers report weaker employment prospects, while in 5 - there are no changes. In annual terms, employers in 12 countries and territories spoke of an upward trend in the employment forecast and downward in 26; recruitment plans remain unchanged in 5. Job markets are expected to be the strongest in Greece, Japan, Taiwan, the United States and Romania, while the weakest employment forecasts are expected in Panama, Argentina, Costa Rica, Italy and Spain (ManpowerGroup, 2019).

### 3. RECRUITMENT PROCESS OUTSOURCING IN THE TSL SECTOR

What is mainly expected from business entities focused around the TSL sector is achieving flexibility and maintaining highest-quality standards with lowest possible costs and fulfillment guarantee. The rise of TSL companies is a byproduct of the inflow of new projects from other sectors of the economy. This means that companies sometimes report a recruitment demand of up to several hundred employees. For this reason, employers in the TSL sector emphasize the shortage of qualified staff without whom no enterprise can successfully grow (Kaizer, Smolarek, Krośnicka, Ziajka, 2017). The global economy is changing, making the recruitment and employment of relevant candidates an increasingly demanding task. These emerging economic conditions include global competition, rapidly changing business climate, unemployment and the fight for the best candidates. Seeking candidates in this recruitment environment requires being up to date with new recruitment technologies, developing relationships with job applicants and asking the right questions. Enterprises concentrated around the TSL sector may wish to outsource the recruitment process, as it is becoming increasingly complex given the untiring advancement of technology and social media. Faced with the shortage of qualified staff, TSL employers are finding it increasingly difficult to reach suitable candidates, which is why they may decide to use the services of an experienced recruitment company. Every company providing TSL services must take the initiative and carry out tasks in a way that will let them stay ahead of the competition. In addition, they must engage in committed activities to attract, hire and then retain the best employees to build an effective and profitable business. Outsourcing in the TSL industry can be introduced either permanently or as a temporary solution to fill the gap in human resources. Other factors prompting companies to outsource are access to better techniques and quality or tweaking the faulty service structure. The goal may also be obtaining support in reimbursing qualified employees based on the belief that people are the cornerstone of every business success. Specialized outsourcing companies offer a combination of knowledge and experience while their process is not limited to only recruitment and pre-selection but it also encompasses image marketing for the employer. All this is to help enterprises gain an edge when competing for the best job candidates.

<sup>1</sup> The ManpowerGroup Employment Prospects Barometer for the first quarter of 2020 was developed based on individual interviews covering a representative group of 750 employers in Poland.

<sup>2</sup> The parameter "net employment forecast" used in the report is the difference in percentage between the number of employers anticipating an increase in total employment and the number of employers declaring a decrease in total employment in their branch in the first quarter of 2020. The result is the net employment forecast.

Thanks to this cooperation in recruitment, TSL employers can broaden their skills in this area. Recruitment process outsourcing can be a solution enabling TSL companies to optimize management processes and their internal HR departments to implement an effective recruitment policy. It can be used as a tool enabling TSL enterprises to efficiently adapt to current market needs and thus ensure improved performance in the business environment. The increasing pressure on global markets may lead TSL employers to consider cooperation with a recruitment agency (Rosa, 2013, p. 63). Outsourcing companies dealing with recruitment processes can serve as strategic partners with specialized knowledge of market needs, talents, new recruitment technologies and methods of using data to improve decision-making processes.

#### 4. RESEARCHING THE USE OF OUTSOURCING BY TSL COMPANIES IN POLAND

The article analyzes the scope of and reasons for outsourcing the recruitment process by companies in the TSL sector. To this end, a survey was conducted whose aim was to:

- determine the use of recruitment process outsourcing in Polish TSL companies,
- define the features of companies which outsource recruitment,
- identify the benefits and risks of outsourcing recruitment,
- identify the main sources of employee recruitment for companies which do not outsource recruitment.

The research worked with a relatively small sample, therefore it should be treated merely as a pilot study, a precedence or supplement to quantitative research. The sample was 29 enterprises representing the TSL sector in Poland, excluding courier and postal services. A nine-item questionnaire was posted on the online platform. The questions were:

- Question 1: *Determining company size*  
Over 41% of respondents were small enterprises, from 10 to 49 employees, followed by medium-sized enterprises, from 50 to 249 employees (25%). In addition, the study included micro and large enterprises (17% each).
- Question 2: *Use of recruitment process outsourcing*  
The question raised for the purpose of filtering responses showed that most enterprises do not use outsourcing. Over 62% of respondents gave a negative answer to the question.
- Question 3: *Assessment of satisfaction with recruitment process outsourcing*  
Out of 11 respondents, four (36%) described their level of satisfaction with recruitment outsourcing as *good*. Three enterprises (27%) assessed the cooperation as *very good* while one rated it as *sufficient*.
- Question 4: *Benefits of recruitment process outsourcing*  
Responses given to this question suggest that enterprises in the TSL sector indicate employment of suitable candidates and reducing recruitment time as benefits.
- Question 5: *Threats resulting from the separation of the recruitment process*  
Respondents mentioned three main threats related to outsourcing recruitment. They pointed primarily to leakage of confidential information (28%), as well as loss of control over the separated process and recruiting unsuitable candidates.
- Question 6: *Criteria for choosing a recruitment company*  
Analyzing the responses, it can be seen that the crucial factor when deciding on the selection of a recruitment company is price (38%). Equally important were the recruitment company's experience and references (22% each).
- Question 7: *Reasons for not outsourcing recruitment*  
Respondents who did not outsource recruitment tasks cited mainly the lack of certainty that the process would run smoothly (30%) and the fact they did not take that possibility into account at all (29%).

- Question 8: *Likelihood to outsource recruitment in the future*

In response to the question about the likelihood to outsource recruitment processes in the near future, that is in the next 1-2 years, the majority of respondents (68%) said they were not likely to do so. A large share (25%) also marked the answer *I don't know*.

- Question 9: *Ways of searching for job candidates*

Employers who do not outsource recruitment seem to most often post vacancies on online job websites as the basic way of informing candidates about recruitment. This was followed by posting advertisements at the local job office or on own website. Radio/TV ads were by far the least preferred form of communication in this respect (3%).

## 5. CONCLUSION

Economic changes in developed countries come with the need for new strategies and solutions for the job market. With the increasing globalization of international markets, the TSL sector could not have avoided a shakeup. TSL enterprises need to take today the steps necessary to gain a competitive advantage. One such step is having qualified employees. In order to become a market leader, an organization should implement innovative and diverse strategies, an example being the outsourcing of recruitment processes. The group of TSL companies surveyed in the article was not very numerous, but it still allows drawing a number of conclusions. Most of the surveyed enterprises did not use recruitment outsourcing. Most interestingly, lack of trust in the external recruiter was cited as the main reason for preferring to keep this process within the organization. When analyzing the responses, it turned out that outsourcing of recruitment is not used at all by micro enterprises. This is not particularly surprising if we consider that the Polish TSL market consists mainly of micro and small-sized enterprises who can rarely afford having a dedicated HR department. In general, it is the company owner who deals with staff matters in such companies. TSL companies that do not outsource recruitment processes do not plan to change that in the near future either. That is despite the fact that most TSL companies who have used recruitment outsourcing are satisfied with their decision. As many as 63% rated it as either good or very good. On the other hand, among the threats cited by companies who have yet to outsource recruitment, the possibility of leakage of confidential information was indicated. This article can be used as a pilot for conducting comprehensive marketing research or as a springboard for further deliberations.

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## SMALL FAMILY HOTELS IN DESTINATION BRANDING FUNCTION

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### ABSTRACT

*The subject of the research is small family hotels in the function of destination branding and brand affiliation in promotion. The paper will study and investigate how small family-run hotels can designate and create a tourist destination. The aim and purpose of this paper is to show how to create a quality brand of a small family hotel in the best possible way and to present it as high quality as possible in the market. By providing quality service, individual access to the guest, excellent advertising and cooperation with all bodies in the tourist destination, a small or family hotel can become, over a period of time, a brand that will be recognized in that tourist destination, for which guests will always return to that tourist destination. The following scientific research methods will be used in this paper: inductive and deductive methods, analysis and synthesis methods, descriptive methods and classification methods. The paper will be divided into three main points, three titles. The first point of the paper deals generally with small family-run hotels, their basic features and characteristics. Furthermore, it discusses the development of small family hotel offerings and characteristics of services in small family hotels, the national association of small family hotels, as well as topics and activities related to the offer of small family hotels. The second part deals with the management of small family hotels, the functions of the management of small family hotels. It also discusses some specifics related to the management of family hotels and the factors that affect the performance of small family hotels and the innovative management of small family hotels. The third part of the paper deals with the branding of small family hotels in a tourist destination, on how and in what way small family hotels can become a trademark of a tourist destination. The authors initially write what the brand is and what are the fundamental characteristics of the brand. After that, the authors write about the peculiarities of the management of the tourism organization and destination and the marketing management of the tourism organization. Finally, the author writes about creating small family hotels in a tourist destination.*

**Keywords:** *Brand, Small & Family Hotels, Management, Promotion, Development*

### 1. INTRODUCTION

Observing tourism in this region, thinking specifically about Croatian tourism, one might say that small family hotels are a new trend, a new face of Croatian tourism. In the past 30 years, we could say that there were hardly any small family hotels, only a few, compared to today. The development of small family hotels in the Croatian tourist offer unites all the qualities of Croatian tourism that visitors have known so far, and at the same time with small family hotels there are some new advantages that are manifested as qualities that were almost unknown until now. The offer of small family hotels opens a new page of the Croatian tourist offer, as the guest feels best and most comfortable in a quiet, close, comfortable and family environment.

The guest therefore finds himself in the kind of environment where his particular desires and habits that he practices can be respected, and his specialty is respected. In such an environment, the individual feels accepted, respected and satisfied. It is this warmth of personal access that is very important and irreplaceable by anything else, and small family-run hotels are a form of tourist offer that best knows and best represents this warmth. In order to introduce the guest to the original and authentic local values, each small family-run hotel tells its own story. Each of these hotels do it by an architecture unique to the area, distinctive interior design, various flavors and scents of local cuisine specific to the area, wine list, various excursions, sports and recreational activities and customs that take place in that area. Most often, all the specific features and recreational activities related to a hotel are presented in the hotel catalog, or one could say a brochure that depicts it all in a picturesque and detailed way and with such catalogs the guests feel the spirit of the place in that family hotel where they are staying. When we talk about the offer of small family hotels, it can be very diverse and specific. A lot of factors depend on the offer of small family hotels, ranging from the area where a particular hotel is located, through the various services the hotel wants to offer to some more special offers, such as those in different seasons, when small family hotels offer their products specific for that particular season. The following is a table showing the organization of the Croatian hotel industry and a description of hotels classified into small (up to 100 rooms), medium-sized hotels (100 - 200 rooms) and large hotels (more than 200 rooms) and their indexes. The data are from 2015 and are used to compare the ratio of the number of small, medium and large hotels, also which hotels are in the largest number and which in the smallest number.

*Table 1: Hotels in the Republic of Croatia by Size (Galičić, 2017, p. 49)*

Number of accommodation units	Number of hotels	Index %
– 15	112	17,72
16 – 50	250	39,56
51 – 100	85	13,45
101 – 150	50	7,91
151 – 200	39	6,17
201 – 300	65	10,28
više od 300	31	4,91
Total	632	100,00

As can be seen from this table, the largest number of hotels in the Croatian hotel industry are medium-sized hotels, which in 2017 recorded 174, or 27.53% of the total number of hotels. Small hotels are represented by 362 hotels, or 57.28% of the total number of hotels in Croatia. It is these small hotels that are the most vital part of the hotel industry, as they are the most flexible in adapting to changes in the market and at the same time generate higher profit margins. The next comes a table with small family hotels distributed in Croatian regions. These hotels are members of, or registered with, a national association of small and family-run hotels and, according to their ordinance, are classified into eight separate regions.

*Table 2: Number of small family-owned hotels arranged by region (Family and small hotels, [www.omh.hr](http://www.omh.hr), 12/14/2018)*

Region	Number of hotels
City of Zagreb	6
Continental Hrvatska	15
Istra region	20
Kvarner region	19
Zadar region	12
Šibenik region	10
Split region	31
Dubrovnik region	11



Table 2 shows that the largest number of small family hotels are in the Split region, and the least in the city of Zagreb and the Šibenik region. Of course, the size of the regions should be taken into account here, because the city of Zagreb is viewed as a separate region, so it may not be as competitive because of its size as a region. After the Split region, there are most small family-run hotels in Istria and Kvarner. When highlighting this information, it should also be emphasized that this number of small family-run hotels is likely to be higher, since not all hotels are members of a national association of small and family-run hotels, so the actual number is unknown. For many years, Croatian tourism has been one of the most important economic sectors in the Republic of Croatia and is generally receiving the most attention. It can also be said that in recent years it has been very competitive on the global tourism market. The annual growth of tourists is measured by the arrivals as well as overnights of domestic and foreign tourists, which serve as financial indicators of the income generated by those overnights and arrivals and thus tourism determines the growth achieved and its economic strength. Croatian tourism has been at a turning point in the last ten years, and it is necessary to create conditions for further development, which could provide the so-called - tourism of experience and also, one might say, restructuring of accommodation and improvement of additional facilities. It is through this restructuring and through the development of small family hotels and the offering of some additional facilities that Croatian tourism would gain a new dimension and a completely new image. Data on accommodation units correlated with overnight stays in small and family-run hotels, according to data from 2008 and 2009 sorted by category or by star number of hotels, are also sorted by number of accommodation units, bed capacity, arrivals and overnight stays. The table also shows the index, which put those two years in the correlation and record the decline or increase in small and family-run hotels and usage rates per day.

*Table 3: Croatian small and family hotels (Kramarić, 2010, p. 1006)*

	Number of units		Index	Capacity (beds)		Index	Arrivals	Overnights	Rate of use per day
<i>Kategorija</i>	2008.	2009.	'09/08	2008.	2009.	'09/08	2008.	2008.	
*	1	0	/	22	0	/	300	1169	53,1
**	35	29	82,86	1225	970	79,18	41450	93959	76,7
***	111	118	106,31	3614	3875	107,22	165567	342305	94,7
****	27	33	122,22	809	1026	126,82	31071	67548	83,5
*****	2	2	100	63	75	119,05	2260	5602	88,9
TOTAL	176	182	103,41	5733	5946	103,72	240648	510583	89,1

This table shows that the number of small and family-run hotels in 2009 increased compared to 2008. With the increase in the number of hotels, the number of capacities and beds increased also. Negative trends were observed in the categories of one and two star hotels, and the increase in the number of hotels was recorded in three and four star hotels. The negative trend in two-star hotels was marked by 17.14%, while the highest increase was observed in the category of four-star hotels - 22.22%. At small and family five-star hotels, the situation remained unchanged. Looking at Croatian tourism, it is able to survive in the global race, but the future will require improving support for Croatian tourism and strengthening authenticity, which should be the main carrier of the future market. New tourism products and attractions will play an important role, as well as the solution to problems and concerns resulting from historical development. The history associated with the development of Croatian tourism has hindered the development of small and medium-sized enterprises, especially in the quality segment. This has also, in some ways, declined the development of small family-run hotels in Croatian tourism. In Europe, Austria and Italy, most hotel services are delivered through the quality segment.

The share of small and family hotels in the total number is approximately 30%, and in hotel capacities less than 5%, which clearly indicates that Croatian tourism has a long and demanding development path ahead in this segment. Through some of the facts already stated in the paper, the development of Croatian tourism requires a change, which should include a change in approach, quality, authenticity and services, as well as small and medium-sized enterprises in tourism. Small and family-run hotels should play a key role here. With the support of the institutions, it is very important that there is a very comprehensive network of small and medium-sized enterprises in Croatia with the support of the National Association of Family and Small Hotels. This constitutes a very powerful form of networking and organizing in various collaborative activities to achieve development and marketing goals. In the end, we can say that this type of service and attraction, through the offer of small and family-run hotels, has brought to Croatian tourism numerous positive things. Through successful cooperation between the public and private sectors, small and family-run hotels will continue to strengthen and become one of the main elements of tourism, as well as a competitive destination for other countries. In any case, there should be no doubt about the continuation of this positive trend. It has already been stated in this paper that the offer of family and small hotels in the Croatian tourist offer is very diverse and substantial. When it comes to content, it refers to what type of service the customer wants and depends on which service the customer prefers. Depending on the guest and what he wants, a content offer is created. It also depends on whether the guest has a family, whether a family is coming, whether a young couple is coming, whether business partners are coming for teambuilding or individuals who wants to spend their vacation actively, as an adventure vacation. For each customer is found what he wants and prefers. Therefore, the thematic offers that guests can expect in family and small hotels (hereinafter referred to as OMH) across Croatia will now be listed. Holidays with family are a time when adults can fully relax and enjoy shared moments with their loved ones. They can enjoy the family and small hotels featured on the OMH Association website. Hotels for families with children are also equipped for adults, but especially for children. Taking care of every detail gives parents and children a comfortable and safe stay at the hotel they want to stay at. The website particularly highlights the benefits that the OMH Association highlights, such as: equipped and protected playgrounds and playrooms, the ability to connect accommodation units, babysitting services, kid-friendly menus, organization of celebrations and social games.

### **1.1. Active and adventure vacation**

If one of the guests has the spirit of an athlete, adventurer or just wants to be on the move, there are a lot of opportunities to spend a vacation in small hotels. Cycling, rafting, hiking, hiking are just some of the activities that family guests can do while discovering and learning about one of the destinations in the Croatian tourist offer. Hotels for active and adventure holidays are perfect for people who want to be constantly on the move, who want to explore, get to know the nature and experience something different. As with family vacations, the special features of the OMH Association at its hotels include: sports facilities, facilities for relaxation and massages, providing quality information about the destination and the facilities it offers, adapted restaurant offer (early breakfast , lunch packages) and the option to repair equipment. Also listed are many activities that guests can do while staying in hotels, some of which are: cycling, walking, hiking, free climbing, rafting, canyoning, kayaking, sailing, diving, hunting and fishing, and many more.

### **1.2. Wellness & spa**

These are the types of hotels where all the details of smell, sounds, water, air, food and drink are adapted to the care of mind and body and can make the holiday truly different for all guests who want to stay in such hotels.

Wellness & spa hotels are oases for relaxation from stress and everyday life. What especially stands out is: modern equipment, professional and professional staff, nutrition services adapted to a healthy lifestyle, established quality, an environment that supports the concept of wellness. Family and small wellness & spa hotels will delight with the great and individualized attention for each guest.

### **1.3. Cultural and historical heritage**

These hotels (also called heritage hotels) are decorated by the spirit of old times and the atmosphere, in an unusual way, in which care is taken of every detail, which in a special way provides a sense of peace and harmony. Such unique and original spaces create a sense of uniqueness and enrich the guest for new experiences about the lifestyle of a previously unknown place and people. These types of hotels stand out because of: the uniqueness of the facilities, the unique and stylish arrangements, the furnishing of flowers in accordance with the regional flora, special care for decoration and furniture, quiet and cozy atmosphere protected from noise. Each of these hotels is original and different and wherever in Croatia guests choose this type of hotel, they will experience a part of local history and architecture.

### **1.4. Gourmet**

These are the hotels that guests choose because of their culinary experiences and enjoyment of meals and drinks, as well as their flavors and aromas. Enjoying the culinary specialties, scents and flavors of local cuisines, fresh ingredients and wine tasting will enrich the stay of all those guests who know how to truly enjoy the magic of food and drink. Each region in Croatia has its own specialties, which it proudly represents and family and small hotels offer them in a unique setting and environment. Gourmet hotels are the best choice for gourmet guests and anyone who wants to enjoy local culinary specialties and excellent wine. In gourmet hotels, the OMH Association particularly emphasizes: local or original dishes, the use of local products in food preparation, carefully selected dishes, rich wine lists, food and beverage tasting offers. At gourmet hotels, staff are especially concerned with the variety and quality of food and drink. By staying in these hotels, potential visitors can get acquainted with all the regions of Croatia through culinary specialties and excellent wines. For business trips, meetings, seminars and gatherings, family and small hotels offer quality equipment and services. Halls, business centers, personal access and adaptability to requirements will all contribute to the quality of work. Business guests of both small and family-run hotels can find a particularly comfortable environment for work and leisure.

## **2. MANAGEMENT OF SMALL FAMILY HOTELS IN THE COMPETITION FUNCTION**

Management is a leadership, in such a way that the holders of the management function determine the holders of managerial activity of the company. Management in small family hotels is usually in the hands of the hotel owner, and he is the one who manages and controls all the business. In small and family-run hotels, the owner (manager) is an entrepreneur who, in one person, combines not only ownership with management, these are often functions of top management and operational (day-to-day) management. No matter what the legal form of ownership, this person invests in, finances, decides the goals and policies of his hotel. Furthermore, this person (entrepreneur) is responsible for planning, management, organization, employment and supervision. The owner (manager) can ask for advice outside the hotel, which he usually does when it comes to financing, architecture and design, business promotion, law, maintenance of equipment and services, and some other issues. Although he can seek advice, the owner is usually himself a marketing expert, procurement, human resources, organizer and coordinator of hotel facilities and services in general, and he is a representative of the hotel for

the outside world. From all this it can be seen that this owner has a lot of obligations and a lot of things are on his "back", but this is a smaller volume of business than is the case with large hotels. That way, when he "holds all the threads" he can be pleased to have an overview of everything. Of course, he will be satisfied if his hotel is doing well and if he knows how to make a profit that will satisfy him (Cetinski, Mihohnic and Peric, 2009, p. 65). The size of a small hotel's business affects the organization and supply of its workforce in two ways: the limited division into departments and the option that operations can be monitored from a single, single level. Looking at the structure of a small hotel business through the eyes of management, a small hotel business requires a certain amount of knowledge and skills needed to do business, which is rarely united in one person. In such cases, the manager of a small hotel almost constantly performs some of the tasks and duties that are performed by ordinary employees in larger hotels. A small hotel avoids rigid separation between departments, most of them actually working closely together. A small hotel can bring a great deal of pleasure to its owners and employees, but it cannot be expected that many innovations will be invented as far as the organization is concerned. Management functions are very important for every form of management, for all sizes of businesses, including small family hotels (Medlik and Ingram, 2002, p. 98). Through all these management functions, the hotel business takes place and each function has its own role in the business of small and family-run hotels. Each function is very important, and each of them is complementary to one another and that is how management functions. Throughout history, the management development path has changed functions. Nowadays, both in large hotel companies and in this case in small family hotels, managerial functions are reduced to five basic functions: planning, organizing, human resources, leading and controlling (Magaš, 2003, p. 57). These functions can also be considered individually, but their implementation within the overall management process of an organization necessarily requires their interdependence, and sometimes these functions overlap. Differences in functions relate to the breadth of scope, complexity of work, diversity, or division into individual holders and / or groups of holders, which again depends on the size of the company and the subject of its business. The success of managers is based on their ability to see and think far-sighted, to have a good understanding of a dynamic and changing environment and to find the right answers, for successful business operations in a changing environment. It should be emphasized here that a real plan does not really exist until the decision to invest human or material resources is made. Before a decision is made, there is only a plan study, analysis or proposal - there is no actual plan. Therefore, this management function requires the manager of a small or family hotel to be well aware of the opportunities in the external environment in which the work plan will be realized, its potential guests, but also the limitations, that is, to realistically present the chances for development, set goals, analyze planning assumptions, identify possible alternatives, develop plans for individual business segments, and anticipate the costs of implementing the plans. Uncertainty and risk always appear as a limiting factor, because the information at hand, cognition and creative power are often insufficient or limited. In order to achieve the planning function, a lot of attention should be paid to defining the vision, mission and goals of the business. Vision is the art of seeing what is invisible to others. The vision in this case represents a long view into the future, it represents some realistic image of a certain desired future state. It answers the question: What do we want to achieve in the future and what does project management mean for the company? Once the vision of a particular project is defined, then the mission definition begins. The word mission is a narrower term than vision and answers the question "What business are we doing?" (Magaš, 2008, p. 89). Goals are our endpoints to which business activities are directed and they express the results that need to be achieved. In order for the planned goals to be achieved, human and material resources should be aligned, working roles should be shared and, ultimately, individual and group efforts coordinated through the work organization process.

Management has been discussed earlier in this paper, but it is equally important to emphasize that management in each industry is specific and not comparable to other forms of management. Each industry has its own peculiarities that make management different. For small and family-run hotels, it is important to clearly identify specific areas of management. When discussing this, it is important to consider the following facts (Magaš, 2008, p. 79):

- the role of marketing
- quality management
- the importance and use of information technology
- the relationship between planning and performance
- strategic management and business growth
- entrepreneurship development

The specifics of management in the hospitality industry discussed here stem from two key determinants: seasonal constraints and the nature, functions and technology of the services provided. The specificities and peculiarities of the management of small hotel companies are certainly reflected in the prism of knowledge and skills. A precondition for quality or successful management is the breadth of knowledge and skills in various fields, for example: communication, information technology, marketing, entrepreneurship, technical - technological process and others. Following the above facts about management in small hotel companies, it can be concluded that in the hospitality industry a specific form of management is nurtured, where the diversity of components that indicate the specifics of the catering service should be taken into account (Magaš, 2008, 78):

- Intangible - (Bedding service cannot be stored)
- Uno-actu-principle - (overnight service is provided and consumed immediately by guests)
- Integration of external factors - in order to be able to provide the service, the guest must come to the place of service (the service can be provided only in the presence of guests at the hotel)
- Participation obligation - the guest should participate in the success of his / her stay in a tourist destination, facility, etc. (his / her wishes should be communicated adequately)
- Consumption at the point of service - guests must come to the product, consumption follows at the point of service
- Package of services – it is combined from things and provision of services (a lump sum journey consists of transport / provision of services / overnights / provision of services / meals / giving of things /)
- The basic and supplementary services - total catering consist of providing the basic, auxiliary and additional service
- High "comfort" of the product parts - different elements of the tourism product affect each other (bad or good hotel affects the overall image of the trip)
- Passability - most catering services cannot be stored, they are time and space dependent and therefore transitory (unused hotel bed "collapses", cannot be stored until the next day)
- Time lapse - catering services are provided at a certain time "Services are performed" - (14 days use of accommodation service)

When it comes to management, there is no "universal" form of management, such a form of management that can be applied to any small hotel business, and therefore every single organization must carefully select and apply an appropriate form of management, designed and adapted to its specific criteria. The fulfillment of the above prerequisites is the path to "successful management". In order for the success of management to be complete, it is necessary to invest permanently in the education of the personnel of the employees in this field,

as well as in their constant training, ie improvement. This will contribute to the dissemination of knowledge and skills in the field of hospitality management, and as a final product of this approach will create "successful management", capable of meeting the needs of the most demanding guest (Moriarty, Jones, Rowley & Kupiec-Teahan, 2008. pp. 295). It is a true and undeniable fact that the success of an enterprise's business depends largely on its leadership, that is, management. Although management is the biggest factor affecting business performance, there are a number of other factors besides which are often very difficult to influence and modify. Factors that, in addition to management, can affect the performance of a particular hospitality business are the subject of an analysis of the management of small hotel companies regarding the problems they face in their business, and ultimately the adoption of measures and actions that need to be taken to increase this sector (Bogovic, 2003, p. 93). Innovation is seen as a specific tool for entrepreneurs / managers, a means by which they use change as an opportunity for another business or service. It can be portrayed as a discipline, it can be learned, it can be used. Entrepreneurs and managers should constantly look for sources of innovation, changes and their symptoms that indicate favorable opportunities for successful innovation. And it is certainly necessary to know how to apply the principles of successful innovation. Innovation is a concept that implies change and emerges as the fruit of creative, or inventive, work that finds its application in practice. Only those entrepreneurs who are ready for change, that is, innovation, are successful, because this is the way to make their company more successful than the competition, and then the entrepreneur is a central figure in successful technological innovation (Kirillova, 2018, pp. 3328). As the enterprise is more customer-oriented and market-driven, functional responsibilities become less segregated, companies become more flexible and open to a competitive environment, ready to respond more quickly to changing consumer needs. The restaurant business as a service industry primarily emphasizes the importance of continuous improvement of business and innovation in order to meet the needs of the customer. The services that accompany the offer will then assist in the selection and differentiation of individual products, thus providing a unique competitive advantage. Continuous improvement should also result in lower costs and more noticeable organization. It is necessary to ensure customer loyalty (Zupan and Milfelner, 2014, pp. 515) on the one hand, but also with lower costs, on the other hand, the company must then be able to create new products as well as new service improvements. New products will provide the opportunity to attract new guests and expand the circle of loyal and loyal guests. Innovative entrepreneurship does not just imply customer focus and innovation as two key business activities. More recent approaches are more focused on (Magaš, 2003, p. 81):

- how the company will meet consumer needs
- achieving a unique competitive advantage
- offer greater (added) value to the guest
- constant monitoring of guest needs

The purpose of innovative entrepreneurship is to create something new, different, of higher quality, which transforms the already experienced catering service into a new service. This new service is a service that completely satisfies the guest, that is, the service is higher than the guest's expectations. Innovative entrepreneurship is a form of entrepreneurship that represents the strength that drives the hospitality business towards the constant growth of the quality of products and services, and thus to greater economic effects.

### **3. BRANDING OF SMALL FAMILY HOTELS IN THE TOURIST DESTINATION**

When this term is used, it is considered that small family hotels should be implemented in some way in a tourist destination, or better yet, small family hotels should become the brand of a particular tourist destination. There is no easy way to achieve such a thing.

This kind of thing requires a whole range of business activities and it will take years for that brand (a small family-run hotel) to become recognizable in the market. Starting with the construction of a hotel in a particular climate, determining the strategy for the hotel business and the goals that the hotel company wants to achieve. Furthermore, choosing the staff, human resources that will carry out business activities, all the way to accessing the guest and how to best provide him with a unique service that will make him return to that particular tourist destination at that particular small family-run hotel. When guests have gained confidence in the tourist product that a small family-run hotel has to offer, then that hotel business has their loyalty, which is the foundation for a successful business. If guests are satisfied with the service, they will spread the positive story of a small family-run hotel and bring in some new guests who can become potential permanent and loyal guests. This is one way of doing branding for small family-run hotels in a tourist destination. Of course that is not all, there has to be some investment in marketing and promotional activities in order to best present this small family hotel that has become a brand of tourist destination. Furthermore, cooperation with all legislative bodies is important, as well as cooperation with tourist boards and tourist agencies. A brand is a recognizable name and / or symbol (such as a logo, trademark or packaging design) designed to identify the goods or services that a particular small family hotel will offer to its guests and to differentiate it brands offered by the business competitors. The brand has to represent something, it has to be a promise to the guest consumer that he will get all the services he demands and requires from the hotel facility, and for these reasons the brand is more than just a mere symbol that is marketed to the public. It is useful to look at the brand of a tourist destination as representative of the identity of the manufacturer of these services and the image for the guest consumer. There is not much talk about creating a tourist destination brand in the scientific literature, and the authors of this paper think that certain experts should be more concerned with this topic. If they start writing the scientific literature on creating a brand of a tourist destination and educate everyone who wants and does not know how to present their product as a brand, then one can already think of a new way of providing services and access to the guest themselves. Then a turn in the Croatian tourist offer can happen over time, which was discussed in the first point of the paper. With such an innovative approach, we can expect favorable results and some advances in the Croatian tourist offer. Starting from providing initial services through to personalized, one-on-one access to small family-run hotels across Croatia. The term brand or brand (a word taken from English, Anglicism) is a recognizable designation or name of a product, which often implies the quality of the product. For this reason, the brand must create a strong and lasting product / service identity, display the personality of the company and create feelings of trust in that product or service, feelings of utility, well-being and security. The main advantage of a brand comes from its presence in the subconscious of consumers / users, ie the ability to recall and recognize it, the so-called. "brand awareness". This is very important when guests want to return to a particular tourist destination and a certain small family hotel, because when they in the subconscious think that they have received quality and valuable service, then it is very likely that they will return to that particular hotel facility (Laškarin and Galicic, 2011, p. 62). The terms brand and trademark go back a long way and are thousands years old. Some trademarks were discovered on Chinese porcelain and ceramics from Greece and Rome, as well as symbols of the people who made them or craft workshops, which reported the origin, quality and proven value of the product. In the past, the owners of the herds of animals each had their own symbol, which made an incandescent stamp on the animals to mark their property. At that historical time, the brand had a task of reporting ownership, as well as the authorship or source of products and services. It was not until the twentieth century that branding as well as brand management became an extremely important area of business, that is, business marketing decisions and activities. Furthermore, it is this brand, that is, the brand feature of contemporary marketing, that differentiates through the

brand. With brand, the importance of product policy is gaining importance as all market characteristics of the product are used to make a shift from generic to branded products. Many theorists who have studied the concept of brand have considered the main purpose of the brand to be product recognition. A major shift in brand understanding was made by author Jean Noel Kapferer, who wrote in his book "Brand Management" that brand is not a product, but the essence of a product, and thus becomes a metaphysical category. This means that it doesn't represent anything tangible but something intangible, which in the nature of business from the point of view of tourism and hospitality is of far greater value than something that is material. Brand elements, sometimes referred to as brand identities (sometimes even personalities), are those elements that can be legally registered and protected, and include:

- Brand Name - eng. Brand name - A part of a pronounceable brand that contains some words, letters and numbers.
- Brand mark - visual identity of the brand. An ineffable but noticeable part of the brand. For example, symbol, design, color combination, etc.
- Trademark - eng. Trade mark - This is a legal mark indicating that the owner has the exclusive right to use the mark or part thereof ® © ™.

By choosing brand elements, the company directly influences the building of its value. Brands are known to have value in the market, but few companies know the true value of their brands because it is difficult to calculate the exact value of something that not only depends on the business company, but also depends on, for example, consumer awareness and brand recognition on the market. The brand's market value reflects the marketing efforts that are put into managing the brand. The value of well-known brands is expressed in financial terms and can be displayed in the hundreds of millions of US dollars. One of the more well-known methods of determining the market value of brands is the measure of substitutability developed by the authors Longman and Moran (Vranešević and Marušić, 2003 p. 139). According to this model, the key indicator of the market value of brands is the rate of repeated purchase, with, of course, market share. This rate shows how many consumers who have bought a particular brand the last time will do the same the next time. So the market value of brands is higher if the repetition rate is higher. This can be particularly seen in tourism and hospitality and in the topic of this paper. If a guest has recognized the superior and distinctive service of an individual small family hotel, it is likely that he or she will return to that hotel and then that rate will be repeated. Except re-purchasing a particular product, or service in this case, the quantitative aspect of brand value can be viewed through: market share, revenue and profit, rates of return on investment, and price differences compared to some of the major competitors that appear on the market. Qualitative value of a brand is represented by: perception of quality, satisfaction or dissatisfaction of consumers / guests, their loyalty, competitive advantage of a product or service. According to author David A. Aaker, brand elements can be grouped into 5 categories that represent the core values of the brand:

- Brand loyalty
- Name awareness
- Perceived quality
- Brand-related associations in relation to perceived quality
- Other brand values

The value of a brand is diminished if the presentation method is chosen incorrectly or is not properly managed, thereby reducing the value of the product or service to the consumer / guest. Creating a brand of small family-run hotels in a tourist destination is a very important thing for the Croatian tourist offer, because it creates one story, one brand that becomes recognizable, both in the domestic and foreign markets.



It takes a lot for a small family-run hotel to become a brand and can be said to be the trademark of a particular destination, but when it does, then we can say it really is a "sustainable system". If managed properly, if it nurtures the brand, then it can survive on the market for many years. Creating a brand of family and small hotels in tourist destinations is what the Croatian tourist offer needs, because this is dictated by world tourist demand (Murphy and Kielgast, 2008, pp. 96). Tourism has become a global phenomenon and is a constant tourist trend in the world, and tourism is no longer seen as a mass concept. Guests of various tourist and hotel facilities have started to search for a new approach, a new quality of service. It is through family and small hotels that a new personalized, individual approach to the guest can be achieved (Holverson and Revaz, 2006, pp.399). The guest will then feel like a king, as the famous saying goes, they will feel at home, they will have a special sense of comfort, which they cannot experience in large mass hotels (Galičić and Ivanović, 2008, p. 23). By encouraging the construction of family and small hotels or the conversion of existing hotels and conversion into small or family hotels, all the so-called "dead capitals" can be used, namely the resources that are still intact or only partially utilized. In that case, Croatian tourism would have a very wide, diverse and respectable tourist offer, where the guest could choose between what he wanted and what he was interested in, while thinking of the sea, mountains, continental tourism, because Croatia is still a country with "a thousand wonders". Croatia has everything from the seas, mountains, plains and landscapes, which are breathtaking, and it would be a real pity for Croatia not to utilize these resources and implement family and small hotels (Murphy and Kielgast, 2008, p. 91), through unused and underutilized resources. In this way, Croatia would develop all forms of tourism and would become a very competitive tourist destination in this region and in the world. Tourist destinations have a much larger dimension than consumer goods and other services. According to positioning theory, in order to be effective, you need to reach the minds of very busy consumers with a concise message that is targeted at several brand associations (Pike, 2010, p. 225). This is actually a very difficult process, and it can be seen when it is necessary to think of a simple seven word slogan, a slogan that should embody a diverse range of natural beauties, built attractions, culture, activities, facilities and accommodations of a tourist destination (Pavia, 2010, pp. 195). This diverse group of participants does not share the same market interests. Because of all these things, it is crucial to question who decides what the brand is about and what its responsibility is. It is necessary to create a balance, as we discussed earlier, between community consensus and brand theory, as a top-down approach to creating a brand of a tourist destination is unlikely to succeed here. The key point is that travel destination marketing organizations have no direct control over the fulfillment of brand promises made by the local tourism community. If local participants do not live the strategy, it will probably fail. Contact with previous visitors who have already come to the tourist destination is a powerful, but still underutilized, instrument for strengthening the tourist destination as a brand. It is important to note, when talking about a brand, that a successful brand promotion campaign that will lead to increased returns to local businesses often does not mean increased revenue for tourism destination marketing organizations.

#### **4. CONCLUSION**

Small family hotels that are put into the branding function need to approximate the concepts that are related to small family hotels, with their management, their leadership, factors that affect the success of small family hotels. Creating a brand as a trademark in a tourist destination is crucial for the advancement of tourism for mutual benefit. Especially notable is the character of the tourist organization and destination, as well as the marketing management of the tourist organization, because it is very important that the brand itself will be promoted and advertised in the market in order to achieve the best possible business success. One of the problems that arise in the market is how big and small hotels are sometimes having a hard time competing

with large hotels, as this is sometimes unfair competition. For a tourist destination that is not recognized for capacity building in the form of family and small hotels, but is turning to mass tourism, a single family or small hotel does not have a good chance for its own business type. It cannot then become a brand in a tourist destination because it is "choked" by large hotels and thus is not competitive in the market. Another important problem is the lack of staff, that is, quality staff trained to work with guests who seek more than basic services (overnights and breakfast). Quality guest work requires a lot of knowledge, skills and competencies, and only when certain human resources in a hotel company can satisfy these conditions they can compete for work in a hotel company. These guests (as already written in the paper) are looking for something more than the sun and the sea itself, with which the Croatian tourist offer is constantly boasting and praising. They are looking for some additional activities, active holidays, personalized access, a pleasant treatment, a comfortable environment and quality service. The authors of the paper believe that professional staff should be more concerned with this topic in the education system itself, in order to train as many staff as possible who can perform demanding tasks related to the offer of family and small hotels. As for the future of family and small hotels in the Croatian tourist offer, it is certain that they can bring a shift and improvement to Croatian tourism. Prosperity in the sense that this type of offer will be of better quality and better than that of mass tourism. The aforementioned facts that guests are increasingly looking for (pleasant environment, cozy atmosphere, personalized approach and more) can turn this form of tourist offer into something very good and promising for Croatian tourism and the Croatian economy in general. In order to achieve such a thing, it is necessary to encourage the development of Croatian tourism in this direction, so that Croatia can truly become one of the leading top destinations in this part of Europe and to become world famous, known to all guests around the world. Another equally important thing to point out would be the development of small and family-run hotels in Croatian continental tourism. This (continental) form of tourism is generally not sufficiently developed in this area, but it also has space and potential for progress and development. For example, in Slavonia there are certainly potentials for tourism development. Although there are already some forms of supply, the authors of the paper, believe that every form of tourism should be developed, including hunting, fishing tourism, active holidays in the form of hiking trails, bicycle trails, etc. Since this part of Croatia is smaller than the whole Adriatic coast, then they would actually get a form of regional tourism, where everything is generally close and where the diverse needs of tourists can be met. The region would become a tourist destination with a variety of offers for every guest who wants to meet his needs. In conclusion, it would be good if, at the national, regional and local levels, legislatures and bodies involved in tourism activities encourage the construction of small family hotels or the conversion into small family hotels, which can provide a new kind of Croatian tourism. A successful cooperation, integration and implementation of small family hotels would give a whole new quality perspective to the Croatian tourist offer.

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## PERCEPTIONS ON LEARNING METHODOLOGIES IN HIGHER EDUCATION: A COMPARATIVE STUDY

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### ABSTRACT

*The teaching-learning processes in Higher Education (HE) must take into account the challenges of employability in contemporary society, subject to greater mobility, scientific-technological renewal, economic and cultural globalization and the ease of communication and exchange of information. The purpose of developing professional competences makes Higher Education Institutions (HEIs) responsible for creating opportunities, offered to students, in the fields of knowledge, the skills to use knowledge and to collaborate with peers in problem solving. In this sense, the study was developed with the aim of analyzing the students' perceptions about the methodologies that enhance their learning, in HEIs. The sample consists of 10 students from two different HEIs, 5 students from University Education and the rest from Polytechnic Education. Data collection was carried out through 2 «focus groups» for every 5 students who made themselves available, from 4 courses. The qualitative study, answered the following research question: what is the students' perception about learning methodologies? The data were treated and analyzed using the webQDA software. In the investigative process, the codification of narratives, with emerging categories, resulting from the focus groups, implied the distinction between the three dimensions: learning environments; interactive feedback; and assessment skills. The data triangulation was carried out between the two narratives resulting from the two HEIs and the theoretical foundation. The students realized that the learning methodologies in the classroom allowed them to: a) promote diverse and flexible learning environments; b) valuing your participation with efficient forms of interactive feedback; and c) the development of differentiated assessment skills. These characteristics, in addition to being extremely important for learning, are essential for the subsequent professional context, fostering reflection and lifelong learning.*

**Keywords:** *Assessment skills, Higher education, Interactive feedback, Learning methodologies, webQDA*

### 1. INTRODUCTION

The teaching-learning processes in Higher Education (HE) must take into account the challenges of employability in contemporary society, subject to greater mobility, scientific-technological renewal, economic and cultural globalization and the ease of communication and exchange of information. The purpose of developing professional competences makes Higher Education Institutions (HEIs) responsible for creating opportunities, offered to students, in the fields of knowledge, the skills to use knowledge and to collaborate with peers in problem solving. A socio-constructivist conception of learning from a reconceptualist perspective of the HEIs curricula will legitimize the evaluation mainly because of its critical, personalizing and emancipatory function. For this reason, the subject is given a central role in the evaluation, due to the fact, for example, of giving him protagonism in the evaluation procedures. The evaluation practices demand a high degree of participation of the subjects, favoring practices of negotiation, dialogue and decision, which includes the emphasis on the formative and

regulatory function, the critical appropriation of criteria, the co-responsibility in decisions and more open and participatory methods (Harlen, 2006; Sá, 2015). It is generally accepted, in the literature, that assessment practices must count on the active participation of all students and contribute unequivocally to the improvement of their learning (Fernandes, 2009; Silva, Lopes and Dominguez, 2020). However, for this to happen, it is essential that the assessment is integrated into the teaching and learning processes and that it is predominantly of a formative nature. In this context, Epstein argues that assessment can be formative, in the sense of “... guiding future learning, providing tranquility, promoting reflection and forming values, or summing up, making a general judgment about competence, aptitude to practice, or qualification to advance to higher levels of responsibility” (2007, p. 393).

## 2. ASSESSMENT MODES AND FUNCTIONS

The pedagogical modalities and functions of the evaluation will be conceptualized, articulating them, in order to verify their performance in the teaching-learning process. The function as a certification measure and the function as description, present in the summative assessment modality, mean to classify, select and certify. This assessment takes place at the end of the teaching-learning process, usually through tests and exams, and consists of a balance (a sum) of the students' learning after one or more teaching-learning sequences (Hadgi, 1994; Loe and Pascarella, 2017). In this way, the classifications also facilitate the decisions of promoting, or not, the student throughout the teaching-learning process, “because they allow the comparison of results between students according to established norms” (Ferreira, 2007, p. 30). The function as value judgment allows formulating value judgments about objects of assessment. These judgments, made possible by summative assessment, are also constructed through formative and diagnostic assessment. A value judgment, resulting from the assessment process, can be expressed, depending on its purpose, in a qualitative way, through a description, or quantitative, by assigning a classification (Boud and Falchikov, 2006; Silva, Lopes and Dominguez, 2020). In this way, it allows decision-making about the teaching-learning process and its results, in the sense of regulating that process (Alves, 2004), or of the “decision of approval or disapproval, of selection, of certification.” (Ferreira, 2007, p. 31). In the praxis of these functions, the appraiser assumes himself “... as an element that, like the others (the manager, the trainer, etc.), is subject to the purpose of profitability and results effectiveness. ... The appraiser is an “expert” who participates in a logic of performativity and productivism” (Machado, 2013, p. 61). In this perspective, the evaluator participates as an actor away from the evaluation, but uses the evaluation to interfere in the teaching process (Bonniol and Vial, 2001; Silva Lopes and Dominguez, 2020). Knowledge, as a properly justified true belief, is laboriously produced. Objective knowledge is a result (Rodrigues, 1998). Thus, the assessment will have the function of regulation (Alves, 2004). For Machado (2013), in this context, the assessment is not far from the measurement. Thus, the assessment will be taken into account as an act where it is possible to quantify or qualify the “facts” (class, teacher, teaching objectives, etc.) that are the object of measurement (students, measuring knowledge, measuring skills, measuring processes) building instruments to measure these “facts”. In other words, the formative assessment definitely stands out from the summative assessment because it is carried out during the different stages of the program development process to change its orientation in a timely manner, if it did not meet the needs of the students. Thus, formative assessment is now conceived as an integrated process in teaching and learning, which “occurs during the performance of tasks.” (Ferreira, 2007, p. 59). The diagnostic assessment modality allows to know, as best as possible, the characteristics of the students in the class, with regard to the background that allows them to start learning, creating the necessary conditions for the planning of the teaching-learning process by the teacher (Ferreira, 2007). The formative assessment modality allows to know how judgments about the quality of students' responses can be used to

shape and improve their skills (Sá, 2015; Sadler, 1989; Silva, Lopes and Dominguez, 2020). The negotiation function is important for formative and diagnostic assessment, since formative assessment in its regulatory role, reinforces successes, tries to respond to the educational needs detected, the problems diagnosed and their causes. Formative assessment and diagnosis are privileged forms of assessment, in order to improve and regulate learning. In this context, assessment is integrated into the student's training process and meets the criteria of relevance, equity and shared responsibility (Bonniol and Vial, 2001; Silva, Lopes and Dominguez, 2020). Various measurement instruments are used to assess knowledge, the ability to know how to do and attitudes, using different methodologies in different circumstances. Thus, the assessment will have the function of self-regulation (Alves, 2004). In this dialectic, the subject is simultaneously an object, is what produces social and cultural changes, but at the same time undergoes social and cultural changes, "In this perspective, the assessment is built from the dialogue of commitments between all the actors in the process." (Alves and Machado, 2008). Thus, the assessment is not justified by itself, but it is a way in which all stakeholders will have to reflectively assess an interpretation, both from the point of view of the function and of the teaching and learning process. The common denominator is the input / output relationship, information received, internalization and interpretation in the subject and responses (Bonniol and Vial, 2001).

### **2.1. The Feedback**

The feedback, in its most varied forms, frequencies and distributions, is used in the form of formative and diagnostic assessment, in order to integrate into the teaching-learning process (Alves, 2004; Pereira, 2020; Sá, 2015; Sadler, 1989). The assessment is used by the appraisee and the appraiser to make corrections at all times or at many points in the process, using, for example, constant and regulatory feedback, so it is formative if used by the appraisee. From the evaluator's point of view, it is not only he who imposes control, but allows the process itself to be controlled by the evaluated, that is, self-regulation. With this process, the meaning of the assessment itself is constructed by both, the evaluated and the evaluator (Alves, 2004; Silva, Lopes and Dominguez, 2020). In the context, "giving feedback" is sending feedback messages, in a bidirectional sense, from the teachers to the students and vice versa, with the purpose of obtaining improvements in the process, designating it as interactive feedback (Sá, 2015). Teachers' feedback or feedback messages to students with a view to regulating their academic activities are used by students to make further improvements. Interactive feedback from students to teachers or from teachers to students is used to regulate classroom teaching and learning practices and methodologies, in a reflective logic (Sá, 2015). According to Yorke (2003), feedback can be formal or informal. The informal is usually given orally, in conversation with the student or group of students, but can also be given by e-mail or in participation in forums, when the teacher gives an answer in the discussion to stimulate participation or direct the discussion. Formal feedback is given in the assessments provided for in the planning of subjects where student performance can be "measured". Feedback is used in a predominantly descriptive and non-evaluative way, pointing out what was missing and what could be done otherwise. In this sense, feedback for students is used in a logic of questioning, either as clarification of doubts or as stimulating criticism, support, recommendation, synthesis or conceptual, theoretical or methodological clarification (Loe and Pascarella, 2017; Pereira, 2020). In this context, it is essential that the forms of evaluation used by the teacher that actively involve the student in his learning process constitute the starting point through which it is possible for the teacher to adjust his action, select activities and objectives appropriate to the characteristics of the students and their specific situation, in order to create conditions for them to make relevant and meaningful learning (Alves and Sá, 2013; David, 2006; Pereira, 2020; Sá, 2015; Silva, Lopes and Dominguez, 2020).

### 3. METHODOLOGICAL OPTIONS

The methodology is of a qualitative nature using the content analysis technique that has an “inferential function, in search of a meaning that is beyond what is immediately apprehensible and that awaits the opportunity to be unveiled” (Amado, Costa and Crusoé, 2017, p. 303). This inferential process followed rules to give it reliability and allow the validation of the entire analysis process (Costa and Amado, 2018). Thus, in this study, it was intended to identify learning methodologies in Higher Education, having as an investigative question what are the students' perceptions about learning methodologies in Higher Education. A focus group questionnaire was applied to two groups of students. A group made up of 5 students of University and another made up of 5 students of Polytechnic Education.

#### 3.1. Study sample

The study was carried out between December 2019 and February 2020. The sample consists of 10 students, who voluntarily participated in the research, as seen in table 1:

*Table 1: Characterization of Students*

<b>Students' characteristics</b>	<b>University (N)</b>	<b>Polytechnic Education (N)</b>
Female Gender	1	0
Male Gender	4	5
Engineering Course	0	4
Tourism Course	0	1
Psychology Course	3	0
Marketing Course	2	0
Ages	25 - 32 years	22 - 24 years

*Source: the authors*

Most students are boys, there is only one girl in the case of the University. Polytechnic students attend engineering and one, the tourism course. At the University, 3 students attend the Psychology course and 2 the Marketing Course. The age group of students at the University is between 25 and 32 years old, while the age group of students in polytechnic education is between 22 and 24 years old.

#### 3.2. Data collection

The data collection procedure was by invitation for written investigation, addressed to the Directors of the two higher education institutions, to which the students belonged. Each group of students was clarified on the purpose of the investigation and requested written authorization for audio recording. The focus group was held in a room provided by the educational establishment, and each session lasted 35 minutes. For ethical reasons, anonymity was maintained. The focal interviews were identified by the acronyms E1 to E5, in the case of the University and E6 to E10, in the case of the Polytechnic.

#### 3.3. Categories and Indicators

Taking into account the objective of the study, an attempt was made to provide a detailed and rigorous description, in order to guarantee the validity or credibility of the qualitative study (Amado, Costa and Crusoé, 2017). Some authors (Sá and Costa, 2016, p. 9) refer to the “need to establish some strategies, among them, we highlight the triangulation of the different sources collected, that is, we look at the same phenomenon from different angles”; also by focusing on data triangulation - a modality that proves if the information collected is confirmed by another (theoretical), and we turn to the transparency of the entire process that guarantees the reader the merit, credibility and reliability of the research (Souza, Costa and Souza, 2015, p. 151).

There were pre-defined and validated categories, which are shown below in Table 2.

*Table 2: Assessment categories, subcategories and indicators*

Categories	Subcategories	Indicators
Assessment functions	Identification of difficulties	Assessment carried out in order to collect the students' difficulties.
	Detection of the cognitive level the student is in.	The teacher selects activities and / or objectives appropriate to the characteristics of the students.
	Value judgment	The assessment process is expressed in a qualitative way, through a description, or quantitative, through the attribution of a classification.
	Description	The assessment process is only manifested in a qualitative way, through a description.
	Certification measure	It uses several measurement instruments to assess knowledge, the ability to know how to do and attitudes.
	Negotiation	Assessment favors dialogue and decision-making practices.
Assessment mode	Formative	It is carried out during the different stages of the program development process to change its orientation in a timely manner, in case it does not meet the needs of the students.
	Diagnosis	It allows the teacher to create the necessary conditions for planning the teaching-learning process, determining the initial decision-making related to that process.
	Summative	Allows decision-making about the teaching-learning process and its results, in the sense of regulating that process.
Nature of feedback	Oral and Informal	Responses generated in a discussion to encourage participation or direct the discussion.
	Written and Formal	Comments made in the assessments provided for in the planning of the subjects where the students' performance can be "measured".
	Interactive	Comments to regulate classroom teaching and learning practices and methodologies, in a reflective logic.

*Source: Alves and Sá (2013)*

#### 4. ANALYSIS AND DISCUSSION OF RESULTS

In the present research, a floating reading of the 2 focal interviews was carried out. When conducting the content analysis (Bardin, 2014), the ideas were cut into reference units, words or phrases, texts contained in the information material produced, which corresponded to clear, objective and meaningful ideas in the context of the research. Subsequently, after a thorough reading, the reference units were grouped into indicators, which subsequently allowed us to clarify the definition of each of the categories. As a unit of frequency, we take the reference unit, which was counted as many times as those present in the speech. The data analysis and treatment work was carried out with the support of the qualitative analysis software, webQDA® (Costa, Moreira and Souza, 2019). The open procedure corresponds to a permanent process of progressive creation, in which the reflection and analysis of data are rigorously and constantly triangulated, which makes the methodological process reliable (Costa and Amado, 2018), obtaining as a result of the categorization on table 3.



*Table 3: Result of the categorization of the students' dialogues, by categories and subcategories*

<b>Categories</b>	<b>Subcategories</b>	<b>University (Reference Units)</b>	<b>Politechnic (Reference Units)</b>
Assessment functions	Identification of difficulties	15	
	Detection of the cognitive level in which the student is	7	
	Value judgment	7	
	Description	1	25
	Certification measure	9	15
	Negotiation	10	
Assessment mode	Formative	10	
	Diagnosis	5	
	Summative	10	15
Nature of feedback	Oral and Informal	5	
	Written and Formal	4	
	Interactive	11	
Use of feedback	Complete notes	4	
	Clarification of doubts	8	
	Asking questions	9	
	Review of syllabus	4	

*Source: the authors*

Matrices of category correlation were created, which allowed us to hide crucial information about the recognition of collaborative work in the workplace. Through this time-consuming and deeply reflective process, interpretive inferences were made in order to understand the expressed contents (Amado, Costa and Crusoé, 2013, p. 348), which contribute to the configuration of an explanation of a given social phenomenon and support the final theorizing exercise. Analyzing Table 3, in relation to the assessment function, the most mentioned subcategories, in the case of students at the University, were the identification of student difficulties (15 reference units), Negotiation (10 reference units) and Measure certification (9 reference units). We have as an example, respectively: "We do exercises to find out where we have the most difficulties." (E4); "When we make the correction, we are free to ask why that correction, or that note." (E3); "It is a frequency for us to be evaluated." (E2). The assessment function as detection of the cognitive level in which the student finds himself (7 reference units), in the sense of referring that they felt that the evaluation was individual, or value judgment (7 reference units), since the students emphasized the classification also in a descriptive way (1 reference unit), in a qualitative way. Polytechnic students stressed the function of description (25 frequency units) and certification measure (15 reference units). For these students, the assessment focuses on frequency and the classification obtained from that frequency. For example: "At the end of the semester we have exams, all of which are concentrated in a short period of time. This is not correct, because we should also be evaluated in practice, it should not be only in theory." (E9); "We have the frequency note. We cannot believe in the evaluation made by colleagues, it is not exempt ... there are many interests, but in fact we work a lot in groups and this strategy is important because we learn from our colleagues" (E6). The University students referred in the assessment modality, Formative (10 units of frequency), Summative (10 units of frequency) and Diagnostics (5 units of reference). For example: "We have mini tests for us to check if we are on track." (E2), "The frequencies at the end are just

another test.” (E1), “We have Teachers who put mini tests on the moodle for us to do so that we can point out our doubts and, on the other hand, to keep us having the subject up to date.” (E5). These students consider that the evaluation has an essentially formative function in the sense of being integrated in the learning environment, as defended by Fernandes (2009) and Loe and Pascarella (2017). Polytechnic students only referred to the summative assessment modality (15 reference units), for example, “The test is just for decorating ... I have everything decorated and I dump it at the frequency.” (E10), “In the case of mathematics, one even realizes that there is an exam ... it has to be, but in the case of more practical CU (curricula), there is no point in having an exam.” (E9). These students consider that the assessment has a summative and certification function, in order to make a general judgment about their competences in order to allow them to advance to a higher level of responsibility, as advocated by Epstein (2007) and Silva, Lopes and Dominguez (2020), since they followed an intermediate course using the group work methodology, resulting in an evaluation by the teacher. University students considered feedback to be essentially interactive (11 reference units), for example: “The teacher listens to our opinion, but we also heard his about that approach. This means that, in addition to being comfortable in the classroom for us to ask our questions or opinions, it is also important for us to know the scope of the Professor's reasoning from our view on the subject.” (E1). Feedback is oral and informal (5 reference units) or written and formal (4 reference units). In these cases, we have for example: “The teacher, both gives us support during the course of the class, and puts notes throughout the work. This support and grades are always constructive, in order to evolve in our learning.” (E4). Feedback is used: a) in asking questions (9 reference units), “When I ask questions ... (E3); b) Clarification of doubts (8 reference units), “... my doubts are answered ...” (E5); c) complete notes (4 reference units), “I take the summary and if I don't understand what the Professor says, I ask ...” (E2); and d) review of program content (4 reference units), “one of the things I appreciate in class is being able to question the Teacher, the relationship between the subject she's giving and what she's already given.” (E1). We can consider that in the University the evaluation has a function of regulation, either of the student to know the point of the situation in relation to a determined subject or of the teacher to verify if knowledge was being properly learned (Alves, 2004; Alves and Sá, 2013; Ferreira, 2007; Pereira, 2020; Sá, 2015; Silva, Lopes and Dominguez, 2020).

## 5. CONCLUSION

Students identify as learning methodologies in Higher Education, formative assessment and, consequently, feedback, as well as summative assessment. University students value formative assessment, as it takes place during the different stages of the learning process and allows them to change their orientation in a timely manner, if it does not meet the needs of the students. Thus, formative assessment is conceived as an integrated process in teaching and learning, which “occurs during the performance of tasks.” (Ferreira, 2007, p. 59), in order to improve and regulate their learning. Polytechnic students value summative assessment, due to the nature of their course, Engineering, in which objective knowledge is a result (Rodrigues, 1998). Thus, the assessment will have the function of regulation (Alves, 2004; Loes and Pascarella, 2017). For Machado (2013), in this context, the assessment is not far from the measurement. Thus, the assessment will be taken into account as an act where it is possible to quantify or qualify the “facts” (class, teacher, teaching objectives, etc.) that are the object of measurement (students, measuring knowledge, measuring skills, measuring processes) building instruments to measure these “facts”. It appears that for both groups of students, assessment is a participatory, transparent, legitimate and well-founded process, with positive impacts on the development of cognitive and transversal skills (Alves, Flores and Machado, 2011). University students emphasize questioning and feedback. We can say that a formative evaluation system is adopted, with a function of regulation and self-regulation, integrated in the curriculum development

process and “not leaving aside the summative assessment with a determining weight for the evaluation of learning.” (Sá, 2015, p. 147). Therefore, formative assessment provides reference points to guide students who approach a relatively unstructured body of knowledge, in order to reinforce the students' intrinsic motivation to learn and to allow them to establish higher knowledge standards (Silva, Lopes and Dominguez, 2020). Summative assessments are designed to provide professional self-regulation and accountability, since the school system and “social pressure basically demand final summative process assessments” (Gimeno Sacristán, 1993, p. 373). Although it is common sense that the use of summative assessment with preponderance in the assessment of students makes the possibility of the assessment to become a space of intersubjectivity, negotiation and communication weaker (Alves and Machado, 2008; Silva, Lopes and Dominguez, 2020), in the case of students, either from the University or from the Polytechnic, this cannot be interpreted in such a linear way, since students walk along a path with different assessment methodologies so that the summative assessment becomes just “another” type of evaluation that contributes to the result of excellence. The importance of feedback, questioning and the principles of formative assessment that translated into good classroom environment practices contributed to the consistency of learning, leading to the success of students' performance, since the essential conditions were created to carry out relevant and meaningful learning leading to the level of excellence in their academic performance. These characteristics, in addition to being extremely important for learning, are essential for the subsequent professional context, promoting reflection and lifelong learning. In future work, it would be useful to investigate the impact of the learning approach over an academic course, comparing the learning gains and performance success of students who learn with formative assessment approaches and others who learn only with assessment approaches of a nature only. summative, as well as assessing the impact of variables such as gender, age and course on the development of such learning.

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# THE RECENT NORMATIVE CONSTRUCTION OF EDUCATIONAL DECENTRALIZATION IN PORTUGAL: RISKS AND CHALLENGES

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## **ABSTRACT**

*This article aims to critically analyse the normative construction of the privatization of Portuguese schools, based on the municipalization of the management of the public educational system, highlighting the consequences for schools of this educational decentralization. The diversity of the interrelationships between schools and local authorities has given rise to a multiplicity of micro-regulatory devices, currently witnessing a diversity of competences, means and processes, at local and national level. Thus, it is interesting to analyse comparatively the regulations in force, taking into account the existing diversity in the relations between schools and local authorities. The method used for this research was document analysis, identifying risks and challenges. As a result, we found situations of relationship between schools / clusters and municipalities and their proximity tutors, which configure a complex national regulation of the system, in the interaction between existing and emerging local actors, namely Intermunicipal communities, Metropolitan Areas, mega-clusters, IPSS's and education companies, forcing a redistribution of powers and functions. Consequently, there is an evident increasing responsibility on the part of the central administration regarding the dimensions of education and its quality, which is in line with the evolution of the education system in several northern European countries, and the increase in private education institutions.*

**Keywords:** *educational decentralization, educational quality, normative construction, Portuguese public education system, school and local power*

## **1. INTRODUCTION**

In August 2018, the Assembly of the Republic (AR) approved a new legal framework for the transfer of powers to local authorities and intermunicipal entities (Law 50/2018 of 16 August). Over a long period of 19 years (1), marked both by the succession of several governments from different ideological backgrounds, with different political, social and economic contexts, and by various incomplete and/or failed experiences, this is the third general framework law that intends to regulate the autonomous action of municipalities, co-responsible for the social construction of another educational decentralization, and, at the same time, to guarantee the pursuit of the constitutional principles of subsidiarity, decentralization and autonomy of local authorities (Constitution of the Portuguese Republic, Article 6). As with the previous ones, the new law also runs the risk of poorly resolving the contradictions it inherits and not dispelling the mistrust accumulated among citizens, parents, teachers and mayors, about the real benefits of transferring educational powers and competences to local entities. Based on the analysis of the main legal acts of the last two decades and their most significant results, as well as on some positions taken by the stakeholders directly involved (intermunicipal entities, municipalities, schools and groupings, monitoring and evaluation committees, trade unions, directors' associations, among others) this text focuses on the normative action of the central government, aiming to establish a framework for an overall understanding of the issue that contributes to the identification of risks and challenges that still characterize the complex process of building educational decentralization in Portugal today.

## **2. INSTABILITY IN THE NORMATIVE CONSTRUCTION OF EDUCATIONAL DECENTRALIZATION**

Only in 2008 (2), after an interval of 9 years and as a late response to the regime provided for in Law No. 159/99, came the diploma regulating educational decentralization (Decree Law No. 144/2008 of July 28). This decree, when referring to the principles that underlie it, states the respect for the Basic Law of the Educational System (LBSE) and the provisions of the then recent Legal Regime of Autonomy, Administration and Management (RJAAG) (3), which established another objective of the government in the relationship of schools and groupings with local communities "(...) strengthen the participation of families and communities in the strategic direction of educational establishments (...) through the institution of a strategic management body (4) in which teaching and non-teaching staff are represented, parents and guardians (...), local authorities and the local community, namely representatives of institutions, organizations and economic, social, cultural and scientific activities" (Decree Law No. 75/2008, preamble). Although in the general economy of the diploma this is the only reference to the local authorities, it is perceived its importance in the business game that, at the local level, leads to the election of school principals and School Groupings (AE). In this vision, typical of new public management, teachers and schools lose power not only to municipal representatives, but also to the Parents' Associations (APEE) and to companies. At the same time, the scope and mode of the transfer were defined. If, in terms of scope, there were some novelties along with traditional skills (Non-Teaching Staff (PND) of basic schools and pre-school education; Family Support Component (CAF) with the provision of meals and extension of hours in pre-school education; Curriculum Enrichment Activities (AEC) in the 1st cycle; school park management and School Social Action (ASE) in the 2nd and 3rd cycles; school transport of the 3rd cycle), as to how the transfer of skills depended on the existence of an educational charter and the execution of execution contracts by municipality.

### **2.1. The intermunicipal divisions created by the 2008 and 2015 contracts**

This will analyse the consequences, in terms of risks and challenges, of the contractual method of transferring powers, but it should be noted at the outset that the performance contracts between different levels of public administration, having opened a way for the delegation of powers that was later used in many areas other than education, created a new formal administrative division between the municipalities (because only 113 of the 278 existing municipalities subscribed to it) that would increase social distrust and difficulties in national educational regulation. Compared to the 1999 legislation, the main novelties in the implementation contracts are related to the PND (extended competencies in pre-school and 1st cycle and new ones in 2nd and 3rd cycles), Curricular Enrichment Activities (5), the management of the school park in 2nd and 3rd cycles and also the possibility of extending to secondary education all the competencies mentioned in the decree. In the case of municipalities without a contract for implementation, curricular enrichment activities were already promoted by the municipalities, with other promoting entities now being admitted (Private Institutions of Social Solidarity (IPSS), Association of Parents and Education Officers (APEE) and School Groups (AE). In 2013, 14 years after the previous general decentralization law and in the midst of the austerity period (6), a new legal framework with the same objective but introducing important developments in the scope, actors and modes of transfer of powers and competencies is approved in the Portuguese Parliament (AR) (7). Law no. 75/2013, of 12 September established the differences with the previous one by imposing a new legal regime for local authorities, a statute for Intermunicipal Entities (EI), a legal regime for the transfer and delegation of powers from the State to local authorities and to Intermunicipal Entities, as well as from municipalities in EI and parishes, and a legal regime for municipal associations. For the first time, although they are not municipalities and therefore not subject to the direct vote

of the citizens, the Intermunicipal Communities (CIM) and the Metropolitan Areas (AM, Lisbon and Oporto) appear in the administration. As regards education, in the new law, the municipal assembly is now empowered to "authorize the conclusion of contracts delegating powers between the CM and the State and between the CM and the EI (...), decide on the creation of the local council of education and authorize the municipality to form the associations provided for in Title V" (Law No. 75/2013). The municipality decides on support for activities of a social, cultural, educational, sporting, recreational or other nature, on the organization and management of school transport and may deliberate in the field of School Social Action, particularly with regard to food, accommodation and the allocation of economic aid to students, but with the mayor being empowered to manage the human resources of the schools. At the same time, it is established that the Metropolitan Areas and Intermunicipal Communities are responsible for "ensuring the articulation between the municipalities and the central administration services (...) in the education and vocational training and equipment network (...)" (Idem, Article 63). This is the great novelty: transfer of power (competencies and resources) between the central administration and the Intermunicipal Entities, between municipalities and Intermunicipal Entities and between municipalities and parishes, being obligatorily done through an inter-administrative contract. However, unlike in the past, the legal instrument of contractualisation included another: the transfer of powers through law. It should be remembered that, under the Constitution of the Portuguese Republic (CRP), only local authorities have the power to pursue the self-interest of the populations they serve, but this original power, through this second mechanism, was now extended to intermunicipal entities, if the municipalities of a given sub-region so wished, and to this end subscribe to the aforementioned contract. If the 1999 law had to wait nine years until the publication of the regulations that, in education, made it operational through the implementation contracts, the new law of 2013 waited only two years: In 2015, the new decree was published (Decree Law No. 30/2015 of 12 February, determining the Municipal Education and Training Contracts) which identified the competences delegable to local authorities and which, at the choice of the government, "involves implementing decentralization, particularly in social areas, in a progressive and phased manner, through pilot projects (14+1 municipalities (8), by "contracting with municipalities with diverse territorial and socio-demographic characteristics, the possible extension to other municipalities being dependent on the evaluation of the results of the pilot projects that have been implemented" (Decree-Law No. 30/2015). It is in Art. 8 of this regulation and in the associated matrix of distribution of responsibilities that lies the substantial cut with past decentralizing experiences: the new transfer of educational competencies is now in two directions: from the central administration to the municipalities but also from groupings and schools not grouped to municipalities and intermunicipal entities, giving rise to strong criticism and interpretations that the government intended to empty the autonomy of schools and municipalize education. In fact, denying the evidence and arguing around the presumed benefits of the Aproximar - Programa de Descentralização de Políticas Públicas (Approximate Program - Decentralization of Public Policies Program) and of the Guião da Reforma do Estado (State Reform Guide) (approved by the XIX Constitutional Government, in May 2014), The government justified such a cut with the past as "a significant step in the framework and regulation of the decentralization of competences in local entities - local authorities and intermunicipal entities - in favor of a better and more efficient organization of public services, in a logic of proximity to the populations and their problems" (Decree-Law no. 30/2015, preamble). Without taking care of the real conditions on the ground, but seeking rapid improvement in efficiency (ratio of resources / objectives), the range of powers delegable to the political, technical and financial responsibility of local entities (municipalities + intermunicipal entities) was very wide: within the scope of school management and educational practices (strategic municipal or intermunicipal educational plan, school network and educational and

training offer; school calendar management; management of student enrolment and placement; school guidance management; resources following the disciplinary process for students and the application of sanctions for the transfer of teaching establishment; management of School Social Action), within the scope of curricular and pedagogical management (establishment of educational and training offers and their distribution, protocols for training in a work context, definition of locally-based curricular components articulated with schools, devices to promote school success and support for students), within the scope of human resource management (recruitment, management, allocation, training and performance evaluation of Non-Teaching Staff (PND) and recruitment of Teaching Staff (PD) for specific local projects), in the scope of budget and financial resources management and in the management of equipment and infrastructures (construction, requalification, maintenance and conservation of school infrastructures; selection, acquisition and management of school equipment, furniture, econometrics and teaching materials). If this normative provision showed the government's intention to strengthen and reposition municipalities and intermunicipal entities in the chess of the distribution of powers and responsibilities in education policy, an analysis of any of the contracts carried out in the pilot experiment showed that such reinforcement was achieved at the expense of the School Groupings (AE) and the schools not grouped, which lost significant competences in the sphere of their relative autonomy. See, for example, the inter-administrative contract with the Oliveira de Azeméis City Council which, in the recitals, warned that all schools in the municipality had to enter into contracts of autonomy but knowing that, at the same time, the process of delegation to the municipalities could "be extended, both in terms of its territorial scope and in terms of the powers that are now the object of delegation" (Contract No. 559/2015). The conditions were thus created for the rapid proliferation of various misconceptions and dilemmas about "who does what, who finances what, and, after all, who is in charge?" in educational matters as sensitive as they were locally significant.

## **2.2. The recent incomplete reversal of contracts and new decentralization**

The life of Decree-Law 30/3015, and of inter-administrative contracts was short as a result of the legislative elections of October 2015 (9) that led to a government that announced new ideas on decentralization. Despite the new parliamentary majority of the parties on the left and given the profound differences on regionalization and decentralization between them, the process took place mainly through direct negotiation between the government (PS) and the opposition (PSD). The result was the approval of a structuring law which, while repeating principles and justifications of the previous one, seeks to resolve part of the dilemmas by transferring powers and responsibilities without binding contracts and reversing the recent past by renewing guarantees of "respect for the powers of the management bodies of school groupings and schools not grouped" (point 4, Art. 11). Determining the universality of the transfer of those competencies, the law announces that new "legal diplomas of sector scope related to the various areas to be decentralized from the direct and indirect administration of the State will identify the nature and allocation of resources" (Idem, Art. 4) and that the competencies now foreseen are transferred to the municipalities and EI until the beginning of 2021, without prejudice to the end in time of the contractualization that characterized the previous legislation of 2015 but not that of 2008. In summary, the following table presents the diachronic milestones and intervals of this long 32-year process of normative construction of educational decentralization.

*Table following on the next page*



LBSE 46/ 1986	13 years ↔	Act 159/99	9 years ↔	Decree- Law 144/2008 C. Exec.	5 years ↔	Act 75/2013	2 years ↔	Decree- Law 30/2015 C.Inter.	3 years ↔	Act 50/2018
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*Table 1: Diachronic milestones in the process of normative construction of educational decentralization in Portugal*

### 3. JUSTIFICATIONS, CONSEQUENCES, RISKS AND CHALLENGES OF THE DECENTRALISATION PROCESS

At the normative level, in addition to instability, discontinuity and various omissions in time and statutory mode, educational decentralization had strategic justifications and conceptions that were not always congruent with each other and with significant consequences in reducing the responsibility and regulatory role of the State. The political justifications ranged from the simple invocation of the constitutional principles of subsidiarity, proximity, national cohesion and inter-regional solidarity, expressed in the 1999 law, to the legitimization of decentralization as a technical-administrative device that is essential for the much-vaunted modernization of the State, in which the delegation of power by contract is seen as a strategy that, without increasing costs for the central administration, guarantees the complementarity of objectives, means and results between the national and the local, ensuring the protection of citizens' rights and interests, referred to in the 2008, 2015 and most recent 2018 laws. In a political context increasingly hegemonized by new public management, all the diplomas pass the exacerbated economist intention to improve the effectiveness and efficiency of the entities involved and to improve the quality of the public service provided in chambers and groupings through the fragile accountability of intangible results and poor monitoring of pilot projects without the necessary financial, technological and human resources. However, without any overall, continuous and coherent external evaluation (10), the process has had the effect of multiplying the divergence of some municipal and school contexts from the national whole, aggravating municipal disparities through successive transfer frameworks that have overlapped. As the following figures show, at least seven distinct situations of groupings/municipalities and their proximity tutelage coexist, which causes hybridity and increases the difficulty of national regulation of the system, making the new distribution of powers between public administrations little compatible with the equality and equity of education established by the Constitution of the Portuguese Republic. While the process of normative construction has generally led to a deepening of the concept of local education policy, with greater accountability on the part of local authorities permitted by closer cooperation between municipalities and schools and by increasing proximity and negotiation in the management of resources and skills, it is also true that it has developed new fronts of conflict between governments and municipalities around the insufficient financial packages that should have accompanied the successive general laws and other complementary legislation.

*Table following on the next page*

<b>1.</b> (1999) <b>Schools and AE where in general it is applied to <u>Law 159/99</u> (without any kind of contract)</b>	<b>2.</b> (2008/2009) <b>Schools and AE of the municipalities with Performance Contracts (113)</b>	<b>7.</b> (2019) <b><u>Law no. 50/2018 (16.08)</u></b> <b>Framework law for the transfer of powers to local authorities and for intermunicipal entities</b> (January 2021, all schools and EA) <b><u>DL 21/2019 (01.30.2019)</u></b> Transfer of Skills in Education
	<b>3.</b> (2015) <b>Schools and LA of municipalities with Inter-administrative Contracts (14+1)</b>	
	<b>4.</b> (2015-2018) <b>Schools and Associations of Municipalities with Performance and Inter-administrative Contracts (n° ? )</b>	
	<b>5.</b> (1996 - 1st generation TEIP) <b>Schools and AE with Priority Intervention Educational Territories status (137)</b>	
	<b>6.</b> (2005 /2018) <b>Schools and AE with Contract of Autonomy (235)</b>	

Table 2: Distinct situations of school/ae relationship in relation to Municipalities

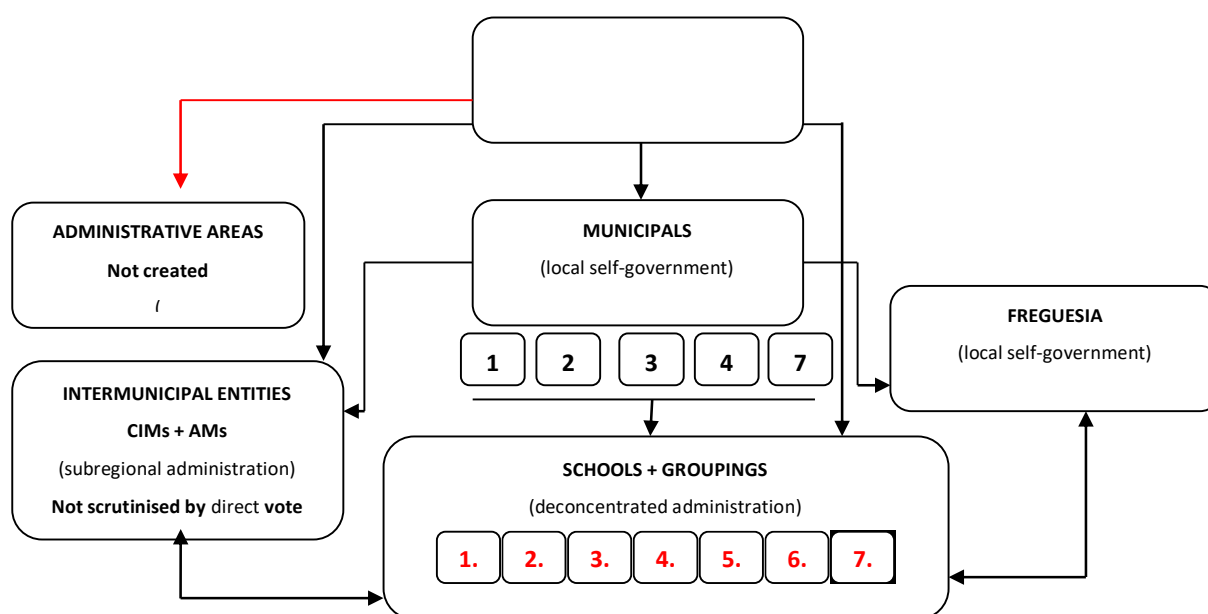


Figure 1: New distribution of power between educational administrations

Moreover, it has created new obstacles to the stability of the relationship between schools, municipalities, EI and central administration, caused by the instability of successive models, especially in the area of the supervision and management of Non-Teaching Staff (PDN) at all levels of education and teaching. In this area, because of its technical-political significance and of representing the opinion of school principals and groupings, it should be noted that the criticisms of the Schools Council for the inter-administrative contracts of 2015 focused mainly on "the loss of skills that were the schools" (Schools Council, 2015). While safeguarding differences inherent in a new conception of a decentralizing model, the National Education Council (CNE) recommendation (11) on the decree-law that, at the time not yet approved (12), should regulate Law no. 50/2018 in the field of education was in the same critical direction. Criticizing the lack of broad consensus among all stakeholders, a lack of evaluation of previous experience and an integrated vision of skills sharing, the National Education Council warned

that the lack of balance between the necessary reinforcement of schools' skills and the transfer of tasks and competencies to municipalities and intermunicipal entities should not increase. At the same time, the National Federation of Teachers (FENPROF) also proposed that, in the new regulations, the management of public education and training offers should be given priority to schools, that the transfer of skills to municipalities could not be translated into a hierarchical relationship between them and school management bodies, and that the exercise of transferred skills should only take place when municipalities have adequate financial and human resources (FENPROF, 2018). The diversity prevailing in the universe of relations between schools and local authorities means that, rather than a bureaucratic recentralization made in the name of central administration norms and guidelines, the State must be able to arbitrate the interaction of the various local micro-regulatory devices and the various sets of competences and distributed means, without jeopardizing the school and its educational quality anywhere in the country. This is the main issue in the public debate on decentralization today. As Barroso (2006) warns, the issue is no longer just the existence of a mosaic effect on the national education system, which contributes to accentuating diversity, but also the development of educational inequalities and the loss of public-school skills. And the analysis made in several municipalities shows that the decisions taken by local leaders have sometimes contributed objectively to the increase in inequalities and other times have annulled or relativized the objectives and processes triggered by public policies. The effect of this process is the increasing lack of responsibility of the central administration for significant dimensions of education and its quality - a phenomenon characteristic of the destabilization of schools with the consequent municipalization of the management of the public education system that occurred some decades ago in several northern European countries - aggravated by the simultaneous favoring of private education. In recent years and in a context marked by successive austerity programmes and cuts in public investment, in several municipalities we have seen a drastic reduction in the education budget, especially in the renovation, equipping and equipping of schools, as well as in the hiring of teachers and non-teaching staff. Such a downturn has led to the dualization of the system and today there is less state in the top schools and more municipality in the worst schools; there is less central administration in supporting local school networks and more computerized bureaucratic control in mega-groupings; there is less national regulation and more micro-competition in municipal and inter-municipal demand for students and support; there is less direct public investment and more financial dependence on national and community contracts and public-private partnerships; there is more power in inter-municipal communities and metropolitan areas and less in schools. In the words of Canotilho, (2017, presentation) "although statistical data show the progress made in the last decades in the field of education, it is still a civic imperative for the common good to investigate the various factors that currently contribute resiliently to the stagnation, and even regression, of the Portuguese school system".

#### **4. CONCLUSION**

In conclusion, the main challenge today is to implement policies that bring decentralization back to its constitutional principles, that correct the perverse division of educational and formative tasks that has crystallized in the process of balance between decentralization and unaccountability, clarifying who is responsible for what and with what means, in order to (re)gain quality, cohesion and social trust in public schools. Public education must remain the main instrument of civilizational development. Thus, combating educational dualization, realigning decentralization with constitutional objectives, reverting mega-groupings to the human scale, supporting schools in their projects and plans and dignifying the role that municipalities and their associations want for themselves are the challenges that, if achieved, best defend the educational achievements of democracy.

**ACKNOWLEDGEMENT:** *This work follows on from the research line "Learning, Training and Socio-Educational Inclusion" of CeIED- ULHT and ULP, to whom we thank for their scientific support.*

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## *APPENDIX*

### **Notes:**

After the enactment of the Basic Law of the Educational System (LBSE), in 1986, the first decentralization law was passed in 1999, Law 159/99, of September 14.

<sup>2</sup> XVII Constitutional Government (March 2005 to October 2009, with majority parliamentary support from the Socialist Party (PS)).

<sup>3</sup> Decree-Law no. 75/2008, of April 22nd.

<sup>4</sup> This collegial governing body - general council - is responsible for approving the school's operating rules (rules of procedure), strategic and planning decisions (educational project, activity plan) and monitoring their implementation (annual activity report). In addition, this body has the capacity to elect and dismiss the head teacher, who is therefore accountable to him/her.

<sup>5</sup> The AEC program was created by Order 16 795/2005 of August 3. (See Mouraz, Martins & Vale, 2014).

<sup>6</sup> Taxed by the institutions lending the loan to which the country has submitted itself between 2011 and 2015.

<sup>7</sup> XIX Constitutional Government (June 2011- October 2015), PSD/PP majority coalition, being Prime Minister Passos Coelho).

<sup>8</sup> Universe of experience: Águeda, Amadora, Batalha, Cascais, Crato, Maia (denounced), Matosinhos, Mealhada, Óbidos, Oeiras, Oliveira de Azeméis, Oliveira do Bairro, Sousel, Vila de Rei, Vila Nova de Famalicão.

<sup>9</sup> The XXI Constitutional Government (November 26, 2015), popularized by the name "geringonça", was formed by the Socialist Party based on three parliamentary incidence agreements, between the Socialist Party and each of the other three left-wing parties (Bloco de Esquerda (BE), Partido Comunista Português (PCP) and Partido Ecologista "Os Verdes" (PEV).

<sup>10</sup> Throughout the process, a technical-scientific evaluation was made of the implementation and results of Decree-Law 144/2008 by the Centre for Research and Studies in Sociology - University Institute of Lisbon (CIES-IUL), which resulted in a Final Report, published in April 2012.

In the case of Decree-Law no. 30/2015, only political reports were produced by the Working Group for Monitoring the Transfer of Skills in Education set up by Parliament

<sup>11</sup> CNE, November 2018 "Recommendation on Transfer of Competences to Local Authorities and Intermunicipal Bodies with regard to the Public Pre-school and Primary and Secondary Education Network, including Vocational Education".

<sup>12</sup> This legislation would only be published in January 2019 in DL 21/2019 Transfer of Competencies in Education.

### **Legislation referred to and consultable through the net:**

1. D.L. 21/2019, 31.01 Transfer Education skills.
2. Law 50/2018 <https://data.dre.pt/eli/lei/50/2018/08/16/p/dre/pt/html>
3. D.L. 75/2008 <https://data.dre.pt/eli/dec-lei/75/2008/04/22/p/dre/pt/html>
4. Law 75/2013 <https://data.dre.pt/eli/lei/75/2013/09/12/p/dre/pt/html>
5. D.L. 144/2008 <https://data.dre.pt/eli/dec-lei/144/2008/07/28/p/dre/pt/html>
6. Law 159/1999 <https://data.dre.pt/eli/lei/159/1999/09/14/p/dre/pt/html>
7. Law 46/86 pdf version: Download

## THE USE OF THE FLEURIET MODEL TO ASSESS THE ECONOMIC AND FINANCIAL SITUATION OF COMPANIES IN THE TEXTILE SECTOR IN PORTUGAL IN THE PERIOD 2006 TO 2018

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### **ABSTRACT**

*This study aims to highlight the importance of applying the fleuriet model, known as Dynamic Analysis of Working Capital to assess the economic and financial situation of companies in the textile sector in Portugal, from 2006 to 2018, which encompassed the global financial crisis from 2008 to 2010. The concepts of this model were used, which consists of the study of three variables: Working Capital (WC), the Need for Working Capital (NWC) and cash balance (CB). The research is quantitative, exploratory. We collect data on the series of economic and financial data, available in the sector tables of Banco de Portugal. We build the necessary financial maps to calculate the model variables. The behavior of variables over time was studied and the implications of the global financial crisis for companies in the textile sector were found, with different results according to the size of the company*

**Keywords:** *Dynamic analysis of working capital, Fleuriet model, Textile sector*

### **1. INTRODUCTION**

The traditional method of measuring working capital was by the difference between current accounts, as if capital could be measured by current accounts. With these statements Fleuriet, Michel; Zeidan, Rodrigo (2015) gave a representation of the model, while allowing strategic decisions linked to the capital structure. The model of the Dynamic Analysis of Working Capital reverses the logic of the concept of working capital (WC), which becomes a source of long-term financing for the Need for Working Capital (NWC). It highlights the need for working capital as a permanent financing obligation linked to the company's operations. Then, the cash balance (CB) is used as a type of thermometer to measure the entity's liquidity risk. This format based on WC, NWC and CB is extremely useful for monitoring a company's liquidity, the health of its operations and the management of financial cycles. The fleuriet model aims to analyze the financial situation of companies through a dynamic analysis of working capital. The objective of this paper is to study the variables of the model in a group of micro, small, medium and large Portuguese companies in the textile sector, during the pre-crisis period (2006-2009), during the crisis (2009-2013) and in the post economic crisis (2013-2018) in Portugal. We use exploratory and quantitative research. The data were collected from the Banco de Portugal website, organized and classified according to the fleuriet model, which are included in the variables WC (Working Capital), NWC (Need for Working Capital) and CB (Cash Balance). The results of the sector's variables show uneven behavior, identified by the period of the economic crisis. The Pearson's R was calculated in order to analyze the correlation between the different model variables.

## 2. THEORETICAL FRAMEWORK

### 2.1. Financial Statements in the legal aspects

The SNC – Sistema de Normalização Contabilística was consolidated by Portuguese law Decreto-Lei no. 158/2009, of 13 July, which defines the framework of the financial statements that are necessary to analyze a company. They are a systematic representation of an organization's financial position, performance and cash flows, and must present a reliable representation of equity facts, other events and conditions, in accordance with the definitions and recognition criteria for assets, liabilities, income and expenses, established in the conceptual structure and in the accounting rules provided for in the SNC. For our study we focused on two documents that are part of the financial statements. The Balance Sheet and Income Statement. The Balance Sheet model adopted by the SNC assumes the vertical form, identifying the assets, equity and liabilities. The balance sheet items are classified, taking account the criteria of materiality and liquidity of an entity and, correspond to the minimum mandatory content of financial information necessary to mirror the financial position, the performance and cash flow of an organization at a given time. An entity's set of assets and rights constitute its assets and its obligations its liabilities. Equity represents the group of the organization's past results plus its initial capital and the capital stock inflows and outflows. Assets, from a financial perspective, represent fund applications and total investment, on the other hand, Liabilities and Equity represent the origins of funds and the financing of total investment. The Income Statement (IS) has two models: one that follows a modality by nature, and another that adopts the modality by function. Functional IS is optional. The IS's, by nature and function, have a vertical format for the formation of the net result for the period, based on the revenue generated by sales and services provided. The items to be presented in the IS must be based on a classification that takes into account their nature, and, in addition, an income statement may be presented in which the classification of the items is based on their function within the entity. In the case of the study, we used the income statement by nature. While the balance sheet shows the company's financial position at a given time, IS shows the economic performance over a given period. IS compares income and gains with expenses and losses, forming the results for the period. Below is the structure of the SNC Balance Sheet.

*Table 1: Balance Sheet*

Assets	Equity and liabilities
<b>Non-current assets</b>	<b>Equity</b>
Intangible fixed assets	Equity capital
Financial investments	Retained Earnings
Investment properties	Others
lending to group companies	<b>Non-current liabilities</b>
Other items with a permanent character	Loans from partners or shareholders
Investment properties	Convertible obligations
lending to group companies	Investment providers
<b>Current assets</b>	<b>Current liabilities</b>
Inventories	Bank Loans
Accounts receivable	Accounts payable
Advances to suppliers	Customer advances
Other operating debtors	State and other public entities
Accrued assets	Short term debts
Cash, Deposits at banks, cheques and money orders	Accrued expenses

*Source: SNC adapted*

Below is the structure of the SNC Income Statement.

*Table following on the next page*

Table 2: Income Statement

Revenues
(-) Operating Expenses – (Depreciation fixed assets + Provision expenses)
= EBITDA
(-) Depreciation fixed assets + Provision expenses)
= EBIT
+ Financial Gains
(-) Interest Expense
= EBT
(-) Tax Expense
= Net Profit

Source: SNC

## 2.2. The Fleuriet model and study references

To arrive at the accounts that the fleuriet model uses, it is necessary to reclassify and organize the traditional balance sheet in a different structure, in order to identify the model variables. The balance sheet structure in the model format looks like this, after reclassification and adaptation to the model's accounting assumptions.

Table 3: Balance Sheet Adapted to the Fleuriet model

Assets	Equity and liabilities
<b>Non-current assets</b>	<b>Equity</b>
Intangible fixed assets	Equity capital
Financial investments	Retained Earnings
Investment properties	Others
Other items with a permanent character	<b>Non-current liabilities</b>
<b>Cycle Assets</b>	Loans from partners or shareholders
Inventories	Convertible obligations
Accounts receivable	Investment providers
Advances to suppliers	<b>Cycle Liabilities</b>
Other operating debtors	Bank Loans
Inventories	Accounts payable
Accounts receivable	Customer advances
<b>Erratic assets</b>	State and other public entities
Accrued Assets	<b>Erratic Liabilities</b>
Cash, Deposits at banks, cheques and money orders	Short term debts
	Accrued expenses

Source: Fleuriet, Zeidan (2015)

The three essential variables in the model are: working capital (WC), the need of working capital (NWC) and cash balance (CB). According to Monteiro (2003) these variables are essential to elaborate the diagnosis of financial situation. The fleuriet model explains the three variables Fleuriet, Kehdy, Blanc (2003):

- Working capital (WC) is defined as the difference between permanent resources (equity plus non-current liabilities) less non-current assets (tangible assets, intangible assets, financial investments, interests in other companies, investment properties and others). Permanent assets and permanent liabilities are non-current and therefore non-cyclical accounts. If the company knows how to manage the WC, it will have good results even with low liquidity. The following formula can be used to calculate the WC.  $WC = \text{permanent resources (equity + non-current liabilities)} - \text{non-current assets (tangible assets + intangible assets + financial investments + investment properties and others)}$ . According to Souza (2003), this variable has a direct influence on CB (cash balance). The portion of permanent resources (equity plus non-current liabilities) subtracted from the company's non-current assets that is available for investments is called WC. By presented formula, it can be said that all operations that imply a decrease in the permanent resources decreases WC and an increase in the sources of permanent resources increase the WC. The main activities that decreases the level of this variable (WC), are the: a) losses b) acquisitions of tangible, intangible and investment assets c) participation in other companies d) financial



investments; e) profit distribution d) other medium and long-term investments. The activities that increase WC - Working Capital are a) profits b) sale of non-current assets c) inflow of funds (partners) for capital increase d) amortization and depreciation e) medium and long term financing.

- The Need for Working Capital (NWC) refers to the difference between cycle assets and cycle liabilities. Cycle assets and liabilities are accounts recorded in operations of the company (exploration activity). The accounts of cycle assets (inventories, advances to suppliers, state, other debtors, differentials and others) and liabilities (suppliers, advances from customers, state, other creditors, differentials and others) are called short-term, renewable and linked to operational and exploration activities. According to Matarazzo (2003, p.337), “the need for working capital is a key to the financial management of a company”. The author also commented that an NWC is not only important from a financial point of view, but also for financing, growth and profitability strategies. The formula for calculating the NWC is:  $NWC = \text{cycle assets} - \text{cycle liabilities}$ . Souza (2003) also referred to this variable. In an aggregate view two are causes of the growth of the NWC: a) growth in the level of activities, that is, positive evolution of the company's sales; b) an expansion of the cash conversion cycle. An analysis of the quality of the cash conversion cycle refers to the set of short-term financial management policies practiced by the company. The cash conversion cycle consists of the items average inventory term, average receipt period, cost of products sold, average purchase period and average tax period. The examination of the cash conversion cycle must observe: a) a credit policy adopted by the company (average sales term, collection system, use of credit rating, use of rating, credit score - capacity, guarantee, character, conditions and capital, and other instruments that minimize risks, b) inventory policy, including storage time, the amount of resources, production costs, markets, suppliers and other factors inherent to the sales and production process; c) policies with suppliers, namely deadlines, quality of suppliers' products, form and business conditions and other variables deemed necessary; d) policies to avoid delay in paying taxes; e) policies applied to preserve the productivity in relation to employees.
- The cash balance (CB) is defined as the difference between the erratic assets and the erratic liabilities. The erratic accounts of assets (liquid financial assets, accrued assets, state and others) and erratic liabilities (short-term debts, accrued liabilities, state, other creditors, others) are short-term and may or may not be renewable. This variable will inform whether working capital finances the need for working capital. The formula for calculating CB is as follows:

$$CB = \text{erratic assets} - \text{erratic liabilities}$$

An alternative to arrive at CB, in view of the integration of the three variables, is the following formula:

$$CB = WC - NWC$$

According to Vieira (2008), the liquidity position in the company is assessed by the behavior of the cash balance presented over time, which is the demand for resources from operations and the availability of long-term sources ( $CB = WC - NWC$ ) and for their participation in the financing of applications, measured by the indicator  $= CBT / NWC$ . Depending on the outcome, the company may be experiencing serious liquidity problems. The model also mentions the scissors effect, which consists of the participation of the cash balance in the financing of the NWC variable. In this way, the “scissors effect”, shown in the model, is directly related to the company's health, as it uses short-term financial

resources to finance investments, thus increasing the risk of indebtedness. There are several reasons for this occurrence, such as high investments with long-term returns, significant growth in the financial cycle, low profit generation, high inflation and others. The intensity of the changes caused by the NWC variations will depend on the relative share of operational investments in the total of investments made. According to Matarazzo (2003), liquidity ratios are obtained from the correlation between the accounts or group of Financial Statements, which aim to show a certain aspect of the company's economic or financial situation. The indices that portray the financial aspect are those of capital structure and liquidity, whereas the profitability index aims at the economic situation. Liquidity ratios are based on the comparison of current assets with current debts, seeking to measure the company's financial base. Liquidity ratios do not measure the ability to pay, that is, they do not analyze the organization's cash flow. They should be analyzed by comparing the statements of other years or of other companies. These analyzes make it possible to measure, for example, whether the organization is experiencing insolvency problems, or how much foreign capital is invested in the company.

About the risk of the financial structure, Fleuriet (2003) used the variables NWC, WC and CB to analyze the liquidity situation of the companies. The author applies a rating scale, which consists of qualifying the financial situation of the organization:

*Table 4: Liquidity Situation*

Structure Type	CB	WC	NWC	Liquidity situation
Type 1	Application (+)	Source (+)	Source (-)	Excellent
Type 2	Application (+)	Source (+)	Application (+)	Solid
Type 3	Source (-)	Source (+)	Application (+)	Poor
Type 4	Application (+)	Application (-)	Source (-)	High risk
Type 5	Source (-)	Application (-)	Source (-)	Too bad
Type 6	Source (-)	Application (-)	Application (+)	Terrible

*Source: Fleuriet (2003)*

This classification can be explained as follows:

- Type 1: negative NWC, presenting excellent liquidity and proving to be a source of funds.
- Type 2: positive NWC, showing a short-term use of resources. It has positive WC and CB. Although NWC is positive, WC manages to finance NWC, making it a solid situation.
- Type 3: NWC positive, WC positive and CB negative. This situation is unsatisfactory because the WC variable is not sufficient to finance NWC, requiring short-term sources of funds.
- Type 4: negative NWC, negative WC and positive CB. It has a high-risk financial situation, since the WC variable would be investing resources in the short term, in addition to not being profitable.
- Type 5: negative NWC, WC and negative CB. It is classified as a bad situation because it needs additional long-term assets, using short-term resources.
- Type 6: NWC positive, WC and CB negative. The company will use the CB to finance the NWC and WC. As a consequence, the company may be classified as insolvent.

The analysis of the variables reveals a situation different from that is evidenced by the traditional indicators. Cash balance reflects the variables WC and NWC. By referencing the topics covered in the model, three important levels of business decisions can be defined. According to Souza (2003) they are:

- a) *strategic* - those are the decisions that are linked to the company's top management, these involve resources for non-current assets (application) and sources of funds, considered permanent. They are IPO, composition of retained revenues for expansion, risks,

- contingencies, distribution of profits and dividends; application in tangibles, intangibles, financial investments, participation in other companies, investment properties and others;
- b) *operational* (of exploration) - are those that are related to business activities, are on the move and are renewed within an operational cycle. They are of inventories, advance of suppliers, suppliers, operational obligations, denominated of cyclical;
  - c) *tactics* - these are short-term linked to financial capacity, to have resources to honor their short-term obligations, called erratic

### 3. METHODOLOGICAL ASPECTS

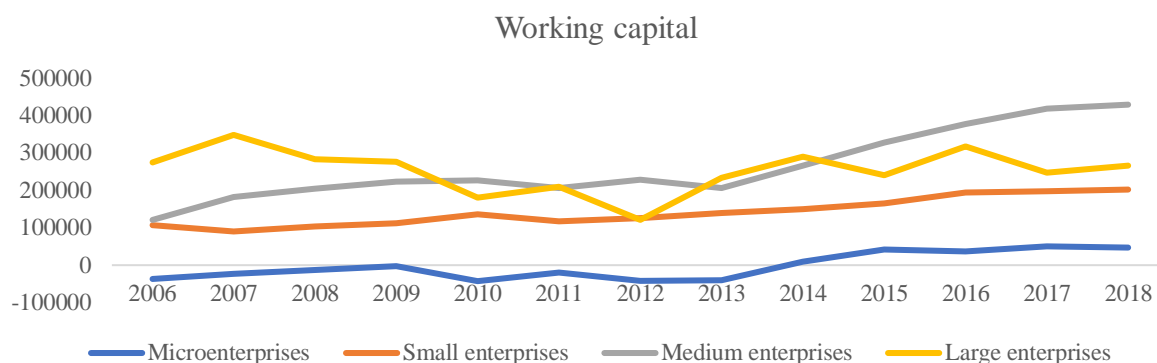
This is an exploratory and quantitative research. The data refer to the period from 2006 to 2018. The classification of the category of the sector under study has by definition what is established in the Portuguese legislation. Decreto-Lei no. 372/2007, of 6 November, stipulates the following: Microenterprise- employs less than 10 people and whose annual revenues or annual balance sheet does not exceed 2 million euros. Small enterprise is defined as a company that employs less than 50 people and whose annual revenues or annual balance sheet does not exceed 10 million euros. Medium enterprise - consists of a company that employs less than 250 people and whose annual revenues does not exceed 50 million euros or whose total annual balance sheet does not exceed 43 million euros. Large enterprise all the others. This study covered three phases:

- Phase 1 - Definition - Theoretical basis: Fleuriet model; Dynamic Analysis Models; Variables; type of research.
- Phase 2 - Data Collection and Analysis - First selection of the sector of micro, small, medium and large Portuguese textile manufacturing enterprises, data published at Banco de Portugal, period from 2006 to 2018. Second adjust the data to the Fleuriet model with the variables WC, NWC and CB. Third calculate Fleuriet model variables; calculate the average of the values for the period and the risk measured by the standard deviation, in addition to the maximum and minimum values appeared in the period. Forth present in the form of graphs for analysis.
- Phase 3 Results and conclusions - First evaluate the behavior of the variables in the studied period of the enterprises by sector. Second describe the performance of the enterprises sector regarding the applicability of the Fleuriet model. Third prepare an illustrative graphic of the sector showing the movement of the model variables. Forth present the study's conclusions.

### 4. RESULTS AND ANALYSIS

The financial information results of the period from 2006 to 2018, of the textile sector of micro, small, medium and large Portuguese enterprises, based on the Fleuriet model, dynamic analysis of working capital, which consists in the study of the variables WC - Working Capital , NWC – Need for Working Capital and CB – Cash Balance is presented as follows. For all studied segments, were calculated for the model variables, the average, the standard deviation, the maximum and minimum values in the period. The first graph to be shown is the WC - Working Capital. This includes the behavior in the period of each studied segment.

*Graph following on the next page*

*Graph 1: Working Capital analysis by business segment*

The analysis is made according to the values of resources shown in the graph. The following information was calculated for WC by business segment.

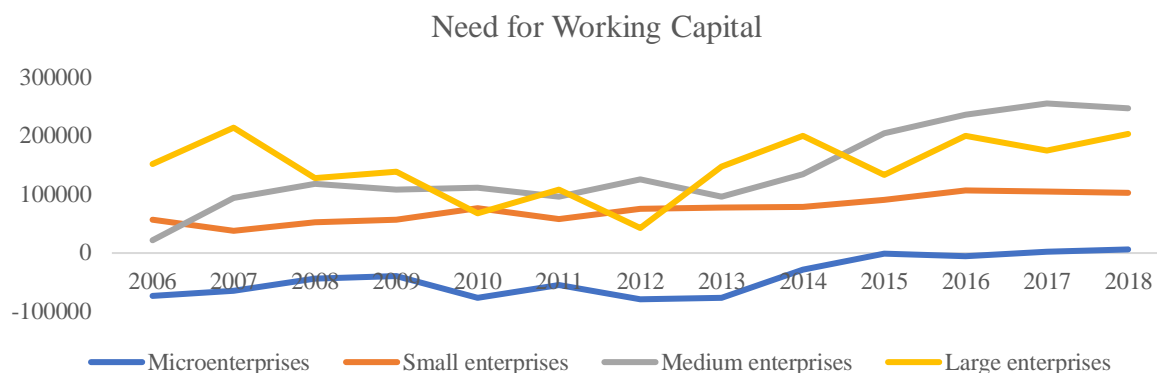
*Table 5: Statistical information for the Working Capital model variable by business segment*

Working capital	Mean	Standard deviation	Maximum	Minimum
Large enterprises	253 331	59 149	348 823	121 261
Medium enterprises	263 145	95 877	429 815	121 179
Small enterprises	141 834	37 948	202 421	90 237
Microenterprises	-2 792	36 074	50 354	-42 831

The segment of microenterprises, blue in the graph, in the period from 2006 to 2009, initially presented a small upward trend; in the period from 2009 to 2013, it remained oscillating, with a decrease in resources; this can be explained by the economic crisis that was marked in this period; from 2013 to 2018 there was an increase and in an ascending manner, that is, it accompanied the exit from the crisis, with positive indicators for the economy in general. The small business sector, orange in the chart, showed ascendancy almost uniformly between 2006 and 2010; a small increase in 2010, falling in 2011, and from there it behaved upwards. Observing for the period of crisis (2010 to 2014) this segment suffered an impact only in 2011. The medium-sized enterprises segment, gray in the graph, showed an upward trend from 2006 to 2010, with a decrease in 2011, recovering in 2012, and falling again in 2013, and from then until 2018 it presented remarkable growth. The behavior of this segment increased during the period, signaling two declines in 2011 and 2013. This behavior adjusts to the crisis period that was experienced between 2010 and 2013. The large enterprises segment, yellow in the chart, had a behavior that deserves a detailed analysis. In the period from 2006 to 2012, this variable behaved in a downward manner, year by year; from 2012 to 2014 it showed growth, falling in 2015, rising in 2016, and decreasing again in 2017 and a small increase until 2018. The sector that showed the greatest unfavorable impact, considering the crisis from 2008 to 2012, considering the movement of oscillating resources and significantly descendants. The corporate segment had an average movement of resources in the period of around € 253,331.00, with a degree of risk measured by the standard deviation of € 59,149.00. Going back to the Souza (2003) work on the main causes for the WC decrease, we point out the negative results, especially in the years 2011 to 2013, in the critical period of the economic and financial crisis as the main consequence for the decrease in the WC amount. The other variable of the model to be presented the results is the NWC – Need for Working Capital. The authors Fleuriet, M; Zeidan, R (2015) refer to this variable. NWC is an economic-financial concept and not a legal definition. The NWC measure may vary according to the information that researchers and financial analysts have about the economic and financial cycle of enterprises. NWC basically depends on the nature and level of activities of the organization's business and is therefore

sensitive to changes in the economic environment. The nature of the company's business determines its financial cycle, while the level of activity is a function of the volume of business (sales and services).

*Graph 2: Need for Working Capital analysis by business segment*

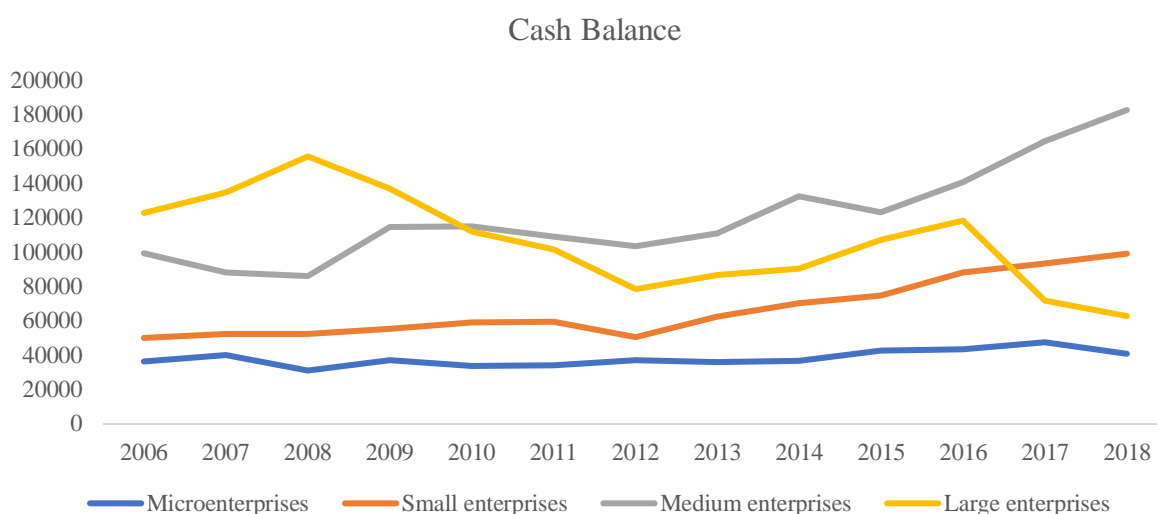


In general, all the business segments in the study, were oscillating and uneven. The following information was calculated for NWC by business segment.

*Table 6: Statistical information for the Need for Working Capital model variable by business segment*

Need for Working capital	Mean	Standard deviation	Maximum	Minimum
Large enterprises	147 133	52 662	214 014	42 704
Medium enterprises	142 324	71 043	255 370	21 832
Small enterprises	75 124	22 006	106 869	37 937
Microenterprises	-41 039	32 792	6 138	-78 953

The microenterprise segment, from 2006 to 2015, behaved negative, increasing from 2006 to 2009; declining in 2010, rising in 2011, decreasing in 2012 and from there, increasing until 2018, showing that it was negative. The NWC in this business sector was generally upward in the period. The small business segment, orange in the graph, decreased slightly from 2006 to 2007, then rise until 2010, falling in 2011, then rising on a small scale and remaining uniform with a non-significant increase in values up to 2018. The most significant was the 2011 decrease, a period considered as economic crisis, impacting the sector. This medium-sized enterprise segment started the period ascending until 2008, and on a uniform scale until 2011, rising to 2012 and growing again in 2013; from then until the end of the period, the variable grew. The large companies segment behaved, oscillating, high and low manner, showing a significant drop in resources from 2007 to 2010, having a small increase in 2011, falling in 2012, growing sharply the following year until 2014; decreased in 2015, rising in 2016, a small drop in 2017, and ending in 2018 with an increase. The significant drop occurred in the period considered to be in a severe crisis (2009 to 2012), with the segment suffering the impact on its activities. The behavior of the two variables shown, WC and NWC, is directly related to the CB (cash balance) result. See the basic premise of calculation  $CB = WC - NWC$ , with six types of results arising from this arithmetic, evidenced by Fleuriet (2003), table 1 mentioned in the bibliographic review; the author considered the risk of an entity's capital structure and financial liquidity, applying a rating scale using the variables WC, NWC, and CB. Information on the (CB) cash balance variable is presented below.

*Graph 3: Cash Balance analysis by business segment*

The analysis of the graph shows that in three business segments - micro, small and medium-sized companies - the results were positive and upward. The large companies segment fluctuated in the period and decreased from an average value of € 122,915.00 in 2006 to € 62,832.00 in 2018. The following information was calculated for the Cash balance by business segment.

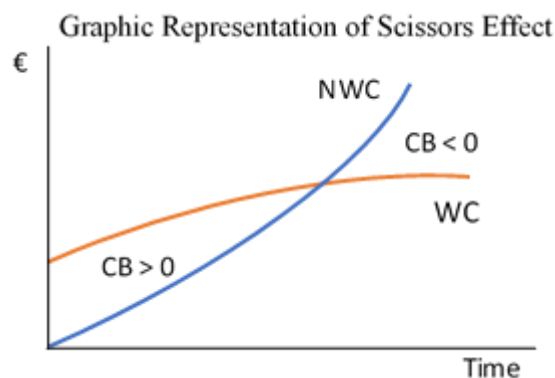
*Table 7: Statistical information for the Cash Balance model variable by business segment*

Cash Balance	Mean	Standard deviation	Maximum	Minimum
Large enterprises	106 197	27 650	155 790	62 832
Medium enterprises	120 822	28 344	182 772	86 103
Small enterprises	66 708	17 070	99 153	50 115
Microenterprises	38 246	4 497	47 574	31 107

The micro-business segment, blue in the graph, presented itself in a uniform manner, with a small decrease in 2008, a period of the registered crisis. The small business segment, orange in the graph, showed an insignificant increase until 2011, falling in 2012, and from then on, only the movement of treasury resources grew. The segment of medium-sized, grey in the graph, enterprises behaved in an increasing manner, oscillating in three periods, 2006 to 2008 decreased, followed by growth until 2009, having decreased until 2012. It started growing until 2014, decreasing in 2015 and a sharp growth until 2018. Large companies, yellow in the graph, showed greater fluctuation in the period. From 2006 to 2008 significant increase; as of this date, a sharp decrease until 2012, showing growth until 2016 and a significant decrease until 2018. The cash balance (CB), according to Fleuriet, M; Zeidan, R (2015), has his behavior defined by the result of the confrontation between the sources of long-term resources available from the WC and the operational need for resources from the working capital need (NWC). And they clarify the “scissor effect” advocated by the model developed. The “scissor effect” happens when the enterprise is unable to increase the WC at the same rate as the NWC. When there is a mismatch between the evolution of available long-term sources (WC) and the applications that need to be financed (NWC), the cash balance (CB) becomes increasingly negative, showing an increasingly strong dependence on short-term resources to financing the organization's activities. This persistent process raises financial risk that is materialized when there is a decreasing amount of cash balance until itself becomes negative.

An illustrative graph to elucidate the “scissors effect”.

*Graph 4: Cash Balance analysis by business segment*



This graph in the model developed by Fleuriet reflects the variations in the cash balance through an NWC growth rate higher than the WC, seriously affecting the CB (cash balance). Analyzing the data, we verified that the segment of large companies was the only one affected by the scissors effect, until 2018 the cash balance was still with positive levels, but it already showed a significant decrease having been reduced by about fifty percent during the period analysis. This deterioration in treasury levels is an indicator of potential liquidity problems over time and a greater financial risk. In order to better study the correlations of the variables, we calculated Pearson's R for the pairs of variables by segment and verified that there is a strong correlation between WC and NWC in each segment. Regarding the correlation between CB and WC the relationship is very strong for medium and small enterprises, strong for microenterprises and medium for large enterprises. The most complex relationship is the relationship between CB and NWC, where it is strong for the medium and small enterprises segments, average in microenterprises and nonexistent for the large enterprises segment. This analysis shows that the large enterprises segment had severe cash flow problems during the period under review.

*Table 8: Pearson's R calculated with excel*

Microenterprises	Working Capital	Need for Working capital	Cash Balance
Working Capital	1	0,996010749	0,759229646
Need for Working capital		1	0,698125825
Cash Balance			1

Small enterprises	Working Capital	Need for Working capital	Cash Balance
Working Capital	1	0,977722548	0,962683606
Need for Working capital		1	0,884431971
Cash Balance			1

Medium enterprises	Working Capital	Need for Working capital	Cash Balance
Working Capital	1	0,986297631	0,910502051
Need for Working capital		1	0,829807811
Cash Balance			1

Large enterprises	Working Capital	Need for Working capital	Cash Balance
Working Capital	1	0,884038168	0,455478271
Need for Working capital		1	-0,013454328
Cash Balance			1

## 5. CONCLUSIONS

In this study we apply the fleuriet model also known as working capital dynamic model to Portuguese enterprises (micro, small, medium and large) in the textile sector, in order to analyze the behavior of the variable's model, between 2006 and 2018, in particular by the variables WC-Working Capital, NWC - Need for Working Capital and (CB) cash balance. Regarding the analysis of the WC variable that had a differentiated behavior in the period, where micro, small

and medium-sized enterprises increased their volume while large enterprises decreased. Analyzing the implicit risk of the variable, the standard deviation, the calculations are superior to each of the segments compared to the other variables in the study. Thus, the WC variable suffered a significant impact during the period of economic crisis, and the sector of large companies has not yet managed to overcome the effects of that same crisis. The variable NWG basically depends on the nature and level of activity of the company's business and is therefore sensitive to changes in the economic environment. In general, all studied business segments, in the period, presented oscillating and uneven in terms of NWC. In the period all business segments increased their volume this is normal regarding the behavior of WC but in large enterprises segment, this growth is worrying considering the decrease in WC, that is, there was a decrease in resources and an increase in applications, which translates into a decrease in CB. Standard deviation is smaller than WC but higher than CB. The behavior of the two variables shown, WC and NWC, is directly related to the CB (cash balance) result. In principle, in three business segments micro, small and medium sized enterprises the results were positive and upward. The large enterprises segment fluctuated and declined in the period. The Pearson's R was calculated to analyze the correlation between the different variables of the model and showed an abnormality in the relationship of variables in the segment of large enterprises. The cash balance (CB) is not only the difference between erratic assets and liabilities, but also the difference between WC and NWC. This formula  $CB = WC - NWC$  reflects the organization's dynamics (hence the name Dynamic Model) and the way the company finances its non-current assets, equity and non-current liabilities. If the WC is insufficient to finance the NWC, the CB will be negative, in which case the erratic liability will be greater than the erratic asset. This indicates that the company finances part of NWC and/or permanent assets with short-term funds, thus increasing the risk of insolvency. If it is positive, the company will have short-term funds that can be invested in short-term financial securities, thus increasing its financial security margin. The dynamic model can serve as a managerial tool, allowing to evaluate the company's financial profile, in view of the information obtained, providing more complete and organized explanations about the causes of financial evolution.

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## EURO ZONE BUDGET AND ITS EFFECTS ON THE EUROPEAN AND MONETARY UNION (EMU) INTEGRATION

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### ABSTRACT

*The implementation of a monetary union in Europe, to take full advantage of the Single Market's potential benefits, has not hitherto delivered the expected results. On the contrary, the euro area has been afflicted by many troubles, including anemic growth, unemployment, and inequality. Many blame the euro's defective design, and especially its incapacity to promote economic convergence and provide adjustment and stabilization mechanisms. The latter view prevailed when shaping the austerity policies imposed on the countries more affected by the financial and sovereign debt crises, intensifying an economic recession with dramatic social consequences. Citizens' distrust in the European Union's institutions grew, along with support for nationalistic political forces opposing the European integration project. Some of EMU's needed reforms will both promote convergence, and help smooth economic activity and maintain citizens' wellbeing when crises occur. The creation of an autonomous budget for the euro zone was mentioned in a European Commission discussion paper on the future of the EU. This is an eminently political matter, very sensitive to domestic public opinions. In fact, the existence of a budget for the euro zone, in recognition of the fact that this subset of EU countries has specific needs, distinct from those of other non-EMU members, would translate into a situation requiring the design of different budgets within the EU. Such issue is at the heart of the intense debate between holders of different views concerning the future of the EU and of the euro zone, especially in what concerns the question of which of these geometries will in the future be the engine for further economic and political integration in Europe. This paper assesses one of the main deficiencies of the euro's governance model – lack of automatic stabilization – and discusses proposals to overcome it.*

**Keywords:** *Budget, Crisis, EMU, Integration*

### 1. INTRODUCTION

The creation of an economic and monetary union (EMU) in Europe was a notable achievement. Never before did such a large group of countries voluntarily surrender autonomy over domestic monetary and foreign exchange policies, while maintaining, *de jure* if not absolutely *de facto*, fiscal and political independence. In fact, the introduction of the euro twenty years ago, after decades of advances and setbacks, and much debate over its most adequate institutional framework and probable advantages and costs, marked the beginning of a rare real life experiment – one where a group of diverse economies adopt a common currency without having created mechanisms to promote real convergence, and to provide stabilization in the aftermath of shocks. So far, the experiment has not lived up to expectations. If the euro is assessed taking into account its broader historical context, the outcomes up to now are, in many facets, almost

the exact opposite of what they should have been. For the single currency was not an end on itself, but a phase in a process initiated after the Second World War primarily to end a long time series of military confrontations in Europe. The project of economic integration initiated in 1957 was conceived as a pact for peace, a first step for the creation of a community of prosper and with solidarity citizens. The Treaty of Rome reflects these ambitions. In its preamble, the signatories proclaim their determination to attain economic and social progress, balanced trade and fair competition, to eliminate the barriers dividing Europe, to improve living and working conditions, to promote harmonious economic development by reducing existing regional differences and the backwardness of the less favoured areas. Thirty five years later, when agreement was reached over the conditions for adopting a common currency, the Treaty on European Union (EU) – often referred to as Maastricht Treaty – confirmed the compromise to promote “a harmonious and balanced development of economic activities, sustainable and non-inflationary growth respecting the environment, a high degree of convergence of economic performance, a high level of employment and of social protection, the raising of the standard of living and quality of life, and economic, social cohesion and solidarity among Member States”(Title II, p. 11). However, EMU’s design ended out somewhat misaligned with such objectives. The convergence criteria to allow membership comprised a set of nominal (rather than real) macroeconomic indicators, the union’s monetary policy was solely assigned to price stability, and no common risk sharing and stabilization institutions were created. In the subsequent years, real convergence did not occur and financial markets’ euphoria triggered a credit boom that contributed to intensify current account disequilibria amongst member states. By the time the 2007 financial crisis hit, the consequences of EMU’s deficient architecture became painfully visible. The shock impacted the euro area differently and no stabilization device was available to help the more affected peripheral members. A sovereign debt crisis and economic recession ensued. The first reactions to such dire state of affairs were also not in line with the treaties’ principles. The countries more in need of help were held responsible for problems they mostly did not create, and could not have avoided, and forced to endure the whole weight of the measures taken to resolve them. Financial funds were provided but at high interest rates and under the obligation of applying a pro cyclical austerity program which comprised many ill-timed and counterproductive reforms. The conditions were so harsh and so at odds with promoting repayment that it has been questioned whether the intention was to help or to punish. The result was a prolonged recession, very high unemployment, especially amongst youngsters, and increased inequality between and within euro members. Instead of prosperity and cohesion, the euro had produced the opposite. As a result, the divide between countries grew up, confidence in EU’s institutions is fading and political extremism is on the rise. Driven by these events that might ultimately endanger EMU’s survival, EU leaders and institutions have eventually introduced some reforms in the euro zone governance. However, more actions are required, since the slowness and complexity of the ongoing reforming process is not generating the desired immediate corrective effects or promoting the structural modification of existing imbalances. This is an essential issue because, in the absence of responses to the institutional failures in the functioning of the euro, the reaction of financial markets will be heavy and its effects may devastate the weakest links, as the recent crises have shown. Therefore, to delay the implementation of effective reforms is a risky strategy. In the meantime, the monetary union remains incomplete and fundamentally destabilizing. There are thus crucial questions that need to be addressed in the short-term, which are mainly related to the degree of sovereignty that states are willing to abdicate in order to accept greater risk-sharing in EMU and to support greater economic convergence. Some relevant steps forward have already been taken, or are being proposed. Amongst them, the measures more directly related to the stabilization function at the euro area level are assessed in this paper. Following these introductory remarks, the paper is organized into six sections, totally.

The second presents a literature review and the third presents an analysis and describes one of the debates that took place before the adoption of the single currency, concerning the adequate preconditions for EMU membership and the potential consequences in case they were not met. Also, this section assesses the critical events occurred in the euro's first two decades, confirming the monetary union's deficient design and the concretization of the most pessimistic anticipated scenarios. In the fourth section, the focus is on one of the most problematic institutional failures of the single currency – the absence of stabilization and adjustment mechanisms to replace those lost in the process of integration. The fifth section discusses ways to overcome such failures. The last section concludes, defending one of the options currently being considered to solve the many problems generated by the lack of an EMU wide stabilization function, on the basis of its economic rational and political feasibility.

## **2. LITERATURE REVIEW**

There was always criticism of the criteria for EMU membership and the single currency's institutional architecture although in the euro's early years, domestic economic cycles did not lead to major setbacks. Nevertheless, as many had predicted, monetary integration failed in promoting the real convergence of central and peripheral economies. Income convergence stagnated at first and reversed following the financial crisis (Franks et al., 2018). The 1997 Stability and Growth Pact, established to enforce the fiscal rules of the Maastricht Treaty and to promote fiscal discipline and fiscal coordination in the euro zone, was reformed in 2011 by the so-called Six Pack, which included more fiscal rules and conditions to penalize non-compliant countries, as well as the Macroeconomic Imbalance Procedure, to monitor and prevent events capable of disturbing macroeconomic stability. Subsequently, in 2012, the Fiscal Compact contained in the Treaty on Stability, Coordination and Governance imposed the rule of balanced budgets into domestic legal orders. In 2013, the Two Pack forced the members of the euro zone to submit the drafts of their budgets for the following year in order to have them evaluated by the European Commission before approval by the respective parliaments. Therefore, until 2013, these operational reactions of the European authorities suggested that the foremost reasons for the single currency problems rested chiefly on the leniency of the fiscal discipline procedures. The answers to the crises consisted mostly in reinforcing rules and procedures that had previously failed, prompting Eichengreen and Wyplosz (2017, p. 63) to recall "Einstein's definition of insanity: doing the same thing over and over again and expecting different results". Additionally, the new procedures made the euro governance model more complex, less transparent and less democratic and did not contribute to reverse the economic recession and rising unemployment, and thus the social unrest. The distrust of citizens towards EU institutions grew and substantial support for nationalist and populist movements that had for long been absent from most countries' political scenes emerged, putting at risk the whole European integration project (Armington and Guthmann, 2014). Eventually, the seriousness of the economic and social consequences endured by some members of the single currency forced the EU leaders to admit that substantial change was required to give rise to a 'genuine economic and monetary union' (European Council, 2012). Various institutional and interinstitutional initiatives were proposed (a review is provided in D'Alfonso and Stuchlik, 2016) and the agenda appears to be currently framed within the documents produced by the report on "Completing Europe's Economic and Monetary Union" (also known as The Five Presidents' Report, which is based on previous documents, namely the June 2012 Van Rompuy's report and the December 2012 Report of the Four Presidents). The objective of this document was the definition of a concrete plan, containing specific stages to deepen and to increase fairness in EMU and to make its members more prosperous. The four building blocks of such process for EMU completion are: the economic union (to promote convergence, prosperity and social cohesion), the financial union (including the banking union and the capital markets union), the

fiscal union (for sound and integrated fiscal policies), and improvement of democratic accountability and legitimacy, and institutional consolidation. In what follows, the focus of analysis is on the financial and fiscal unions, which are both relevant in the context of the main fragility of the single currency discussed in this paper – the lack of automatic adjustment and stabilization mechanisms.

### **3. ANALYSIS OF THE EMU'S FIRST TWO DECADES**

In order to better understand some of the euro's shortcomings, the potential economic and social consequences of its design, and discuss some possible solutions for the particular problem of the lack of a stabilization mechanism that addresses the heterogeneity of its member countries, it is crucial to review the two decades of the single currency, with a particular consideration to the effects of the financial and sovereign crises.

#### **3.1. Before the Crises**

In such circumstances, the euro was prone to be a dangerous hindrance to member states. Given the impossibility of adjusting foreign exchange rates and the limitations of domestic fiscal policies, a common interest rate has the potential to become disruptive. In fact, even if monetary policy is tuned to benefit the majority of EMU members, there will always be some for which it is inadequate and that therefore need assistance. This cannot however be granted because the institutional framework of the euro prevents risk-sharing and transfers amongst members. As a result, imbalances accumulated in the euro area. Financial markets did not help and even aggravated the limitations of the single currency. Mistakenly believing that the common currency had abolished not only foreign exchange risk but also sovereign credit risk, they fueled a credit boom that sustained the growth of current account disequilibria steadily building up from the inception of EMU amongst its members. Following the crisis, various countries did not have the fiscal margin required to adopt countercyclical policies to sustain economic activity and income while, simultaneously, respecting the limits of the Maastricht rules. As national banking systems increasingly required governmental bailing outs, indebtedness levels soared and financial markets prevented some countries from accessing funds to service their obligations. The financial crisis plus the euro's flawed design had produced the sovereign debt crisis.

#### **3.2. Outcomes and Reactions to the Crises**

One of the euro's key problems is that it was conceived to circulate within a homogeneous economic area where all member states run nearly equilibrated public budgets. It was hoped that such conditions would prompt overall economic growth, which in turn would expand employment and improve standards of living. In such conditions, one interest rate would be adequate for most members and those out of line with the dominant business cycle, or suffering from asymmetric disturbances, would be able to accommodate their specific needs within the Maastricht fiscal limits. As economic diversity prevailed instead and many EMU members were not able, without extraordinary measures, to contain their public deficits well below the imposed maximum threshold, many euro area members were not prepared to absorb the impacts of shocks. However, and in spite of the single currency's foundational and structural problems, after the first crisis occurred, there were economic policy and political choices that could have contributed to reduce the social and economic costs. They were not sufficient, yet. At first, in line with the strategy adopted in many countries (including the US, the country originating the financial crisis), the EU launched a recovery plan to stimulate demand, investment and reforms. As a consequence, substantial fiscal stimulus packages were implemented, prompting record increases in public expenditures and raising anxieties amongst defenders of fiscal restraint.

Consequently, against many economists' advice and forgetting the relatively fresh experience of Japan's 1997 premature fiscal tightening and ensuing new prolonged recession, the fiscal stimulus to drive recovery was short-lived in the EU. By June 2009, Germany was announcing its return to fiscal discipline and pressing the other members to follow suit. Various countries did not agree initially, either anticipating that it was too soon or following electoral timetable convenience. However, faced with the additional pressure of financial markets (which, disregarding the fact that most of the fiscal stimulus in the EU had been employed to rescue domestic banks, accused governments of overspending and increased the cost of sovereign credit) the EU followed Germany. The expansionary fiscal stance gave way to the reinforcement of fiscal discipline and austerity. For some members of the euro area such strategy overturn was voluntary. Others were forced into it, in some cases even against the will of the elected governments, a disregard for the principles of self-government and democracy and a fertile ground for political extremists and EU 'leavers'. The leaders of the EU's central economies did not recognize that the main problems affecting mostly the peripheral euro members were a consequence of the way the single currency had been projected and implemented. Having failed in promoting real convergence, the euro governance model forced a diverse set of economies to co-exist under one single monetary policy (which could only be adequate for some), a set of fiscal rules that enhance the effects of booms and busts, no central budget to provide stabilization, and no banking union or single financial market to provide private risk sharing and reduce the relevance of unbalanced trade relations within the euro area. Faced by the high probability of sovereign defaults, and anticipating that such extreme scenarios would also hurt investors in their own countries, the dominant economies decided to assist the countries in crisis. But they did not accept the euro needed fundamental reforming and pointed out the faults that, according to them, had been committed by the more affected countries: their governments and citizens had been living in profligacy and the necessary measures to boost competitiveness had not been implemented. Therefore, and again in their view, the peripheral countries needed punishing, and punished they were. Money was lent to those lacking access to financial markets but at very high interest rates and under the obligation of applying harsh reforms and austerity. The latter aggravated the already dire economic and social conditions and the reforms, announced as a way to promote competitiveness, were misdirected and ill-timed, and consequently counterproductive. The programs did nothing to stimulate adjustment after the crises and contributed to worsen their social and economic impacts. It took years and a large number of victims to admit that the crises had highlighted shortcomings of the Maastricht model. And even when this started to occur, official reactions were very slow and ineffectual remaining focused on reforming individual countries rather than the single currency's model and on reinforcing strategies that had been proven incapable of avoiding fiscal and other imbalances across the euro area.

### **3.3. Reflections on the Future of EMU**

In the short life of the single currency, its member countries have experienced shocks with differentiated impacts that jeopardized their social and economic stability, exposed the fragility of EMU's governance model and the urgency of its transformation. A broader agreement has been reached over the fact that monetary integration is still incomplete and that its completion must take place within a context of price stability and fiscal discipline, but also of social well-being and inclusive and balanced growth. While the crises' divergent effects were also due to imbalances accumulated from the first years of the single currency, it is also clear that the weakness of EMU's reaction to external shocks has worsened their consequences, provoked deflation and prolonged the recession. Unemployment reached unimaginable levels, wages had to be adjusted downwards to restore competitiveness and the purchasing power and living conditions of millions of people deteriorated, generating distrust and disillusionment within the

euro zone. Structural reforms to make economies more resilient to shocks are crucial but it is also essential to trigger a process of real economic convergence capable of restoring confidence in the European institutions. Higher income and better living standards are needed, as the ultimate goals of the whole integration project. Hence the first pillar in the defined process to complete EMU and to make it more deep and just is the economic union, aimed at promoting convergence, prosperity and social cohesion. Without these, it makes no sense to discuss the other aspects related to the smooth functioning of the single currency because the whole project of European integration will be destroyed by the extremist political forces that oppose it. The other three unions – banking, capital markets and fiscal – are essential to provide an element to support a successful monetary union: risk sharing. Even though some view it as a moral hazard inducer, and thus oppose it in principle, both economic theory and historical evidence indicate that risk sharing does not promote moral hazard as long as credible and clear rules are enforced at the regional level (Bordo, et al. 2011). The Banking Union, consisting of single supervisory and resolution mechanisms plus common deposit insurance is a way of solving problems resulting from the “deadly embrace” between banks and sovereigns. The banking Union would allow the inclusion of the private sector in the risk sharing process and prevent taxpayers from ultimately shouldering the full costs of saving banks. In the recent past, and also in the present, taxpayers have not only paid for the banking sector rescue with their money but also by enduring the related consequences of public spending cuts in education, health care, security and basic infrastructures. The capital markets union will also provide a degree of private sector risk sharing and, at least theoretically, an alternative to absorb shocks. In fact, the free flow of capital, within the context of an integrated financial market, should be capable of sustaining domestic consumption and domestic investment throughout a crisis. This would occur via the capital market channel (geographical diversification reduces the volatility of financial portfolios’ returns and their correlation with GDP) and the credit market channel (through cross-border lending and borrowing). But reality has shown time and again that capital markets can be more a source of disruption than of stabilization. Also, if structural imbalances persist, these capital flows will continually be unidirectional, resulting in the accumulation of large external deficits. Therefore, even though the future capital markets union may function well in terms of providing a degree of short-term stabilization, it will never be able to ensure the reliable, complete and automatic mechanism that EMU needs to be sustainable. A substantial degree of public risk sharing will also be required and thus the relevance of the fiscal union. According to the strategy already agreed (European Commission, 2017a), the fiscal union will have to provide adjustment and stabilization but its implementation will not take place before a high degree of convergence has been achieved, the level of financial integration has increased, and further transference of autonomy over decision making concerning domestic budgets to the euro area level has occurred. In the meantime, and in the short run, the focus continues to be on fiscal discipline within the context of the established rules. A function that many consider to be of uttermost importance for the survival of the monetary union is thus postponed for an uncertain future date.

#### **4. A EURO AREA STABILIZATION AND REDISTRIBUTIVE FUNCTION**

Although no decisions have been taken concerning the type or timing for implementation, various proposals for EMU’s common fiscal capacity have emerged. The different approaches are compiled and reviewed by D’Alfonso and Stuchlik (2016). They comprise insurance mechanisms, to absorb cyclical disturbances or crisis generated unemployment, a fund to sustain investment during economic lows, and a euro area central budget. These mechanisms differ in terms of stabilization scope, payment trigger (automatic or discretionary) and funding sources. The creation of an autonomous budget for the euro zone was mentioned in a European Commission discussion paper on the future of the EU (European Commission, 2017b), which

explicitly addresses the possibility of creating a specific budget to support EMU countries. More recently, following a Franco-German summit held in June 2018, the two countries, which have a decisive influence on EU's strategic orientations, have produced the Meseberg Declaration, proposing, *inter alia*, the creation of a fund to support investment projects aimed at promoting convergence within the euro zone economies (Keller, 2018). This is an eminently political matter, very sensitive to domestic public opinions. In fact, the existence of a budget for the euro zone, in recognition of the fact that this subset of EU countries has specific needs, distinct from those of other non-EMU members, would translate into a situation requiring the design of different budgets within the EU. Such issue is at the heart of the intense debate between holders of different views concerning the future of the EU and of the euro zone, especially in what concerns the question of which of these geometries will in the future be the engine for further economic and political integration in Europe.

#### **4.1. The Traditional Role of Public Finances in the European Context**

In Musgrave's original approach to the role of public finances and of public budgets, the authors argue that the latter are crucial instruments of economic management and their size and structure reflect the political, social and economic objectives of the state or the integration group concerned. In reality, the budget is a key element because it influences an economy in a number of ways, in practice indivisible, but which, for analysis purposes, can be divided into three public policy objectives related to the allocation of resources, the redistribution of incomes and economic stabilization (Musgrave, 1939). The allocation function is related to the provision or incentive to supply public goods and services (*i.e.* those not effectively supplied by the market, either due to their specific characteristics or to imperfections in market functioning). The redistribution function deals with the use of fiscal policies to modify the distribution of income provided by market mechanisms. Finally, the stabilization function involves the use of fiscal policies to achieve the macroeconomic objective of stability, that is, to minimize deviation between real and potential GDP and allow more smooth business cycles. The question then arises as to whether, in the case of international groups of countries undergoing economic and/or political integration, these functions should be left to the individual states that carried them out before formal integration, or whether, for reasons of greater effectiveness, they should be allocated in full or in part to central (supranational) institutions, together with any additional functions, including regulatory ones. The principles pointed out in the literature for the efficient allocation of responsibilities between different levels of authority rest basically on the following three criteria: the existence of cross-border spillovers, economies of scale, and the degree of homogeneity of political preferences (Oates, 1972). The general orientation of these criteria can be described as follows: cross-border spillovers are relevant where policies decided in one country have effects that also impact agents located in other countries and that should therefore be taken into account. Such spillovers are an essential decision factor for assigning policy or activities' responsibility to a higher-level of authority in order to internalize the inherent costs and benefits of the policy in question. Moreover, if clear economies of scale are generated when the function is exercised centrally, it is advisable to refer the function to this governance level. However, such allocations should only be finally granted when the gains clearly outweigh the costs caused by market failures and the centralization of functions does not lead to an increase in administrative costs or a lower quality of the public policies and goods provided.

#### **4.2. Choosing the Level of Public Policies' Intervention**

The political dimension that is always present in any process of assigning functions to a given level of government should not be devalued. In fact, the existence of a high degree of political homogeneity, as measured by the similarity of preferences over the provision of public goods, calls for the assignment of specific functions to the wider territorial jurisdiction.

Instead, the diversity of preferences acts in the opposite direction and advocates that welfare will be maximized when deciding on decentralization in the provision of public goods. The theory of fiscal federalism (Oates, 1972 and 1999) is a key framework for the application of these criteria to the functions and objectives of fiscal policy. Its principles, according to Robson (1999), can be summarized as follows: the function of allocating resources should be shared between the upper and lower levels of government, according to the characteristics of the public goods or services to be provided, taking into account the homogeneity or diversity of preferences; the redistribution and stabilization functions must, on the other hand, be exercised at a higher level, i.e. at the central level. Although the decisions concerning the structure and the size of the budget are clearly political in nature, the pursuits of efficiency and rationality are also crucial in any process of economic integration. It is therefore necessary to assess the efficiency considerations that apply to the allocation of jurisdiction over tax policies in a given community of states. The economic literature produced during the last decades has evolved in order to base the optimal allocation of public functions in a structure with multiple levels of government (see, for instance, Charbit, 2011). Since the exercise of those functions and their policies involve expenditures and resources, this analysis has been largely applied to fiscal integration processes. More recently, the efficiency aspects have also been applied to the assignment of regulatory functions at a central level, although these have generally no significant budgetary implications (Berger et al., 2018). The analysis of policy integration, focusing on different budgetary functions, should thus include not only efficiency considerations, but also a set of other dimensions that are relevant to policy decision making, especially those that have been advanced by the theory of public choice (Wiener et al., 2018). Finally, the proper allocation of responsibilities between the levels of national and supranational authority in a given community should be the reflection of a cost/benefit analysis (Daniele and Geys, 2015).

## **5. DISCUSSION AND FUTURE RESEARCH DIRECTIONS**

Besides the discussion over the ideal level of government to accomplish the musgravian functions, it is also important to investigate whether there should be different budgets for the EU and for the EMU. In its assessment of the possibility of creating a specific budget for the euro area, Wolf (2017) defends that only the economic stabilization function has significantly different characteristics in the EU and in the euro zone. The authors argue that the (re)distribution function refers to the distribution of fiscal resources amongst agents, thus being a political choice based on collective preferences, where each country opts for the level of redistribution appropriate to such function. In this logic, it will not be easy to shift this function from the member states to the central level, given the different views that prevail over the role of the nation-states, which have crystallized over time. This view that ‘collective preferences’ should only matter at the national level, and that solidarity schemes should not be developed at a European level, may appease some more EU-distrustful fringes of the political spectrum, but is an obstacle to one of the drives behind the Treaty of Rome, to “strengthen the unity of their economies and to ensure their harmonious development by reducing the differences existing between the various regions and the backwardness of the less favoured regions”. As Wolf (2017) admits, to better fulfill this function, the supranational (European) level can supplement national tax systems. Besides, in the EU, the redistribution function has been oriented in recent decades to consolidate the functioning of the single market, since the removal of barriers to economic flows is not neutral in terms of income distribution across the integrated area. The Single European Market created conditions for the free flow of labor, capital, services and products, and the removal of pre-existing obstacles to mobility has generated tensions between countries with different GDP per capita levels. In this context, the redistributive function in the EU has focused on supporting the reduction of economic asymmetries between and within



countries and is therefore clearly linked to the EU's operation (Aussilloux et.al 2017). Has the introduction of the euro brought social implications in addition to those of the Single European Market, thus justifying a specific budget for the euro zone? The European Commission has defined the features to be included in the social dimension of EMU (European Commission, 2017b), but has not added much to the rationale of its choice, and we therefore believe that it is useful to go into this issue in some detail. In fact, by removing currency uncertainty within the euro zone, the adoption of the single currency has accentuated and deepened the integration of national markets. Therefore, if we admit that the single market requires a redistributive function, then it will be coherent to concede that such function should be strengthened in countries that share the euro. However, contrary to initial expectations, there is no evidence that, at the level of the euro area, integration of factors, goods and services markets has become higher than vis-à-vis the rest of the EU, or that the euro has strengthened the trade flows between the members of the monetary union (Mika and Zymek, 2018). Even before the financial crisis, trade-related effects appeared to be modest (Tenreyro, 2010) and evidence of the euro promoting migration and labor mobility was also not abundant (Farhi and Werning, 2014). We also believe that the distributive function is not disconnected from the exercise of the stabilization function in integrated economies. In fact, the members of EMU have their fiscal capacity restrained by the quantitative limits imposed on the shares of public deficits and debts on domestic GDPs, but also by the loss of the possibility of issuing debt in their own currency. The latter makes them more prone to liquidity crises and puts them at the mercy of financial markets, which have the power to force their default. Without the support of the ECB, the liquidity provider and the lender of last resort, members of the euro area cannot guarantee conditions for full debt repayment, as was the case before, when they had the sovereignty over monetary policy and a domestic central bank (De Grauwe, 2011). The redistributive question to compensate for the uneven effects of the creation of the euro persists, since its members still display diverse and often divergent economic performances, expressively highlighted by the recent crises (De Grauwe, 2016). In fact, adjustment mechanisms to asymmetric shocks are distinct when countries do not control their currency, but in the case of the sovereign debt crisis the means of correcting these imbalances have been ineffective, or nonexistent. Without the instrument of foreign exchange rate depreciation, real adjustment is slow and the high current account imbalances display no visible reversing trend (Kang and Shambaugh, 2016). In such conditions, being able to use the compensatory redistributive function of the budget can make all the difference. Redistribution can then be assumed as a way of compensating for imbalances of a more or less lasting nature. However, there are political and economic reasons why centralizing this function may not be adequate. At the political level, the possibility of permanent transfers within the EMU may be considered unsustainable by the net contributor countries. Furthermore, permanent transfers can lead to the crystallization of the imbalances they were intended to compensate for. According to Wolf (2017), correcting imbalances should be a priority exercised through more proactive policies and reforms. Thus, support for the implementation of structural reform programs, to facilitate market adjustments or even to strengthen infrastructure endowments, may be relevant.

## 6. CONCLUSION

In the twenty years since the adoption of the single currency, social and economic inequality has grown within and amongst its members, economic growth rates have declined and the euro's model of institutional governance has increased in complexity and opacity. Quick and effective reforms are required and a 'road map' has been proposed by EU's main institutions with the objective of deepening economic and monetary integration. Short term plans for completion of the banking union are already being executed but the implementation of a common stabilization function has been relegated as a possible later step.

In the meantime, the main focus continues to be on strengthening fiscal countenance rules and promoting the structural reforms that many view as the single way to achieve real convergence and to stimulate competitiveness, and thus as a pre-condition for further integration. In this context, it is worth noting that after the adjustment programs imposed on some euro area countries have been completed and assessed (Pisani-Ferry et al., 2013), results indicate that the measures to promote competitiveness by lowering production costs, and mainly wages, have been successful in a few cases. Some countries have undertaken labor market reforms to give them flexibility and to promote the liberalization of specific sectors (Auf dem Brinke and Enderlei, 2017). However, the countries more affected by the crises have not as a result attenuated the social impact of the liberalization process. Nor have they improved their long term productivity levels, which would have only been possible through the implementation of active employment policies or the renewal of domestic education and training systems. According to Rubio (2013), two reasons justify this divergence: first, although reforms are crucial for the sustainability of economic and social adjustment, they are not adequately valued by financial markets, whose perception of risk is often short-term focused; secondly, legislative reforms on the liberalization of the economy are not very demanding in terms of financial resources, contrary to what happens with the labor market or social policy empowerment, which require significant resources and strong coordination of different entities. Thus, scarce resources and poor coordination are decisive for the absence of effective structural reforms, especially in labor markets, justifying specific funding for this dimension. Therefore, while adjustment programs have solved short-term financial issues, they do not appear to constitute the ideal solution for the greatest problem faced by the more affected countries. Indeed, more than an incentive system to facilitate structural reforms, the euro area would benefit from a temporary financial assistance mechanism to promote more socially demanding adjustments, as advocated by Delors (2013). Such an intervention would be justified because the structural shortcomings of EMU contributed to create financial instability and economic degradation in some of its members. If there had been means available to act on divergences of competitiveness, dramatic situations demanding severe processes of internal devaluation would never have occurred. The reflections of academics and of EU policy makers since 2012 suggest that there is now a consensual view that an adequate response to the social effects of the crises is the consolidation of the European Single Market - in particular in what concerns the free movement of workers and the strengthening of human capital capacity to respond to the new labor markets' challenges. Auf dem Brinke and Enderlein (2017) even consider that to make EMU viable, there must be a strengthening of investment capacity, in line with broad structural reforms that promote employment, competitiveness and economic growth. In what concerns adjustment and stabilization, there is currently more institutional support for the economic arguments suggesting that EMU must quickly provide alternatives to what it has taken away and thus that a fully functional central stabilization scheme is required to stop the repetition of crises induced deflationary and impoverishing vicious cycles. Notwithstanding, the much needed euro budget appears to still be too politically unpalatable to become a short-term reality. In the meantime, and taking into account the various proposals already put forward by academics and politicians, it could be efficiently replaced by two funds, distinct in nature, but aimed at providing effective adjustment and stabilization in the aftermath of shocks. One would provide short-term unemployment insurance in nonconditional terms. It could be funded by euro area countries according to their position in the business cycle and would automatically trigger transfers for countries displaying increases in unemployment rates above a defined threshold. The other, funded by already existing (i.e. the European Investment Bank) or specifically created organisms, and/or commonly issued debt, would finance strategic infrastructural investments. Payments would be discretionary and subject to pre-defined conditionality but they would support domestic economic activity following general or

geographically specific crises. The two funds avoid permanent transfers between euro area members and may for this reason be more easily accepted than the more controversial euro budget. Some believe that the creation of a European unemployment protection system should be anchored in a common budget. For instance, Dullien and Fichtner (2013) argue that such a system would have advantages over other types of financial transfers, as it would depend on the trend dynamics of short term unemployment, triggering automatic transfers dependent on the specific business cycle situation of each domestic economy, and preventing any country from becoming a permanent net beneficiary or contributor. But a specific fund with the same objectives would be comparable in terms of stabilization capacity. Provided that it would also respond immediately to avoid the social impacts of economic shocks, it could ensure a minimum level of social protection. With few examples to put forward as illustrations of the euro's success, mounting social unrest and increasing support for radical, anti EU, political forces, EMU leaders have to realize that the time allowed for procrastinating is rapidly vanishing. Acknowledgement that the euro governance model is more in need of restructuring than the most problematic single currency members is of essence. Implementation of common stabilization devices should not be dependent on the achievement of convergence because the absence of a common stabilizer is one of the inducers of economic divergence. Some of EMU's needed reforms will both promote convergence, and help smooth economic activity and maintain citizens' wellbeing when crises occur. As the experience of other currency areas suggest, a common budget would be an efficient way of achieving such benefits. Yet, if some sensibilities remain incapable of accepting it, the two funds to insure short term unemployment and to promote investment would fulfil the same common stabilization function. When the survival of the whole project of European integration may be at stake, the substance of the required stabilization mechanism is more important than its designation.

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## PSYCHOLOGICAL ASPECTS OF CONTRACT IN SUSTAINABLE HUMAN CAPITAL MANAGEMENT

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### **ABSTRACT**

*Sustainable Human Capital Management depends on many factors and their interaction. In business practice, it is necessary to obtain information about employees' opinions on the importance of motivation factors as well as the level of their job satisfaction with their implementation. The attitude of employees is not constant and may change over time. Psychological aspects in the form of a psychological contract, care for psychological safety and a psychosocial safe climate, and the elimination of psychological risks at work become important factors in human resource management. . The labour-law relationship is enshrined in the labour-law relationship in accordance with the legislation, but not only the strict observance of the Labour Code, but also the conscious creation of the psychological contract and its fulfilment are of increasing importance. The psychological contract is a prerequisite for lasting, harmonious relationships between the employee and the employer. The main component is the close link with employee satisfaction, better working relationships, and overall higher commitment to organizations. Common features leading to a favourable psychological agreement include delegating tasks, forming co-responsibility, learning opportunities, focusing on job security, fair treatment and prospective career growth. It is important to emphasize the constant application of company policy transparency, the principle of awareness of plans and management decisions affecting people. Employee visibility as consensual and cooperative partners is also invaluable. Organizational and industrial psychology, occupational psychology, industrial relations and industrial sociology can contribute to the understanding of the structure and company operation and the reasons for workplace injuries and causes of occupational illness. The article focuses on the role of the psychological contract in human capital management in relation to the legal aspects of the employment contract and psychological safety at work.*

**Keywords:** *Contract, Human Capital, Management, Psychological aspects*

### **1. INTRODUCTION**

Personal psychology aims to explore and observe the person in his work. It also addresses the issues of assessing a suitable job seeker, identifies psychological demands for the profession, evaluates training programs for employees, and assesses employee performance, work ethics. Knowledge from Personnel Psychology is used by organizations within a regulated system of working with people. This system is influenced by a personalized policy that sets goals and rules for the entire human area. The main areas of the problems that personnel psychology deals with can be divided into two groups; the first includes analysis of work activities, selection of candidates, training of staff, assessment of staff and influencing their performance. [1,2] Koubek (2008) extends the above-mentioned activities on personnel planning, employee placement, termination of employment, remuneration, retirement, enterprise training for staff, care for workers, activities on survey methodology, information processing and compliance with labour laws and employment. [3] The need to explore the psychological aspects of work and working relationships is constantly increasing. In the context of economic growth and rising living standards during the period of globalization, there are some negative phenomena in the labour market. By analysing the labour markets in developed countries from the level of macro indicators of social indicators, it is possible to identify the impacts of trends such as changing

the structure of employment, increasing income inequality, decreasing coverage and generosity of social insurance systems, the emergence of new forms of working relations, the loss of job security, reducing the employment of older and less qualified workers. [4, 5] There is significant empirical evidence that shows Psychosocial Safety Climate is a reliable leading 'upstream' indicator of psychosocial working conditions and work health outcomes. [6] The employment relationship is a labour-law relationship between the employee and the employer. According to the Labour Code, these are individual labour relations in relation to the performance of dependent work of natural persons for legal entities or natural persons and collective labour relations. Dependent work is the work performed in relation to the employer's superiority and subordination of the employee, personally to the employer, according to the instructions of the employer, on his behalf, at the time appointed by the employer, for wages or remuneration. The current legislation recognizes only one way of setting up an employment relationship and that is the employment contract concluded between the employer and the employee.

## **2. EMPLOYMENT RELATIONSHIP**

The employment relationship is based on a written employment contract between the employer and the employee. In the employment contract the employer is obliged to agree with the employee essential elements, which are the nature of the work, place of employment, the date of commencement of work, wage conditions, unless agreed upon in a collective agreement. Employers in the employment contract will also indicate other terms and conditions, such as pay dates, working hours, holiday leave, and length of notice. If these working conditions are agreed in a collective agreement, it is sufficient to refer to the provisions of the collective agreement. [7, 8] All terms of interest to the participants may be agreed in the employment contract, in particular other material benefits. A probationary period of up to three months may be agreed in the employment contract and the introductory worker may be for a maximum of six months. By analysing many contractual relationships, Macneil came to the conclusion that virtually everyone the employment relationship falls closer to the end of the continuum, and adds that relatively speaking, employment is essentially a relationship. [9] It can be said that a relationship exists between every employee and employer. By its nature it affects the nature of cooperation; a unique employment relationship arises in the process of unique contractual negotiation. Many promises (promises, the nature of the relationship itself, external rules) enter into the process of creating a contract. Because of the relationship nature of employment relationships, the expectation of justice is an implicit part of them.

### **2.1. Psychological aspect of employment relationship**

Working relationship as an employee relationship is the basis for all aspects of human resource management; it is a unique combination of the individual's faith and his employer, which relates to what one expects from each other. The set of mutual but unpublished expectations that exist between employees and employers is the so- a psychological agreement that is right to understand the effective management of human resources. Psychological agreements represent how people interpret promises and commitments; both sides of the employment relationship may have different views on certain specific conditions. The employment contract does not contain all the conditions in detail and the employee and the employer have the opportunity to fill in their white spaces. Employees expect to be treated fairly, receive skilled work, be fairly remunerated, and be informed about how their work is perceived by the employer.

### **2.2. Psychological contract**

The psychological contract is a way of interpreting an employment relationship, it has an implicit character and it is dynamic and develops in accordance with the terms of employment.

### *2.2.1. Main aspects of psychological contract*

The main aspects of the employment relationship contained in the psychological contract in terms of employees decent treatment, fairness and solidarity; job security; scope for capacity utilization; career advancement and personal development; involvement in decision-making and problem solving, impact and also confidence that the organization will keep its promises. From the employer's point of view, the following factors are involved ability, efforts, readiness, devotion, loyalty. Schein (1969) defined a psychological contract as a two-way set of requirements in employment relationship. According to Armstrong (2007) these requirements are essentially mutual expectations in the relationship between the worker and the organization. [10] The biggest problem of a psychological contract may seem to be a dematerialized form. It is not formalized, it is not written, but by its nature it has a substantial influence on the organization's behaviour and conditions the behaviour of its subjects. It can exist as conscious and unknowingly. The psychological contract is characterized by considerable dynamics. It takes time to change the expectations arising from changing needs on each side. Individuals with their personality, knowledge, experience, and personal or family situation, on the one hand, meet on the way to an organization with its specifics, such as the sector in which the organization operates organizational culture or overall strategy, on the other. To some extent, certain types of people are attracted to certain types of work environment or employment. Upon the arrival of a worker in an organization, forces from both sides and based on these specificities interact. Mutual expectations are adjusted so that a certain balance is reached and a psychological agreement is concluded. However, the fact that the psychological contract is unstable in time needs to be "re-formulated" and reviewed at regular intervals on both sides, and in an ideal way there is an open discussion between the employee and the employer.

### *2.2.2. The current nature of the psychological contract*

Social and economic development and changing working conditions have also caused the changing nature of a psychological contract because:

- Entrepreneurs are not stable and long-term, the current time is characterized by uncertainty and constant change, job security is reduced,
- The importance of flexibility, adaptability, reaction speeds increases; the role of individuals is constantly changing, persistence and predictability are nothing that employees can count on.
- Flat organizational structures mean that a career can be developed mainly horizontally, the promotion in the hierarchy of functions is not frequent.
- Leaner organizations place more demands on employees and less tolerate people who do not meet these requirements.

In general, researchers believe that breaking a psychological contract has serious consequences for employees and organizations. It is precisely because of this perceived seriousness that many empirical studies have been aimed precisely at detecting the consequences of breach of contract. They found that a breach of contract is associated with reduced employee welfare, a negative attitude to work and organization, such as job dissatisfaction and small commitments, lower performance, reduced organizational citizenship behaviour, and increased levels of withdrawal (e.g. leaving work) [12] As a result of the breach of contract, as Rousseau (1995) states, the contract does not necessarily end. The termination of the mutual relationship to which the psychological treaty is in many cases is very demanding for individuals (similarly to the termination of any interpersonal relationship). It is therefore possible that employees tend to resolve in some way the disadvantageous situation they demonstrate through the above behaviours. [13] Law and laws establish what is allowed in the company to be banned.

Understanding laws is involved in creating and maintaining a psychological contract by influencing their real behaviour. Rousseau and Schalk (2000) outline two basic requirements that must be available in society so that consideration can be given to formulating a psychological contract for employees:

- a) Personal freedom - a psychological contract is a voluntary commitment between two parties, so it can not arise if the society does not provide at least some degree of personal choice (the question remains, which means "some measure").
- b) Social stability - before the parties can make a deal on the future, they must both have mutual trust, on the other hand, that they have the will and the ability (willing and able) to keep promised commitments. [14]

### **3. PSYCHOLOGICAL RISKS AT WORK**

Human resources management also involves assessing psychological risks at work and eliminating them.

#### **3.1. Psychological factors at work**

Psychological factors include psychological workload, psychosocial stress in the workplace, pathological relationships - mobbing, bossing, bullying. In developed countries, psychosocial factors and labour organization factors become major occupational hazards. Work-related psychosocial risk factors refer to the social and relational aspects of work design that have the potential to produce detrimental effects on employee psychological (e.g. stress, burnout, depression) and physical health (e.g. musculoskeletal disorders, cardiovascular disease). [15, 16] Psychological stress can be defined as a process of psychological processing and alignment with the requirements and influences of the environment and the working environment. Long-term psychological stress can result in health disorders such as certain psychosomatic diseases (e.g. ischemic heart disease, ulcer disease, and hypertension) and health disorders. Risk factors of work have been identified that are clearly associated with significant mental workload. These include, in particular, combinations of high work intensity with low self-control, time pressure, monotony, forced labour, conflicting interpersonal relationships at the workplace, high responsibility, shift and permanent night work, risk to the health of others, high demands for social integration, long-term social isolation. Psychosocial risks include bullying and harassment, emotional labour demands, labour intensification, job insecurity, long working hours, role conflicts, and low work autonomy and co-worker support. On the contrary, social support and a high degree of decision-making are positive, despite the great workload and high motivation to work. Under EU law, the employer is responsible for all aspects of health and safety, including psychosocial issues. Changes in how we work over the last decades have led to an increase in psychosocial problems at European workplaces. Examples of psychosocial risks that have implications for the organization and individuals are high workload, monotonous work, unclear expectations of work performance, and the risk of violence. For the organization, this has implications for manufacturing failures, cooperative issues, increased employee fluctuations and incidents. The consequences for individuals may be psychological problems, stress, sleep disturbances or illness. Preventive measures include clear management, balanced division of workloads, employee participation, qualification development, information and feedback. The new report of the European Agency for Safety and Health at Work states that the main psychosocial risks include new forms of work contracts, job insecurity, work intensification, high emotional demands in employment (violence at work, intimidation at work, stress) and imbalances between work and personal life. In particular, stress is becoming a risk factor for safety and health when it is long-term.



### **3.2. Risk assessment**

Risk assessment for stress involves the same principles and processes as other workplace hazards - identifying hazards, deciding what action to take, communicating the evaluation results and reviewing them at appropriate intervals. Engaging workers and their representatives in this process is crucial. Psychosocial risks should be investigated and evaluated, e.g.: interviews, interviews, observation, checklists or questionnaires. Psychosocial Safety Climate theory provides an appropriate framework within which to evaluate the impact of policy that intends to address psychological factors at work. The theory refers to a specific facet of organisational climate that concerns employee psychological health and safety. [17, 18] Occupational safety and health protection is an important human aspect that presents the cultural and social level of the enterprise. We can see the political and economic development, working relationships and work conditions are changing throughout the world, and also the access to health and safety at work. New employment protection policy is based on the recognition that occupational accidents, occupational diseases and inappropriate working conditions are largely the result of an improper organization of work. [19, 20] Psychosocial climate is largely determined by management priority for employee psychological health in contrast to productivity concerns.

### **3.3. Results of research and discussion**

In our survey in the form of a questionnaire focused on the perception of psychological aspects of employment relations, 280 respondents in Zilina region were addressed, 198 questionnaires were returned, which were completed by 112 men, 86 women. The results show that 57% of workers are more satisfied than dissatisfied with the fulfillment of promises and commitments by the employer. Failure to observe the legislative conditions of the employment contract was reported by 36% of respondents, especially in the area of non-compliance with the job description, especially the extension of obligations beyond the scope of the contract. 6% reported non-compliance with the place of work; 18% suffer from excessive overtime. The greatest problem appears to be discrimination in the area of remuneration and career advancement, which is felt by 39% of respondents, but most of them women. 4% reported pressure from their superiors when extend their tasks. 38% of respondents had a different idea of providing benefits and conditions of career growth based on the recruitment process. Respondents consider inadequate human resource management processes, poor support from their superiors as well as relationship problems on the basis of friendship, which the workers attribute to their lack of socialization as the causes of non-compliance with promises and commitments. Respondents also perceive a lack of willingness in the area of work life balance measures and high level of stress. Despite relatively frequent dissatisfaction, only 5% would like to change their jobs because of non-compliance. The current situation in the context of the crisis due to coronavirus has a significant impact on the world of work and also significantly reviews the psychological contract. Both employers and employees face difficult problems and coherence and compliance with the psychological contract is important from both sides. In practice, there are problems with low employee loyalty and susceptibility to the employer's demands to keep the company running and, on the other hand, psychological pressure from the employer. As a result, the atmosphere in the workplace is deteriorating, which, with new, unexplored work risks and lack of protective equipment, poses a threat to the mental and physical health of employees as well as an economic threat to the company. In this situation, labour law and regulations for the protection of employees' health are often violated. It also increases the role of employee representatives and trade unions. People think in terms of the contract. When we believe that someone who promised us something to keep his promise, we rely on it. Violation of the psychological contract is highly correlated with feelings of dissatisfaction at work, which also leads to other negative facts such as a sense of betrayal and

unfairness, loss of trust, belief in the organization, reduced overall satisfaction with the organization, surrender to the employer and the like. The employee's psychological contract begins to be formed by the first contact with the employer when selecting the employee. We can tell about lists four basic periods in which the contract is formed: before employment, the recruitment process, initial socialization and later experience. As mentioned above, the most important representative in the process of creating a psychological contract is a direct superior. As a representative of the organization, it can be assumed that the representative of the organization will present the organization's commitments and attitude towards different employees in different ways. Staff manuals can help to create the psychological contract and should describe the general terms and conditions of employment in an organization. These manuals are not significant as much as the remuneration system or human interaction. In creating a contract, the manuals have some promises for the future, eg they determine when an employee becomes a permanent employee, what behaviour is rewarded or punished, how the company is to use narcotic drugs at the workplace, etc.). Manuals and manuals are relatively permanent sources of information on employment conditions for employees. It is also important to place greater emphasis on business crisis management and preparedness for unusual situations in which the workplace fails most. It is in this direction that future research needs to be oriented.

#### 4. CONCLUSION

Employee satisfaction depends on many factors and their interaction. In business practice, it is necessary to obtain information about the views of employees on the importance of motivation factors and at the same time the degree of their job satisfaction with their realization. Employee's attitude is not constant and may change over time. Significant factors in managing human resources become psychological aspects in the form of a psychological contract, care for psychological security and a psychosocially safe climate, and the elimination of psychological risks at work. . The employment relationship is anchored in the labour law in accordance with the legislation, but the increasing importance is not only the strict observance of the Labour Code, but also the conscious creation of the psychological contract and its fulfilment. The field of labour law significantly affects the lives of most citizens in the position of employees or employers. Therefore, any misconduct, any violation of the legal norms contained in the Labour Code in particular, has a negative impact on labour relations between employees and employers. Based on practice, we must state that the violation of law occurs not intentionally, especially by employers. Such "errors" usually harm employees. In the manager's job, it is necessary to know how to correctly link the legal and psychological aspects in the management of their employees.

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# CASH CONVERSION CYCLE AND FIRM PROFITABILITY: THE MODERATING ROLE OF FIRMS' ACCESS TO CREDIT

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## ABSTRACT

*The impact of holding a high or low level of cash conversion cycle (CCC) exerted on companies' profitability is deemed contradictory among studies in the light of the literature review. Some prior work finds no relation between cash conversion cycle and firm profitability. Some other studies find either a positive relation or a negative relation. Finally, recent research suggests that the relation between CCC and firm profitability may be represented by a non-linear function. The present study expands these prior findings by proposing a model in which the inverted U-shape between CCC and firm profitability is moderated by a firm's access to credit both at the country and individual firm level. To test our model, we gather firm-level financial information from Amadeus Database and country-level information from the World Bank database. Our final sample includes financial information of 255 companies (in 16 countries) in the European Automotive Industry during the period 2009- 2018. We conduct our empirical testing using multivariate panel data models with firm-level clustered errors. The results show that there is an (U) inverted shape for the relation between the companies' CCC and companies' profitability. In the same vein, findings indicate that this relation is moderated by the firms' access to credit. In particular, in countries that provide more access to credit keep the inverted (U) shape of the relation between CCC and companies' profitability, whereas the relation between CCC and companies' profitability in countries where there is limited access to credit is mainly negative. Finally, we find that smaller companies are more profitable when they increase their CCC up to its optimal level, whereas as the size of company increases, the effect of CCC on profitability flattens. Our study may help firms to improve the way in which they manage their CCC to obtain better financial results.*

**Keywords:** *access to credit, cash conversion cycle (CCC), firm profitability*

## 1. INTRODUCTION

This paper complements prior literature exploring the way in which the efficient management of transactions with supply chain parties may influence firm profitability. For the purposes of this study, we use the cash conversion cycle (CCC) as a measure of efficiency in supply chain operations. This indicator expresses the number of days it takes for a company to transform its investments in inventory and other resources into cash, and is commonly regarded as the key indicator to understand how efficient a company is to manage its supply chain operations (Tsai, 2011; Wang, 2019). In this matter, prior work documenting the relation between companies' cash conversion cycle management and firm profitability and value (Boisjoly et al, 2020; Dhole et al, 2019; Johnson and Soenen, 2003; Wang, 2019) has found mixed results. This study aims to reconcile, at least to some extent, this mixed results by proposing a comprehensive model in which the inverted U-shape relation between CCC and firm profitability is moderated by firms' access to credit. In other words, we posit that the relevance of the CCC for firms' financial profitability is likely to depend on the extent to which firms have access to external financing.

For the purposes of this study, we consider that firms' access to credit may be determined by both, country-level factors, and individual firms' characteristics. At the country level, we proxy firms' access to credit with the strength of credit reporting systems and the effectiveness of collateral and bankruptcy laws prevailing in the country in which a firm operates. In terms of access to credit coming from firms' individual characteristics, we propose firm size as the dimension that is likely to determine companies' access to credit (e.g., Beck and Demirgüç-Kunt, 2005). We expect both types of access to credit to modify the way and extent to which cash conversion cycle influences firm profitability. To test these notions, we merged firm-level financial information from Amadeus database with country-level access to credit information from the World Bank. Our final sample includes information about 2,218 firm-year observations belonging to 255 companies in 16 European countries during the period 2009-2018. Results support our theoretical predictions. Specifically, we find an inversed U-shape relation between cash conversion cycle and firm profitability. Moreover, we find that this relation is significantly modified by firms' access to credit. Findings indicate that firms in countries with better access to credit may be able to improve their profitability by increasing their cash conversion cycle while firms in countries with lower access to credit are less likely to benefit from increases in their cash conversion cycles. Likewise, we find that the degree to which the cash conversion cycle is likely to influence firm profitability depends on firm size. Our results show that smaller firms are more likely to benefit from an efficient management of their cash conversion cycle than larger firms. This is consistent with the idea that larger firms may have access to external resources and therefore, their profitability is less affected by their cash conversion cycle. This study contributes to the current literature by providing insights that may help to clarify the longstanding debate over whether increasing the firm's CCC is likely to result in greater or lesser firm's profitability. Our findings indicate that this relationship should not be addressed using a "one size fits all" approach. Instead, we show that the nature of the relation between CCC and profitability may change according to other factors. We recommend academics and practitioners to consider this approach when conducting academic research or designing strategies to manage their transactions with their supply chain partners. We consider that the approach taken in this article opens up an avenue for future research investigating in more detail other factors that affect the relation between the level of firm's CCC and its profitability.

## **2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **2.1. Cash conversion cycle and firm profitability**

The Cash Conversion Cycle (CCC) is a measure of how efficient a firm is to conduct four basic activities related with its supply chain parties: purchasing, internal operation, selling, and management of cash inflow and outflow from previous three activities (Tsai, 2011; Wang, 2019). This indicator is calculated as account receivable days outstanding plus inventory days outstanding minus account payable days outstanding (Özbayrak and Akgün, 2006). Therefore, intuitively, the CCC expresses the time (measured in days) it takes for a company to convert its investments in inventory and other resources into cash flows from sales. At first sight, it seems reasonable to think that companies would be better if they keep their CCC as short as possible because this may guarantee them a constant flow of working capital to support their operations (Tsai, 2011). However, the increasing body of research investigating the relation between companies' cash conversion cycle management and firm profitability and value (Boisjoly et al, 2020; Dhole et al, 2019; Johnson and Soenen, 2003; Wang, 2019) has found mixed results. Some studies find positive relation between cash conversion cycle and financial returns (Gill et al, 2010). For instance, the Bigelli and Sánchez-Vidal (2012) indicate that firms with high level of conversion cycle tend to have high cash and are more profitable. Other studies find evidence of a negative relation (Zhang et al, 2019; Chang, 2018; Zeidan and Shapir 2017; Ukaegbu,

2014; De Almeida and Jr., 2014; Wang, 2002; Enqvist et al, 2014; Garcia-Teruel and Martínez-Solano, 2007). For instance, Zeidan and Shapir (2017) studies the case of a Brazilian company that implements a program to decrease its cash conversion cycle from 508 days in 2012 to 351 days in 2015. This reduction resulted in increasing stock prices, profitability and the cash flow of the firm. Furthermore, Chang (2018) found that decreasing the level of firm's CCC resulted in increasing the firm's profitability while this relation disappears or reverse for firms with low level of CCC. The results remain constant after controlling for macroeconomic environments, economic development, financial crises, corporate governance, and financial constraints. Some additional articles find no relation between cash conversion cycle and firm performance (Kroes and Manikas, 2014; Deloof, 2003). Finally, other works find either a U-shape or inverted U-shape relation (Baños-Caballero et al, 2014; Wetzel and Hofmann, 2019). In this study, we test the existence of an inverted U-shape relation between CCC and firm profitability. This type of relation implies that there is an optimal level of CCC. When CCC is low, firms can improve their profitability by increasing their accounts receivable to promote a growth in sales. In the same vein, an increase in inventories may help firms to create a safety stock that may allow them to conduct its operations in an efficient way. Another way of improving firm's profitability is by decreasing accounts payable which would allow firms to meet its obligations and keep a smoother relation with its suppliers. However, if the CCC exceeds a critical level (i.e., because firms hold a very high receivable balance or inventory, or a very low level of accounts payable), firms may face a higher cash risk, and be exposed to bankruptcy even if they have good financial performance (Wu et al, 2019). These arguments suggest that there is an optimal level of CCC that maximizes the firm value and profits (Baños-Caballero et al, 2014). Based on the prior notions, we propose the following hypothesis:

- **H1:** There is an inverted (U) shape relation between firm's cash conversion cycle and firm's profitability.

## **2.2. Moderation effect of firms' access to credit on the relation between cash conversion cycle and firm profitability.**

By managing their CCC, firms keep their working capital under control. As mentioned in the prior section, the length of the CCC tells companies how long it would take them to receive the cash they need to operate. In general, firms with a shorter CCC are likely to have more short term liquidity than firms with longer CCC. Nevertheless, collecting cash from their operations is not the only way in which firms can obtain working capital. Firms can also obtain financing from other sources such as their supply chain partners, or financial institutions. Hence, the extent to which the CCC is relevant for firm profitability is likely to depend on the availability of alternative financing sources. In this section, we explore how the country-level and firm-level access to credit affect the relation between CCC and firm profitability proposed in H1. The availability of external financial resources depends to a large extent on the country's economic situation, the degree of financial development of the country and the public policy determined by the banking structure (Canales and Nanda, 2012). More developed countries usually have a more efficient and competitive banking sector that satisfies firms' financing needs in a timely, efficient, and affordable way (Shamshur and Weill, 2019). In countries with more access to credit, firms can increase their level of CCC to a greater extent while facing a lower cash flow risk or operational volatility because they can get working capital from financial institutions (Hill et al, 2010; Raddatz, 2006; Demirgüç-Kunt and Maksimovic, 1998). On the contrary, in countries where access to credit is more limited, firms are more likely to incur in a higher cash risk or operational volatility as their CCC increases. Therefore, the country-level access to credit is likely to moderate the inverted U-shape relation between CCC and firm profitability proposed in H1.

Specifically, these ideas suggest that firms in countries with better access to credit are likely to have a higher optimal level of CCC that firms in countries with lower access to credit. We formalize these ideas with the following hypothesis:

- **H2:** The relation between firm's cash conversion cycle and firm's profitability is moderated by the country-level access to credit.

Even when the level of access to credit at the country-level play a big role in firms' access to credit, an individual firm's access to external credit depends also to a high degree on its individual financial constraints. In this matter, past research establishes that size is an important determinant of individual firms' financial constraints. Concretely, prior studies suggest that small firms usually have obstacles in getting credit from financial institutions as a result of their asymmetric information risk (Beck et al, 2018; Cenni et al, 2015; Canales and Nanda, 2012; Luo, 2011), and lack of collateral. Moreover, young and small firms that have limited access to external finance usually face a higher financial cost than larger firms (Martinelli, 1997). Thus, the CCC is likely to be more important for the profitability of smaller firms, which primarily depend on trade credit (Chen and Kieschnick, 2018) to finance their operations and investments. Based on these notions, we propose that the inverted U-shape relation between CCC and profitability is likely to be moderated by firm size. More specifically, we expect the CCC to be more relevant for firm profitability as companies are smaller. On other words, we expect the inverted U-shape proposed in H1 to flatten as firm size increases. These arguments motivate the following hypotheses:

- **H3:** The relation between firm's cash conversion cycle and firm's profitability is moderated by the firm's size as a measure of firm's financial constraint.

### 3. RESEARCH METHOD

#### 3.1. Data

To build our database, we gathered financial information about companies in the automotive industry in Europe from 2009 to 2018 from the Amadeus database. This database provides comparable financial information for public and private companies across Europe. We merged this information with macroeconomic and country-level information from the World Bank database. After deleting observations with missing values in the variables of interest, our sample includes 2,218 firm-year observations of 16 countries during the period 2009-2018.

#### 3.2. Model specification and variables

To test our hypothesis, we use multivariate panel regressions with firm, industry, and year fixed effects and firm-level clustered standard errors. Specifically, we use the following econometric models to test our hypotheses:

$$profitability_{i,t} = \beta_0 + \beta_1 CCC_{i,t} + \beta_2 CCC_{i,t}^2 + \sum Control\ Variables + \sum Fixed-effects + e_{i,t} \quad [1]$$

$$\begin{aligned} profitability_{i,t} = & \beta_0 + \beta_1 CCC_{i,t} + \beta_2 CCC_{i,t}^2 + \beta_3 Country-level\ Credit_{i,t} \\ & + \beta_4 CCC_{i,t} * Country-level\ Credit_{i,t} + \beta_5 CCC_{i,t}^2 * Country-Level \\ & Credit_{i,t} \\ & + \sum Control\ Variables + \sum Fixed-effects + e_{i,t} \end{aligned} \quad [2]$$

$$\begin{aligned} profitability_{i,t} = & \beta_0 + \beta_1 CCC_{i,t} + \beta_2 CCC_{i,t}^2 + \beta_3 Firm\ Size_{i,t} \\ & + \beta_4 CCC_{i,t} * Firm\ Size_{i,t} + \beta_5 CCC_{i,t}^2 * Firm\ Size_{i,t} \\ & + \sum Control\ Variables + \sum Fixed-effects + e_{i,t} \end{aligned} \quad [3]$$

We use Model 1 to estimate the non-linear influence of a company's cash conversion cycle (CCC) on its financial profitability (H1). Models 2 and 3 estimate the moderating effect that a firm's access to credit has on the relation between the company's CCC and its financial profitability (H2 and H3). The variable Profitability accounts for firm *i*'s return on assets (ROA) in year *t*. For each year, we calculate this measure by dividing firm *i*'s net income by its total assets. The variable CCC refers to firm *i*'s cash conversion cycle in time *t*. This measure is computed as days of receivables outstanding plus days of inventory outstanding minus days of payables outstanding. The variable Country-Level Credit indicates how easy is for firms to get access to credit in their country. We proxy this concept with World Banks's Getting Credit Index which is part of Doing-business Index. This index measures the extent to which a country's legislation facilitates lending by allowing the use of movable assets as collateral, promoting contract reinforcements, and demanding the availability of information systems suitable for creditworthiness assessment.<sup>1</sup> The index ranges from 0 to 100, with higher values indicating countries in which the legislation facilitates the access to credit. To facilitate the interpretation of the results, the variable Country-Level Credit takes a value of one if the country-year observation is higher than 75, and zero otherwise. Our second moderator is the variable Firm Size. We use this variable as a proxy of the access to credit for a given individual firm because larger firms are usually more likely to have more access to formal finance (e.g., Beck and Demirguc-Kunt, 2005). Prior research uses either the natural logarithm of total assets (e.g., Dhole et al, 2019; Ukaegbu, 2014; Bigelli and Sánchez-Vidal, 2012) or the natural logarithm of sales (e.g., Dalci and Ozyapici, 2018; Enqvist et al, 2014; Wang, 2002) as proxies for firm size. We define Firm Size as a score (i.e., calculated using principal component analysis) combining these two size dimensions. For the purposes of this study, larger values of the variable Firm Size correspond to firms with more access to external financing. Our econometric models also control for a number of factors that may affect firm profitability. In this matter, we control for firm leverage (e.g., García-Teruel and Martínez-Solano, 2007; Chang, 2018; Wang, 2019). We proxy this concept with the variable Leverage, which we define as the ratio of debt to liabilities (e.g., García-Teruel and Martínez-Solano, 2007). Likewise, we control for cash and cash equivalents (Wang, 2019; Ding et al, 2013), current ratio (Enqvist et al, 2014), and sales growth (Ding et al, 2013). We define the variable Cash and Equivalents as cash and cash equivalents divided by total assets. The variable Current ratio is computed by dividing current assets by current liabilities. The variable Sales Growth is calculated as the percent change between year *t* and *t*-1. As this study apply to different countries, we control for the macroeconomic effects on the firms' profitability. We use the growth of Gross Domestic Product (GDP) per capita as a measure of the country's development level. The variable Growth GDPPC is calculated as the percent change between the GDP per capita of each country in time *t* and *t*-1. Finally, consistent with the panel structure of our data, our models include fixed-effects at the year, industry, and firm level (e.g., Baños-Caballero et al., 2012). All variables are winsorized at 1 and 99 percent to avoid the effect of extreme observations.

## 4. RESULTS

### 4.1. Summary of statistics

Table 1 presents means, standard deviations, minimum, 25th percentile, median, 75th percentile, and maximum of the variables considered in our models. The distribution of our dependent variable, profitability, shows that the return on assets of the firms in our sample

<sup>1</sup> The index includes two components: Strength of legal rights index and the Depth of credit Information Index. The Strength of Legal Rights Index measures the extent to which a country's legislation includes protection of both borrowers and lenders' rights through collateral laws, bankruptcy laws for protection of secured creditor's rights. Depth of Credit Information Index refers to the extent to which credit information systems in a country covers information such as: online access by banks and financial institutions and borrowers, and how much does borrowers have to pay for the access.



fluctuates between -31.32 and 28.26, with an average of 4.54. Regarding companies' cash conversion cycle (CCCC), the average firm in our sample has a CCC of 34.29 days, and the range in our sample goes from -78.34 to 177.10. The variable Country-Level Credit has a mean of 0.11, indicating that around 11% of our observations belong to countries in which the access to credit is very good. Firm Size is an index that goes from -2.15 to 2.66, with an average of -0.03. Finally, regarding our control variables, statistics suggest that they have enough variability to obtain results allowing us to make generalizable conclusions.

*Table 1: Summary of Statistics*

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>S.D.</i>	<i>Min.</i>	<i>25th</i>	<i>Median</i>	<i>75th</i>	<i>Max.</i>
<i>profitability</i>	2218	4.54	8.53	-31.32	0.7	4.09	8.91	28.26
<i>CCC</i>	2218	34.29	45.22	-78.34	5.99	29.98	56.98	177.1
<i>Country-Level Credit</i>	2218	0.11	0.31	0	0	0	0	1
<i>Firm Size</i>	2218	-0.03	1.08	-2.15	-0.76	-0.27	0.39	2.66
<i>Leverage</i>	2218	0.17	0.21	0	0	0.05	0.33	0.8
<i>Cash and Equivalents</i>	2218	0.06	0.1	0	0	0.02	0.09	0.55
<i>Current Ratio</i>	2218	1.45	0.79	0.36	0.98	1.26	1.71	5.17
<i>Sales Growth</i>	2218	0.1	0.22	-0.22	-0.04	0.07	0.21	0.64
<i>Growth GDPPC</i>	2218	1.4	2.03	-3.67	0.47	1.45	2.61	5.3

Table 1 presents number of observations (N), mean (Mean), standard deviation (S.D.), minimum (Min.), 25th percentile (25th), Median (Median), 75th percentile (75th), and maximum (max.) of the variables used in the empirical models. For each firm-year observation, the variables in the table are defined in the following way. *profitability* is the return on assets (ROA). *CCC* refers to the cash conversion cycle. *Country-Level Credit* indicates how easy it is for firm *i* to get access to credit in its country in year *t*. It takes a value of 1 if the World Bank's Getting Credit Index of the country in which the company is located is larger than 75, and 0 otherwise. *Firm Size* is a continuous score (calculated using PCA) based on firms' natural logarithm of total assets and natural logarithm of sales. This variable is used as a proxy of the access to credit for a given individual firm. *Leverage* is defined as the ratio of debt to liabilities. *Cash and Equivalents* refers to the ratio of cash and cash equivalents divided to total assets. *Current ratio* is computed by dividing current assets by current liabilities. *Sales Growth* is calculated as the percent change between year *t* and *t-1*. *Growth GDPPC* is calculated as the percent change between the GDP per capita of the country in which the company is located country in time *t* and *t-1*.

Table 2 presents Pearson pairwise correlations between the variables included in our theoretical models. Figures indicate that profitability is not correlated in a linear way with the cash conversion cycle (i.e., CCC). This preliminary result is consistent with some previous research (e.g., Deloof, 2003; Kroes and Manikas, 2014) suggesting no relation between profitability and cash conversion cycle. Even though we propose a relation between profitability and CCC, this result is not necessarily inconsistent with our predictions. Our hypotheses propose a non-linear relation, which is unlikely to be identified with a linear pairwise correlation. Regarding the correlation between our moderator variables (i.e., Country-Level Credit and Firm Size) and our control variables, Table 2 indicates that although there are some significant correlations, their magnitude is somewhat low. In all cases, significant correlations are lower than 0.32. Therefore, we do not expect these correlations to cause multicollinearity problems in our estimations.

*Table following on the next page*

Table 2: Correlation Matrix

Variable	1	2	3	4	5	6	7	8	9
1 <i>profitability</i>	1								
2 <i>CCC</i>	-0.009	1							
3 <i>Country-Level Credit</i>	0.024	-0.008	1						
4 <i>Firm Size</i>	-0.0350	-0.252*	0.049*	1					
5 <i>Leverage</i>	-0.102*	0.244*	0.061*	0.017	1				
6 <i>Cash and Equivalents</i>	0.080*	-0.040	0.038	0.037	0.049*	1			
7 <i>Current Ratio</i>	0.273*	0.313*	0.065*	0.029	-0.103*	0.165*	1		
8 <i>Sales Growth</i>	0.069*	-0.003	0.097*	-0.057*	0.053*	-0.051*	-0.071*	1	
9 <i>Growth GDPPC</i>	0.198*	-0.073*	0.178*	-0.024	-0.061*	0.038	0.035	0.125*	1

Table 2 presents Pearson pairwise correlations between the variables used in the empirical models. For each firm-year observation, the variables in the table are defined in the following way. *profitability* is the return on assets (ROA). *CCC* refers to the cash conversion cycle. *Country-Level Credit* indicates how easy it is for firm *i* to get access to credit in its country in year *t*. It takes a value of 1 if the World Banks's Getting Credit Index of the country in which the company is located is larger than 75, and 0 otherwise. *Firm Size* is a continuous score (calculated using PCA) based on firms' natural logarithm of total assets and natural logarithm of sales. This variable is used as a proxy of the access to credit for a given individual firm. *Leverage* is defined as the ratio of debt to liabilities. *Cash and Equivalents* refers to the ratio of cash and cash equivalents divided to total assets. *Current ratio* is computed by dividing current assets by current liabilities. *Sales Growth* is calculated as the percent change between year *t* and *t-1*. *Growth GDPPC* is calculated as the percent change between the GDP per capita of the country in which the company is located country in time *t* and *t-1*.

\* indicate statistical significance at 5% level.

## 4.2. Empirical results

Table 3 shows the results of our empirical tests. Model 1 shows the effect of the direct effect of the moderator variables and controls on profitability. Regarding the moderator variables, Firm Size has a positive and significant effect on profitability (p-value=0.0305), suggesting that larger firms have a better profitability. On the contrary, we do not find a direct effect of Country-Level Credit on profitability (p-value=0.221). Regarding the effect of control variables, Current Ratio and Leverage have a positive and negative significant effect on profitability (p-value=0.000 and p-value=0.005, respectively), while Sales growth seems to exert only a positive marginal effect (p-value=0.080).

Table following on the next page

Table 3: Results of Main Analysis

Variables	Model 1 DV: <i>profitability</i>	Model 2 DV: <i>profitability</i>	Model 3 DV: <i>profitability</i>	Model 4 DV: <i>profitability</i>
CCC		-0.003138 (0.782152)	-0.011274 (0.312160)	-0.002858 (0.798841)
CCC <sup>2</sup>		-0.000157** (0.042595)	-0.000093 (0.213318)	-0.000093 (0.219002)
<i>Country-Level Credit</i>	-1.491685 (0.221840)	-1.543780 (0.202659)	-1.833292 (0.214936)	-1.553000 (0.200884)
<i>CCC x Country-Level Credit</i>			0.089090*** (0.000530)	
<i>CCC<sup>2</sup> x Country-Level Credit</i>			-0.001047*** (0.003955)	
<i>Firm Size</i>	2.645558** (0.030531)	2.423742** (0.044271)	2.316074* (0.055727)	2.098259* (0.094184)
<i>CCC x Firm Size</i>				-0.006857 (0.423196)
<i>CCC<sup>2</sup> x Firm Size</i>				0.000182*** (0.005897)
<i>Leverage</i>	-5.897659*** (0.005604)	-5.746864*** (0.007094)	-5.876487*** (0.006026)	-5.702866*** (0.007705)
<i>Cash and Equivalents</i>	0.283204 (0.937871)	-0.119535 (0.973925)	-0.225034 (0.950347)	-0.382920 (0.915968)
<i>Current Ratio</i>	1.981174*** (0.000388)	2.107240*** (0.000188)	2.046720*** (0.000278)	2.077030*** (0.000226)
<i>Sales Growth</i>	1.591793* (0.080555)	1.518328* (0.094939)	1.469671 (0.106497)	1.330217 (0.142191)
<i>Growth GDPPC</i>	0.278866 (0.155427)	0.287458 (0.142532)	0.275317 (0.152991)	0.288150 (0.140484)
Year Fixed-Effects	Yes	Yes	Yes	Yes
Industry-Fixed Effects	Yes	Yes	Yes	Yes
Firm-Fixed Effects	Yes	Yes	Yes	Yes
Constant	6.981958*** (0.004396)	6.715652*** (0.005897)	6.937323*** (0.004577)	6.278011** (0.011326)
Observations	2,218	2,218	2,218	2,218
Adjusted R <sup>2</sup>	0.450	0.453	0.460	0.454
No Firms	255	255	255	255

Table 3 presents the results of multivariate panel regressions with firm, industry, and year fixed effects and firm-level clustered standard errors. Each model shows coefficients and p-value (below). For each firm-year observation, the variables in the table are defined in the following way. *profitability* is the return on assets (ROA). *CCC* refers to the cash conversion cycle. *Country-Level Credit* indicates how easy it is for firm *i* to get access to credit in its country in year *t*. It takes a value of 1 if the World Bank's Getting Credit Index of the country in which the company is located is larger than 75, and 0 otherwise. *Firm Size* is a continuous score (calculated using PCA) based on firms' natural logarithm of total assets and natural logarithm of sales. This variable is used as a proxy of the access to credit for a given individual firm. *Leverage* is defined as the ratio of debt to liabilities. *Cash and cash Equivalents* refers to the ratio of cash and equivalents divided to total assets. *Current ratio* is computed by dividing current assets by current liabilities. *Sales Growth* is calculated as the percent change between year *t* and *t-1*. *Growth GDPPC* is calculated as the percent change between the GDP per capita of the country in which the company is located country in time *t* and *t-1*.

\*\*\*, \*\* and \* indicate statistical significance at the 1%, 5% and 10% level, respectively.

Figure following on the next page

Figure 1: Graphical Empirical Results

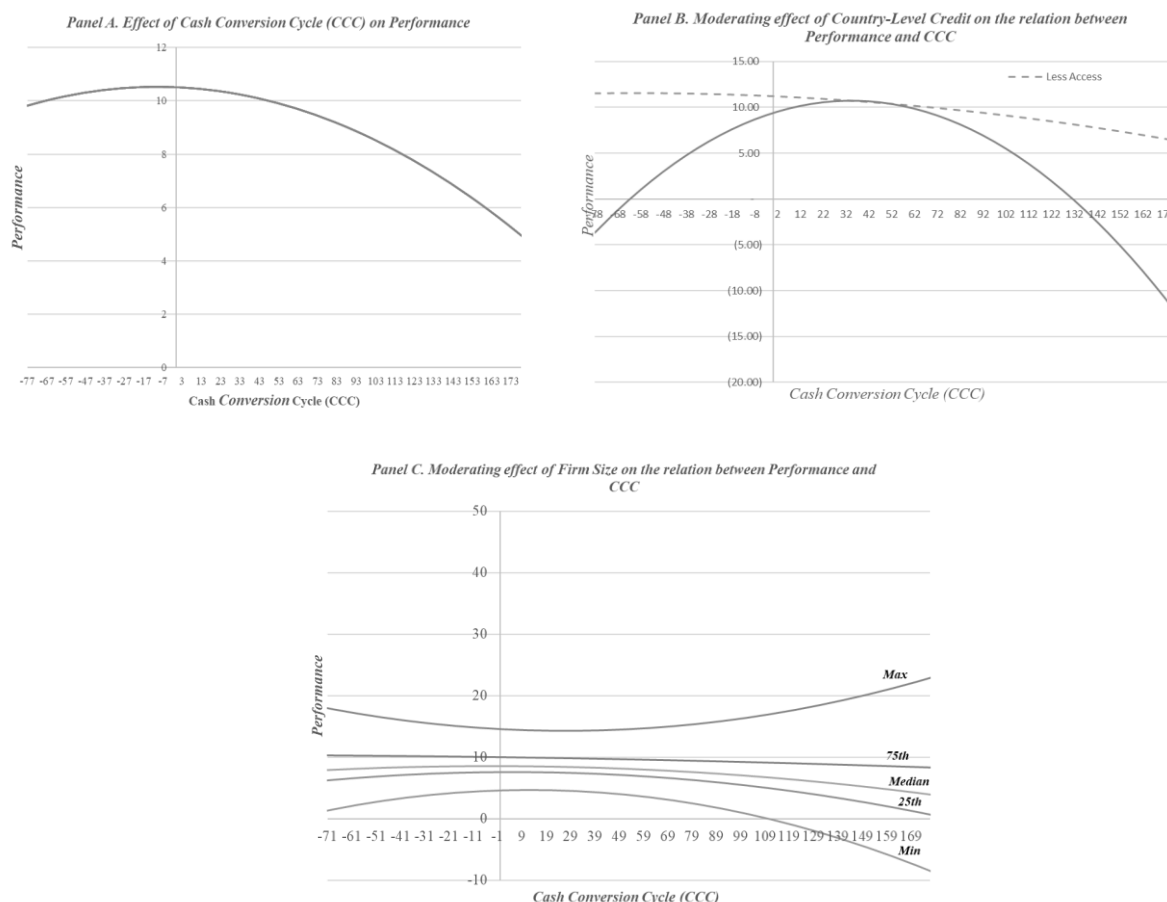


Figure 1 shows the graphical representation of our empirical results. Panel A shows the effect of *CCC* on *profitability* (H1). Panel B shows the way in which *Country-Level Credit* moderates the relation between *CCC* and *profitability* (H2). Panel C shows the way in which *Firm Size* moderates the relation between *CCC* and *profitability* (H3). Model 2 of Table 3 presents the quadratic effect of *CCC* on *profitability*. Consistent with H1, results indicate that there is a significant negative quadratic (i.e., inverted U-shape) effect of *CCC* on *profitability* ( $p$ -value=0.042). This finding provides support to H1. The effect of *CCC* on *profitability* can be seen graphically in Panel A of Figure 1. In our sample, the optimal level of cash conversion cycle is around -10 days. Model 3 of Table 3 shows that the inverted U-shape relation between *CCC* and *profitability* is significantly moderated by *Country-Level Credit* as evidenced by the significance of the interaction term between the  $CCC^2$  and *Country-Level Credit* ( $p$ -value=0.003). This finding provides evidence to H2. The way in which the moderating effect of *Country-Level Credit* operates is presented graphically in the Panel B of Figure 1. As it can be seen, in countries where companies have higher access to credit, the average firm reaches its optimal *profitability* when its cash conversion cycle is around 34 days. On the contrary, in countries where companies have lower access to credit, the *profitability* of the average firm decreases as the cash conversion cycle increases. This finding suggests that firms in countries with lower access to credit are likely to prefer having the lowest possible cash conversion cycle, while firms in countries with higher access to credit can afford to increase its *profitability* by increasing (up to a certain level) their cash conversion cycle. Finally, Model 4 of Table 3 shows that the inverted U-shape relation between *CCC* and *profitability* is significantly moderated by *Firm Size* as evidenced by the significance of the interaction term between the  $CCC^2$  and *Firm Size* ( $p$ -value=0.005).

This finding provides evidence supporting H3. Panel C of Figure 1 shows that the inverted U-shape relation between CCC and profitability tends to flatten as firms are larger. This suggests that, as proposed in H3, the management of CCC has a more meaningful impact on the profitability of smaller firms.

## 5. CONCLUSIONS

Our findings confirm the existence of nonlinear relationship between CCC and firm profitability. The Inverted U-shape relation means that, in general, firms can improve their profitability by increasing their CCC up to an optimal level. However, increasing the CCC beyond such level may worsen companies' profitability. This relationship is likely to depend on other factors. We specifically explore how this relation is moderated by companies' access to credit. We find that in countries with more access to credit, the relation between CCC and firm's profitability take the inverted U-shape, whereas in countries with limited access to external credit the relation is predominantly negative. In addition, when investigating the interaction of CCC and size on firm's profitability, we find that managing the CCC is more important for smaller firms than for larger firms. Specifically, we find that the inverted U-shape relation between CCC and firm profitability tends to flatten as firms are larger. These findings open new doors by showing that the relation between CCC and profitability is not a "one size fits all" type of relation. On the contrary, our model suggests that to understand this relation is necessary to consider its potential moderators. From a practitioner's perspective, our conclusion is that managers should not base their cash conversion cycle management decisions solely on the notion that increasing or decreasing this indicator would lead to a better or worst profitability. Managers need to consider the different factors that may affect this relation in order to make the best decisions. Finally, when interpreting this study, its limitations should also be considered. First this study focuses on the automotive industry, future studies could test the extent to which the patterns suggested by our model remain the same in different industries. Second, although this study uses data from European countries and companies, we found that most of the countries in the sample provide firms with a somewhat good access to external credit. Future studies could extend our findings by using a sample with a broader scope of countries. Third, for the purposes of this study, we consider firm size as the dimension conferring firms a better or worse access to credit. We are aware that firm size is likely to influence different aspects of firm profitability and also the types of relationship that firms have with their supply chain partners. Therefore, future studies may test our propositions using different firm-level proxies for access to credit. Finally, although we find that the access to credit moderates the relation between CCC and firm profitability, we encourage future research to explore other potential factors moderating this relationship.

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## RESOURCE OPTIMIZATION IN IT - SERVICES IMPROVEMENT TASKS

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### ABSTRACT

*To ensure the competitiveness of the IT-service provider in constantly changing market conditions, it is necessary to periodically change (optimize) the corresponding resources [1]. The main goal of this optimization is achieved by bringing the properties of IT-processes of various stages, and, accordingly, IT-services themselves, to the needs of service consumers that change in time [2-4]. Achieving this goal is assessed by the dynamics of the performance indicators of the processes of the IT-service stage. To evaluate the supplier's performance, it is proposed to perform the resource optimization procedure for improving IT-services [5-13].*

**Keywords:** *complex assessment procedure, IT-services optimization, performance indicators, IT-processes, IT-services life cycle, IT-metrics*

### 1. MODIFIED VERSION OF THE COMPLEX ASSESSMENT PROCEDURE

IT-services improvement is occurring through development and implementation specialized organizational mechanisms for the functioning and management of IT-assets in order to formulate the properties of services needed by the consumer. Such mechanisms, for example, include the mechanism of sequential resource allocation and the integrated assessment mechanism, which allows the convolution (aggregation) of performance indicators of the corresponding IT-processes [14-15]. To calculate (evaluate) the numerical values of performance indicators, we use a modified version of the well-known complex assessment procedure proposed in the theory of management of organizational systems. The proposed resource optimization procedure for improving IT-services provides solutions to the problem of optimal resource allocation for options that are most significant for the decision maker, who is responsible for the efficiency of operational IT-processes, provided that none of the achieved indicators can be worsened. If the decision maker allows a reduction in the achieved values of any indicators, then he can adjust the set of acceptable solutions by introducing appropriate restrictions on their values.

### 2. IT-SERVICES OPTIMIZATION

IT-services optimization is dictated by constant changes in the field of information technology and is possible due to changes in the corresponding processes of IT-services life cycle (ISLS), such as production (stages of the strategy, design, implementation and utilization) and provision (operation stage) IT- services. So, for example, at the operational stage, the following IT-processes are implemented: event processing, incident resolution, problem solving, fulfilling service requests, changing the technical infrastructure of services, implementing applications, managing operations, monitoring, monitoring managing the quality of services, managing access rights to services and others. In the general case, the improvement of IT-processes can be assessed by analyzing the dynamics of their performance indicators at the corresponding stage of IT-service, the main of which is the level of customer satisfaction and the costs of these processes. For this, first of all, it is necessary to determine the choice of performance indicators for the processes of the IT-services life cycle, and then build a hierarchical set of these indicators, which can be based on the well-known "IT-metrics" proposed by one of the authors



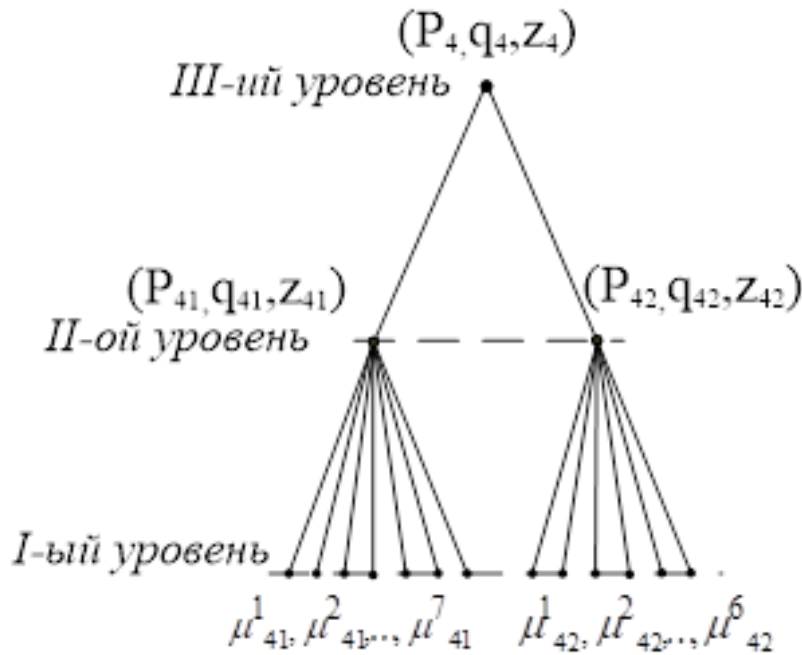
of ITIL-3 P. Brooks [16]. The following is the statement and the procedure for solving the resource optimization problem for improving IT-services based on a hierarchical set of performance indicators for operational processes.

### 3. PROBLEM STATEMENT

Given:

1. A hierarchical set of performance indicators of the operational stage processes -  $P_4$ :  $P_{41}$  - processing incidents and  $P_{42}$  - performing service requests (Figure 1).

Figure 1: Hierarchical set of performance indicators of the operational stage processes



- The first level of local performance indicators  $\{\mu_{kl}^n \mid n = \overline{1, N_{kl}}\}, 1 \in L_k, k \in K$ , where
  - $\{\bar{\mu}_{41}^{an}(t) \mid n = \overline{1, 7}\}$  - process performance indicators  $P_{41}$ ;
  - $\{\bar{\mu}_{42}^{an}(t) \mid n = \overline{1, 6}\}$  - process performance indicators  $P_{42}$ ;
  - $K = \{1, 2, 3, 4\}$  - set of indices of the stages of the LCS;
  - $L_k$  - indices of the processes of the  $k$ th stage;
  - $K = 4$  - number of the operation stage;
  - $l$  - process number within the stage;
  - $n \in N_{kl}$  - number of local performance indicator;
  - $K = \{1, 2, 3, 4\}$  - set of the stages of service lifecycle.
- The second level of process performance indicators  $P_{kl}$ , where the function  $z(\mu_{kl}^n(t))$  describes the resources (costs) necessary to achieve the values of performance indicators  $\mu_{kl}^n(t)$

- The system of formulas (1) that describes the state of the hierarchical set of performance indicators at a certain point in time –  $Q(t)$ , as well as the resources to achieve the values of performance indicators –  $z(q)(t)$  and the state of the hierarchy of these indicators at stage  $k$  –  $Q_k(t)$ , as well as the process  $P_{kl} - Q_{kl}(t)$ :

$$Q(t) = \{(q(t), z(t)), \{Q_k(t) | k \in K\}\} = \prod_{k \in K} Q_k(t) = \prod_{k \in K} \prod_{l \in L_k} Q_{kl}(t),$$

$$z(q(t)) = \sum_{k \in K} \sum_{l \in L_k} \sum_{n \in N_{kl}} z(\mu_{kl}^n(t)), \quad (1)$$

$$Q_k(t) = \{(q_k(t), z_k(q_k)(t)), \{Q_{kl}(t) | l \in L_k\}\},$$

$$Q_{kl}(t) = \{(q_{kl}(t), z_{kl}(q_{kl})(t)), \{\mu_{kl}^n(t), z(\mu_{kl}^n)(t) | n \in N_{kl}\}\},$$

- The values of local indicators of the effectiveness of IT-processes in a certain range  $[d, D]$ .
- Weights –  $\omega_{kl}^{\bar{\mu}^n}$  performance indicators –  $\mu_{kl}^n$  and the weight of IT-processes service lifecycle –  $\alpha_{kl}, l = \overline{1, L_k}$ .
- Grade of the point scale –  $R$ .

2. Formula (2) for calculating resources (costs) for achieving performance indicators necessary to improve the performance indicators of processes  $P_{41}$  and  $P_{42}$  (scale 1-5):

$$z(q_{kl}(t)) = \sum_{n=1}^{N_{kl}} z(\mu_{kl}^{\bar{\mu}^n}(t)) = \sum_{n=1}^{N_{kl}} (\mu_{kl}^{\bar{\mu}^n} - \bar{\mu}_{kl}^{\bar{\mu}^n}) \cdot \Delta z^y(\bar{\mu}_{kl}^{\bar{\mu}^n}) \quad (2)$$

where  $\{\mu_{kl}^{\bar{\mu}^n} | n = \overline{1, N_{kl}}\}, l \in L_k, k \in K$  values of local performance indicators that generate the set of acceptable solutions (in points);

$\bar{\mu}$  – the index of the score value of the indicator;

$\bar{\mu}_{kl}^{\bar{\mu}^n}, k=4, l = \overline{1, 2}$  – the values of the local performance indicators of the operation stage (in points) achieved by time  $t$ ;

$\Delta z^y(\mu_{4l}^{\bar{\mu}^n}), k=4, l = \overline{1, 2}$  – the unit costs (in arbitrary units).

3. The specified amount of resources for improving process indicators  $P_{k1} : \Delta z_{kl}^*$  (to solve option 1).

4. The required level of efficiency of the process:  $Q_{k1}^*$  (to solve option 2).

Limitations:

a) option 1: the total amount of resources for improving process indicators should not exceed

their predetermined amount:  $\Delta z_4^* : \sum_{n=1}^7 \Delta z(\bar{\mu}_{41}^{\bar{\mu}^n}) + \sum_{n=1}^6 \Delta z(\bar{\mu}_{42}^{\bar{\mu}^n}) \leq \Delta z_4^*$ ;

b) option 2: the need to ensure a given value of the indicator of the efficiency  $q_4^*$  of the operation stage:  $q_4 = q_4^*$ .

Required:

Determine the distribution of resources  $\{\Delta z(\mu_{kl}^{\bar{o}n}) | n = \overline{1, N_{kl}}\}$  to improve process  $P_{kl}$  performance, for which:

$$a) \sum_{n=1}^{N_{kl}} \Delta z^*(\mu_{kl}^{\bar{o}n}) \leq \Delta z_{kl}^* \text{ and } \bar{q}_{kl} \rightarrow \max \text{ (option 1 of the task);}$$

$$b) q_{kl} = q_{kl}^* \text{ and } \sum_{n=1}^{N_{kl}} \Delta z(\bar{\mu}_{kl}^{\bar{o}n}) \rightarrow \min \text{ (option 2 of the task).}$$

#### 4. PROCEDURE FOR SOLVING PROBLEM

##### 4.1. Creating the set of solutions for options 1 and 2 of the problem

1. Creating the set of solutions  $\check{Q}(P_{4l}), l = \overline{1, 2}$  regarding the achieved level of performance indicators  $\bar{\mu}_{41}^{\bar{o}n}$  and  $\bar{\mu}_{42}^{\bar{o}n}$  of the processes  $P_{41}$  and  $P_{42}$  with scores of indicators  $\bar{\mu}_{41}^{\bar{o}n}(t)$  and  $\bar{\mu}_{42}^{\bar{o}n}(t)$  a set of acceptable decisions that do not exceed the rank value of the R-point scale, provided that none of the achieved indicators will be deteriorated:

$$\check{Q}(P_{41}) = \check{Q}(\{\mu_{41}^{\bar{o}n}(t)\}, R) = \{\mu_{41}^{\bar{o}n} | R \geq \mu_{41}^{\bar{o}n} > \bar{\mu}_{41}^{\bar{o}n}(t)\}; \quad (3)$$

$$\check{Q}(P_{42}) = \check{Q}(\{\mu_{42}^{\bar{o}n}(t)\}, R) = \{\mu_{42}^{\bar{o}n} | R \geq \mu_{42}^{\bar{o}n} > \bar{\mu}_{42}^{\bar{o}n}(t)\}. \quad (4)$$

2. Definition of aggregate performance indicators of multiplicity acceptable solutions for processes  $P_{41}$  and  $P_{42}$  based on additive convolution of indicators:

$$q_{4l} = A_{4l}(\{\mu_{4l}^{\bar{o}n} | n = \overline{1, N_{4l}}\}, \{\omega_{4l}^{hn} | n = \overline{1, N_{4l}}\}) = \left[ \sum_{n \in N_{4l}} \mu_{4l}^{\bar{o}n} \cdot \omega_{4l}^{hn} \right], l = \overline{1, 2}, \quad (5)$$

as well as determining the costs of improving indicators (by 1 point) for each element of the set  $\{\check{Q}(P_{4l}), l = \overline{1, 2}\}$ :

$$z(q_{4l}) = \sum_{n=1}^{N_{4l}} z(\mu_{4l}^{\bar{o}n}) = \sum_{n=1}^{N_{4l}} (\mu_{4l}^{\bar{o}n} - \bar{\mu}_{4l}^{\bar{o}n}) \cdot \Delta z^y(\bar{\mu}_{4l}^{\bar{o}n}). \quad (6)$$

3. Introduction of the results  $(q_{4l}, z(q_{4l}))$  of p.1.2 to the structure of the set of solutions of  $\check{Q}(P_{4l}) = \check{Q}(\{\mu_{4l}^{\bar{o}n}(t) | l = \overline{1, 2}\})$  p. 1.1:

$$Q(P_{4l}) = \{((q_{4l}, z(q_{4l})), \{\mu_{4l}^{\bar{o}n} | n = \overline{1, N_{4l}}\})\}, l = \overline{1, 2}. \quad (7)$$

4. Creating the set of solutions  $Q(P_4)$  for options 1 and 2:

$$Q(P_4) = \prod_{l=1}^2 Q(P_{4l}), l = \overline{1, 2}. \quad (8)$$

5. Definition of performance indicators of the operation stage  $q_4$  and resources

$\Delta z(q_4) = \sum_{l=1}^2 \Delta z(q_{4l})$  for each element of the set of solutions  $Q(P_4)$  based on the additive convolution of these indicators.

6. Introduction of the results of clause 1.5 to the structure of the elements of clause 1.4:

$$Q(P_4) = \{(q_4, z(q_4)), \{(q_{4l}, z(q_{4l}), \{\mu_{4l}^n \mid n = 1, N_{4l} \mid l = \overline{1, 2}\}\}. \quad (9)$$

#### 4.2. Construction and selection of solutions to the problem for options 1 and 2

- a) Option 1: on the basis of the multiplicity solutions  $Q(P_4)$  formed, it is necessary to order

its elements in decreasing efficiency  $q_4$  and increasing resources  $z(q_4)$ . Next, present the result of the ordering in accordance with the structure of table 1. The first element in order, for which the total amount of resources for improving the operational stage indicators should not exceed their predetermined volume:  $\Delta z(q_4) \leq \Delta z_4^*$  that is, corresponds to the desired solution. If there is no such element, then the solution to the problem does not exist.

- b) Option 2: on the basis of the generated set  $Q(P_4)$ , it is necessary to select that element from the second column of the generated table 1 for which the operational stage efficiency indicator is equal to its predetermined value:  $q_4 = q_4^*$ .

Next, the elements of the set of permissible states of the hierarchy of performance indicators  $Q(P_4)$  must be ordered by decreasing efficiency -q and increasing costs -z(q), and then present the results in table 1 (with rank R = 4). The decision maker is given the choice of the optimal solution from the second column of table 1.

*Table following on the next page*

Table 1: An ordered set of solutions presented for decision makers

$q = R$	$R$	$R$	$R$	...	$R$	...	...	...	...	$R$
$z(q=R)$	$z_1(R)=\min$	$\leq z_2(R)$	$\leq z_3(R)$	...	$\leq z_n(R)$	...	...	...	...	$\leq z_{NR}(R)$
...	...	...	...	...	...	...	...	...	...	...
$q = r$	$r$	$r$	$r$	...	$r$	...	...	...	$r$	$\emptyset$
$z(q=r)$	$z_1(r)=\min$	$\leq z_2(r)$	$\leq z_3(r)$	...	$\leq z_n(r)$	...	...	...	$\leq z_{Nr}$	$\emptyset$
...	...	...	...	...	...	...	...	...	...	...
$q = 4$	4	4	4	...	4	...	4	$\emptyset$	$\emptyset$	$\emptyset$
$z(q=4)$	$z_1(4)=\min$	$\leq z_2(4)$	$\leq z_3(4)$	...	$\leq z_n(4)$	...	$\leq$	$\emptyset$	$\emptyset$	$\emptyset$
$q = 3$	3	3	3	...	3	...	...	3	$\emptyset$	$\emptyset$
$z(q=3)$	$z_1(3)=\min$	$\leq z_2(3)$	$\leq z_2(3)$	...	$\leq z_n(3)$	...	...	$\leq$	$\emptyset$	$\emptyset$
$q = 2$	2	2	2	...	2	...	...	...	2	$\emptyset$
$z(q=2)$	$z_1(2)=\min$	$\leq z_1(2)$	$\leq z_1(2)$	...	$\leq z_n(2)$	...	...	...	$\leq z_{N2}(2)$	$\emptyset$
$q = 1$	1	1	1	...	1	...	...	1	$\emptyset$	$\emptyset$
$z(q=1)$	$z_1(1)=\min$	$\leq z_1(1)$	$\leq z_1(1)$	...	$\leq z_n(1)$	...	...	$\leq$	$\emptyset$	$\emptyset$

## 5. CONCLUSION

The proposed resource optimization procedure for improving IT-services provides solutions for the optimal allocation of resources for options 1 and 2, provided that none of the achieved indicators  $\{\bar{\mu}_{41}^{dn}(t)/n=1,7\}$  and  $\{\bar{\mu}_{42}^{dn}(t)/n=1,6\}$  can be worsened. If the decision maker allows a reduction in the achieved values of any indicators, then he can adjust the set of acceptable solutions by introducing appropriate restrictions on their values.

**ACKNOWLEDGEMENT:** To find solutions to the described problems, special software has been developed. Using it, for values of rank  $R = 4$  and  $R = 5$ , solutions are obtained for options 1 and 2 of the optimal resource allocation problem. We note, in particular, that at  $R = 4$  the  $\Delta z_4^* = 3$  achieved value  $\bar{q}_4(t) = 3$  cannot be improved. The solution of the problem for option 2 confirms this result, since it shows that for  $q_4^* = 4$  the minimum necessary costs  $\Delta z_{min}(q_4^* = 4) = 5$ .

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## INVESTMENT DIRECTIONS FOR THE DEVELOPMENT OF SEAPORTS

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### **ABSTRACT**

*In recent years, seaports have ceased to be seen as single links in global supply chains. Currently, ports belong to the most complex organisms in the global economy. Efficient functioning and striving to increase the competitiveness of seaports both in the European and global dimension requires the development an expansive growth strategy, but also capital-intensive investment activities aimed at improving port infrastructure, access to ports from the sea and land and also the implementation of innovation technologies. The challenges currently facing ports are also the implementation of projects related to automation, digitalization, increasing security, environmental protection and integration of ports with other participants of the transport chain. The article undertakes to define the key factors of transformation of modern seaports and also directions for the further evolution of the port investment financing system. The purpose of the article is comparative analysis and assessment of best investment practices in selected seaports. The article also presents the system of financing investments implemented from the European Union, the state budget and the own resources of port managing entities currently operating in Poland.*

**Keywords:** *competition, European Union, investments, seaports, TEN-T*

### **1. INTRODUCTION**

Seaports are an element of infrastructure resources, at the same time they play a key role in international trade, which reflects the growth of the economy and growing transshipments. It is estimated that in 2018 the volume of maritime trade amounted to 11 billion tons, while in seaports 793.26 million TEU were transhipped. Seaports are also an interface and a convergence point between different modes of transport, providing access to global markets. Seaports connecting different branches of transport imply intermodality. Growth depends on their sustainable development, efficient use of infrastructure, building effective networks of goods flows, and increasing transshipment capacity. The development and improvement of port infrastructure, implementation of modern technologies forces ports to constantly change and design strategies. Faced with increased expectations for sustainable development, ports also facing the challenge of meeting capital-intensive investment needs, which are also elements of the development strategy. Contemporary seaports carry out ambitious and large-scale investments enabling them to increase their potential, which at the same time leads to increasing their competitiveness on a national, regional and international scale. The most important planned and implemented investments mainly include those related to improving the condition of port infrastructure, ensuring access to ports from both the sea and land, as well as those regarding the dredging and the renewal of port quays. It should be mentioned that port investments are not only those related to port infrastructure, but also the construction of modern external terminals, ferry terminals, storage facilities and logistics centers, development of areas at the port-city interface. The market position of individual ports also largely depends on modern information tools and pro-ecological solutions.

### **2. ENVIRONMENTAL IMPACTS OF PORTS**

Nowadays, it is the enterprise environment that is recognized as the basic factor determining permanent foundations for enterprise development, although it can be both an opportunity and

a threat to further development. Adaptation to changes in the environment can therefore be taken as a manifestation of flexibility, understood as the ability to adapt to changing environmental conditions. Openness to respond quickly to signals flowing from there is one of the main success factors among modern management models (Ziębicki, 2010). Surroundings of seaports, as well as seaports themselves are complex systems consisting of many variables, such as market conditions, the role of the port in the transport system and supply chain, the port's competitiveness or the port's strategy. Among the key determinants, it is also worth highlighting the environment that sets the conditions for the operation of ports in accordance with the adopted strategy affecting the management system. The environment of modern seaports influences the decisions made by port companies and the environment influences them with varying degrees of force. The weight of each factor is not constant, while the complexity and variability are the features of the environment that force seaports to develop adaptability. The observation of trends taking place in the global economy, transport systems and supply chains that allow for effective management of seaports. In management, an important role is played by factors on which the seaport may have some influence, we include them in the microenvironment. On the other hand, the changes that are permanent in the global economy, caused by the globalization, development of technology and growing competitiveness, have contributed to the creation and development of the macroenvironment. The port company cannot influence these factors, therefore it is necessary to define the area of further environment and to analyze them in terms of opportunities and threats (Salmonowicz, 2012). In addition, if a company wants to survive in the market, but also prosper and make a profit, it must develop competitive strategies. They are the result of actions and methods that, when properly implemented, increase the company's chances of achieving its goals (Skiba, 2019). The most important task of enterprises managing seaports is their development. This is due to the revenue structure of port management entities, where the key factors determining their size are vessel traffic and the use of port areas and infrastructure. In order to intensify vessel traffic, it is necessary to conduct development activities, both in intensive terms - better use of existing infrastructure and extensive use - to increase infrastructure resources (Maczak, 2011). Transport and economic growth are connected in many ways. Interrelationships are complicated because of their impact and because the impact of an investment project in a specific location extends only to areas near that location. The geographical impact of seaports is significant and often covers the whole area of the country. Technological progress requires above all the development of transport infrastructure and improvement of the efficiency of transport services in various respects. (Cieczko, Myszk, Kaizer, 2018).

### **3. MODEL OF FINANCING PORT INFRASTRUCTURE IN POLAND**

To date, the financing of the construction, expansion and modernization of the port infrastructure of the most important Polish seaports was based on the financial resources of public entities managing these ports. The obligation to implement these tasks was imposed on the state-local port management companies by the Act on Sea Ports and Harbours of 1996. The port act also specified the sources of financial resources of entities managing ports, which included:

- fees for use, rent, lease, pursuant to which the managing entity provides for payable use of land, port facilities, equipment and installations,
- port fees,
- revenues from services provided by the managing entity,
- revenues from other titles, including sale of shares and bonds, bank loans, state-owned subsidies.



During Poland's membership in the European Union, non-returnable assistance from the European Union also became an important source of financial resources (Pluciński, 2011). The source of financing port investments is not only European Union funds, but also state budget funds and own funds of port managing entities. Along with the general increase in investment outlays that took place in Polish ports after 2004, there was also an increase in involvement in private capital investments. The increase in investment outlays for the development and modernization of port infrastructure and superstructure has contributed to the renewal of fixed assets in seaports. (Bernacki, 2011). The key document also determining the conditions for financing Polish seaports is the "Program for the development of Polish seaports until 2020 (with prospect until 2030)", which is an operational and implementation document. The scope of the document includes four sea ports of primary importance for the national economy and other sea ports and harbors, constituting important growth poles for their regional and local environment. The main goal of the program is to undertake actions aiming at permanent strengthening of Polish seaports as leaders among the seaports of the Baltic Sea basin. The document shows that it is also necessary to fully integrate the Polish ports of the TEN-T core network, which are transport hubs of the Baltic-Adriatic Corridor, with other elements of the TEN-T core network, i.e. intermodal terminals, logistics and distribution centers located in Poland. In the period covered by the program, investment activities in Polish seaports and projects aimed at improving the transport accessibility of ports from the water and land side come from:

- from national funds (including the state and local government budget),
- from the EU budget (from the EU, national and regional level),
- from preferential loans from international financial institutions,
- from private sector funds.

The document specifies that the implementation of investments in the area of infrastructure of access to ports from the sea lies with maritime offices. On the other hand, the implementation of investments in the area of access to ports from the land side belongs to the relevant infrastructure managers, i.e. General Director for National Roads and Motorways, PKP Polish Railway Lines S.A. and the State Water Holding Polish Waters, as well as port municipalities. Under the EU budget, in the 2014-2020 perspective from the national level, support is possible from the Operational Program Infrastructure and Environment (OPI&E) 2014-2020 and the Operational Program Fisheries and Sea (OPF&S) 2014-2020. The investment activities financed under these programs come from the Cohesion Fund (CF), the European Regional Development Fund (ERDF) and the European Maritime and Fisheries Fund (EMFF). In addition, port project and port infrastructure projects that are part of the development of the TEN-T core transport network and can also count on support through competitions at Community level under the new EU Financial Instrument - Connecting Europe Facility (CEF). Summary of the "Program for the development of Polish seaports until 2020" implementation may not take place until 2021, as part of the investment is still in the implementation phase. It is expected investments from EU funds is also envisaged in the next financial perspective for 2021-2030, however, the rules for this financing will be known after the finalization of the negotiations of the financial framework of cohesion policy after 2020. In addition, investment activities in the field of port infrastructure and land access infrastructure will be able to obtain financing in the form of preferential loans from international financial institutions and from private sector funds (MME&IN, 2018).

#### **4. INVESTMENT OUTPUTS AMOUNT AND STRUCTURE**

It is estimated that European seaports are currently facing significant investment needs of around 48 billion euro (5 billion euro per year) in 2018-2027. The investment needs of seaports

are mainly due to the dynamics and continuous trends associated with the rapid development of the logistics industry, industrial, environmental requirements, port investments. Investment needs in ports are very diverse. Investments in basic infrastructure, infrastructure for access to the sea and infrastructure related to transport (rail, road, inland waterways) constitute 65% of all port projects (De Langen, Turró, Fontanet, Caballé, 2018). Public authorities managing ports directed their activities towards modernization and development of port infrastructure, while private owners of port service supply companies increased the involvement of funds in the modernization and development of port superstructure. The development of the port infrastructure of Polish seaports in the years 2014–2018 took place with a large use of funds from:

- investor's own funds
- budgetary resources
- domestic loans and credits
- funds directly from abroad.

Investments implemented in recent years have been directed at increasing transport accessibility to ports from the land and sea, modernization and expansion of quays and other infrastructure facilities.

SPECIFICATION	YEAR	OUTLAYS INCURRED DURING THE YEAR	OF WHICH			
			INVESTOR'S OWN ASSETS	BUDGETARY ASSETS	DOMESTIC CREDITS AND LOANS	ASSETS DIRECTLY FROM ABROAD
			in million PLN			
<b>TOTAL:</b>	2014	3547,1	1562,2	1235,2	225,9	414,9
	2015	2951,7	2040,0	186,9	216,7	410,0
	2016	2068,9	1288,3	181,4	362,4	184,3
	2017	1252,4	1016,6	63,4	79,5	22,7
	2018	2130,2	1424,3	134,3	200,4	277,0
<b>PUBLIC SECTOR</b>	2014	1872,5	219,5	1230,4	7,0	370,9
	2015	1260,0	729,2	154,0	1,5	341,7
	2016	358,2	105,9	178,9	13,0	47,1
	2017	208,6	122,1	54,9	-	15,7
	2018	731,5	282,9	126,1	-	274,7
<b>PRIVATE SECTOR</b>	2014	1674,6	1342,7	4,8	218,8	44,1
	2015	1691,8	1310,8	32,9	215,2	68,4
	2016	1710,7	1182,4	2,5	349,4	137,2
	2017	1043,7	894,4	8,5	79,5	6,9
	2018	1398,7	1141,5	8,2	200,2	2,3

*Table 1: Sources for financing investment outlays polish ports (own study based on data from Statistics Poland, 2018, Statistics Poland 2019)*

## 5. MAJOR INVESTMENTS OF THE PORT GDAŃSK AND PORT GDYNIA

Poland's accession to the European Union on 1 May 2004, not only contributed to the economic recovery of the country, but was also a ticket to the use of non-returnable support from the Union's funds. In the next financial perspectives of the European Union, further support for infrastructural port investments from EU funds should be expected. This type of scenario is adopted by entities managing the largest seaports. Despite this, the involvement of private capital in financing infrastructure investments in port areas is also apparent, which is reflected in development plans prepared by individual management of sea ports (Bernacki, 2011). The dynamic revival of the world maritime economy has a huge impact on the intensification of

activities in the area of development plans of both the Port of Gdańsk and the Port of Gdynia. The global technological progress, globalization, changes in the structure of trade in countries, the extension of supply chains and changes in the scope of the commercial fleet constantly imply the need to adapt the activities of ports to the changing environment. With a view to these target functions in mind, the Port of Gdańsk Authority SA and the Port of Gdynia Authority SA for years they have focused their efforts aimed at developing port infrastructure, whose task is to meet market expectations and build competitiveness on the international stage.

Period of strategy	2020–2030
Characteristics of the most important investment activities	1. The construction of the Outer Port. 2. Developing the concept of inland service. 3. The construction of additional maintenance quays. 4. Increasing inland port areas. 5. Improving rail access to the port.
Source of funding	Port of Gdańsk Authority funds, EU funds, private capital

*Figure 1: The most important investments implemented and planned for implementation at the Port of Gdańsk up to 2030 (own study based on data from <https://www.portgdansk.pl>)*

Period of strategy	2020–2030
Characteristics of the most important investment activities	1. Modernization of quay infrastructure. 2. Development of areas at the interface of port – city, 3. Acquisition of land within the administrative boundaries of the port of Gdynia and neighboring municipalities. 4. The construction of intermodal infrastructure at the Port of Gdynia Logistics Center. 5. The construction of the Outer Port. 6. The construction of the New Public Ferry Terminal.
Source of funding	Port of Gdynia Authority funds, EU funds, private capital

*Figure 2: The most important investments implemented and planned for implementation at the Port of Gdynia up to 2030 (own study based on data from <https://www.port.gdynia.pl>)*

## 6. CONCLUSION

The implementation of costly port investments is an important part of ports' activities, but they do not guarantee market success if the seaport is not functioning properly. Currently, seaports are one of the links in integrated transport chains, which means that their development does not depend only on intra-port factors, but it is determined by competitiveness. The efficiency of transport connections with the hinterland and the efficiency of land transport is becoming increasingly important for the development of seaports. This is a factor that currently determines the choice of a specific model of the land-sea transport chain, and therefore also the choice of the seaport servicing the shifted cargo streams. For seaports and terminals, this means the need to track changes in the environment and internationally, and implement best management practices while serving as a stimulator of port development and the region's economic growth pole.

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## THE (IR)RELEVANCE OF DIRECTIVE 2011/24/EU ON THE CROSS-BORDER HEALTH SERVICES MARKET

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### ABSTRACT

*Access to cross-border healthcare in the European Union (EU) is promoted by Directive 2011/24 / EU, of the European Parliament and of the Council, of 9 March 2011. It is intended to promote patient mobility, to give citizens of the Union the possibility of benefiting from new treatment opportunities, provided by the expansion of health services made available to them. The focus of this work focuses on the analysis of the Directive, its scope and relevant consequences in Portugal. The scope focuses on the provision of cross-border healthcare, i.e. in a Member State (MS) other than that of affiliation. The Directive imposes rules for the exercise of patients' rights in cross-border healthcare. The idea is to facilitate freedom of choice and access to safe and high-quality cross-border healthcare in the European Union (EU) to ensure patient mobility. In accordance with the principles established by the Court of Justice of the European Union (CJEU) the primary objective is to promote cooperation on healthcare between Member States (MS), respecting the full national competences in the organization and provision of healthcare. Access to cross-border healthcare presupposes a set of assumptions that are analyzed in this work, from transparent information to removing administrative obstacles and costs of treatment in the countries of destination. We also analyze the terms of transposing the Directive into the Portuguese legal order, and in particular the introduction of the subordination mechanism to prior authorization. The methodology adopted is based on a theoretical framework that comprised the study of legislation, jurisprudential decisions, reports and opinions of various bodies and entities. The conclusions show, among others, some of the incongruities resulting from the transposition of the Directive into the Portuguese legal order, in particular the possibility of Portuguese citizens being subject to situations of «reverse discrimination» against nationals of other MS. Safeguarding of the quality of this kind of healthcare in the EU imposes a more assertive intervention by EU health regulators*

**Keywords:** *Competition, Cross-border users, EU health services market, Reverse discrimination, Services of general interest*

### 1. INTRODUCTION

The Directive 2011/24/EU, of the European Parliament and of the Council, of 9 March 2011 (from now referred only as Directive) on the exercise of the rights of patients taking into account cross-border care, setting out that they aim to facilitate freedom of choice and access to high-quality healthcare in the European Union (EU). The Directive applies to the provision of cross-border healthcare from a Member State (MS) to another (ERS: Report 2017). This Directive covers healthcare broadly, public or not, and covers a wide range of healthcare, but excludes continued care, organ procurement and transplantation and public vaccination. Its aim is to ensure patient mobility in accordance with the principles established by Treaty on Functioning of the European Union (TFEU) and the Universal Declaration of Human Rights (UDHR), which in Article 25 (1) recognises the right to health, medical care and safety in the disease.

Similarly, the Convention on Human Rights and Biomedicine also protects human beings in their dignity and identity, promoting their well-being. The Charter of Fundamental Rights of the European Union, in article 35°, also presents health as an essential right. The TFEU, in articles 4, 6 and 168, confers jurisdiction on the European Union to legislate on public health. The aim is to safeguard the security of the Member States by outlining a common strategy in the fight against the disease. To pursue this objective, it is up to the EU to adopt health information and education measures and to monitor threats and risks to public health. The Directive was born in 2011 in this legal framework, so we can say that since then the EU has a legal mechanism that guarantees to European patients, in any MS, their access to quality healthcare in safe conditions, encouraging their mobility in the EU. To this end, some social and health benefits have been established which the MS should guarantee on an equal way to all European citizens. Nevertheless, the national competences of each MS in the definition and organisation of their health services are safeguarded. Despite its good intentions, over the years this Directive has not had the expected effect. The economic crisis has put other priorities first and health, despite being a service of general interest, has been forgotten and even neglected. The Directive enforces the idea of solidarity and efficiency in the management of health services among MS, which is very important, in particular, to fight against specific diseases as pandemic situations. However, we observe daily the disorientation and lack of articulation between MS for fight against the present COVID crisis. We believe that if MS had given greater importance to the implementation and improvement of the principles contained in the Directive, the means to face the current crisis could be better more efficient and integrated, in order to do a better support to the MS with more difficulties.

### **1.1. The investigation objective**

The aim of this work is to present the results of the investigation about the application of the Directive in the field, all over the last eight years. This study was developed within the scope of the research for the Master Thesis in law, realized by the Author Joaquim Cepeda with the scientific orientation of the Author Maria do Rosário Anjos. After the conclusion and public defence of the Master degree, it seems quite important to share with the scientific community some of the results and conclusions about the theme. The impact of the Directive corresponds, only, a chapter of the Thesis. Actually, the actuality motivated by COVID 19 crisis put in evidence the importance of this matter. In this paper we abord the legal framework contained in the Directive and present some data, collected about the real impact of the Directive in EU in the last years, in order to conclude something about the (ir)relevance of this Directive in the field of health in the EU, in a particularly critical moment of our lives.

### **1.2. Methodology**

Considering the theme and the rules of investigation on issues of law we did develop a theoretical study of the legal framework of the Directive. We analyze the theme using as sources the law and all the documents, reports, recommendations and other documents from European institutions, as European Parliament, European Commission, CJEU and the National Regulatory Authorities, with a few doctrinal references. The truth is that about this subject doesn't exist, yet, too much scientific theoretical approach. The research carried out focused primarily on the collection of some data on the levels of implementation of the Directive, in order to conclude about the degree of impact of the Directive in the EU.

## **2. THE CROSS-BORDER HEALTHCARE DIRECTIVE**

The healthcare provided for in the Directive covers health services provided by health professionals, including the prescription, dispensing and supply of medicines and medical devices. Cross-border healthcare is provided in a Member State other than the State of

affiliation, with a view to promoting the freedom to provide clinical services. However, Member States may prohibit their nationals from accessing healthcare in another member when the “public interest” impose it. For example, in case of danger to public health due to infectious diseases (paragraphs 11 and 12 of the Directive). anyway, the Directive allows the exclusion from its application when the expenditure associated with medical treatment is of very high value, putting in danger the financial sustainability of the national health system. Actually this is “an open road” to the MS do what they want.

## 2.1. The analysis of the Directive

A study by the European Commission (EC. 2014: Final Report) carried out with users and funding entities concluded that the main motivations for seeking cross-border care under the Directive are healthcare costs and waiting times. The user's degree of confidence in the target health system is important, but it is not the main decision factor. According to this report, for the informed decision of the user, it is essential that information on prices and waiting times is made available online. The information must be transparent about each MS providers in order to gradually the users gain confidence in the all health systems of all MS. Another study by the European Commission (EC. 2015: Final Report) published in September 2015, which involved a number of stakeholders (user groups, supervisory bodies, healthcare provider organisations and existing national contact points in each MS), has conclude that the Directive could have more benefit if the MS increased information to users. The results show that citizens are not informed about the new treatment opportunities that the Directive recognises to them neither informed about the existence of national contact points.<sup>1</sup> In the case of Portugal it was found that these contact points received a low number of requests for information and reimbursement requests, which may have occurred due to lack of knowledge of the citizens. The users interviewed mentioned that the main reasons for the low seeking of cross-border care relate to administrative issues, in particular those relating to applications for prior authorisation. The interviewees also considered that the information available on most contact point websites does not provide sufficient detail. On the other hand, respondents revealed that the quality of healthcare is not a relevant factor for the decision to seek cross-border care (ERS. 2014. Annual Report: 6-7). A third European Commission study, also published in 2015, presents the results of a survey conducted in the 28 EU MS countries on the demand for cross-border healthcare. This report concludes that only 5% of Europeans received medical treatment in another EU country (in Portugal the percentage was 7%) in the 12 months preceding the interview (held in October 2014).<sup>2</sup> The majority of respondents reported as the main reason to seek healthcare in another country the existence of care not available in the country of origin and care with a higher level of quality. Of the interviewees, 55% point out as the main reason for not wanting to receive treatments abroad, satisfaction with the care provided in its country of origin. As for the degree of knowledge of citizens about the use of cross-border care, the majority of EU citizens know that they are entitled to reimbursement for treatments carried out in another EU country, although in Portugal this percentage has fallen to 41% between 2012-2014. Only 10% of EU citizens had heard of the national contact point, but this time the percentage in Portugal rose to 13% between 2012-2014 (ERS.2014:7-8). At the end, this Commission report about implementation of Directive 2011/24/EU, conclude that the exercise of patients' rights in cross-border healthcare had not a big success because some MS had not implemented the Directive in national legal framework in time. Because of that the patient mobility in scheduled healthcare remained low.

<sup>1</sup> In Portugal, the national contact point provides information on the Directive on the following website: <http://diretiva.min-saude.pt/direitos/>

<sup>2</sup>European Commission - *Special Eurobarometer 425: Patients' rights in cross-border healthcare in the European Union*. May 2015. Available from: [https://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs\\_425\\_sum\\_en.pdf](https://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_425_sum_en.pdf)

Associated with the delay in transposing the Directive, EC considered that the lack of users knowledge, the lack of national information and the obstacles posed to users by local authorities had as result a very low level of impact in the field. Among the obstacles are the scope of situations requiring prior authorization, the lack of clarity regarding treatments requiring prior authorization, reimbursement for lower amounts than those used in the MS of origin and excessive administrative requirements (ERS. 2015:7-8). In October 2016, a study by the European Commission found that in most of the 23 MS who participated in that study, requests for prior authorisation and claims for reimbursement were minute. (ERS. 2016: 8). In September 2018, a new Commission report considers that cross-border mobility in the EU had a slight growth and the Directive had contributed to improving some legal certainty and clarity about rights and benefits of cross-border patients. It adds that cross-border patient flows are driven by geographical or cultural proximity and that patient mobility in the EU remains relatively low. Finally, a January 2019 report, from European Parliament, about the implementation of the Directive, lists a number of relevant conclusions on the impact of the Directive on the EU, recalling that the health sector is a vital component of the EU economy, which amounts to 10 % of its GDP, and this figure could increase to 12.6 % by 2060 due to socio-economic factors (European Parliament report. 2019). According to this report the main reasons for the low adherence of users to cross-border health services are: a) the reduced patient mobility; b) the delay of many MS in transposing the Directive; c) the lack of public awareness of their rights to reimburse expenditure; d) the several difficulties imposed by some MS to cross-border healthcare, such as administrative costs and prior authorizations; e) the lack of information given to the patients seeking cross-border healthcare and when exists some information it is incomplete or confused. This Parliament report enforce the idea that EU Health systems, at an accessible price for all people, are crucial to ensuring public health, social cohesion and social justice, preserving and guaranteeing the right of universal access to healthcare. This is the «leit motiv» for §2, 106 article of TFEU, for preserve the protection of accessibility, quality and universality of services of general interest (Anjos. 2016: 214-2121). The same Parliament report also mentions that the quality of life of patients is an important component of the assessment of costs/benefits in the health sector. The report considers that healthcare can sometimes be better provided in another MS, due to proximity, ease of access, specialised nature of care or lack of capacity, for example, the lack of essential medicines, in the MS of origin. Actually, this point of view is mentioned by some Authors about this issue, reinforcing that this is a way to improve the quality and universality of the service and also its better management, and may result in some no savings for mS by the synergy resulting from a common and more integrated management. (Mendes & André. 2017:34-37; Marques, 2015: 4-7). The importance of cooperation in the EU is stressed by ensuring efficient knowledge and resource sharing in the fight against rare and chronic diseases. The report considers that MS have not fully or correctly implemented the Directive, so citizens are still struggling to know how they can benefit from the rights set out in the Directive. Greater clarity and transparency on the working conditions of healthcare providers is needed in order to ensure greater patient mobility. The right to information is crucial but the Directive goes further and imposes a duty of information. The local healthcare professionals should clarify the user about the possibility of using the health service in any other MS, in order to give the best support in healthcare services to the citizen. (Anjos&Cepeda.2018:2-4). To sum up, Parliament stated the duty of MS to ensure access to healthcare and to ensure reimbursement of the costs associated with, but it is noted that in several Member States there are significant bureaucratic obstacles and remember that the Directive aims to ensure a high level of protection of public health while respecting the principle of free movement of persons within the internal market.



## 2.2. Transposing the Directive into the legal system Portuguese

The Directive presented an ambitious timetable, setting out that MSs should put it into force by 25 October 2013, but this was not the case. The transposition of the Directive into the legal system Portuguese occurred with Law No. 52/2014 of 25 August, which defined the rules for access to cross-border healthcare, establishing the rules for access to cross-border healthcare. It excludes from the scope of the law the integrated continuing care and the donation or collection of organs for therapeutic purposes or transplantation. Article 4(1), provides that cross-border healthcare is provided in accordance with the principles of universality, access to quality healthcare, equity and solidarity, stating paragraph 2 that such care must be provided with respect for the right to privacy of patients. Article 6° imposes a duty to provide information in the relationship with the patient, including the right to resort to another MS to obtain the permitted healthcare. As regards the right to reimbursement of expenses directly related to cross-border healthcare provided in another MS, we have expenses subject to a prior authorisation system by a general and family medicine physician of the NHS or regional health services, which determines the need for healthcare (article 11°, Law 52/2014). In this point there is a possibility of a «reverse discrimination», it means, discrimination against nationals who see internally their freedom to choose limited to certain providers. On the contrary, a citizen from another MS will be able to choose the access to any provider, public or non-public.

## 2.3. Reverse Discrimination

The transposition of the Directive into the legal order Portuguese, generated the possibility of Portuguese citizens being subject to situations of inverse discrimination against nationals of other MS, that is, there is the possibility of Portugal treating the citizens of other MS more favorably than the nationals themselves. Reverse discrimination arises when a national of an MS cannot, in his original MS, invoke certain provisions of EU law, but a citizen of another MS, in the same situation, can do so, with treatment being more beneficial for migrant citizens than for nationals (Duarte, 2015:11-12). The issue in Portugal arises in access to hospital healthcare, as national citizens are subjected to a process of prior control of access to hospital care. The doctor who examines him decides and directs the patient. The patient does not benefit from the possibility of choice, which is imposed by dictates of a geographical order and administrative organization of the health system. On the contrary, the patient of another MS, who needs hospital healthcare, is not subject to the need to resort to the referral of the health center to access hospital care, with the added advantage of being able to be assisted in any hospital unit in the national territory.

## 3. THE ANALYSIS OF THE HEALTH REGULATORY AUTHORITY OF PORTUGAL

The Health Regulatory Authority of Portugal, in a study of 2012 looked at the potential economic and financial impact of increasing cross-border care following the Directive, predicting that 32,000 users of Portuguese health system would not have their health needs met and that 10% of users, 3,200 users, would be willing to seek healthcare abroad. In 2017, it considered that the reduced demand for cross-border care by Portuguese users resulted from the following reasons:

- Users may be unaware of the existence of the Directive;
- Users may not have sufficient information to make the decision to seek care abroad;
- Publicly funded care provided in the Portuguese territory meets the needs of its users;
- And the advance of the value of care is necessary, and the costs associated with travel and residence in another MS are not covered.

The study stresses that the possibility of rejecting claims may discourage the demand for cross-border healthcare.

Users are afraid of the costs associated with prospecting (search costs) to find the appropriate provider and the costs of lack of knowledge of the user of the health system of another country. (switching costs) (ERS. 2017:Annual Report). The ERS report shows that 80% Portuguese users do not intend to use cross-border healthcare and the level of knowledge about cross-border care is very low. The causes of the low demand for cross-border care include lack of information on the use of such care, difficulty in understanding the procedures and financial constraints. The costs to travel abroad that are not refunded. Thus, this study concludes that the impact of the Directive has been greatly reduced in Portugal.

#### **4. PRIOR AUTHORIZATION AS A LIMIT TO THE PRINCIPLE OF FREE MOVEMENT**

The Directive gives the MS the possibility to establish a prior authorisation mechanism. The Portuguese State made use of this prerogative when transposing the Directive for our order, carried out by Law No. 52/2014 of August 25, subjecting national citizens to the requirement of prior authorization to be able to access cross-border healthcare. Law No. 52/2014, in Art. 14, deals with the prior authorization process, providing paragraph 1 that "the application for prior authorization and the respective report of the clinical evaluation are sent by the hospital unit that issued the report to the Central Administration of Health Systems, I.P. (ACSS, I.P.), or to the competent services of the autonomous regions, for consideration". Art. 14 paragraph 3 provides that the application for prior authorisation must be rejected in the following cases:

- "if the clinical assessment indicates, with reasonable degree of certainty, that the patient is exposed to a safety risk that cannot be considered acceptable, taking into account the potential benefit to the patient of the intended cross-border healthcare;
- if there is a reasonable degree of certainty to conclude that the population is exposed to a considerable security risk as a result of the intended cross-border healthcare;
- if the healthcare concerned is provided by a healthcare provider that raises serious and specific concerns about compliance with standards and guidelines on the quality of healthcare and patient safety;
- whether the healthcare in question can be provided in Portugal within a clinically substantiated useful period, taking into account the state of health and the probable evolution of the patient's disease".

Thus, there are several situations where authorisation to access cross-border healthcare may be denied, for safety reasons, to the patient or to the general population. The subordination to the prior authorisation requirements may constitute an undue limitation on the free movement of citizens, a breach of the Treaty on the EU functioning, which in Article 20(1) established EU citizenship, adding in paragraph 2(a) that EU citizens enjoy the "right to move and remain freely within the territory of the Member States". This legal provision is reiterated in the following article, Article 21 of the Treaty, since in paragraph 1 it states that "any citizen of the Union enjoys the right to move and remain freely within the territory of the Member States". Although paragraph 1 will soon add "without prejudice to the limitations and conditions laid down in the Treaties and the provisions adopted in their application". Portuguese law only provides for reimbursement in the exceptional case of the Portuguese health system does not have a treatment solution. This condition is, by its very nature, liable to severely limit the chances of obtaining prior authorisation. Such restriction is not justified by overriding reasons, such as that of a serious threat to the financial balance of the social security system, which was the reason invoked by the Portuguese State in its defence. The Court considers that the abolition of prior authorisation would not lead to cross-border travel to the point of disrupting the financial balance of the Portuguese social security system. Except for urgent cases, cross-border travel occurs mainly in border regions or for specific pathologies treatment.

#### **4.1. Research results into the implementation of the Directive: data collected by 2018**

The data collected and the analysis of the European Commission's Final Report on the implementation of the 4/9/2015 Directive on Cross-Border Healthcare show that:

- a) On July 1<sup>st</sup> 2015, four infringement proceedings were still open in the transposition of the Directive;
- b) The system of prior authorisation for healthcare has been an impediment to the effective exercise of citizens' rights;
- c) In fourteen Member States, the patients are unaware of which treatments are subject to prior authorisation;
- d) Only seven Member States do not use the «prior authorisation» system;
- e) Some Member States with prior authorisation systems had not received any applications for authorisation between 2012 and 2017;
- f) Twenty-six MS provided data on patient flow in 2014;
- g) Of the twenty-one MS that introduced a prior authorisation scheme, seventeen Member States provided data on the number of applications for prior authorisation;
- h) In these seventeen Member States there were only five hundred and sixty applications for authorisation, of which three hundred and sixty were granted;
- i) Two of these seventeen Member States did not refuse or grant a single application;
- j) Two of these seventeen Member States reported only one request each;
- k) Of this universe of seventeen Member States, only two Member States had more than 100 applications.

#### **4.2. The European Commission's Final Report 2018<sup>3</sup>**

This report on the implementation of the Directive provides an overview of the data received between 2015, 2016 and 2017, and states that:

- a) Six Member States do not have any prior authorisation system and, therefore, they give patients freedom of choice;
- b) The system of prior authorisation should be limited to what is necessary and proportional and cannot constitute a mean of arbitrary discrimination or an unjustified obstacle to the free movement of patients;
- c) In 2015 data was received from twenty-three Member States, in 2016 from twenty-eight Member States and in 2017 data was received from twenty-six Member States;
- d) Aggregated data on applications for prior authorisation in 2015, 2016 and 2017 show that this number remains low;
- e) However, there was a steady increase and in 2017 more than twice as many applications for prior authorisation as in 2015;
- f) In 2015, Member States issued around fifty-five thousand planned treatment authorisations abroad;
- g) Among the three years under review, the number of claims for reimbursement was relatively low.
- h) France has the highest number of patients seeking healthcare abroad;
- i) Spain, Portugal and Belgium are the three countries most sought by French citizens to receive healthcare;
- j) There are a very frequent patients mobility from Denmark to Germany, mostly for dental treatments;
- k) Patients from Poland usually seek healthcare in Czech Republic;

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<sup>3</sup>European Commission (2018). *Report from the Commission to the European Parliament and the Council on the operation of Directive 2011/24/EU on the application of patients' rights in cross-border healthcare*. Brussels, 21.9.2018. Available: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0651>

- 1) Finally, the case of patients from Norway seeking medical care in Spain still deserves reference (the reason of that demand is mostly associated to climate conditions for recovered from some diseases).

At the end, the report conclude that:

- 1<sup>st</sup>: Patient mobility is mainly based between neighbouring countries, which shows that people generally prefer to receive healthcare close to home.
- 2<sup>nd</sup>: Around half of the patients mobility corresponds to the movements of patients from France to neighbouring countries and the other half of this flow consists of a small number of patients travelling across the EU to receive healthcare, or in neighbouring countries.

This evidence suggests that many patients wish to return to their birth country for healthcare. Also indicates that many patients on mobility only seek specialist skills not available in their country of origin.

## 5. CONCLUSIONS

The Directive highlights the European Union's concern to strengthen the possibilities for access to cross-border healthcare for all, with a view to foster the mobility and freedom of choice of European citizens. Close cooperation between Member States is essential, in particular in terms of reimbursement of health expenses arising from the provision of healthcare in another Member State. Except for compelling reasons, Member States should not place obstacles to the patients right for seeking medical treatment in another Member State. This also contributes to the reduction of so-called "waiting lists", which in some Member States are significant, particularly in Portugal. Cross-border mobility within the EU shows a slight growth trend over the analysed years, but they are not very significant. Cross-border patient flows show a stable pattern, being mainly motivated by geographical or cultural proximity. The numbers of the reports we did analyzed shows many patients on mobility wish to return to their birth country for healthcare and only seeks another MS for specialist skills not available in their country of origin. Overall, patient mobility and the financial dimension of this mobility in the EU continue to be reduced and the Directive has not had a significant budgetary impact on the sustainability of health systems neither in the patients well-being. Safeguarding the quality of this kind of healthcare in the EU imposes a more assertive intervention by EU health regulators for increase the effective impact of the Directive.

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## THE ATTRIBUTES AND ELEMENTS OF THE INTEGRATION OF LABOUR MIGRANTS IN PRACTICE

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### ABSTRACT

*Several empirical findings as well as theoretical constructs support the fact that “diversity makes business sense”. Researches about the potential contribution of culturally diverse employees suggest that companies cannot and should not swim against the tide, when it comes to labour migration and foreigner employees. The integration of labour migrants, or with other words, making them satisfied, committed and retaining them is a difficult task and less researched area. This paper aims to fill a research gap and provides the attribute of integration of labour migrants. The authors present the main integration-oriented models in the field of cross-cultural leadership. Our goal was to test these theories in the practice by qualitative, in-depth interviews. The method we used was an own-developed questionnaire in order to reveal the interviewees’ feelings about their own perception of integration or “inclusion”. Each question “indirectly asks” on a cited integration theory. Based on the analysis of the responses, we drew up conclusions and present the seemingly independent theories’ connection with each other.. The used theories provide practical insights into the attributes and elements of integration through the eyes of employees, who have diverse cultural, physical or other kind of unique characteristics. Our intention was to reveal the interrelations and overlaps among the involved theoretical constructs in the belief that it is more beneficial if we apply the knowledge of the field comprehensively. Preliminary results of the interviews showed that, more “included” workers, that is to say successfully integrated ones, are more satisfied, committed and hard-working.*

**Keywords:** *cross-cultural leadership, integration-oriented models, labour migrants*

### 1. INTRODUCTION

The question whether labor migration is a beneficial phenomenon on the global and national scale is not a debate anymore. On the other hand, it is also clear that it bears challenges concerning their integration within organizational or smaller frameworks, such as working groups and relationships between individuals. The difficulties root in the diverse backgrounds of labor migrant employees. Although as researchers investigated diversity and its consequences in detail, they found out and supported many times the fact that diversity indeed has enormous potential to improve organizational performance through greater efficiency,

enhanced work processes and further merits as well (Gonzalez et al, 2009). Several concepts have been developed along the investigation of ways and issues of integrating diverse individuals (Thomas et al, 1996), yet there are several gaps in our knowledge in this field. As highlighted by literature reviewers (Shore et al, 2011), theoretical background of integration is extremely affluent long since, however, practical insights fall short. To address this problem, we gathered some well-established theoretical concepts in this paper and put them in practice. Offering an exclusive overview of diversity and integration literature would be impossible and it is not the aim of this article. We filled gaps in the general academic knowledge by empirical examinations and discoveries. Although, as later explained, we also contributed to the theoretical base.

## **2. THEORETICAL BACKGROUND**

Earlier, researchers approached diversity as a problem to cope with. Cope with bias, discrimination, exclusiveness and other negative phenomenon. Although as globalization evolved and labor migration has intensified, diversity was realized rather as an opportunity to exploit. Since the early 90's (Cox, 1991; Thomas et al, 1996), scholars have been discovering and analyzing means for integration. The theoretical development of the field is quite abundant to cover it by one paper comprehensively; the particular framework we applied for the present study is inclusive workplace and inclusiveness (Mor Barak, 2000; Shore et al, 2011). The concept of inclusion was initially named and set forth by Mor Barak in the millennial. He had encountered employees with diverse characteristics (gender, color of skin, culture, racial minorities etc.) who felt "excluded" from organizational culture or expected to assimilate to it (Berry et al, 1988; Mor Barak, 2015). As he puts, diversity may take many forms, categorizing them will not help to manage it, but investigating its manifestations and consequences will do. The outcomes can occur at numerous levels, in this study we reflected to the individuals' perception of their own inclusiveness into their working community. To gain a detailed picture of their emotions, we grounded our questionnaire by several, more or less, distinct models those were focusing on the importance and experience of diverse people within working groups. Consequently, our concept based on two fundamental pillars: diversity and inclusion. Diversity used to be grasped culturally. However, as sociology evolved, this perspective turned out to be extremely short sighting. Diversity is a summarizing term for differences in individual characteristics that might be racial, ethnic, physical, socioeconomic, gender identity, personality, genetic, etc. attributes. The list is endless, the key is that these features are "irrespective of job-related skills and qualifications" (Mor Barak, 2014). Nishi (2013) noted at this point that the relevant attributes might not be observable or unambiguous (e. g. educational level and intelligence). Inclusion in the community "...refers to the individual's sense of being part of the organizational system...(Mor Barak, 2014)." To synthesize and clarify the concepts, Shore et al (2011) warned that belongingness and uniqueness have equal significance. She cited the façade of conformity (Hewlin, 2009), that occur when someone suppresses his/her personal opinion or value and adjust to the organizational or supervisory expectations. Apart from these theories, we addressed further ones while conceptualizing and "grounding" our research. The need for such research is underlined by numerous empirical and theoretical findings. First of all, each human being has social needs to be satisfied (e. g. Maslow, 1943; Herzberg, 1968). Brewer (1999) stated such psychological needs are insured within workplaces with inclusive climate, although Nishii (2013) highlighted that empirical tests are still scarce. Psychologists also pondered the results of inclusion (Firth-Cozens & Hardy 1992) and found hard evidence that inclusion indeed preserves mental health for example, by reducing stress and procrastinate burnout (Shaufeli, et al, 1996). Researchers, who apply economic viewpoint, has also argued for proper organizational climate because diversity is a pervasive feature that must be considered while strategy making and should be regarded as an opportunity for both individuals



and an organization as a whole to learn and evolve (Chrobot-Mason et al, 2002). The benefits of inclusiveness were more precisely analyzed and supported later. For instance, Acquivita et al (2009) associated inclusion with job satisfaction. Cho and Mor Barak (2008) found evidence that perception of inclusion is a predictor of job performance and commitment. Den Hartog et al (2007) reported also strong correlation between performance and inclusiveness, emphasizing how fair and equal treatment of employees facilitates trust and reciprocity among the members of the group. On the other hand, insufficiently inclusive climate results in excessive costs for the company, in terms of higher absenteeism, turnover (Harvey, 2012) and more frequent conflicts (Herring, 2009). As we can see, inclusion is a definitely important and actual topic to investigate, not even to mention accelerating population movements around the globe. Some specific research gap has been highlighted. The existing literature should be enriched by various methodological approaches (Jacqueline et al, 2007; Shore et al, 2011). They called for interviews first of all. Secondly, theories regarding diversity and inclusion are overlapping, so addressing them jointly might produce better understanding of the issue (Buttner et al, 2012).

### **3. ACTUALITY OF THE RESEARCH**

The goal of the paper is to introduce some more thoroughly researched theoretical constructs related to labor migrant diversity and integration literature and test them in practice. This effort is quite actual, according to statistics, migration has become more diverse in terms of origin (Migration data portal). An increase has been indicated in the overall migration flows to Europe as a whole and it remained the main destination area with its inflow of 3,1 million migrants in 2018A third relevant and rather timeless aspect is concerning organizational and group performance in general. Researchers reported (Cho et al, 2008) that perception of inclusion through successful integration leads to commitment, enhanced work performance and lower turnover intentions (Nishii et al, 2009).

### **4. PROPOSITION**

The objective of this research is to improve and reveal the interrelations, overlaps among the existing theories regarding inclusive workplaces in practice. “Inclusive workplace is an action-oriented model for integration (Mor Barak, 2015)”: We planned to complement this model of Mor Barak by involving further theories related to integration and its circumstances. It is important to note that we do not question any of the theories but accept as, referring to the applied methodology, “ground” of our empirical investigation and resultant induction procedure (Haig, 1995). In the next paragraphs the used theories are briefly introduced. A community can be collectivistic or individualistic at distinct contexts and situations (Correll et al, 2005; Pickett et al, 2001). Optimal distinctiveness theory (Brewer, 1991) “seeks” the balance between feelings of uniqueness and belongingness. During the interview, whether “I” or “we” occur more frequently, we can conclude that the community is more collectivistic (prefers validation) or more individualistic (prefers uniqueness). The words interviewees use informs us what they regard as problems, neutral statuses or preferential outcomes (Mor Barak, 2015). Thus, we can find out more about the nature of these elements, where insufficiencies are or if there is a satisfactory balance between the two desires, and how employees interpret it. Is inclusion a common goal or not? (Ramarajan, 2009). Sometimes to foster one’s own inclusiveness, the person may withdraw his/her distinct opinion in order to adjust or assimilate to the organizational values or to the common sense (façade of conformity: Hewlin, 2009). How do employees feel about direct supervision? It is especially a crucial point for newcomers whether they feel themselves less trusted or somehow positively for their bosses’ personal attention and advisory (leadership-membership exchange, Nishii et al, 2009). According to the similarity paradigms, people have higher propensity to agree and support individuals who they feel themselves more similar in terms of race, skin of color, education etc. (similarity-attraction

paradigm: Riordan, 2000). In this sense demographic similarities predict, *horribile dictum* determine inclusiveness (Nishii, 2012). The most illustrative example is when citizens from nations, those are “historically enemies”, are less supportive toward each other (France-Germany e. g.) However, younger generations are less likely to act this way. Conflict resolution is perceived as something that fosters inclusion and acceptance (Nishii, 2012). Although many empirical evidences suggest the opposite, namely that norms for openness makes relationships vicious (Jehn, 1995). Mutual trust is jeopardized by discussing problems above a certain extent (Brewer, 1999), while ignorance can attenuate destructive intensity in relationships (Fiol, 2009; Nishii, 2012). What disputes, both in term of topic and depth, should be discussed? There are controversial arguments whether common knowledge or distinct competences foster or hinder inclusiveness and integration (Ely et al, 2001). Commonalities mean more shared grounds for conversations or activities, so there is more room for connections to develop. Although differences can peak interests from counterparts, that can result in the same outcome. It is important to note however, that soft items, such levels of extroversion and openness are excluded from the described learning-effectiveness perspective of Ely and Thomas (2001). As an amendment, some researchers suggested that invitation into participation, team processes (those are related to individual abilities) mediate exclusion effect (Mohammed & Angell, 2004). Usually there are some “ranking” among colleagues in workplaces, based on knowledge, seniority or other features (status characteristics theory, Berger, et al, 1972; Ridgeway et al, 2006; self-categorization, Shore, 2011). The ranking can stem from constructive differences, as some colleagues might perceive each other as role models and in that case, employees are provided with extra motivation to work harder and achieve esteem from co-workers. But stereotyping can lead to categorization too. So the basis of such “order” determines whether inclusion is not hindered or it is. Larkey (1996) put that unlike ranking, categorization always leads to conflict. These theoretical constructs served as grounding for our empirical analysis. Employees from various background, with various circumstances have tremendously various perspective of the world. That consists culture, religion, political orientation, habits, ritual, competences, relationships, attitude toward personal relationships or perception of time and achievements. The unique personalities endow unique soft skills and those are unique resources for the community they work in and for. It is inevitable to face the challenge deriving from fluctuating and migrating labor force of present times. To live up to it, first step might be to map the current conditions and attitudes of workplace integration. It is our purpose and to contribute to the comprehension of integration and inclusive workplaces (Shore et al, 2011).

## 5. METHODOLOGY

Our proposed and currently running research is based on qualitative, semi-structured in-depth interviewing with opened questions and we applied the grounded theory methodology. Grounded theory is quite the opposite of traditional, hypothesis-driven methodologies. When formulating hypotheses, researchers choose a theoretical framework and collect data, that will either support or not the original belief. In contrast, grounded theory employs deductive reasoning. It is triggered by an opened question (“what is going on” or “what is the problem?” etc.) or collection of qualitative data. That is why grounded theory methodology is more suitable for qualitative investigations because those offer some flexibility that is required in human sciences (Strauss et al, 1997). As a start, data are broken down into “its elements”, which are compared. During the process, new theories will emerge along the elements’ conceptualization. Grounded theory is a systematic generation of theoretical frameworks based on existing theories and knowledge; those were already empirically tested. With other words, hypotheses are the output of data collection or learning process and not the data is collected appointed by the hypothesis in advance. A fundamental drawback of the later order is that having a hypothesis seriously confines the range, scale of data collection and comprehension by “tube-kind”

thinking. The nascent theory we had in mind is built up or “grounded” by several authors’ works. Grounded theorists also have assumptions they can lean on, but those are regarded as “how or why do they work” instead as “they are true or false”, where “they” refers to those selected assumptions. There are two main reasons why we have chosen this approach. According to its inventors, grounded theory offers autonomy in generating concepts in explaining human behavior (Glaser et al, 1967). It is useful when theorizing is proceeded by a literature review, interviews and observations like in this paper (Ralph et al, 2014), when sometimes distinct ideas are found. Another important thing is that, as mentioned, we intended to fill a research gap in diversity literature by providing practical insights and researchers noted that turning to qualitative investigation such as interviewing would be quite timely but useful. As far as the interviewing is concerned, we applied a qualitative investigation, that is more interpretative and subjective, so personal attendance is desirable (Denzin et al, 2011). This scientific method focuses on personal meaning-makings of the environment. Personal experiences, artifacts, life stories, believes, thoughts, feelings, expressions, imagination are in focus (Deniz et al 2005; Wertz et al, 2011). As these information are highly subjective matters, proper and scientific interpretation of them demands background knowledge from the researcher (Given, 2008). Another argument for indispensable personal presence is that direct observation, description of the interviewee’s unconscious, physical reactions is also a valid source of primary data and because the interviewer controls the way of the conversation to avoid misunderstanding or wondering to irrelevant matters during the event, that is a waste of time and resource. An interview is always exhausting for both participants. In order to preserve thoughtful, honest responding and patience from the subject, we developed a relatively short, 10-questions-long survey. We set up a relatively short questionnaire to allow more time and room for the interviewees’ unforeseeable input. There are also disadvantages of qualitative research methods in general. As responses are unique, findings can hardly be generalized or compared. Controversial research findings suggest that the interviewer presence might lead to dishonesty provoked by unanimity, but that was not proven in all cases. Personal interviews also bear geographic limitations too. But having those specifics set correlates with a more precise sampling and clear inclusion criteria. The following inclusion requirements do interview subjects have to meet. People had to either work or study within a multicultural community. Multiculturalism entails the necessary amount and quality of unique personal characteristics; those are under the scope of our study (historical background, experiences of gender roles, perception of time, level of indulgence and further positivist dimensions of differences (Hofstede, 2001; Hall et al, 1990; Romani et al, 2018). They had to work closely and interrelatedly to each other, in terms of common projects, team assignments etc.

## **6. LIMITATIONS, FUTURE RESEARCH**

The limitations of our research are methodological in nature. Glaser (1978) noted that in the cases of grounded theory, a data collection is confined by an emerging and not existing, “well-based” theory and that means the absence of conceptual depth (Benoliel, 1996). Qualitative studies usually produce ungeneralizable findings (Hussein et al, 2014). Knowledge is born through confirmation (repetition) and not by testing theories (that is what we did), even if they result in new ones (Polit et al, 2010). Our recommendation for future studies is to find confirming or refuting evidences to our own results. The interviews are not finalized yet, therefore the final conclusions can only be drawn at a later stage of the research.

## **7. CONCLUSION**

The aim of this research was to offer empirical findings about “action-based” integration oriented models and testing these theories in practice (Mor Barak, 2015). Massive labor migration is a challenge to cope with but simultaneously, an opportunity to seize.

In this paper we presented some practical insights and understanding of the nature of integration driven by the fact that implementing the unique perspectives of newcomer employees with diverse cultural backgrounds and characteristics bears competitive advantage for companies and industries (Gonzalez et al, 2009). Previous studies suggested that inclusive workplaces correlate with lower employee turnover intentions, greater job satisfaction and higher performance (Cho et al, 2008; Nishii et al, 2009). However, such studies are absent if we reflect to Central and Eastern Europe. To address this gap we executed our investigation in this region. A self-developed questionnaire was applied consisting ten open-ended questions. During the semi-structured interviews, the subjects were asked to tell their experiences and feelings about their own perceived inclusiveness in their working communities. Our intention was to reveal the interrelations and overlaps among the involved theoretical constructs in the belief that it is more beneficial if we apply the knowledge of the field comprehensively. Preliminary results of the interviews showed that, more “included” workers, that is to say successfully integrated ones, are more satisfied, committed and hard-working.

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## THE ECONOMIC CRISIS OF 2008 AND ITS SOCIAL IMPACT IN EUROPE

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### **ABSTRACT**

*In 2008, a financial crisis broke out in the United States of America and quickly spread to the rest of the world. Related to the subprime, this crisis was associated with real estate speculation, leveraged by the banking sector. At first, Europe thought that the “housing bubble” that burst in the USA, leading banks and investment companies to bankruptcy, was a strictly American problem, however, the exposure of European economies to international markets revealed the opposite and it soon became apparent that the European real estate and financial sectors were also on the verge of ruin, both inside and outside the eurozone, such as Greece or Iceland. Some countries in order not to go bankrupt had to ask for external financial support from the European Union, European Central Bank and International Monetary Fund. The aid that these organizations provided called for a drastic austerity plan for the countries involved. In a scenario of crisis, austerity, unemployment and precariousness, Europeans took to the streets to demonstrate all their dissatisfaction with the crisis but also with the politicians and policies they implemented to solve economic problems. Across Europe there have been huge protests, especially in countries that have received international aid. The social impact of the economic and financial crisis was particularly felt in countries such as Iceland, Ireland, Greece and Portugal. This article seeks to demonstrate how the economic crisis of 2008 awoke the citizenship of Europeans and changed their relationship with politics and government, exemplifying with the case of Greece and Iceland.*

**Keywords:** *Citizenship, Contestation, Crisis, Europe*

### **1. INTRODUCTION**

The 2008 economic and financial crisis is considered the biggest crisis since the Great Depression, in the 1930s, and one of the biggest crises of capitalism. The symbolic beginning of this crisis was the bankruptcy of Lehman Brothers, the fourth largest North American investment bank, on September 15, 2008. A bank founded in 1850, which survived two world wars, the Great Depression, and others crises, did not resist this 2008 crisis and its fall marked a new era in the economy and financial markets. In fact, the crisis started much earlier and was already evident since the summer of 2007. Financial deregulation, overvalued financial derivatives (supported by rating agencies), high risk mortgage loans (subprime) were some of the ingredients that triggered the crisis. Effect of globalization, the crisis quickly hit the old European continent, showing the weaknesses of its banking system and the imbalance of its public finances, revealing the indebtedness of states, companies and families. The crisis originated in the North American real estate market in 2007 and involved developed economies and developing economies, due to the effect of commercial and financial globalization and the importance of the United States of America in the global economy. The emergence of this crisis, after the collapse of the American housing bubble, was due to the expansion of bank credit and the use of new financial instruments. However, it intensified due to the bankruptcy of investment bank Lehman Brothers. The panic reached the financial institutions, resulting in an increase in the preference for liquidity, destroying the process of selling assets on a large scale and causing the prices of these financial assets to drop and bank loans to be taken. This situation then caused a drop in international industrial and commercial production, reaching economies



globally (Cechin & Montoya, 2017, p. 167). This crisis was, therefore, “a deep crisis of mistrust ” (Bresser-Pereira, 2009, p. 133), of Europeans in relation to politicians, liberal and capitalist policies and even Democratic ideology. This article seeks to demonstrate how the economic crisis of 2008 awoke the citizenship of Europeans and changed their relationship with politics and government, exemplifying with the case of Greece and Iceland.

## 2. THE BEGINNING OF THE ECONOMIC-FINANCIAL CRISIS

In the 1970s and 1980s, neoliberal policies were implemented, beginning the path of financial deregulation, which caused the bursting of the speculative bubble related to shares of companies in the Internet business, leading to the loss of billions of dollars and the devaluation of these actions (Jardim, 2013, p.13). However, this deregulation has not been resolved, only transferred. Thus, in the early 2000s, transactions and lending in the real estate market intensified, with the North American mortgage market reaching its peak in 2003 (Cechin & Montoya, 2017, p. 156). Low-cost loans have enabled low-income Americans to realize the dream of home ownership, while offering high-income and stable Americans another dream, that of high financial profitability, thus making their dreams compatible. In this way, real estate financing contracts were made with high interest rates but with different percentages over time, that is, at the beginning of the contract, interest rates were low, being increased exponentially to compensate for the ab initio reduction, thus being proportional to the risk of operation. The payment guarantees for these contracts were often informal work and variable income, and thus, one day the guarantees disappeared and the installments of the home were no longer paid. This situation is called subprime, which is exactly high-risk credits granted to investors who do not have payment guarantees, the so-called NINJA loans (No Income, no Job or Asset). The preservation of this expansionist real estate cycle lasted until the end of 2006 due to “the importance of the subprime, both in the issuance of new mortgages and in the securitization process” (Cechin & Montoya, 2017, p. 156). Thus, at the beginning of 2007, all financial institutions decided to sell their high-risk securities that were worth almost nothing, so when asset prices went into acute deflation, the market entered a liquidity crisis. These high-risk securities made up the assets of many of the US financial institutions and, if on the one hand, most of the assets are quoted on the market, on the other, their liabilities are recorded in contracts, unbalancing and making the capital of the insufficient financial institution itself to guarantee the continuity of its operations. So, initially we were facing a “credit crisis, which turned into a liquidity crisis that, in turn, turned into an equity crisis” (Sicsú, 2009 pp. 144-145). As the situation worsened, the US government decided not to support the fourth largest investment bank Lehman Brothers, which ended up declaring bankruptcy in September 2008, and the financial crisis acquired great proportions internationally, becoming a systemic crisis. This systemic crisis therefore threatened “the international financial architecture”, explaining the limitations of the basic principles of the banking and financial regulation and supervision system in force and also of the survival of financial institutions (Farhi et al, 2009, p.135). According to Jennifer Hermann, this systemic crisis can be explained by the American monetary policy that failed in the interpretation and banking supervision, considered the element that propagated the crisis, and the excess of “spontaneous optimism”, which led to flagrant errors in risk assessment . Also according to the same author, the crisis was caused by the liberal model of financial regulation "which was in charge of spreading its assets to the whole world" (Hermann, 2009, p. 140). The crisis is banking and stemmed from the irresponsible granting of mortgage loans to creditors who were unable to pay or who would not have it from the moment the interest rate started to rise, in addition to the use of "financial innovations" to securitize (financial practice of grouping types of assets for their trading on the market) rotten securities, transforming them into AAA securities by financial institutions and risk agencies. Thus, it is a crisis whose direct cause was the deregulation of the national financial systems, due to the neoliberal ideological wave

legitimized by the neoclassical economic theory, dominant since 1970 in the United States of America (Bresser-Pereira, 2009, pp.133-134 ). This crisis is also a social crisis, caused by the increase in individual indebtedness and the consequent increase in eviction actions, the increase in bankruptcies of banks, financial institutions and companies and the resulting increase in unemployment. This situation resulted in enormous social discontent. In this crisis, the “contagion effect” played an important role, since the globalization process allowed the economies to be exposed to external influences, that is, it made the instability of an economy easily spread to other economies (Cechin & Montoya, 2017, p.152).

### **3. THE EXPANSION OF THE CRISIS TO EUROPE**

The most globalized economic-financial integration has been in development since the 1980s, which made the expansion of this crisis considerably rapid. The 2008 crisis, which started in the mortgage market, ended up reaching all types of markets and involving financial institutions and non-financial institutions, although it mainly affected the global financial system, conditioning investment, production and employment. The world was attentive to the United States of America's performance since the first signs of the crisis and, therefore, global economies retracted immediately after the fall of Lehman Brothers. This was the clear and obvious symbol of this crisis, representing its globalization. With the spread of the crisis, the set of bankruptcies and interventions at a global level spread distrust in the national financial markets and in the companies themselves. After the globalization of this crisis, the States acted in a coordinated way in an attempt to save the responsible financial institutions, through the injection of capital, redemption or purchase. However, the crisis was already installed in the United States of America and, thus, began its installation in several countries. In this way, this crisis represented a “threat to the American hegemony”, while severely affecting the European economies and the Chinese economy (Jardim, 2013, p. 14). The 2008 crisis show the vulnerability of capitalism in the globalized world and the ineffectiveness of statesmen to resolve it (Silva, 2017, p.104). In European countries, some concern began to arise, considering that “the American credit risk was taking on large proportions”, having crossed the “Atlantic” not only through the market (...) but also through institutions, directly affecting the European financial sector (Cechin & Montoya, 2017, p. 161), a sector that presented marked volatility in its stock markets and an outstanding vulnerability in its financial conglomerates. Therefore, this “moment of rupture in the functioning of a system” (Bobbio, 1998, p.305), covered the whole of Europe, inside and outside the Eurozone. Since the Great Depression, there has been no such serious crisis in the capitalist system, especially financial capitalism on a global scale (Capinzaiki, 2015, p.156). The exposure of the European financial system to the purchase of high-risk securities triggered chain banking problems after the fall of Lehman Brothers. And from a financial crisis, there was an economic crisis, and the huge public debts of countries like Greece, Ireland and Portugal originated their rescue. Foreign aid was accompanied by a "rhetoric about the moral responsibility of defaulters and the limits of indebtedness", thus throwing the responsibility to the countries of southern Europe, to unsustainable public spending, to high wages, to the social benefits of workers and excessive consumption by families (Nunes, 2013, p. 11). According to neo-Keynesian thinkers, unsustainable economic, financial and social policies were adopted in Europe, in which the main beneficiaries were “national and global elites”, the same ones who approved the speculation and economic-financial deregulation, privatization public functions and the almost absence of a common economic and social policy in the European Union (Nunes, 2013, pp. 11-12). In social terms, this financial crisis brought austerity, unemployment and precariousness to Europeans, which provoked great popular discontent, as demonstrated by the wave of protest demonstrations that erupted in Europe between 2011 and 2013, especially in countries that received international aid (Silva, 2017, p. 104), case of Greece and Iceland.

In European countries, “the debt problems and austerity programs that are supposed to restore confidence have not only aborted any kind of recovery, but have produced renewed recessions and rampant unemployment” (Krugman, 2013, p. 16).

### **3.1. The crisis in the eurozone: Greece**

The economic crisis began in Greece in late 2009/early 2010, when rating agencies (Moody's, Fitch and Standard & Poor's) were alerted to the problematic growth of the country's public deficit. Greece's level of indebtedness had grown over the previous decade, driven by increased public spending, civil servants' salaries, pension spending and tax evasion. Its deficit was already more than 3% prior to the crisis of 2008 (Grigoriadis, 2013); after that, the deficit increased considerably and fostered distrust in the markets in relation to public debt. This increased interest rates, thereby rendering the repayment of loans more onerous. The level of indebtedness was such that there was real fear Greece would fail to service its external debt. The Greek situation threatened to contaminate the entire eurozone. In order to minimise this threat, the Greek government adopted certain containment measures intended to control public spending and increase revenue. However, as the deficit did not decrease, the executive had to resort to requesting foreign aid in April 2010. Greece joined the European Economic Community (EEC) in 1981, at a time when the country was experiencing a period of economic growth after having freed itself from a military dictatorship. In 2001, Greece was accepted into the eurozone and, hence, it was considered safe for investments, which led to a growth in the GDP (gross domestic product), but also in national expenditure. After 2008, the financial situation became uncontrollable. External financial aid was provided by the European troika (International Monetary Fund [IMF], European Central Bank [ECB] and European Commission [EC]), but it was not without stipulations. Greece was required to adopt austerity measures. To comply with the rescue agreement, the Greek government announced a series of “draconian” measures, including tax increases, wage and pension reductions, privatisations, etc., the social impact of which was such that it brought the Greeks out onto the streets and squares of major cities to demonstrate and protest against austerity (Grigoriadis, 2013). From 2010 to 2012, there was constant social upheaval, since the first rescue package proved insufficient and rendered a new rescue packet necessary, which was accompanied by more restrictions. The crisis was becoming uncontrollable and the protests in Syntagma Square and other squares across the country seemed permanent, with spontaneous movements of citizens who gathered in defence of democracy, as their ancestors had once met in the agora to exercise democracy, organising mass demonstrations. Between 2010 and 2013, these organised movements, which were led by the trade unions, resulted in nine general strikes that practically brought the industry, commerce, public administration and transport sectors to a stop, thereby aggravating the already weak Greek economy (Lima & Artiles, 2014). Demonstrations took place in the largest squares and streets of Athens, as well as in major cities across Greece. Syntagma Square was the scene of the largest demonstrations, many of which ended in violence. Demonstrators, especially young men, threw rocks and bombs at the authorities, smashed windows and set fire to rubbish bins and buildings. In an attempt to contain the situation, the police retaliated with tear gas and arrested some demonstrators (Jornal Sol, 06/15/2011). In 2012, the dispute increased due to Greece's need for a second bailout, as well as the fact that the parliament had to approve more austerity measures in order to receive it. The protests became even more violent, with clashes between protesters and police resulting in fires in several buildings in central Athens and some arrests (El País, 12/02/2012). In April 2012, the suicide of a retired pharmacist, 77, who killed himself in the middle of Syntagma Square, and who had left behind a handwritten letter expressing his desperation due to austerity measures, further escalated the protests (El Mundo, 04/04/2012). Although the youths stood out due to their rebelliousness and irreverence, there were people of all ages involved in the protests, including unemployed adults who could not

afford to support their families, pensioners whose pensions had been considerably reduced and youngsters who either had no job or else lived precariously. In addition to the obvious economic problems, Greek citizens were disgusted by the lack of adequate response from their political institutions. Relatedly, Estanque (2014) considers the inefficacy of public policies to be the fundamental cause of the conflict seen in recent years.

### **3.2. The crisis outside the eurozone: Iceland**

Iceland was the first country in Europe to be severely hit by the economic and financial crisis, triggering problems at the economic, financial, political and social level. However, Iceland was also one of the first countries to show signs of some recovery “just three years after the bankruptcy of its banking system”(Oliveira, 2015, p. 4). The severe signs of the crisis in the country were triggered by the bankruptcy of the investment bank Lehman Brothers, causing the fall of the three largest Icelandic banks, the freezing of the international payment system, the strong devaluation of the currency, the growth of inflation and, consequently, the loss of thousands of jobs. The crisis that then hit Iceland showed the severe weaknesses and structural problems of its system, such as the very high trade deficit, the high level of household indebtedness and an oversized and poorly regulated banking system (Dufour, 2015, p.7). In addition, the internationalization of Icelandic banking, with high-risk investments in the United States of America and Europe, made banks vulnerable to the crises in the countries where they invested (Oliveira, 2015, p.10). It is from 2002 that real estate growth begins to be noticed, caused by speculative housing prices, government aid and incentives for the purchase of home ownership and the ease of access to credit, through the Housing Financing Fund. The housing boom has led to debt growth in the private, financial and domestic sectors at an unprecedented rate. However, the economy continued to grow, benefiting the banking system, which now has greater access to international markets. Thus, Icelandic banks started to have a high exposure to the North American market, through the securitization of their banks assets in collateralized debt obligation, that is, the banks' main customers were also their main shareholders. This situation consisted of a coincidence between the interests of some shareholders and the interests of managers, “allowing risk taking and the reduction of liability to third creditors, resulting in a high concentration of risk”(Terlica, 2013, p. 130). Indirectly, “Icelandic banks were exposed to a global capital market risk, as they were financing highly leveraged domestic companies in assets of international companies”(Dufour, 2015, p.16). Thus, in the event of a global collapse, insolvency would be possible. In 2006, Iceland began to suffer from rising inflation and the devaluation of the currency - the Icelandic krona - causing an alarming lack of liquidity. Consequently, the applied monetary policy was quite restrictive as the official interest rate increased. However, it was not enough to “offset the increase in the provision of liquidity to the financial system, given the leverage of banks in foreign markets” (Terlica, 2013, p. 130). As an alternative, deposit systems were created for customers outside the country, namely in the United Kingdom, Denmark, Germany and the Netherlands. The most relevant system was Icesave, as it offered very attractive interest rates. Until 2007, consumption was always evolving, encouraged by tax cuts, easier access to credit, high asset prices and a favorable exchange rate, resulting in a high purchasing power for the population. This economic growth has led to a historic decrease in unemployment levels, an increase in wages, an appreciation of the currency and, consequently, an increase in the surplus. However, this illusion of wealth in the population was the result of the increase in foreign currency inflows, which led to a strong appreciation of the Icelandic krone, encouraging investment. The assets of the Icelandic financial system were considered to be of good quality, but had longer maturities compared to liabilities and many of them were not liquid. As such, banks faced a risk of rushing deposits and, if that happened, there would be no chance of a bailout. The Icelandic banking system was made up of few institutions, of considerable size and very closely linked, as it had three

internationally relevant banks - Landsbanki, Glitnir and Kaupthing, but there was no entity capable of acting as a liquidity guaranteeing institution in the last instance. (Dufour, 2015, p. 22). The summer of 2007 was marked, essentially, by the trigger of the international financial crisis and, with the fall in the prices of products directly related to the subprime mortgage market in the United States of America, the financial markets broke down. Immediately, Icelandic banks began to face serious difficulties and therefore they tried to reduce their activities to accumulate capital, but international markets demanded credit and foreign investors demanded the return on their investments, especially those applied in Icesave. The banks thought that this situation could be resolved by taking more deposits and, therefore, increased the interest rates on retail deposits in order to attract more deposits. This measure, however, did not compensate for the movement of capital outflows and, in view of this situation, banks increased short-term financing through collateralized loans with central banks. Contrary to what would be expected, Icelandic banks increased the number of loans granted and loans contracted with collateral in domestic bonds, further reinforcing liquidity problems. At the end of 2007, the lack of capital and liquidity led the banking sector to a critical situation (Terlica, 2013, p.130). Then government decided to intervene, passing a law that allowed the government to borrow money to improve the Icelandic Central Bank's reserves. However, a few months later, the investment bank Lehman Brothers went bankrupt, further deteriorating the Icelandic market (Dufour, 2015, p. 26). Within a single week, Iceland's three largest banks, which accounted for 85% of the financial system, went bankrupt. Trying to control the situation, the government separated bankrupt banks into new banks that should take responsibility for national deposits and loans, and into old banks that should keep assets in order to liquidate them. This measure was intended to maintain a payment and credit system in operation in the country (Dufour, 2015, p. 27). The effort made to recover the banking and financial system corresponded to the devaluation of assets and the loss of billions in Icelandic kronor. Thus, the liberal measures taken over the last decades of the 20th century and the beginning of the 21st century allowed the emergence of a financial bubble that burst in October 2008, when the three largest banks, with extensive international operations, collapsed and the financial sector has practically disappeared (Oliveira, 2015, p. 13). The economic situation has thus changed dramatically. The deterioration of the Icelandic krone, the growth in the inflation rate and the increase in the external debt caused a decrease in the population's purchasing power and, consequently, a historical contraction in consumption. The unemployment rate has increased and wages have not kept pace with the rate of inflation, while working hours have decreased, causing real disposable income to fall. As a result, financing facilities ended due to the collapse of banking, resulting in a cross-sectional fall in all branches of business, a decrease in disposable income and immigration levels, while emigration levels increased. With the rapid deterioration of the Icelandic situation, on November 19, 2008, the International Monetary Fund approved a contingent credit agreement (or stand-by agreement) in the amount of US \$ 2.1 billion, with a duration of two years (from agreed value, \$ 827 million was made available immediately). This agreement was necessary to recover the international confidence and to allow the rescue loan from Icesave. The agreement then provided for the following measures: preventing further currency devaluation through a contractionary monetary policy and greater control of capital; ensure long-term fiscal stability by creating new taxes, increasing existing taxes and reducing spending; and develop a plan for restructuring the banking and financial system through asset control measures, recovery strategies and regulatory practices. At the end of 2008, the Icelandic government began negotiations with the governments of the United Kingdom and the Netherlands, which demanded the payment of investments by their citizens. Thus, through a vote in parliament, they decided that the country should bear the losses caused by the banks. Parliament decided to return 3.5 billion euros to the United Kingdom and the Netherlands, which meant that all Icelandic families would pay this payment for a period of 15 years.

The people refused to pay the bill, and the Icelanders came to the streets of the capital Reykjavík to demonstrate against political and financial institutions. As the Icelandic crisis worsened, the protests took on large proportions and were supported by the majority of the population. Under social pressure, President Ólafur Ragnar Grímsson, refused the vote, requesting a referendum. The demonstrations were called “The pots and pans Revolution”, seeking the resignation of the Haarde government, the scheduling of new elections and the revision of the Constitution. The sheer scale of these demonstrations made them historic in Iceland's democratic history. Initially, the demonstrations were constantly ignored but as the weeks went by and the protests intensified, the people made themselves heard. Done in front of Althing, they led to clashes with the police, who used tear gas and detained several protesters who defied government leaders and demanded a Real Democracy. As the protests intensified, the government led by Haarde gave in, having resigned in January 2009. This resignation was followed by the resignation of the heads of the Central Bank of Iceland and the Icelandic Financial Supervisory Authority. The elections were scheduled for April 25, 2009. On May 10, Jóhanna Siguroardóttir took office as Icelandic Prime Minister for the Social Democratic Alliance (Samfylkingin-Jafnaðarmannaflokkur Íslands), having held office until 2013. She was the first woman to hold office in Iceland. In that same year, Iceland made an effective application for entry into the European Union, “based on the importance of joining the single currency as a means of stabilizing exchange rate volatility and reducing the impact of future financial and exchange rate crises in the country”(Terlica, 2013, p. 131). In early 2010, President Ragnar Grímsson again refused to approve the parliamentary debt payment decision, holding a new referendum in March of the same year, which resulted in the vote against taking responsibility for the payment of debts that were incurred by banks. This popular decision was reaffirmed in April 2011 after approval of the payment of debts with new conditions in parliament and after the Icelandic president refuses to ratify. The president referred: " The new conditions are better, but Icelanders will have to carry a debt that their banks have a duty to assume" and reforce "Iceland is a democracy, not a financial system" (Oliveira, 2015, p.15). In 2013, the Icelandic government took the decision to suspend negotiations for membership of the European Union. This decision was reaffirmed in 2015, reiterating the importance of close relations between Iceland and the European Union.

#### 4. CONCLUSION

The factors that triggered the crisis in Greece were not the same as in Iceland, although in both countries it was the international situation that resulted from the fall of Lehman Brothers that originated the crisis. In terms of social impact, the consequences of the 2008 crisis were identical: debts, austerity, discontent. In Greece, adherence to the single currency increased confidence in financial markets and led to further liberalization of the sector, resulting in a decrease in interest rates and an increase in private credit, although the lack of competitiveness in its economy and external indebtedness were structural weaknesses of the Greek economy. The 2008 crisis accentuated these weaknesses and showed others, leading the rating agencies to downgrade the Greek public debt rating, affecting their financing capacity. Unable to be able to finance itself directly on the financial markets, he had to seek external assistance from the EU and the IMF. In Iceland, it was the problems arising from the privatization of banking and the consequent investment by Icelandic banking in the United States and Europe that led to foreign indebtedness. The strategy adopted was to borrow on international capital markets and then lend to large Icelandic business groups, controlled by the owners of the banks themselves, which would invest in stakes in foreign companies. In this way, the Icelandic banking system has grown too much, considering the size of the country itself, making the Icelandic Central Bank no longer able to guarantee the system, protect its assets and provide liquidity. The past situation in the country was "a dangerous combination of over-dimensioning, lack of regulation

and supervision, over-indebtedness" that ended up contaminating other European economies, especially those that invested in Icesave (Machado, 2010, pp.28-29). This combination was fundamental to the sequence of events that placed Iceland as the first victim of the strong crisis faced in 2008, which also suffered serious consequences from countries such as Greece, Ireland, Portugal, and Spain. The financial crisis that hit the world showed the weaknesses of the Greek and Icelandic system, where there were structural problems such as a deficit in the trade balance, a high level of household debt and an oversized and poorly regulated banking system. In both countries, the crisis caused a huge social impact, throwing citizens into unemployment, precariousness, and discontent with the policies and politicians that materialized in large demonstrations in the public space. This crisis raised awareness of citizenship, and they took to the streets to express their feelings about the crisis and the way politicians were facing it. The way in which citizens looked at representative democracy also changed, since many did not feel represented or safeguarded their interests, and began to demand a real democracy. The political response to social demands is that it was completely different. While in Greece there was an external intervention that demanded extreme austerity measures, supported by the citizens without having been consulted. In Iceland, initially, the government was following the same line of action as the European Union, but as the president refused to act without consulting the people through a referendum, the Icelanders resolved the crisis in their own way. Icelanders were the first to feel the crisis but they were also the first to resolve it, and the Greeks saw the crisis drag on and their sacrifices dragged on, and they were the last European country to come out of it. The crisis of 2008 highlighted the vulnerability of capitalism in the globalised world, as well as the inability of statesmen to adequately tackle the problem. The exposure of European economies to the international markets globalised the crisis (Mason, 2016), revealing that the European real estate and financial sectors were also on the verge of ruin.

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## DOES THE UNITED NATIONS NEED FOR THE 18TH SUSTAINABLE DEVELOPMENT GOAL?

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### **ABSTRACT**

*The United Nations has 17 sustainable development goals. There isn't the purpose of culture among them. I think that preserving the cultural heritage of nations and serving this diversity of humanity may be the 18th goal. Multicultural values will save the world - no monoculture. Aristotle said: "The city is the unity of the like." There are economic wonders in the world. Breakthrough development of world countries isn't praised like miracle in other areas. Economy was honored to this. Do humanity who wants to ensure sustainable development not see protection of cultural heritage of peoples within mega goals? Are Straus' music, the dance of Anatolia Fire, Nizami's word, Leonardo's painting not recognized by humans as a factor of sustainability? But what about the cultural activities of the UNESCO established in 1945? UNESCO's primary goal is to help peace and security by enhancing peoples' co-operation in education, science, culture, regardless of race, gender, language, or religion. I would like to note that the UN has no specialized body for each of the 17 goals adopted. The great American survivor of the Great Depression, CM Keynes wrote in an essay that "After 100 years the culture will cause to think the people, no economy." True, Adam Smith made a more accurate prediction from this point of view: "The personal ego of the people will develop society". Here I remember the great Azerbaijani poet Huseyn Javid:*

*"More powerful, great than the sword to Turan  
It is only culture, culture, culture!..."*

*This slogan can be attributed to the whole world. I'm proud that my motherland - Azerbaijan is one of the world's cultural centers.*

**Keywords:** *sustainable development, the United Nations, culture*

### **1. INTRODUCTION**

Culture is a collective form of human memory. Culture is soft force. The United Nations has 17 sustainable development goals. There isn't the purpose of culture among them. I think that preserving the cultural heritage of nations and this diversity to serve human sustainability may be the 18th goal. Multicultural values will save the world - no monoculture. Aristotle said: "The city is the unity of the like." There are economic wonders in the world. Interestingly, the rapid development of the world is not praised as a miracle in other area. Economy was honored to this. Didn't Japanese economic miracle, Chinese economic miracle, German economic miracle, etc. these mega-events, which miraculously affect the growth and quality of the world economy, take place at the expense of the cultural, heritage and spiritual values of these peoples? Today, doesn't mankind which wants to maintain its stability and to ensure sustainable development see the protection of the cultural heritage of nations within mega-goals? Are Straus's music, the dance of Anatolia Fire, Nizami's word, Leonardo's painting not recognized by humans as a factor of sustainability? So, what about the global cultural activities of UNESCO (United Nations Educational, Scientific and Cultural Organization), established in 1945 - the United Nations's specialized body for science, education and culture? I would like to note that the UN does not have a specialized body for each of the 17 adopted goals. The main goal of UNESCO is to help strengthen peace and security by expanding cooperation in the fields of education, science and culture, regardless of race, gender, language and religion.

The question also arises, what is the purpose of the "Convention about the Protection of the World Cultural and Natural Heritage" adopted by UNESCO in 1972? Here I remember the Azerbaijani poet Huseyn Javid:

*"More powerful, great than the sword to Turan  
It is only culture, culture, culture!..."*

I think that this slogan can be applied to the whole world. The great American survivor of the Great Depression, C.M. Keynes wrote in an essay that "After 100 years the culture will cause to think the people, no economy." It is true that a century has passed, but people's economic demands prevail. True, Adam Smith made a more accurate prediction from this point of view: "The personal ego of the people will develop society". But still, culture must be given a mega place. I'm proud that my motherland - Azerbaijan is one of the world's multicultural centers. Why are mountain rivers so plenty of water? Because they get their food from mountain springs. To benefit from different cultures increases the power of the world. Wreath is beautiful when it is decorated with flowers. Azerbaijani writer Anar: "To find the truth, a person does not need to travel the world, a person must travel in his profession." I also try to justify the role of culture in the sustainable development of the world using the economic review. According to Friedrich List who is represent of the German School of Economics, economic growth has non-economic factors. The idea that "action becomes habit, habit becomes character, character becomes destiny" belongs not only to man but also to the state / economy. Sustainable development is based on 3 pillars: economics, sociology, ecology. Some researchers consider culture to be a part of sociology. The concept of culture became the center and organization of many sociological research in 1890-1990.(1) According to Austrian scientist Walter Stein's theory, the world stands on three pillars: science, education and culture. There are a number of definitions of culture. I offer so a definition: Culture is a system of norms of behavior (communication) that is accepted, developed by human societies and passed on to other members of society.

## 2. ABOUT ETYMOLOGY

Let's look at the meaning of the word "culture" in English. The root of the word is cult. Cult (Latin cultus) means reverence, worship, adoration. The main place in this was occupied by religious cults. In ancient times, belief in totems (animals and natural phenomena), and later belief in God, has ensured the sustainable development of humanity. "De Agri Cultura", believed to have been written by Mark Portius Cato (great) in 160 BC is considered to the first work of prose in Latin about planting (2). İ. G. Gerder (1744-1803) expressed its Latin origin and etymological connection with the word "cultivation". in the late 1780s, bringing the term "culture" into scientific circulation In the eighth book of "Ideas of the Historical Philosophy of Mankind" (1784-1791), he says that we can call the genesis of man as we wish, we can call it culture, that is, the cultivation of the land or lighting. Then the chain of culture and light will reach the ends of the earth (3). I note that in Russian language, any type of plant is also called agrarian culture. The concept of cultivation plow is used in Azerbaijani agriculture.

## 3. EXPLANATION OF THE CONCEPT OF CULTURE

Roman orator and philosopher Marcus Tully Cicero (106-43 BC) called philosophy the culture of the soul/heart (cultura animae) in his "Tuskulan Conversations" work and considered that a person engaged in philosophy has a spiritual and mental culture. As an independent concept, "culture" appeared in the works of the German lawyer and historian Samuel Pufendorf (1632-1694). He used the term to describe an artificial (cultural) person formed in society. A "natural" - uneducated person stands against him. German thinker I. K. Adelung used the term "culture" in his 1782 book, The Experience of the Cultural History of the Human Generation.

The German philosopher I. Kant contrasts the culture of skill to the culture of nurture. The "foreign, technical" type of culture is called civilization by him. Kant sees the rapid development of civilization and excitedly notes its distance from culture (in my opinion, from the inner-true culture). According to Kant, culture is also advancing, but its movement is slower. This disproportion is the cause of much of mankind's trouble (3). I note that according to the UNESCO classification, there are 6 main civilizations in the world: Europe, North America, the Far East, Arab-Muslim, Indian, tropical-African, Latin America. The reason for this, obviously, is the corresponding level of development of productive forces, the proximity of the language, the commonality of everyday culture, and the quality of life (4).

#### **4. CULTURE AND ECONOMY ARE INTERRELATED**

Some economists did not accept the influence of the cultural factor in the analysis of economic events and processes. In most cases, this is due to the opening of the concept of "culture". But, some researchers say that the traditions and customs of different ethnic groups, religions, and population groups have a significant impact on their economic success. The founders of the classical market economy, the Englishman Adam Smith and David Ricardo, considered that sometimes cultural factors influence to people's behavior more than their personal interests. According to another German philosopher, Max Weber, any change in the economic environment is initially met with resistance by the masses. In this regard, religion plays a major role and it is considered one of the main factors in the development of capitalist society. Protestantism, for example, considers wealth as a necessity, not a privilege. Another brilliant figure in world economics, the German Karl Marx, considered religion to be a side effect of production relations. Hungarian origin, Canadian-American economist Carl Polani says that religion and culture restrict market laws. After World War II the development of mathematical models in economics prevented the deepening of this theory. Because the culture category is difficult to adapt to digital estimation. One of the first economic studies to look at culture as an independent factor was accomplished in 1958 by a prominent American scholar, a public administration expert Edward Banfield. He proved that the low growth rates of different economies depended on the different cultural systems formed in these countries. The researcher showed that the industrially developed northern phenomenon of Italy can be explained by local cultural traditions in comparison to its weak southern economy. Historian and economist David Landes has proved that the prosperity of the national economy is directly related to the characteristics of its citizens, such as thrift, diligence, perseverance, honesty, patience. But, xenophobia, religious intolerance and corruption cause to poverty and poor economic development. Italian economist Guido Tabellini analyzed the level of education and the quality of political institutions in 69 European regions. His conclusions are as follows: the volume of GDP and economic growth are higher in regions where there is mutual trust, confidence in individual initiative and respect for the law. A sense trust increases the speed of economic turnover. There is a cause-and-result relationship between culture and the economy. According to Karl Marx, current technology determines the dominant culture in society. Economists Luigi Guiso, Paola Sapienza and Luigi Zingales believe that culture has a direct impact on the economy. They prove that in the long term, the economic system and production relations shape the culture of society itself. However, cultural values do not always change with economic development.(5) According to the Azerbaijani economist M.Barkhudarov, fairy tales form fantasy, and it also forms invents.

##### **4.1. The connection of culture with science**

As the Azerbaijani poet Mahammad Fuzuli said, science stands at the root of culture:

*Poetry without science becomes a baseless wall,*

*A baseless wall becomes unreliable in a result.*

I think that it is expedient to add science to 4<sup>th</sup> Sustainable Development Goal of the UN along with education.

#### **4.2. Forms of culture**

According to the origin:

- Elite
- People
- mass

Depending on social groups:

- dominant,
- subculture (example: sports or music fans),
- counterculture - brought to science by the American sociologist T. Rozzak (example: hippie) (6).

I note that it is known that Steve Jobs has a tendency to counterculture - sympathy for hippies.

#### **5. CONCLUSION**

In 1993, American political scientist Robert Putnam hypothesized that as society is very altruistic (Latin *alter* - others), that is, people who do good deeds for free, the quality of political and state structures is also high. According to Parsons, production in society performs the function of a man, culture is a woman.(7) Culture includes not only scientific, but also artistic, religious and spiritual understanding. Culture gives a complete picture of the understanding of the world. Culture is the filter of society. When culture grows, crime decreases. According to communist ideologues, under communism, society would be ruled by morality, not law. As the cost of culture increases in GDP, the progress of the economy and society will increase. According to Eurostat, Hungary leads to the list of EU countries in terms of the share of recreation, culture and religion in GDP with 3.2%. (8) The promotion of nations begins with the days of culture. The Eurovision Song Contest is a global promotion. According to experts, the risks of future professional decline in employment will bypass the creative field. Culture should help to purify society and promote economic growth. It belongs to all the components of this culture: literature, music, fine arts, theater, cinema, etc. each of them. An economy based on national culture and constantly fed by its development will be sustainable. Durability of personality is necessary for global durability. Former President of Azerbaijan, national leader Heydar Aliyev said: "I am not a supporter of the cult of personality, but no society can live without personality." There are two types of books: informative and personality-forming. The new author presents his book to a public officer for review. The beginning of the book is read, the work is destroyed due to its lack of culture, and the author is asked that if he is not ashamed of his family members for publishing such a book. In response, the author says that he grew up in an orphanage. Are not monuments of exhortation as Confucian teachings, Nasreddin Tusi's "Moral Nasiri", Lord Chesterfield's "Letters to My Son" as, works like Walter Scott's Quentin Dorward, Boris Polevoy's The Tale of the Real Man, pearls like "Philosophy has taught me that I do not do what others do out of fear of the law." by Socrat, said by the Hindus "We have not inherited the land from past generations, we have borrowed it from future generations.", Golden Rule of Spirituality - "Wish to another what you wish for yourself" proof for not to get tired of the straight path in the mortal world, to respect the past - the present - the future, to fight the economic crisis inspiring by cultural monuments, bringing humanism in culture to social justice in the economy, turning flying carpets into star-oriented ships, the connection between culture and the economy and its impact on human sustainability?

Hermes, a three-time genius, said 40 centuries ago:

*"What is inside is what is outside." The world created by those who are pure and colorful inside - that is, civilized - will also be beautiful!*

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## THE PRACTICE OF CAREER GUIDANCE IN A NORTHERN PORTUGUESE UNIVERSITY

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### ABSTRACT

*This study aims to analyze the practice of career guidance in a northern Portuguese University. In the process of selecting of a profession, we are increasingly faced with great difficulty on the part of young people to carry out educational, formative and professional options. Based on the Bologna process and the purpose of improving the employability of graduates, professional guidance has become a quality factor in college education. In this quantitative research, we used a Likert Scale questionnaire. The representative sample was configured by 212 finalist students, (50,9% of the student population), distributed by 18 courses in five different university departments. The results show that the career guidance available does not fully satisfy the student's needs. The guidance received by the students is characterized as being essentially informative and focused on academic and professional issues. The main guidance agents are the teachers and the main actions related to career guidance occurred during the last year of the course. The difference between College departments demonstrate that the Management area is the one where its students received more career guidance for the transition into the job market. In relation to the guidance services there is a difference between the information available and its actual use.*

**Keywords:** college education, higher education, career guidance, guidance services

### 1. INTRODUCTION

The difficulties that university students encounter in their academic journey (entry, attendance and exit) justify the relevance of professional guidance at the university and its action throughout the university course (Rodríguez Moreno, 2003; Romero & Sobrado, 2002; Romero & Figuera, 2016). Transitions delimit the functions of vocational guidance at the University and reflect its summative character. On admission, professional guidance promotes adaptation and integration to university life and professional redirecting. For Romero and Figuera (2016), active participation, integration in the university and the development of social relationships contribute to the acquisition of important skills for the professional sphere. During the studies, professional guidance enables the delimitation of the academic and professional itinerary (choice of course units, specialization branches, mobility programs, scholarships and the reorientation of the choice). The preparation for decision-making about training when finishing studies and to the entering on the labor market are two other essential functions of professional guidance that are related to leaving the University. So, we are going to come across the stated by Santana Vegas (2003, p.112), “guiding means helping the person in the process of realizing a vital project over other possible ones, but it also means guiding for the social-labor transition in a globalized, complex, flexible and precarious market, in an era marked by uncertainty”. Professional guidance in this process is mainly preventive and its main purpose is to contribute, along with professional training, to the development of employability. One of the challenges of the reform undertaken with the creation of the European Higher Education Area was precisely to increase the employability of graduates.

Training provides professional and transversal skills, which will enable graduates to respond to the demands of the labor market and to better position themselves in a flexible, unstable and continuously changing labor market (Martín de el Peso; Rabadan and Hernández; Mora; Sánchez Pozo, cit. in Suárez, 2013). Professional guidance provides skills related to career management (Sánchez García, 2013). The functions of vocational guidance are articulated from the intervention areas, defined as contents and thematic (Álvarez González & Bisquerra Alzina, 2012). In the delimitation of areas or content of professional guidance, we found proposals from different authors (among others, Taveira, 2004; Álvarez González and Bisquerra, 2012; Sánchez García, 2013). In a synthesis mode of the contributions made by different authors, we found four interconnected areas: Self-knowledge; Academic, professional and Labor information; Planning and tools for job searching and professional project. In line with the defense and conception of professional guidance for social justice (Hooley & Sultana, 2016) and for transformation and change (Ulla Kann, 1988), in the four mentioned areas, thematic related to the gender perspective are incorporated. With its inclusion, it is intended that oriented people build a critical gender thinking, which allows them to become aware of inequality situations and their causes, as well as decision-making that neutralizes the influence of gender barriers in professional development. The indicated areas or thematic and the incorporation of the gender perspective in a transversal way in each one of them are present in the questionnaire prepared for the present investigation, specifically for the characterization of one of the dimensions of the practice of professional guidance referred in the thematic in which they received guidance. The first professional guidance services in Higher Education in Portugal started operating in the 1980s. In 1985, Units for Insertion into Active Life (UNIVA) were created and, at this time are designated as Department for Professional Insertion (GIP), whose functions focus on supporting the employment of students and recent graduates. In the beginning of the 90s, Psychological Support Services were promoted, which, among others, assume functions specific to professional guidance. The most important advance in the recognition and extension of vocational guidance comes with creation of the of the European Higher Education Area. In 2007, the Legal Regime for Higher Education Institutions (RJIES) - Law nr. 62/2007, from the 10th of September, which reinforces various support for higher education students, including support for the inclusion of graduates in the working world and provides for all institutions to collect and distribute information about the employment of their graduates and their professional backgrounds. Thus, the role of vocational guidance in its dimension more focused on job insertion is instituted. Decree-Law nr. 107/2008, from the 25<sup>th</sup> of June, stipulated the preparation of a report on the implementation of the reform of higher education and provided support for the promotion of school success, as well as encouragement for professional insertion. The measures included curricular and professional internships and guidance for insertion into the labor market. Therefore, Higher education takes on the challenge of employing its graduates. The benefits of internships were evidenced in the study by Vieira, Caires and Coimbra (2011), in which they concluded that students with internships had better levels of vocational exploration, self-efficacy and better professional investment objectives. In summary, the reform undertaken with the creation of the European Higher Education Area boosted the creation of vocational guidance services, that focus their action on the transition from high school to higher education; in preparation for the transition from higher education to the labor market and in employability and adaptation to the work career (Taveira, 2017, Eurydice, 2019). Between 2015 and 2017 there was a significant increase in Professional Guidance Services at public and private Universities in mainland Portugal and Autonomous Regions (Pereira, 2017).

## **2. METHODOLOGY**

The research is based on a descriptive methodology of quantitative type from the data obtained through a questionnaire elaborated for this investigation. Due to its characteristics, it is an adequate methodological option for our study, since the intention is to describe a phenomenon or reality. Another reason that justifies this choice is that it allows to quickly collect information from a large sample of the population. In this research, the objective is to analyse the practice of professional guidance in a northern Portuguese university.

### **2.1. Population**

The population consists of students who are in the last curricular year of their university course which, with some exceptions, usually are 3 years long. The areas of law and architecture take four and five years, respectively. The population is composed of 416 students, the majority are women (57%) and, in the distribution by courses, gender differences are reproduced in the professional choices (there are more women in the areas of Social and Human Sciences, Communication and Humanity Sciences). The population is spread over five faculties and 18 university courses.

### **2.2. Sample description**

Given the size of the population, it was decided to apply the questionnaire to the entire population that at the time of data collection were in class. Therefore, size and representativeness criteria were not used for their selection. The sample was configured by the 212 finalist students that answered the questionnaire. They represent 50.9% of the population and are distributed among the 18 university courses and integrated master courses of the five faculties. The distribution of the sample by courses does not show strong discrepancies with the population. With regard to gender and the course, it has proportions similar to those of the population, observing the same trend of feminized and masculinized courses. As for the gender variable, the sample consists of 60.4% females and 39.6% males. Regarding the age variable, it is verifiable that 62.2% of the sample is between 20 and 24 years old, with emphasis on the number of people aged over 30 years (18.9%).

### **2.3. Data collection**

The instrument used was a questionnaire with a Likert scale, in which 35 questions collect information on the areas and themes, on the agents and on the moments when students received professional guidance. These three dimensions make it possible to partially characterize the practice of professional guidance. The questionnaire was administered in two stages. One in the classroom, with direct administration of the questionnaire to the students present (obtained 162) and another via online in order to increase the number of responses (added 50 more). Descriptive and comparative analysis were carried out. At the descriptive level, central tendency statistics were used, such as the average, the median and the standard deviation, and the distribution of frequencies and percentages of the variables. At the comparative level, the Kruskal-Wallis and Mann-Whitney tests were used to analyse group differences. In order to identify the variables that most influence the global value of professional guidance, a multiple regression analysis was performed.

## **3. RESULTS**

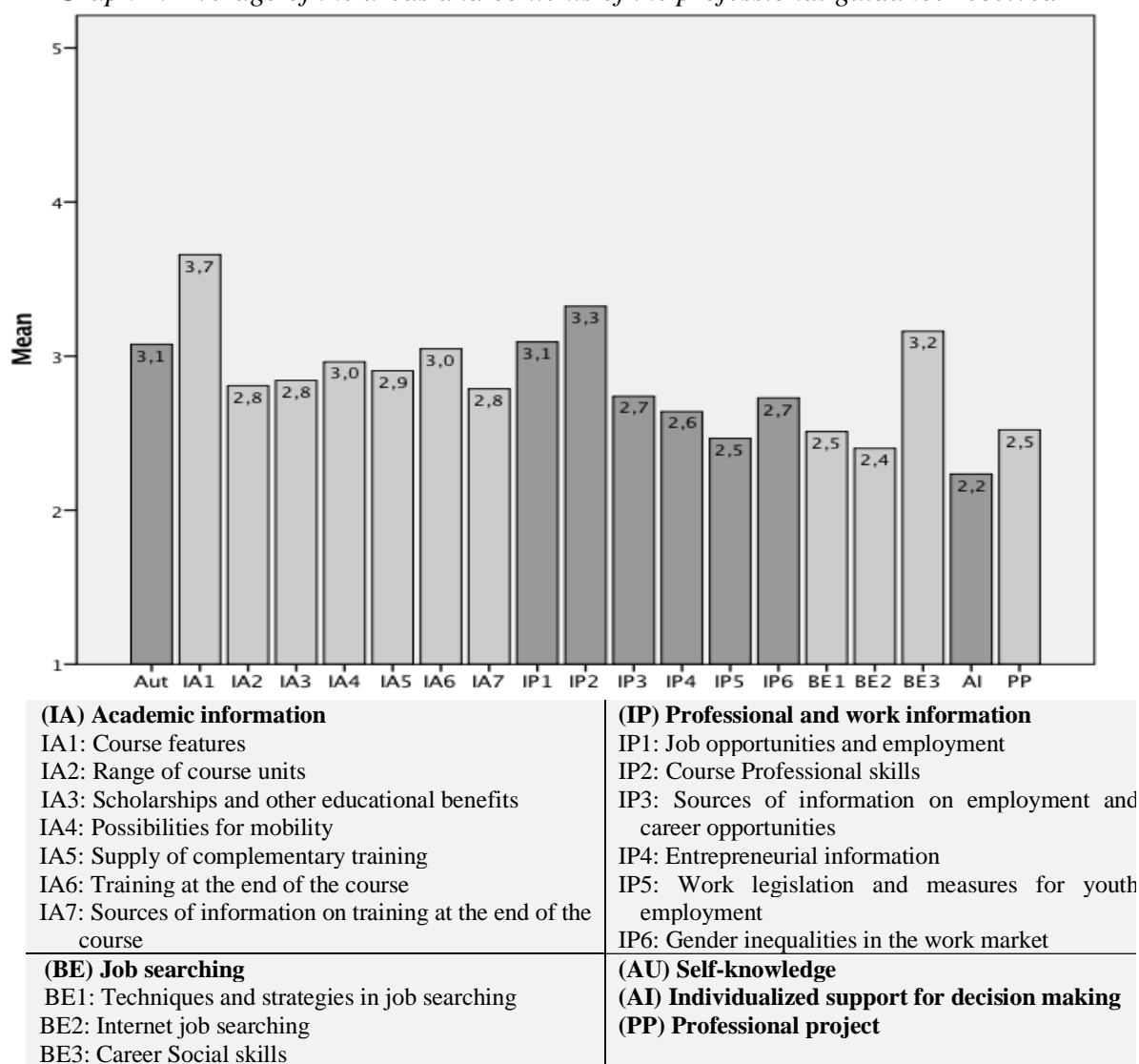
At this point we will characterize the professional orientation that the students, through three of the dimensions that define professional guidance as practice: the areas or thematic, the moments in which it occurs and the agents who develop it. Their study makes it possible to value the extent to which professional guidance has been developed.



### 3.1. The areas or themes and individualized advisory services

Taking into account the proposals of different authors (Álvarez González and Sánchez García, 2013; Álvarez González & Bisquerra Alzina, 2012; Rodríguez Moreno, 2007; Sánchez García, 2004, 2013) we analysed the following areas or thematic: self-knowledge, academic, professional and work information, techniques and strategies for job searching and professional project. Graph 1 presents the contents for each of the areas and the corresponding averages. The response scale has five points: 1 (nothing), 2 (little), 3 (some) 4 (quite some) and 5 (a lot).

*Graph 1: Average of the areas and contents of the professional guidance received*



*Source: Own elaboration*

From reading Graph 1, we highlight the following information:

- The professional guidance received is uneven, depending on the area or content. The averages range from 3.66 to 2.22.
- The contents in which they would have received more guidance correspond to different areas, mainly that of academic (AI), professional and work (IP) information. Information about the characteristics of the course they are studying in (IA1 = 3.66), information about the professional skills specific to the course that are searched for in the work market (IP2 = 3.32), social skills for professional career (BE3 = 3.16), information about the course's

professional market - job opportunities and job vacancies - (IP3 = 3.09), self-knowledge (AU = 3.08) and training possibilities at the end of the course (IA6 = 3.05).

- The themes in which they have received less guidance are related to job search on the internet (BE = 2.40), with information on work legislation and political measures for insertion in the work market (IP5 = 2.47) and with the planning of the professional project (PP = 2.52).
- Individualized advisory (AI = 2.23) for decision making has little presence in the guiding practice.
- The professional guidance received does not meet the needs of the student, with the differences indicated for the different themes, the averages do not approach the highest point of the scale.

### 3.2. Guidance received and fulfilment of guidance needs

The questionnaire included a question asking them to globally evaluate the extent to which the guidance and professional information received at the university met their needs (Table 1).

*Table 1: Globally evaluate the professional guidance and information received*

Almost none		Little		Some		Quite Some		Completely		Total		Average	Standard deviation
n	%	n	%	n	%	n	%	n	%	n	%		
13	6,5	43	21,4	88	43,8	51	25,4	6	3,0	201	100	2,97	0,921

*Source: Own elaboration*

Almost 2/3 of the students valued the guidance received with the two lower points of the scale (little – 21,4% - and some – 43,8%). Those who valued it with the highest scores on the scale represent 28,4%. It can be considered that students are not satisfied with the guidance received. The multiple regression analysis, in which the dependent variable is the global valuation of the guidance received, and the independent variables are the 19 items related to the content of the guidance received from the questionnaire, establishes as priorities five items that justify the variability of the global valuation ( $R$  multiple = 0.705). As demonstrated in Table 2, the variables that most positively influence the valuation of the professional guidance received are social skills for professional life ( $\beta = 0.264$ ) and information about the information sources on postgraduate training ( $\beta = 0.246$ ), followed by information on the professional skills demanded in the work market ( $\beta = 0.186$ ), on the sources and services for information on the professional market ( $\beta = 0.147$ ) and guidance for professional self-knowledge ( $\beta = 0.147$ ). The five variables are related to job and professional information and the possibilities of training after finishing studies. Most of the variables must be related to the advisory role of the teaching staff and, most likely, to the role of the teachers, namely the specialists, for their professional practice and their knowledge of the work market.

*Table following on the next page*

*Tabel 2: Multiple regression analysis (valuing professional guidance)  
Significant variables*

Model	Standardized coefficients Beta ( $\beta$ )	T	Sig.
Social skills for professional career? (Interpersonal and communication skills, teamwork, etc.).	0.264	4.106	0.000
To find out where to obtain this information on the training possibilities at the end of the course.	0.246	3.796	0.000
Professional skills specific to the course that are searched for in the work market.	0.186	2.822	0.005
Information sources and services where you can find information about the professional opportunities and employment of my course (website and information sheets).	0.147	2.239	0.026
Self-knowledge, professional skills, interests, strengths, weaknesses and aspects to improve.	0.147	2.173	0.031

*Source: Own elaboration*

### 3.3. Guidance agents

The following chart (Table 3) presents information corresponding to the items about the people, services and tools that provided professional guidance to students. There is evidence that the University under study offers Services and Resources to its students, from the first to the last year of the course. The University provides its students with services that have different functions, namely admission, mobility, internships, social work and academic services, prioritizing the information on advisory and highlighting the integration and adaptation of students at the beginning and during their studies. In addition to the services, the University posts academic and professional information on the University guide, on course brochures and at the University website.

*Table 3: Professional guidance agents*

Professional guidance agents:	n	Average	Median	Standard deviation
From Course Director	206	2,79	3,00	1,289
From teachers	209	3,60	4,00	0,971
From fellow students	206	3,26	3,00	1,017
From University services	211	2,34	2,00	1,022
From the university and colleges website	210	2,50	3,00	1,008
From other services and people outside the university	206	2,90	3,00	1,231
From family and friends	205	3,23	3,00	1,213

*Source: Own elaboration*

As evidenced by the data in Table 3, teachers are the main guiding agents (3,66). Family and friends and fellow students are in second place. The University services and website play a less relevant role in the professional guidance of students.

### 3.4. Moments when the students received guidance

Professional guidance at the University has a continuous character, which is identified with the three moments of the university course: in the first year, during studies and in the last year.

*Table 4: Moments when the students received guidance*

Moments	n	Average	Median	Standard deviation
In the first year of the course	199	2,62	3,00	1,156
Through all the years of the course	200	2,93	3,00	1,101
In the last year of the course	198	3,20	3,00	1,107

*Source: Own elaboration*

Table 4 shows that the guidance had a distinct presence in the course of university studies. The greatest presence occurred in the last year of the course.

#### **4. CONCLUSION**

The profile of the guiding practice carried out at the University under study is essentially informative, mostly provided by teachers, present throughout the university course's journey - especially in the last year of studies - and it does not meet the student's needs.

##### **4.1. The presence of areas**

The guidance received, concerning the areas or contents, displays an essentially informative profile with focus on academic and professional themes. Academic information about the characteristics of the course (duration, study plan, curricular units, optional and / or specialties), information about the professional skills specific to the course that are searched for in the job market, along with professional self-knowledge, are the three thematic with more orientation is given on by the institution. The professional guidance thematic on which less orientation is given, are related to a more systematic orientation. Due to the fact that they are less attended to, the informal nature of the practice of guidance and its link with the guiding role of teachers and the curriculum itself, is verified. The orientation for the elaboration of the professional project and the individualized support/advisory for decision-making on training and employment are the thematic that students have received less guidance on. The thematic most linked to insertion in the work market, such as job search techniques and strategies, job search on the Internet, labor law and entrepreneurship are also among those with less presence. Despite the importance, and the legal prescriptions that recognize it, guidance for moving into the job market is scarce. Consequently, this aspect of professional guidance must be promoted. The gender focus is only present in the orientation that the student received. Knowledge of the situation of discrimination towards women in the labor market, its causes and the measures taken to reduce or eliminate this problem, was also among the ones that got the least attention.

##### **4.2. Agents and services that provide professional guidance**

Vocational guidance is carried out mainly by teachers. The university's services, the university's website and colleges have had little of a guiding role. Teachers informally perform an important guiding function that is recognized by students. This role would be related, mainly, to the guiding role of internships and to the transmission of knowledge of the professional market that has a part of the teachers who accumulate the function of teaching and employment. The scarce guiding role of the university services can be related to the reduced use of these services by the students. These results were collected by Pereira (2017) in another conducted research, in which students know the services, but do not use them in equal proportion. Services have a small role in guidance. The majority of services more related to vocational guidance have low levels of knowledge and use. Therefore, it can be concluded that students do not take advantage of existing services at the University. Another conclusion of the same study highlights that the services and the guiding figures are presented in a fragmented way at the scopes and function levels, which are fundamentally informative. It is necessary to unify services and figures in charge of the guiding task, through its integration in a guidance plan at university level.

##### **4.3. Presence of professional guidance in the university journey**

Professional guidance was present throughout the university course, from the beginning to the end of the studies. The last year of the course is where the orientation has greater presence, although it does not completely meet the needs of students. This presence can be explained by the guiding role of the internships that take place in the last year and, therefore, explains its greater appreciation in the last moment of the course by the students, because they provide more

information and bring them closer to the reality of the work market. The smallest presence of guidance happens in the first year. This fact contrasts with the offer of information that takes place at the time of entry in which various activities are carried out aimed at knowing the characteristics of the University's course and services. This contrast leads us to consider that the informative actions are ineffective, however there are activities in which students participate in the first year, but it can be interpreted that they must be improved. Thus, it is necessary to rethink the activities developed in the first year (modalities, duration and fostering more student involvement), in order to make them more efficient and effective. The lower presence of guidance for job insertion contrasts with the importance that some variables have in the global appreciation of the guidance received. Thus, the following appear highlighted: The social skills for professional life (interpersonal skills and communication, team work, etc.); information about the possibilities of training after the course; the professional skills specific to the course; information about professional opportunities; employment; professional skills they have; interests; and potential. This aspect of professional guidance must, therefore, be developed. In an attempt to improve the orientation for professional insertion, the university under study promoted Workshops on Preparation for Integration into the Labor Market, integrating the modules “job searching: know yourself and know the labor world I and II; Curriculum vitae and application letters; Job interviews”, which were aimed at all students at the university, but as they took place during school periods, during daytime hours, and simultaneously with undergraduate classes, it's expected success might have been negatively influenced by those factors.

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# MOTIVATIONAL ELEMENTS OF EMPLOYEES AS A COMPETITIVE ADVANTAGE OF COMPANIES IN THE CONDITIONS OF GLOBALIZATION

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## **ABSTRACT**

*The article deals with the analysis of the influence of incentive elements on the motivation of workers to better performance and satisfaction, across the whole active population in the context of the new economy. For specific generations, motivational incentives are diverse. The main reasons for using the award, recognition of performance, motivation are long-term sustainable good relationships in the workplace, as well as demonstrable work successes and, last but not least, an increase in the success of the whole company. Different incentive elements are also used in the Slovak Republic and other European Union countries. Slovakia is characterized by a majority motivation through financial evaluation. However, recent years indicate a change of mindset of employers and employees. The population of the Slovak Republic is aging, the retirement age is increasing, which demographically affects the development of the labour market. The age structure of the population suggests that everyone has a better performance stimulant. Motivating incentives that can offset the employee's financial remuneration become a competitive advantage for businesses. Recently, the state has been helping businesses to properly stimulate employees through holiday vouchers. In the future, it is expected that it will be just incentive elements that will attract potential employees to companies and secondly it will be the financial evaluation of the employee. Slovak society can be inspired in many ways by other European Union countries. In contrast, the Slovak Republic still has many professionals in the areas of health, education, engineering, and many others. The paper points to changes related to the demographic development of the company, the change of motivation of permanent and new employees. The aim is to anticipate the possible development of incentives and the incorporation of new elements of motivation into human resource management in companies. Autoregres was prepared in MATLAB. The article deals with the prediction of the selection of individual incentives for specific age groups of employees.*  
**Keywords:** *Employees, human management, incentive development, motivation, prediction*

## **1. INTRODUCTION**

Employee interest in incentives is constantly increasing. Companies are looking for new opportunities to motivate their employees to better performance, as well as ways to continuously and continuously motivate permanent employees in the company. The labor market in Slovakia is constantly changing and it is therefore important to focus on employee satisfaction. Over the last decade, there has been a large outflow of professional workers abroad. Therefore, we focused on developing an article on incentive elements of employee motivation, as they can motivate diverse age groups of employees as well as attract new employees. In modern management requirements, the fundamental condition for the competitiveness of companies is the real activity of the personnel. Personnel were and remain a priority strategic source of the company and therefore an essential factor in shaping and procuring its competitiveness [7].

Employees as a priority strategic part of the company has a comprehensive quantitative and qualitative report. The future rise of information technology also contributes to the transformation of all components of the human resource management system in business evaluation, planning, organization, as well as incentives for staff motivation. [13] The evaluation of the effect of personnel incentives is characterized as a tool by which companies achieve management functions. These include increasing product sales to maximize profits, extending the dimension of activity to market survival. The classification of workers has many objectives. Most commonly, the assessment was developed by McGregor, a leading human resources development specialist (1960), who primarily looks at the administration, which is based on objective and systematic personnel decisions. In practice, this means deploying employees, moving them and paying them as well. [5] [8] External motivation includes not only financial rewards, but also the improvement of the ego and recognition from the same age groups or avoidance of guilt or shame on the part of colleagues. These phenomena are noticeable with obvious goals. For example, proving that one can fulfill a specific duty and fulfill tasks because it is in harmony with personal values. Above all, be a good person [9].

## **2. ANALYSIS OF POPULATION STRUCTURE AND MOTIVATION OF INDIVIDUAL GENERATION**

Many factors affect the age structure of the population: birth rate, mortality, external migration. Gender in the population is generally influenced by several factors. In the case of a more enormous set of births, it is valid that more boys are born than girls. This is a biological principle, when the ratio between the sexes in the matter of reliable statistics moves at the level of 1040 - 1070 boys per 1000 girls [6]. One of the main determinants is the different mortality rate between men and women. Differential mortality diminishes the gender differences at birth. Generally, men have a higher mortality rate, reducing the overall gender gap. Subsequently, the proportion of men and women gradually equalizes, and, in the end, women survive in greater numbers. It is the age at which both sexes are equalized that relate to the range of differences in mortality rates between men and women as well as their evolution since birth. External migration can also play a major role in shaping the gender ratio. If we consider the most frequent departures in the case of foreign migration, these are mainly people of working age (20 - 40 years). Especially in labor migration, men retained their predominance in the Slovak Republic. In many cases, however, the transitional labor migration has become permanent. This simplified model of migration in the Slovak Republic has been valid since the second half of the 19th and at the beginning of the 20th century. All this also affects the development of the masculinity index in the general population. In the demographically advanced population, this index moves at levels of less than 1000 people [6].

### **2.1. Population structure of the Slovak Republic**

In 2019 there were 5 454 147 inhabitants, of which 2 663 214 men and 2 790 933 women. [10] However, the economically active population is only 2,725,000 in the year, which is also since the population of the Slovak Republic is aging, and few children are born. For this reason, the Government of the Slovak Republic is setting measures to increase the number of active population and better conditions for young families to give birth to more children [11].

*Table following on the next page*

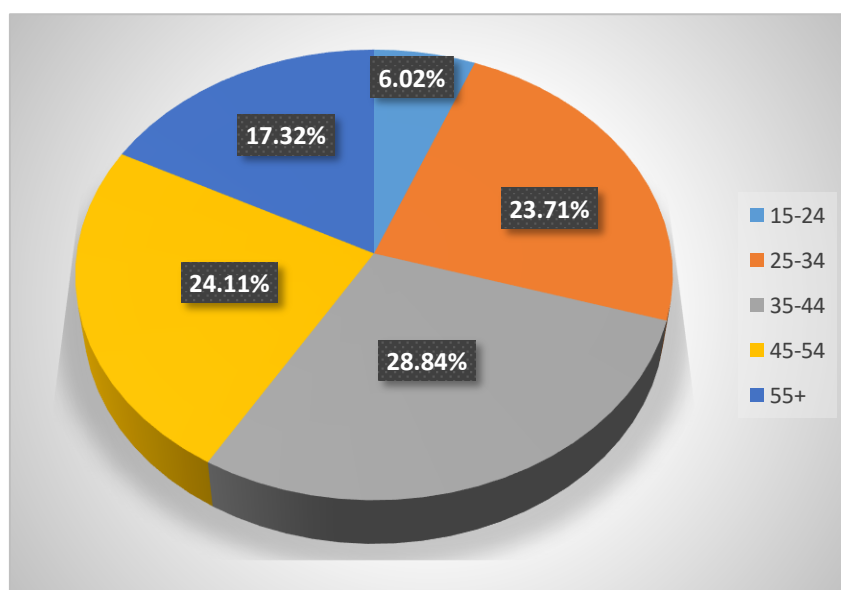


*Table 1: Economically active population (Percentage of age distribution 2019 total)*

Indicator	Economically active population									
	Year									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Sum</b>	2 706	2 680	2 706	2 715	2 722	2 738	2 758	2 755	2 746	2 725
<b>15-24</b>	246	226	222	217	211	209	206	203	190	164
<b>25-34</b>	765	740	742	729	711	704	702	676	664	646
<b>35-44</b>	705	703	716	741	767	778	788	793	790	786
<b>45-54</b>	683	682	670	658	651	646	644	641	654	657
<b>55+</b>	307	329	356	370	382	401	418	442	450	472

*Source: ŠÚ SR [11]*

In table 1 above shows the total number of economically active inhabitants by age. Since 2010, the active population has grown by 19,000. The course of the economically active population has a similar trend within 10 years. The values do not differ by more than 52,000 inhabitants, which is only a difference of 0.0019% from the current year 2019. The economically active population has not changed much in the individual age groups over the years. The biggest year-on-year changes can be seen in the age group of 15-24 years by 82 000 inhabitants. Similarly, in the age group 25-34 by 119,000 inhabitants, where there was a decline from 2010 to 2019. The active population of the age group 45-54 did not change much, year-on-year, only by 26,000. The age group 35-44 increased by 81 000 inhabitants, as well as the age group 55 and more by 165 000, which showed an increase.

*Figure 1: Percentage of age distribution 2019 total**Source: Custom processing*

Graphical representation of the percentage of the total active population in relation to the age structure in the Slovak Republic is shown in the following chart no. 1. The largest part of the active population is the age group over 35-44 with 28.84%. Followed by 45-54 years with 24.11%, a similar group is the active population aged 25-34 with 23.71%, a slightly smaller group are active residents aged 55 and over with 17.32%. The smallest group of active population is 6.02%, they are young people aged 15-24. This group has the smallest share of all. The reason is that a large percentage still study and devote themselves to education and training, so it does not appear in the active population.

Table 2: Economically active population (Percentage of age distribution 2019 men)

Indicator	Economically active population										% of age 2019 men
	Year										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Sum	1 497	1 496	1 507	1 506	1 510	1 505	1 511	1 504	1 506	1 497	100,00
15-24	147	143	138	135	133	129	129	124	120	105	7,01
25-34	446	434	433	428	421	412	406	397	389	384	25,65
35-44	369	376	387	398	414	419	428	433	434	432	28,86
45-54	346	344	340	333	329	327	325	325	332	335	22,38
55+	191	197	209	212	215	218	223	225	231	241	16,10

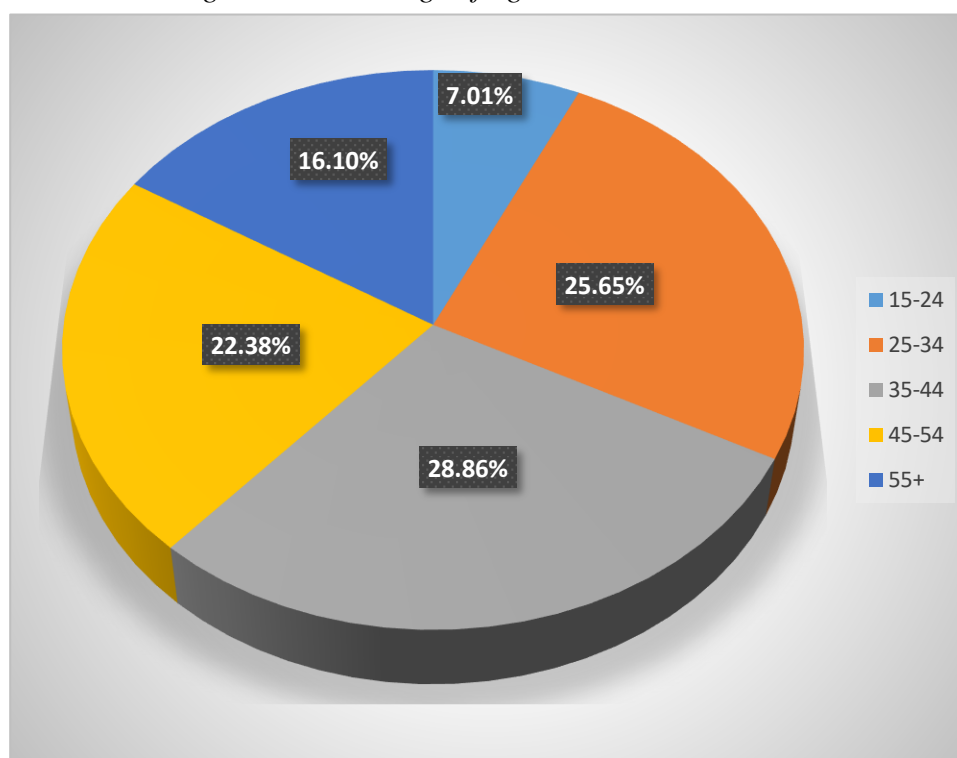
Source: ŠÚ SR [11]

Table 3: Economically active population (Percentage of age distribution 2019 women)

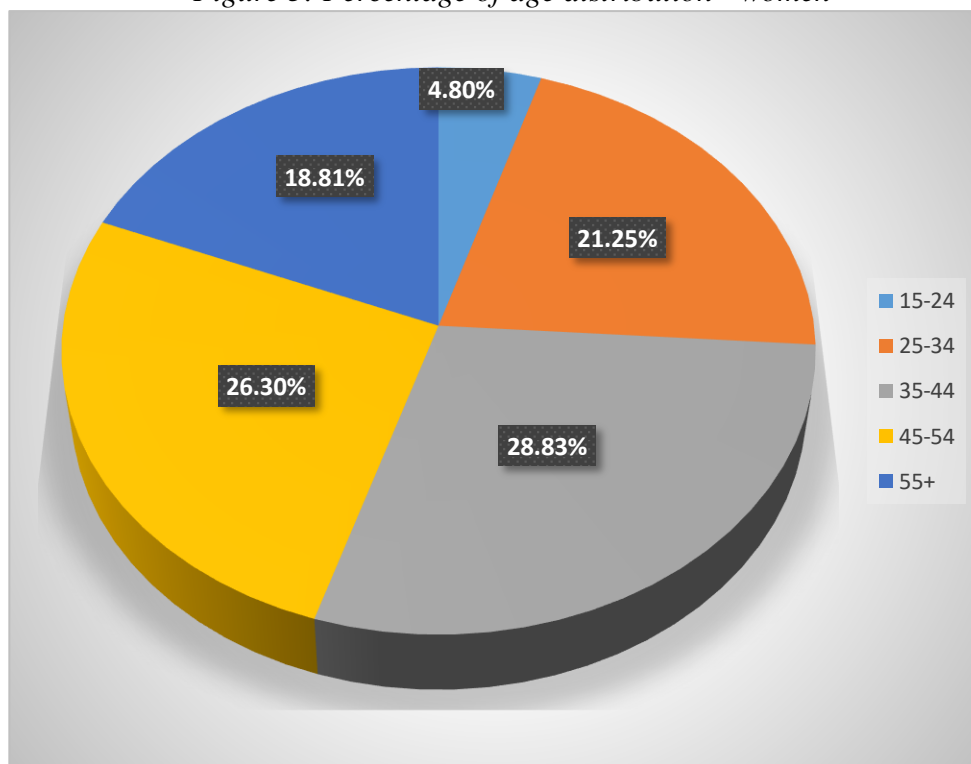
Indicator	Economically active population										% of age 2019 women
	Year										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Sum	1 209	1 184	1 199	1 210	1 212	1 234	1 247	1 251	1 240	1 228	100,00
15-24	99	84	84	82	79	80	77	79	70	59	4,80
25-34	320	306	308	301	290	292	296	279	275	261	21,25
35-44	336	327	330	343	354	358	361	360	356	354	28,83
45-54	338	338	330	325	321	319	319	316	321	323	26,30
55+	116	129	147	159	168	185	194	217	218	231	18,81

Source: ŠÚ SR [11]

Figure 2: Percentage of age distribution 2019 - men



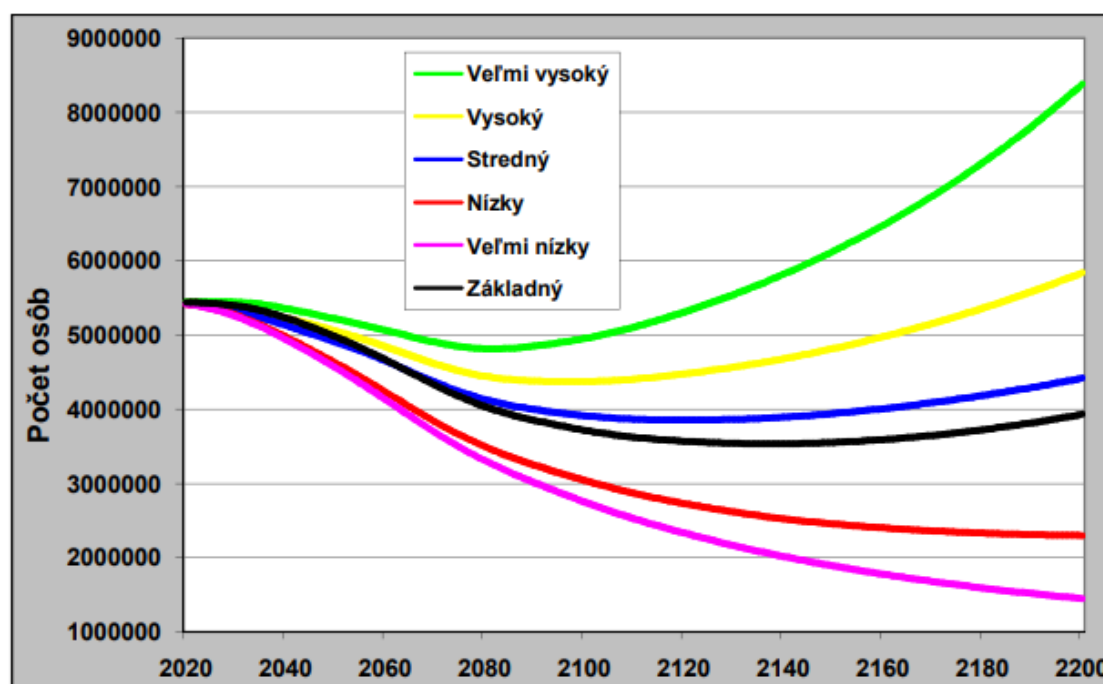
Source: Custom processing

*Figure 3: Percentage of age distribution - women**Source: Custom processing*

Graphical representation of the percentage of the total active population in relation to the age structure in the Slovak Republic is shown in the following table no. 1. The largest part of the active population is the age group over 35-44 with 28.84%. Followed by 45-54 years with 24.11%, a similar group is the active population aged 25-34 with 23.71%, a slightly smaller group are active residents aged 55 and over with 17.32%. The smallest group of active population is 6.02%, they are young people aged 15-24. This group has the smallest share of all. The reason is that a large percentage still study and devote themselves to education and training, so it does not appear in the active population. Population projection until 2200 - in table no. 2 and no. 3 shows the statistical values of the economically active population from 2010 to 2019, separately for men and women. Graphical representation is in graph no. 2 and no. 3, where we see the percentage of men or women in separate age groups. If we look at the total economically active population in terms of age structure and sex in 2019, we find that the active population of men is higher, i.e. at 1 497 000, women are 269 000 less. Men differ from women mainly in the 25-34 age group, where men with 25.65% and women with 4.4% less make up the larger active population. The second noticeable difference is the 45-54 age group, which has the opposite character and the difference is 3.92% more women working than men. Women under the age of 15-24 make up only 4.80% of the active population compared to men with 7.01% of the same age. The 35-44 age group is at the same level, the deviation is scarce, with only 0.03% more men working in 2019.

*Figure following on the next page*

Figure 4: Prediction of the Slovak population development till 2020

Source: [www.ekonom.sav.sk](http://www.ekonom.sav.sk) [7]

## 2.2. Employee motivation

In terms of employee motivation, it is necessary to consider the age structure of the population. It is age that predetermines motivating elements suitable for individual groups of the active population of the Slovak Republic. Business managers must be perfectly informed with relevant data on the quantitative and qualitative composition of employees. The motivation level is focused on the orientation on personnel in terms of improving their activities in the direction required for the company. Creation of a staff motivation evaluation scheme, balanced in terms of given accuracy, objectivity, relevance, simplicity, as well as convenience and clarity. It is ultimately a complex multidimensional process, as they characterize it Aquilano, Chase & Jacobs (2004) [1]. "Show effect" have incentive elements of motivation, such as gifts that attract the employee. Unlike money, they are a reward for an employee that tells the employee's family how they deserve reward by their good performance. They are particularly preferred for the ages 45-55 and 55 and over.

Table 4: A taxonomy of human motivation

Regulatory styles	Amotivation	Extrinsic motivation				Intrinsic motivation
		Extrinsic motivation	Introjection	Identification	Integration	
Associated process	Low perceived competence. Nonrelevance.	Salience of extrinsic rewards or punishment.	Ego involvement. Focus on approval from self or others.	Conscious valuing of activity. Selfendorsement of goals.	Hierarchical synthesis of goals. Congruence.	Interest / Enjoyment. Inherent satisfaction.
Perceived locus of causality	Impersona	External	Somewhat external	Somewhat internal	Internal	Internal

Source: Ryan &amp; Deci [9]

Table no. 4 above is expressed by the scale where the employee (man) is located. The person is an amotivating person who is passive in being. The right side of the table shows a person who is an active person. The more the employee moves in the table to the right, the more internalization is typical of him. It means that he has more commitment and perseverance. This person is also internally motivated [4]. The type of external regulation is the least autonomous type of external motivation where an individual feel under control and wants to take action to receive a reward for it. Introjection is where the individual will do activity [3]. He wants to avoid guilt or anxiety, or to get to increase his ego or his own pride. Employee identification is a more autonomous type of external nature of motivation because the individual has signed the event as personally significant. Integration is the most autonomous type of external motivation and is also identified by the fact that individual regulations have been fully adapted to themselves [9].

### 3. METHODOLOGY

The aim of the article was to define incentive elements of employee motivation with respect to the respondent's age. Subsequently, primary research has been conducted that has focused on motivating elements for the employee, which will increase and improve his / her work performance, which will lead to an increase in the company's ability to compete in today's globalized world. Size of sample is calculated from total number of employees of self-government offices participating in the survey – 196. Given the size of the base sample, we used a calculation for the size of the base files, using the following formula:

$$n \geq t_{1-\frac{\alpha}{2}}^2 * \frac{\sigma^2}{\Delta^2}$$

$$\sigma = \sqrt{p * (1 - p)}$$

The principle used is suitable for binomial distribution and in the case of alternative and multinomial distribution it is necessary to modify this method.

Where:

n - the minimum sample size (minimum number of respondents),  
 $t_{1-\alpha/2}$  – reliability of estimation, critical value determined from tables,  
 $\sigma^2$  - the variance calculated from the standard deviation,  
 $\Delta$  - the maximum allowable margin of error,  
N – base file size.

Then we put the values into the formula:

$$p = 0,5$$

$$t_{1-\alpha/2} = 1,96$$

$$\sigma^2 \Rightarrow \sigma = \sqrt{p * (1 - p)} = \sqrt{0,5 * (1 - 0,5)} = 0,5$$

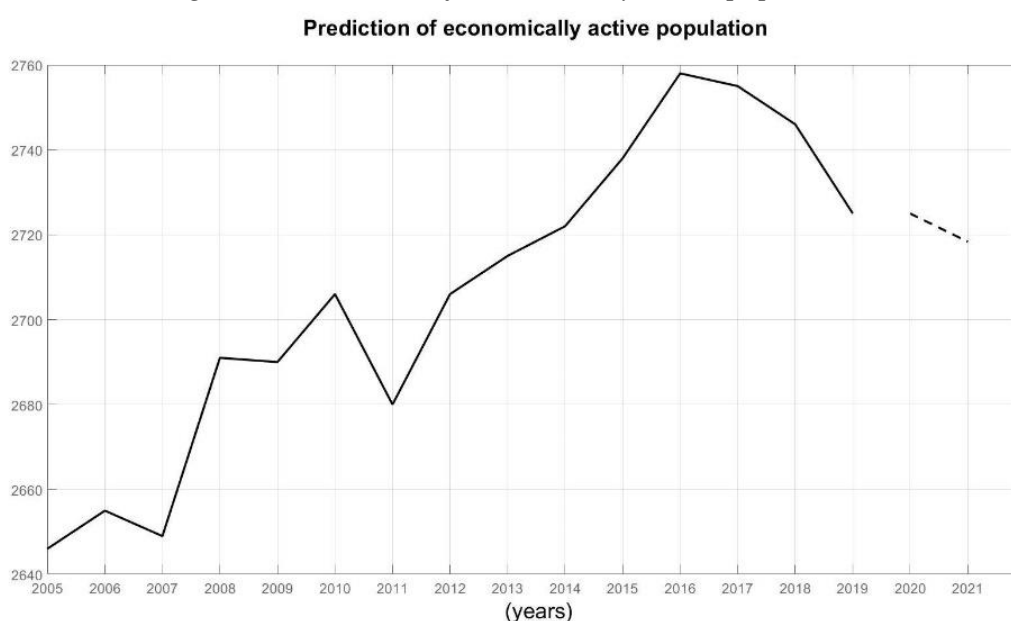
$$n \geq \frac{1,96^2 * 0,5^2}{0,07^2} \geq 196$$

A questionnaire survey was carried out on this sample. After substituting the values into the formula for the large sample population calculation. We found that at 95% confidence and the maximum permissible error margin of  $\pm 7\%$ . The minimum sample size was 196 respondents. It can be stated that the requirement to meet the really minimum sample size has been met. Other methods that were used in this written form were the method of induction and deduction. Stated methods were used in the evaluation of primary research. The last method applied, was the synthesis method. Individual conclusions were reached in the above manner.

#### 4. RESULTS

The age-young population is characterized by the relatively low prevalence of men in the younger age groups, and the overall population is much more than the relatively high prevalence of women in the older age, but the small generations do not have such a large influence on the overall representation of the female part [6]. In contrast, in populations with an older age composition, the weight of age groups with a predominance of women is much more pronounced than in the previous case, which also results in the overall masculinity index. At an extremely long projection horizon, it is not feasible to talk about likely developments, as it is not practicable to anticipate any demographic trends over nearly 200 years. In Matlab, the prediction of the development of the economically active population was drawn graphically in Figure no. 4. The outlook is clear, the economically active population will decline. The birth rate of the population has increased, but not sufficiently against mortality and external migration. The active population, aged 55 and over in the next 10 years, will retire and there is currently not enough active population aged 15-24.

*Figure 5: Prediction of economically active population*

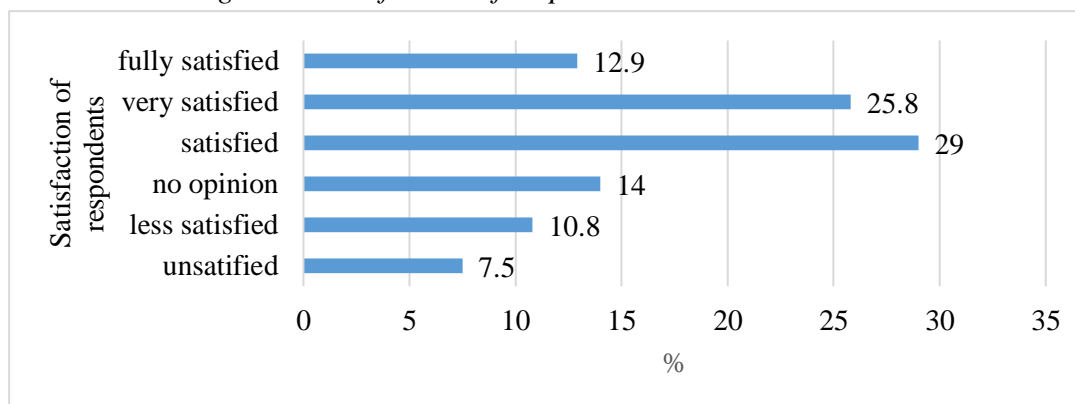


*Source: Custom processing in Matlab*

In the practical part of the article, we focused on the evaluation of primary research, which was focused on what are the most suitable forms of motivation of the active population in relation to the age structure. The survey was carried out across all districts of the Slovak Republic, both women and men participated in equal proportions and in the age structure, and the degree of labor intensity was considered. As a part of primary research, the question was formulated as follows: "Are you adequately remunerated for your work?" This question was divided on a scale of 0 as dissatisfied after 5 satisfied.

On the following chart, respondents expressed their satisfaction or dissatisfaction. Respondents expressed themselves as 0 - 7.5%, 1 - 10.8%, 2 - 14%, 3 - 29%, 4 - 25.8% and 5 - 12.9% were fully satisfied.

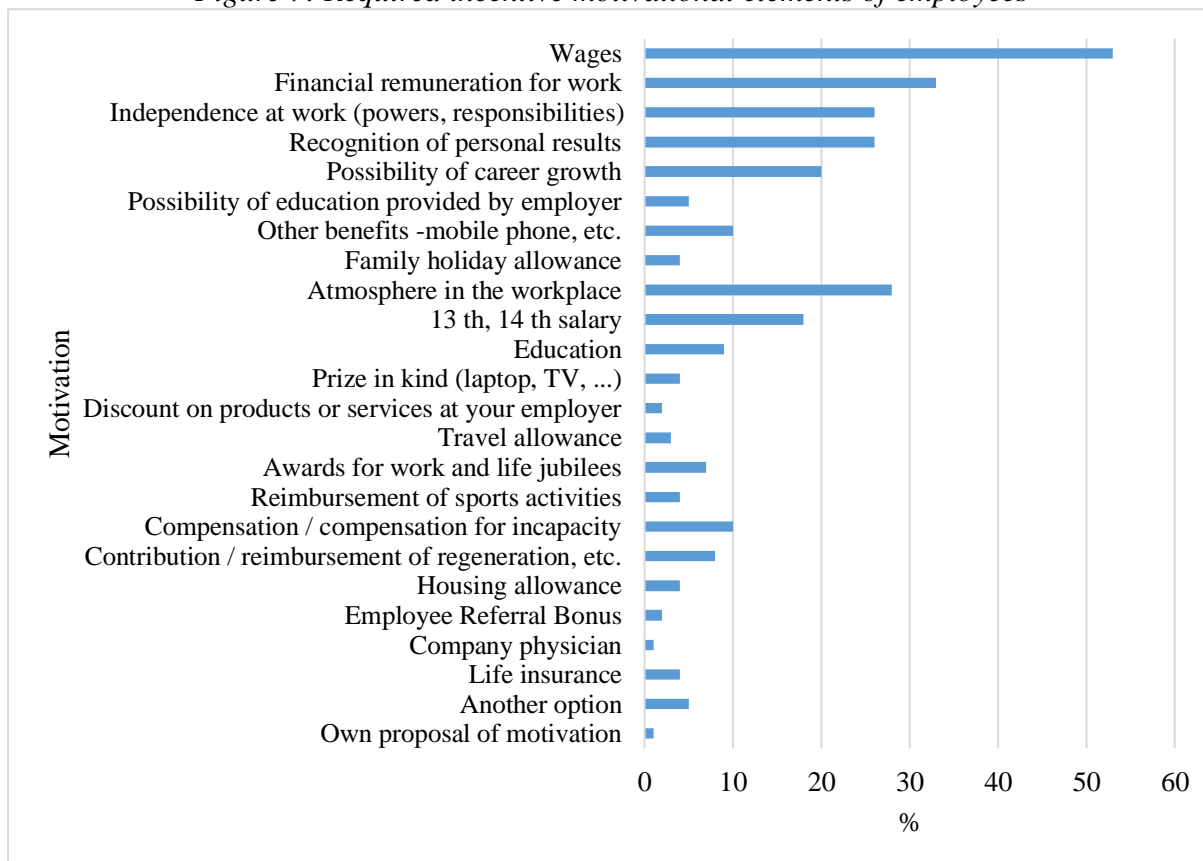
*Figure 6: Satisfaction of respondents with remuneration*



*Source: Custom processing*

The next question was: "Is motivation at work important to you?" The answer for most respondents was "yes". For this reason, it is important to address and explore the appropriate motivation of employees in companies. 86% of respondents answered yes, 14% did not. Employment motivation is important for all ages. From 15 to 55 and over. In the next question, respondents had a choice of possible incentive rewards offered by companies in the current labor market – Figure 7.

*Figure 7: Required incentive motivational elements of employees*



*Source: Custom processing*

Figure 7 shows the preference of respondents to individual motivational elements. They had a choice of 24 choices, 3 answers that are the ones they would like to have as a motivational element in their job. Even though the majority of respondents indicated in the survey that financial evaluation is not important motivating element, they selected 95% of the respondents' wages and 63% of the respondents in their choice of answers. Independence at work (competences, responsibility), recognition of personal achievements, workplace atmosphere (relationships with colleagues, supervisors) are an important element of job satisfaction for 48% of respondents. Possibility of career growth and 13th, 14th salary is preferred in 32% of respondents.

## 5. CONCLUSION

In terms of the age structure of the population, the age group 55 and more is most motivated by wages, prizes (laptop, TV, ...), company doctor. The same motivation is preferred by long-term employees in the company. The age group 45-54 years wage, atmosphere in the workplace (relations with colleagues, supervisor), discount on products or services at your employer, bonuses for work and life anniversaries. For the most active population, the most popular are wages, benefits in the form of family holiday allowances, contribution / reimbursement of regeneration and relaxation activities (wellness, massages, etc.). In the 25-34 age structure, the most sought-after option is education offered by employers, recognition of personal results, and only then wages. Incentive elements such as education, holiday allowance, sports, etc. new employees like it and attract jobseekers to a large extent. The 15-24 age group is in the same position as the wage rating, which also puts the wage in third place in its preferences. In the first place, the housing allowance, the second is compensation / wage compensation for incapacity for work, paid sick leave, sick day. Incentives of employee motivation about higher employee performance may be jeopardized by individual autonomy [2]. The decisive reasons for using the recognition of performance, motivation are long-term sustainable good relations in the workplace, demonstrable work success and finally increase of the success of the whole company. It is the incentive incentives that can compensate employees' financial remuneration that are becoming a competitive advantage for businesses.

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## DYNAMICAL ESTIMATION AND PREDICTION OF BUSINESS VALUE OF REGIONAL INSURANCE COMPANIES

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### ABSTRACT

*To estimate the business we made the modification of the models of real options of Black-Scholes (Black-Scholes Option Pricing Model). The last can be used for dynamical estimation and prediction of value of business. On basis of the method mentioned above we did an estimation of aggregate value of business of regional insurance companies in Ajara Autonomous Republic.*

**Keywords:** *Investment potential, estimation of economical potential, insurance, funds of insurance institutions*

### 1. ESTIMATION MODEL OF REGIONAL INSURANCE COMPANIES BUSINESS PRICE

The most plain and apparent indicator of investment potential of insurance companies is the value of their business. It represents the modulus that is equal to the value of shares of those companies, if those shares would be put on the market. We suggest estimating the value of business of some sector of economics instead of the value of business of an individual enterprise. As expected the value of business of the sector is divided among the shareholders pro rata to their market shares. Such an indicator is convenient to give a primary estimation of level of development and investment outlook of this or that market (it is very important as for institutional investors, so for portfolio ones). Underestimation/overestimation of the market sector can be evaluated as difference between obtained value of business of the sector and current value of its investments. The use of market value of the sector of economics as an indicator gives new possibilities of using the comparative approach while performing the evaluation activities [4]. Actually, having the information about the value of the sector on the whole, practicing estimators would be able to calculate the value of an individual enterprise of this sector pro rata to its market share. In essence, the accurate and complete information is meant to calculate the multiplier of value of business/incomes from sale. In our opinion such an approach is applicable to insurance business too. If we use an approaches which are given in [3] and [4] works, the insurance business price at the end of  $i$ -period of time can be the sum of two components: the price of assets (basic cost of  $VB$ ) and the price of rights on expected income of stockholders ( $VA$ ):

$$VF_i = VB_i + VA_i. \quad (1)$$

The basic price of business at the end of  $i$ -period of  $VB_i$  time is equal to the market estimation of the company assets after deduction of the cost of its obligations (net wealth). Added value  $VA_i$  is the price of owners' rights on expected income (by way of dividends and the increased exchange rate of shares). The last depends on the expectance in respect of specific business. The formula of added value  $VA_i$  [2], based on the model of Black- Scholes is

$$VA_i = P_i \cdot \frac{1 + \alpha_i}{\alpha - r} \left[ \left( \frac{1 + \alpha_i}{1 + r} \right)^T - 1 \right] \cdot N(d_{1i}) + VB_i \cdot [N(d_{1i}) - N(d_{2i})]. \quad (2)$$

Here:

$VA_i$  - Added value at the end of the  $i$ -period of time in the period of ownership;

$P_i$  - Net income gained during  $i$ -period of time in the period of ownership;

$r$  - Discount rate;

$T$  - The length of the period of ownership;

$\alpha_i$  - Average annual increase rate of profit on  $\Omega + i$  periods of time, preceding  $i$  ( $\Omega$  - the number of periods of observations, preceding the first the period of ownership<sup>1</sup>);

$VB_i$  - Basic value (the value of net wealth) according the state at the end of  $i$ -period of time in the period of ownership;

$$d_{1i} = \frac{\ln \left( 1 + \frac{P_i \cdot \frac{1 + \alpha_i}{\alpha - r} \left[ \left( \frac{1 + \alpha_i}{1 + r} \right)^T - 1 \right]}{VB_i} \right) + \left[ \ln(1 + r) + \frac{\sigma_i^2}{2} \right] T}{\sigma_i \sqrt{T}}; \quad (3)$$

$$d_{2i} = d_{1i} - \sigma_i \sqrt{T}; \quad (4)$$

$$\sigma_i = P_i \cdot \frac{1 + \alpha}{\alpha - r} \left[ \left( \frac{1 + \alpha}{1 + r} \right)^T - 1 \right] \cdot \nu_i; \quad (5)$$

$\nu_i$  - Is the coefficient of variation in net income according to the information at the end of  $i$ -period of time in the period of ownership (can be defined by means of imitating modeling of the budget of the insurance company).

In order to estimate insurance business by the value of net wealth  $VB_i$ , the insurer's own capital must be taken into account rated according to the gross-bonus amount. Overall value of business is defined by the formula (1). The proposed model is suitable for statistical estimation of business price with single  $i = 1$ . The statistical estimation of overall value is appropriate for the regional insurance companies (so then the index  $i$  will be missed). Dynamical estimation is necessary to predict the business price of insurance companies and investment potential.

<sup>1</sup> Here we are based on the fact that the investor makes a decision on basis of information at his disposal about the dynamic of net profit during  $\Omega + i$  period of time available for observation. In case when dynamic of the profit becomes worse at last period, the investors can use the final activities of reducing rate and it is not considered in given model.

In order to determine the main parameters of proposed methodology at regional level the following model is used.

$Q$  - is insurance bonus in every kind of insurance performed by the regional insurance companies. So the size of the owned capital will be:

$$VB = k \cdot Q \cdot (1 - f). \quad (6)$$

Here

$k$  - is coefficient  $\frac{K}{S_0}$  ( $K$  - owned capital,  $S_0$  - insurance funds);  $f$  - the share of burden in insurance gross-bonus.

The profit of the insurance company is made on the profit of insurance activities and the profit of investment of owned capital and insurance reserves, Along with the profit reduces according to the permanent costs of the company:

$$P = (Q \cdot \rho_1 + [VB + Q \cdot (1 - f)] \cdot \rho_2 - d \cdot Q) \cdot (1 - \tau). \quad (7)$$

$\rho_1$  and  $\rho_2$  - are the rates of profit from the insurance and investment;  $d$  - rate of permanent costs on per insurance gross-bonus;  $\tau$  - added tax to profit.

## 2. POTENTIAL OF INVESTMENT OF INSURANCE COMPANIES OF ADJARA AUTONOMOUS REPUBLIC

According to the given method, the aggregate value of business price of regional insurance companies has been estimated. Consequently given accounts are related to the regional companies with limited sphere of activity (classical form of insurance). The values used in account are given in the Table 1. The great number of activities was done the expert way, but expert judgments are coordinated to actual conditions of insurance companies' activity. Results are given in the Table 2.

*Table 1: The Value of Business Price Calculating for Regional Companies of Adjara Autonomous Republic*

Parameter	Value	Defining Method
$Q$	12.9 mln Laris	Summation of Insurance Bonuses during 2009 according to the insurance activity of Regional Insurers
$k$	0.2	Own Accounts
$f$	30 %	Expert Judgment
$\rho_1$	3 %	Expert Judgment
$\rho_2$	15 %	Expert Judgment
$d$	11 %	Expert Judgment
$\tau$	15 %	Internal Revenue Code of Georgia
$\alpha$	5 %	Expert Judgment
$r$	14 %	Expert Judgment
$T$	5 years	Expert Judgment
$v$	15 %	Expert Judgment

*Table 2: Business Price Estimation Results of Regional Insurance Companies of Adjara Autonomous Republic*

Activities	Denomination	Value
The Price of Net Wealth in Accordance with the Formula (6), mln Laris	$VB'$	1,806
Actual Price of Net Wealth of Regional Insurers (Expert Judgment in accordance with requirements of Legal Texts <sup>B</sup> ), mln laris	$VB$	6,86
Net Income per Year, mln laris	$P$	1,149
Medium-quadratic Declining of Expected Price of Net Wealth, mln laris	$\sigma$	0,60006
Service Activities	$d_1$	1,502732
	$d_2$	0,147661
	$N(d_1)$	0,9335
	$N(d_2)$	0,5587
Value Added Cost of Business, mln laris	$VA$	7,097
Overall Cost, mln laris	$VA+VB$	13,957
$\frac{\text{The Price of Business}}{\text{Multiplier Incomes from Sale for the Insurance Business}}$	$\frac{VA+VB}{Q}$	1,082
Profitability of Net Wealth of Insurance Business, %	$\frac{P}{VB}$	16,75

As we see regional insurance business provides profitability above 16%, which is practically formed from the investment income. The average profit of per regional insurer (they are 9) is 0,128 mln laris per year. Moreover, as the given results show, the price of net wealth according to normative requirements surpasses the necessary cost to support enough efficiency of insurance bonuses. Optimization of correlation between assets and insurance bonuses will determine the growth of profitability of net wealth (according to the account to 25%). One of the possible ways to increase the business price in existed situation is the consolidation of insurance companies, and the coefficient of consolidation is  $6,860/1,806=3,8$  at that. In other words, for maximization of business price under the legislative requirements to the owned capital the number of regional companies must be reduced 3 times (from 9 to 3), or these companies must increase their insurance bonuses. Since there is some doubt about the probability of second way, the consolidation and company takeover is inevitable. Regional Insurance Business of Adjara Autonomous Republic is underestimated. These days its added value outbids the price of net wealth 1, 03 times, but its shares are not available in the open market. While the investments of the business is 6, 86 mln laris, the price of business itself is 13,9 mln laris. It means that the reorganization and issue of shares in the open market will allow the regional insurers to increase their own capital, reducing the merge and absorbability.

### 3. CONCLUSION

After the example of regional companies, the popular point spread among the insurers – the price of insurance company is roughly comparable to the bonuses gathered during the year – is proved once more [1]. Actually, the multiplier - the price of business/income from sale is equal to the unit. Indeed, it must be taken into account that the amount of the owned assets determines the price of special insurance company – the companies can possess excessive assets. According to the accounts, if the quantity of the company assets are on the level defined by the formula [6], the multiplier will fall down to 0,31, because the company will not have excessive assets.

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## **WORK-BASED-LEARNING DEVELOPMENT IN LATVIA: SUCCESS AND FURTHER CHALLENGES BY VIEWS OF EDUCATORS, EMPLOYERS AND STUDENTS**

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### **ABSTRACT**

*Latvia is among countries showing significant results in the introduction and implementation of work-based learning – being a country with historically school based vocational education and training system. The current research is devoted to the analysis of developments and challenges of work-based learning in Latvia - by views of entrepreneurs, educators and students. Research methods used were: scientific publications and previous conducted research analysis, analysis of survey results of entrepreneurs, educators and students on several aspects of work-based-learning. To have deeper analysis of specific aspects of work-based-learning the respondents were asked to evaluate the analysed aspects in scale 1 – 10, where 1 – do not agree and 10 – fully agree. In the implementation of the survey the Confederation of Employers of Latvia was involved. Survey data analysis methods were: descriptive statistics (indicators of central tendency or location – arithmetic mean, mode and median, indicators of variability – standard deviations, standard error of mean), cross-tabulations of evaluations by educators, entrepreneurs and students by their information level on entrepreneurship development possibilities in Latvia, testing of statistical hypotheses on differences of arithmetic means by t-test, by analysis of variance (ANOVA) for significance of evaluations' differences regarding the received support for the implementation of work-based learning. Results of analysis has indicated that Latvia has made a significant progress and presents achievements in the education and training of qualified specialists, as well as is aware of challenges. This refers to several innovative approaches that could be applied to find best solutions for a successful implementation of work-based-learning for the preparation of qualified specialists for the economic development of Latvia.*

**Keywords:** *Educators, Employers, Public administration, Students, Work-based-learning*

### **1. INTRODUCTION**

Academic research world-wide has paid great attention to various aspects of employees' qualification, as the development of new technologies requires staff with varied skills and flexibility in adopting to new approaches and paradigms. In many European countries work-based learning has been introduced as a successful mode of training in preparing qualified and highly skilled employees for companies. The employers' in this way are able to satisfy their requirements for highly skilled and well educated personnel familiar with recent technology and industry developments. Latvia has had a successful history for introducing work-based learning in a country with basically a school-based vocational education system. Since 2013 the governments took serious consecutive steps, including a piloting phase, before respective legislation was adopted in 2016. The public consultancy in this respect involved various stakeholders: employers, vocational education institutions, students, public administrations. By 2019 a substantial experience had been gained allowing to consider work-based learning one of mainstream forms for acquiring a vocational qualification.

The current research is devoted to the perception of work based learning developments and challenges by views of entrepreneurs, educators and students based on the results of a survey performed in 2019. Research methods used: scientific publications and previous conducted research analysis, analysis of survey results of entrepreneurs, educators and students on several aspects of work-based-learning. To have deeper analysis of work-based-learning aspects respondents were asked to evaluate the analysed aspects in scale 1 – 10, where 1 – do not agree and 10 – fully agree. The Confederation of Employers of Latvia was involved in the survey to ensure a higher coverage of entrepreneurs involved in work-based learning processes. Survey data analysis methods: descriptive statistics (indicators of central tendency or location – arithmetic mean, mode and median, indicators of variability – standard deviations, standard error of mean), cross-tabulations of evaluations by educators, entrepreneurs and students regarding their information level on entrepreneurship development possibilities in Latvia, testing of statistical hypotheses on differences of arithmetic means by t-test, by analysis of variance (ANOVA) for significance of evaluations differences regarding support for implementation of work-based learning. Results of analysis has indicated that Latvia has significant achievements in education and training of qualified specialists through work-based learning schemes. Challenges were also identified indicating that several innovative approaches could be applied to invent better solutions for a successful implementation of work-based-learning in preparing qualified specialists for the economic development of Latvia, including the development and application of generic skills.

## **2. THEORETICAL FINDINGS**

Various aspects of work-based-learning organisation and outcome findings are analysed by researchers from different perspectives world-wide: by employers' view, by educators view, by education management (including public administration) view. Specific methodologies and approaches for research on aspects of work-based-learning have been worked out by researchers (Costley, Elliott, Gibbs, 2010). Researchers world-wide are seeking for best solutions (Costley, Armsby, 2007; Costley, Lester, 2012) regarding various aspects of this process (Garrett, Abraham, Abraham, 2016) and for different models and approaches (Major, 2016), conceptualisation (Lester, 2004), like the purpose of (Lemanski, Overton, 2016) paper was to describe a new tool that can be used to help in the design and evaluation of work-based elements within programmes or to evaluate whole programmes. The paper has taken a case study approach to describe the development of the mapping tool ((Lemanski, Overton, 2016). The tool designed by (Lemanski, Overton, 2016) was based on a matrix which enables users to map four variables: teacher-centred delivery, employer-centred delivery and students outcomes in terms of knowledge and skills. The mapping tool (Lemanski, Overton, 2016) provides a useful approach to evaluating the outcomes for work-based learning activities. Aspects of work-based-learning are of great interest also in European Union institutions (CEDEFOP, 2010; CEDEFOP, 2011; CEDEFOP, 2012; CEDEFOP and European Training Foundation, 2013). The purpose of the paper of researchers from Australia - Baker, Peach, Cathcart was to assess the extent to which work-based learning could potentially improve education and training pathways in Australia (Baker, Peach, Cathcart, 2017). The paper of Baker, Peach, Cathcart reviews education and training provision in Australia through a contextualisation of the Australian Qualification Framework (AQF) with work-based learning pedagogy to determine the extent to which it might contribute to improved outcomes for learners. People seeking to advance their career aspirations can consider the application of work-based learning to support lifelong learning pathways through the AQF (Baker, Peach, Cathcart, 2017). The application of effective WBL approaches has the potential to create a much larger flow of learners from experiential and vocational backgrounds into undergraduate programmes and onto higher education programmes using a consistent and effective pedagogy (Baker, Peach, Cathcart, 2017).



By actively considering the opportunities for learning at work and through work, learners, educators and business managers may recognise that there would be more demand for work-based learning (Baker, Peach, Cathcart, 2017). Australian researchers are going deep into the process and discuss innovative approaches (Pitman, Vidovich, 2013). Researchers in different countries apply different methodologies in their research (Rowe, Perrin, Wall, 2016) in various study fields (Pavlova, 2013) taking into account varied approaches in curriculum development (Painter-Morland, et al, 2016) and diverse fields (Nonet, Kassel, Meijs, 2016), as well as different stakeholders (Meakin, Wall, 2013) and circumstances at practice (Billett, 2014) and working for sustainability (Akrivou, Bradbury-Huang, 2015) paying special attention to the role of leadership (Raelin, 2011). The aim of the paper by researchers (Siebert, Mills, Tuff, 2009) was to evaluate the role of learning from participation in a group of work-based learners. (Siebert, Mills, Tuff, 2009) study has relied on qualitative data obtained from a survey of perspectives of students on two work-based learning programmes: a group of 16 undergraduate and seven postgraduate students participated in a focus group and a number of one-to-one interviews. It was found that work-based learners learn effectively from both their community of practice in the workplace and their learning group of work-based learners within the university (Siebert, Mills, Tuff, 2009). The study suggests that a learning group experience is valued highly by work-based students and that dialogue with other students in the learning group appears to make a significant contribution to enhancing their knowledge (Siebert, Mills, Tuff, 2009). The findings of the researchers have implications for the design of work-based learning programmes (Siebert, Mills, Tuff, 2009). The approach of researchers that integrate learning from the students' workplace community of practice and learning from the learning group at the university appears to be most effective (Siebert, Mills, Tuff, 2009). The research results of researchers from United Kingdom have been discussed in the paper (Wall, et al, 2017), including data from action research to present a case study of a Climate Change Project conducted through a work-based learning module at a mid-sized university in the UK. Researchers (Wall, et al, 2017) have developed approaches to sustainability and climate literacy and their case study has demonstrated how a form of work-based learning can create a unifying vision for action, and do so across multiple disciplinary, professional service, and identity boundaries. In addition, the project-generated indicators of cultural change including extensive faculty-level climate change resources, creative ideas for an innovative mobile application, and new infrastructural arrangements to further develop practice and research in climate change (Wall, et al, 2017). This paper provided an illustrative example of how a pan-faculty work-based learning module can act as a catalyst for change at a higher education institution (Wall, et al, 2017).

### 3. EMPIRICAL RESEARCH RESULTS

This empirical part of current research is devoted to the analysis of development and challenges of work-based-learning by views of entrepreneurs, educators and students. The survey was developed for all above mentioned stakeholders having both – target group specific questions as well as common questions for all three target groups, e.g., the most needed generic skills for a modern and qualified employee. In the implementation of the survey the Confederation of Employers of Latvia was involved. Main indicators of descriptive statistics of survey results of entrepreneurs, vocational education school management and vocational education school students are reflected in table 1.

*Table following on the next page*

*Table 1: Main statistical indicators of evaluations on question “Do you think that WBL is useful approach in education to obtain good professional education?” by employers, vocational education students and school management in 2019 in Latvia*

		Employers	Students	School management
N	Valid	671	683	35
	Missing	177	219	14
Mean		8,26	7,81	8,09
Standard Error of Mean		0,063	0,078	0,311
Median		8	8	8
Mode		10	10	8; 10
Standard Deviation		1,627	2,028	1,837
Variance		2,647	4,112	3,375
Range		9	9	9
Minimum		1	1	1
Maximum		10	10	10

*Source: Ilze Buligina organised survey, evaluation scale 1-10, where 1- do not agree; 10 – fully agree*

It is a promising finding that the highest evaluations were given by the entrepreneurs with arithmetic mean of the evaluations 8,26 (in scale 1-10) although, however, were lower than for vocational education school management and vocational education school students characterised by indicators of variability - these were lower as for other groups. Half of entrepreneurs have given evaluation 8 or less and half of entrepreneurs gave evaluation 8 or more (characterised by median). The most often given evaluation by entrepreneurs was 10 (characterised by mode), given by 30.3 percent of all entrepreneurs who answered this question. Since the views of entrepreneurs are crucial for the success of work-based learning, the distribution of evaluations is reflected in the table 2.

*Table 2: Distribution of responses of evaluations on question “Do you think that WBL is useful approach in education to obtain good professional education?” by employers in 2019 in Latvia*

	Evaluations	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	0,4	0,4	0,4
	2	1	0,1	0,1	0,6
	3	2	0,2	0,3	0,9
	4	6	0,7	0,9	1,8
	5	36	4,2	5,4	7,2
	6	43	5,1	6,4	13,6
	7	79	9,3	11,8	25,3
	8	195	23,0	29,1	54,4
	9	103	12,1	15,4	69,7
	10	203	23,9	30,3	100,0
	Total	671	79,1	100,0	
Missing	System	177	20,9		
Total		848	100,0		

*Source: Ilze Buligina organised survey, evaluation scale 1-10, where 1- do not agree; 10 – fully agree*

The success of work-based-learning is highly evaluated by the vocational education school management with arithmetic mean of the evaluations 7,81 (in scale 1-10), although the whole evaluation scale was covered by vocational education school students. Still, the differences in evaluations were rather low characterised by indicators of variability which were lower as for other groups. Half of vocational education school students have given evaluation 8 or less and half of entrepreneurs gave evaluation 8 or more (characterised by median). The most often given evaluation by vocational education school students was 10 (characterised by mode) given by 25.5 percent of all respondents who answered this question. As the views of vocational education school students – as the future labour force - are so important the distribution of evaluations is reflected in the table 3.

*Table 3: Distribution of responses of evaluations on question “Do you think that WBL is useful approach in education to obtain good professional education?” by vocational education students in 2019 in Latvia*

	Evaluations	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	14	1,6	2,0	2,0
	2	4	0,4	0,6	2,6
	3	5	0,6	0,7	3,4
	4	13	1,4	1,9	5,3
	5	62	6,9	9,1	14,3
	6	49	5,4	7,2	21,5
	7	107	11,9	15,7	37,2
	8	145	16,1	21,2	58,4
	9	110	12,2	16,1	74,5
	10	174	19,3	25,5	100,0
	Total	683	75,7	100,0	
Missing	System	219	24,3		
Total		902	100,0		

*Source: Ilze Bulgina organised survey, evaluation scale 1-10, where 1- do not agree; 10 – fully agree*

The importance of the work-based-learning is highly evaluated by the vocational education school management with arithmetic mean of the evaluations 8,09 (in scale 1-10) although almost the whole evaluation scale was covered by vocational education school management. Still, the differences in evaluations are rather low characterised by indicators of variability which was the highest as for other groups. Half of vocational education school management have given evaluation 8 or less and half of entrepreneurs gave evaluation 8 or more (characterised by median). The most often given evaluation by vocational education school management was 8 and 10 (characterised by mode) given by 25.7 percent of all vocational education school management who answered this question. As the views of vocational education school management are so important – as the key support stakeholder and intermediary between the student and employer – the distribution of evaluations is reflected in the table 4.

*Table following on the next page*

*Table 4: Distribution of responses of evaluations on question “Do you think that WBL is useful approach in education to obtain good professional education?” by vocational education managers in 2019 in Latvia*

	Evaluations	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	2,0	2,9	2,9
	5	1	2,0	2,9	5,7
	6	2	4,1	5,7	11,4
	7	7	14,3	20,0	31,4
	8	9	18,4	25,7	57,1
	9	6	12,2	17,1	74,3
	10	9	18,4	25,7	100,0
	Total	35	71,4	100,0	
Missing	System	14	28,6		
Total		49	100,0		

*Source: Ilze Buligina organised survey, evaluation scale 1-10, where 1- do not agree; 10 – fully agree*

The sustainability of work-based-learning to a great extent is depending on the entrepreneurs and their willingness to accept students in work-based-learning also in future or lack of willingness to accept students in work-based-learning also in future – main statistical indicators are reflected in table 5.

*Table 5: Main statistical indicators of evaluations on question “Do you think that WBL is useful approach in education to obtain good professional education?” by employers willing or not to accept students for WBL in future in 2019 in Latvia*

Students for WBL in future	N	Mean	Standard Deviation	Standard Error Mean
1	48	7,60	2,039	,294
10	113	9,02	1,598	,150

*Source: Ilze Buligina organised survey, evaluation scale 1-10, where 1- do not agree; 10 – fully agree*

The differences of averages in evaluations on entrepreneurs willingness of accepting students in work-based-learning also in future or not willing to accept students in work-based-learning also in future are different – main results of testing the significance of differences with t-test are reflected in table 6.

*Table 6: Main statistical indicators on testing of differences by t-test in evaluations on question “Do you think that WBL is useful approach in education to obtain good vocational education?” by employers willing or not to accept students for WBL in future in 2019 in Latvia*

Levene's Test for Equality of Variances			t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	7,781	0,006	-4,715	159	0,000	-1,414	0,300
Equal variances not assumed			-4,277	72,635	0,000	-1,414	0,331

*Source: Ilze Buligina organised survey, evaluation scale 1-10, where 1- do not agree; 10 – fully agree*

The differences of averages in evaluations on entrepreneurs are different – main results of testing the significance of differences with analysis of variance (ANOVA) are reflected in table 7.

*Table 7: Main statistical indicators on testing of differences by ANOVA on question “Do you think that WBL is useful approach in education to obtain good vocational education?” by employers wvaluations on willingness to accept students for WBL in future in 2019 in Latvia*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	98.791	9	10.977	4.264	0.000
Within Groups	1263.844	491	2.574		
Total	1362.635	500			

*Source: Ilze Bulgina organised survey, evaluation scale 1-10, where 1- do not agree; 10 – fully agree*

The results of research indicate thate entreprenurs evaluations are varied and it would be useful to have a deeper analysis of reasons and on the possibilities for improving the situation.

#### 4. CONCLUSION

Work-based-learning as an approach for preparation of qualified specialists in different fields of national economies is getting more and more importance world-wide. This has been studied in detail by academic researchers in many counties around the globe, by applying different research methodologies, and by paying most attention to employers', educators' as well as students' role and contribution to the success of the process. All of these stakeholders have their own unique role and importance in the process of work-based-learning. Results of analysis has indicated that Latvia has significant achievements in the education and training of qualified specialists by the implementation of work-based learning. The involved stakeholders acknowledge the offerd possibilities and support, as well as the achieved results in training specialists according to modern labour market requirements. At the same time challenges were identified indicating to several innovative approaches that could be applied for a succesful implementation of work-based-learning for the preparation of qualified specialists in economic development of Latvia. This is especially true regarding generic skills needed for qualified specialists.

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# ANTIMONOPOLY POLICY AND DEVELOPMENT OF COMPETITION IN THE RUSSIAN FEDERATION

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## **ABSTRACT**

*The paper discusses the development of competition in Russia, trends of rising concentration in industry markets in the context of globalization, and the factors of increased concentration. An analysis of the activities of enterprises in real markets reveals that the structure of industry markets is not stable but is constantly changing towards concentration as a result of firms' cooperative policies. The paper considers the problems of antimonopoly regulation in Russia, given the tendency to organize in strategic groups (cartels). For this reason, the level of real structural concentration is significantly higher. The paper emphasize the significance of set boundaries of antimonopoly regulation of anti-competitive agreements in order to achieve a balance between the interests of producers, consumers and the government.*

**Keywords:** *strategic group, cartel, antitrust regulation, competition, concentration, oligopoly, market efficiency*

## **1. INTRODUCTION**

The relevance of competition protection in Russian commodity markets is determined by the fact that the development of competition is not only an effective incentive for innovation and cost reduction, but also a key component of economic growth. A competitive economy is oriented towards the most efficient use of all resources, adequately responds to monetary stimulus and demand expansion by increasing production rather than by increasing prices. Among the basic conditions for the creation of a real competitive environment are the reduction of the excessive government interference, a well-designed anti-monopoly policy, and support programs for small and medium-sized enterprises. The problem of the efficient functioning of commodity markets leads to uncertainty in the study of the economies of the industrialized countries. That problem which is even more relevant for the Russian economy. Thus, the issues of antimonopoly regulation and support for competitive structures in the context of the economic crisis and the imposition of Western sanctions are of particular importance [9]. Economists from different countries are trying to answer the question of which market structures are the most efficient, sustainable and viable.

## **2. TRENDS IN THE TRANSFORMATION OF SECTORAL MARKETS IN RUSSIAN FEDERATION - INCREASED CONCENTRATION**

The empirical reality is that the institutional organization of the economy is being modified to form large oligopolistic structures, mostly associations. The data level is higher than calculated according to statistics. Researchers' attention to the problem is mainly explained by two important points. Firstly, in the main production sectors, the concentration level initially cannot be low and its importance in the dynamics increases due to a number of factors. Secondly, increased concentration could lead to monopolization of the economy. The level of concentration of production therefore should be determined according to a reasonable trade-off: on the one hand, to take advantage of economies of scale, on the other hand, avoid any

prospect of monopolization of market. Statistical data on the number of enterprises and market shares make it possible to calculate production concentration indices (CR3, CR4, CR6, CR8). There has been an increase in concentration in both mining and manufacturing [1] (table 1). This trend shows the transformation of markets towards rigid oligopolies.

*Table 1: Production concentration by economic activity, %*

Year	Mining	Manufacturing	Utilities
<b>CR-3</b>			
2008	21,5	12,4	10,7
2009	21,9	15,2	17,4
2010	23,4	15,1	16,8
2011	34,3	16,3	16,0
2012	23,9	14,6	16,1
2013	23,3	21,2	17,5
2014	23,7	22,6	15,5
2015	23	18	15,7
2017	12,49	18,16	13
<b>CR-4</b>			
2008	24,5	14,1	13,6
2009	25,1	17,4	20,1
2010	28,1	17,5	20,0
2011	40,9	18,1	18,7
2012	29,5	17,1	18,5
2013	27,7	23,4	20,2
2014	28,4	24,1	18
2015	27,6	19,4	17,9
2017	15,54	19,77	16,33
<b>CR-6</b>			
2008	30,1	17,4	17,9
2009	31,2	20,4	24,8
2010	35,7	20,6	24,6
2011	51,3	21,4	23,8
2012	34,7	20,2	23,2
2013	35	26,3	25,1
2014	34,9	26,7	22,1
2015	34,6	21,8	21,4
2017	20,87	22,45	22,28
<b>CR-8</b>			
2008	34,6	19,9	21,6
2009	36,3	23,0	28,4
2010	41,4	23,1	28,2
2011	59,6	23,7	28,2
2012	40	23	27
2013	40	28,5	27,5
2014	39,8	28,5	24,6
2015	39,9	23,7	24,2
2017	25,68	24,39	27,82



Globalization expands processes of integration and concentration. The conclusion that dense concentration of production is the basis for the creation of monopolies, and its corollary is the inefficient use of resources, is far from certain. Firstly, high concentration of production is not a sufficient condition for monopolization of the market, and therefore monopolies are not the same. Secondly, highly concentrated industries create complex (scientific, capital-intensive) products, i.e. provide innovation processes and consumers with new quality products. Definitely, research efforts are needed to establish a reasonable balance between the positive impact of high concentration on the development of industries and its negative effect, which is the potential transformation of the structure into a monopoly. Majority of commodity markets in Russian Federation have an oligopolistic structure. Strategic behavior of oligopolies goes along with two scenarios: competition or cooperation [13]. The first scenario is that each firm maximizes its profits based on assumptions about the likely reaction of its competitors. The second scenario means collusion of firms that come into agreement on prices and market shares. It is difficult to reach agreement on these issues and develop common policies to maximize reciprocal profits if the perceptions of the most favorable price structure among competitors are often controversial. However, incentives to achieve a stable market position and maximization of profits motivates competitors to enter into any form of agreements, overt or covert, aimed at fixing prices or limiting output. Such attempts are often hampered by legal prohibitions, although they cannot be entirely prevented. In the context of inter-firm cooperation and deliberate parallelism, firms seek to avoid direct conflict with competitors, especially regarding the price and output, by coordinating their actions by imitating each other's prices and competition strategies. An extreme case of inter-firm cooperation is cartel organization, which leads to increased concentration. The cartel may include all or part of the firms in the industry, or the structure of the industry market may consist of coalitions (strategic groups). Thus, increased concentration in industry markets as a result of the formation of strategic groups is an objective process that provides participants with a better profit and a stable market position.

### **3. PRACTICE OF DETECTING AND PROSECUTION CARTELS OF ANTITRUST AGENCY IN RUSSIA**

Cartelization is considered as a serious economic threat, as it results in significant losses to society from monopoly power. Anti-competitive agreements between firms in commodity markets are detected every year in Russian Federation as a result of the joint work of the Federal Antimonopoly Service (FAS Russia) and law enforcement agencies. A significant proportion of anti-competitive cases are cartel cases. In 2018, FAS Russia opened 384 cartel cases, which is 9% less than in 2017 (423 cases). More than 85 per cent of cartel cases involved bid rigging (283 cases) [19]. Anti-competitive agreements are widespread in State procurement and State defense procurement in all sectors of the Russian economy, including those of strategic importance. Almost one third of anti-competitive agreements involve restrictions on competition in repair and construction, including roads (29 %) (figure 1).

*Figure following on the next page*

Figure 1: Areas of economic activity with the highest number of infringements, art., 16 of the 2018 Competition Protection Law, art. 11.

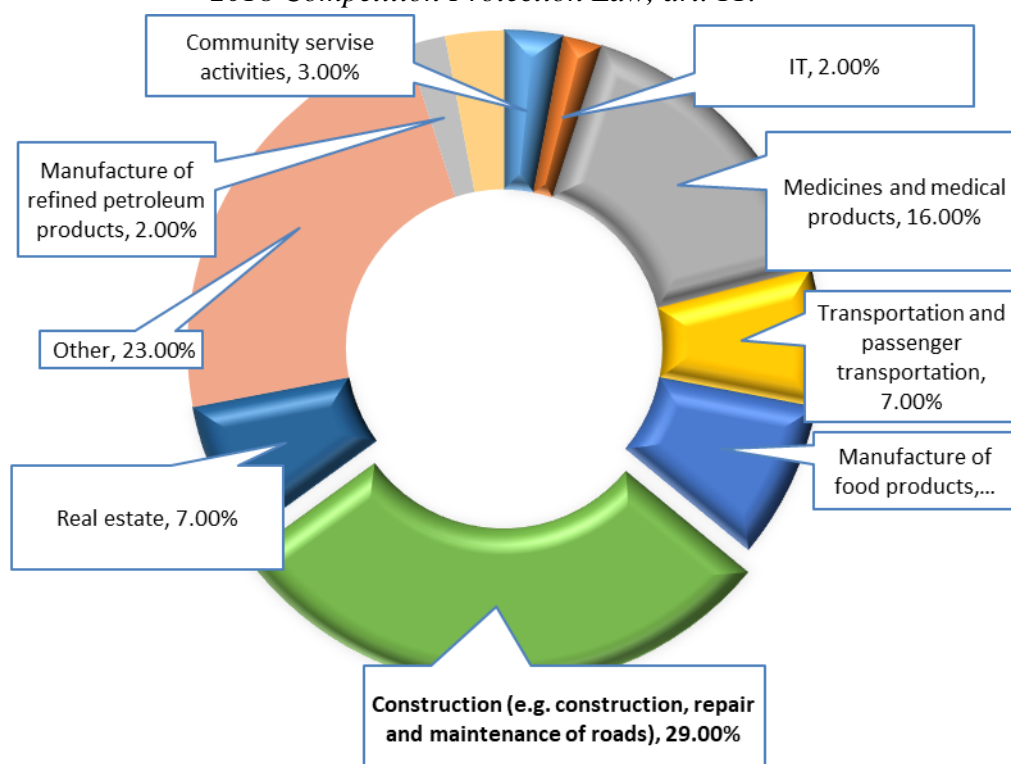
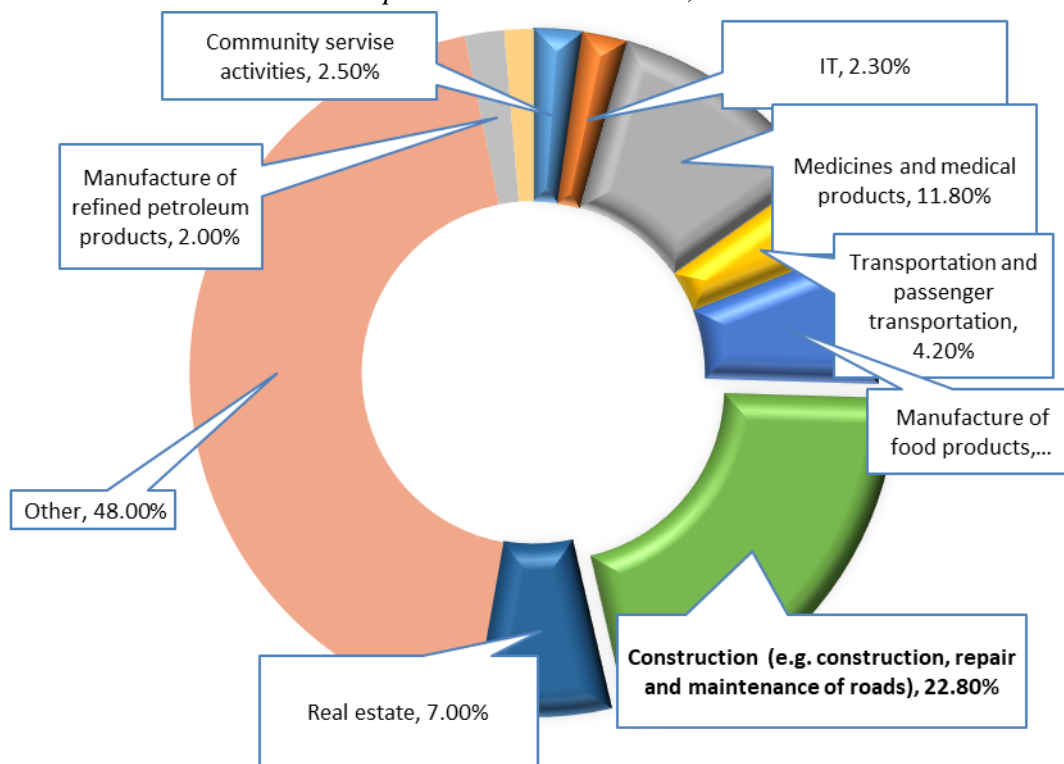


Figure 2 shows the number of offences in 2019.

Figure 2: Areas of economic activity with the highest number of infringements, art., 16 of the 2018 Competition Protection Law, art. 11.



In 2019, the number of cases under article 11 increased to 519. The number of identified cartels (part 1) amounted to 424, other agreements (part 4) - from 46 to 106 [18]. This is the case when the income of participants is less than 50 million rubles (or the damage from which is less than 10 million rubles). In order to strengthen the detection and suppression of cartels, FAS Russia proposed bills aimed at effectively countering cartels and increasing criminal and administrative amenability for their participation. In order to improve cooperation between supervisory and law enforcement authorities, an inter-agency program for detecting and suppressing cartels as well as any other anti-competitive agreements has been developed for 2018-2022. In order to conclude and implement anti-competitive collusions, offenders have started to actively use modern technologies, such as special software modules integrated into the electronic trading platform interface («auction robots»). At the same time, firms also use special software (commercial products/commercial «auction robots»), which can be used for illegal trade actions. Modern technologies also include new ways of analyzing and processing data of large volume and large variety (Big Data) [19]. The emergence of new instruments to implement the above-mentioned anti-competitive practices requires FAS Russia to improve its approach to the process of proving concerted action. In addition, the improvement of legislation, i.e. a number of changes to meet the requirements of the modern digital economy, is necessary for improvement the competition law. Experts of the FAS RF propose to tighten the responsibility for conclusion and implementation of anti-competitive agreements and illegal coordination of economic activities using software (price algorithms and auction robots). Software, «Large Digital Cat», has been developed to allow online detection of signs of anti-competitive agreements at tenders and to form the evidence base, confirming conclusion and realization of the relevant agreement, using either open, as closed sources of information. The introduction of software will significantly increase the transparency of public and municipal procurement procedures and lead to significant budgetary economy. In order to challenge the cartels whose members are transnational corporations, FAS Russia has developed a draft convention «Prosecution cartels». The purpose of the Convention, as an international legal instrument, is the establishment of the principles and bases for cooperation in combating concerted action at the international level. Identifying the cooperative actions of firms outside the digital field also remains the most difficult issue in antimonopoly regulation practice in both Russian Federation and industrialized countries [18]. Proving the existence of such coordinated actions requires special body of evidence, which are limited to fixing actions that reduce the industry' performance from society perspective. It is impossible to distinguish objective, uniform actions of economic agents, which are natural responses to external factors, from actual cartel agreements. However, observations prove that quite often identical products are sold at identical prices that provide high economic returns to producers [2]. Concentration in industry markets increases significantly when firms coordinate their activities. Official concentration indices do not reflect the real level because they do not capture the informal relationships of rivals. In the formation of strategic groups (coalitions), the actual concentration level is significantly higher than [3]. Therefore, in calculating the Herfindahl-Hirschmann index, it is necessary to determine the market share of the entire coalition, not the individual firm belonging to it [5]. At present, the situational application of the Law «On the Protection of Competition» prevails in the practice of the FAS when a cartel is detected. Law enforcement has an accusatory bias, and the evidence is based on the accusation. The investigation lacks objective economic analysis, often incorrectly reveals the boundaries of commodity markets, the composition of sellers and buyers, and frequently does not take into account the economic performance of enterprises. Indirect evidence of offences often serves as the basis of decisions by government agencies. The presumption of the absolute negative role of cartels isn't even close to the truth. In proving the economic damage caused by coalition establishment, it should taken into consideration that an industrial structure with a higher concentration level might be more

efficient than a structure with a lower concentration level [13]. This provision should be applied in antimonopoly practice so that a competition law rule does not contradict objective processes of increasing concentration and does not interfere with the required level of competitiveness of domestic enterprises, and especially in international trade [15]. The poor quality of many decisions made by competition authorities and the lack of evidence often lead to unreasoned accusations and incorrect conclusions about the role of firms on the market. Of course, a cartel restricts competition and is often considered as a market disadvantage. Under certain conditions, however, cartels may stabilize the market. The establishment of a cartel may be the only way for enterprises to remain in the market in the conditions of cyclical fluctuations in demand, fierce competition from foreign participants, in industries with excess capacity and high production costs. Sharp price fluctuations during boom and bust periods are a cause of economic destabilization, which is extremely problematic. During business growth span, firms try to compensate for losses incurred during the crisis by significantly inflating product prices. Such a situation does not satisfy consumers and may attract the attention of regulators. In such a situation, firms unwittingly decide to enter into cartel agreements and have to apply price stabilization instruments [11]. The way out of this situation may be to relax the antimonopoly legislation socially important industries, which would allow enterprises to coordinate their activities in the market, Price fixing and output rationing during periods of crisis and recovery could secure long-term prospects of survival. This is of particular importance in mono-industry towns, where the whole employment and well-being of the community depends on the efficiency of the one enterprise. Such assumptions can protect industries from competitive risks and reduce losses to society and the state from cyclical fluctuations.

#### 4. CONCLUSIONS

The protection of competition, as implemented through antimonopoly legislation, is aimed at abridge the freedom of business to build a market and development strategy. The consistent implementation of antimonopoly policy leads to the restriction of the freedom of economic activity. In this sense, two objectives in the Law «On the Protection of Competition», being constitutional guarantees, namely the protection of competition and the freedom of economic activity, to a certain extent contradict one another. The need to protect two different constitutional guarantees makes it necessary to strike a balance between them. In imposing antimonopoly restrictions, the legislator should envisage them to such an extent as to prevent the most anti-competitive economic behavior, avoid excessive and unnecessary restrictions on economic agents and their efficiency. In choosing a regulatory action, the legislator should seek to reduce the costs of government regulation. Finding the right balance in antimonopoly regulation is an highly complex and resource-consuming process. The right balance between private and public interests can be achieved only through a comprehensive approach, taking into account both social and economic objectives and priorities.

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## PROHIBITION OF RESTRICTIVE COMPETITION AGREEMENTS IN THE EUROPEAN UNION: ANALYZING THE 'EXPEDIA' CASE

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### ABSTRACT

*Under Article 101 of the Treaty on the Functioning of the European Union (TFEU), shall be prohibited as incompatible with the internal market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market. This article has raised several questions of interpretation as to its meaning and scope. Therefore, the case-law of the Court of Justice of the European Union (CJEU) has been fundamental to its interpretation. The aim of this work is to carry out a critical analysis of a particular CJEU decision, known as «case Expedia», in order to systematise the answer to some fundamental questions for verify if a particular agreement is restrictive of competition or not. The central issues of this study are: how do you assess whether, or not, an agreement between undertakings is restrictive of competition and therefore contrary to the Treaty? What criteria should be used to make this assessment? Is it relevant that one of the undertakings involved is to provide a service of general economic interest? Can a national authority punish restrictive practices of companies with market shares below the thresholds set by «de minimis» Communication of European Commission? Methodology used: starting to analyze the case 'Expedia' and its comparison with other cases decided by the Court, before and after these decision; analyze of more relevant doctrinal references; systematic definition of the criteria to recognize an agreement against TFEU. We can synthesize our conclusions by saying that the restrictive impact of an agreement must be assessed by determining the relevant market, the market share of each of the players or the joint market share of all actors related (cartel), the magnitude of affected consumers. These are the criteria to assess if a particular agreement may «significantly restrict competition.»*

**Keywords:** *Cartel, Competition restrictive agreement, Relevant market share, Service of economic general interest*

### 1. INTRODUCTION

The European competition law is a cornerstone for building the European market and, therefore, crucial for the European Union (EU) project. But, articulation the European competition law with several national laws implies constant relations of cooperation between national and European authorities. For this reason, various means were utilized to strengthen relations and reduce the jurisdictional conflicts that can eventually arise. The national legal systems of member states remains independent in their own competitive law enforcement, as long as these national rules are not in opposition to the European practices and policies. This is not a easy work and sometimes the national authorities has a particularly interpretation about the European rules that have to apply. Additionally, in some European member States, the national competition law is still in an embryonic state, having been heavily influenced by the European competition rules, practices and policies.

So, we can say that in this field of law there are always new problems to be analyzed, new practices and models of business that can be a way of violating the European rule of law. After so many years of EU remains questions, doubts, controversial opinions about several issues and new problems to be solved. The competition law, in specially, the balance between European and national competition laws are still a new and open field for knowledge. The European Commission (EC) is an important player to guarantee the free competition and the rule of law all over the EU. To do this mission EC is empowered by the Treaty to apply these rules and has a number of investigative powers to that end (e.g. inspection at business and non-business premises, written requests for information, etc.). The Commission may also impose fines on undertakings which violate the EU antitrust rules. As part of the overall enforcement of EU competition law, the Commission has also developed and implemented a policy on the application of EU competition law to actions for damages before national courts. It also cooperates with national courts to ensure that EU competition rules are applied coherently throughout the EU. National Competition Authorities (NCAs) are empowered to apply Articles 101 and 102 of the Treaty fully, to ensure that competition is not distorted or restricted. After this degree the national courts may also apply these provisions to protect the individual rights conferred on citizens by the Treaty. As a complement the main rules on procedures are set out in Council Regulation (EC) 1/2003. European Commission is also empowered to define the procedures for anticompetitive practices cases, for abuse of dominance cases and the proceedings for the application of Articles 101 and 102 of the Treaty on Functioning of the European Union (TFEU). Therefore, it has been promoted a process of harmonization and adaptation of the national legislations with the purpose of correcting problems and incompatibilities, and to provide the national competent authorities with more and better power for an effective promotion of the competition defence. (Roque, 2014:111-117). This process increased better performance of NCAs and also better perception of competition law by the national courts. In spite of that, in case of interpretative doubts of the European law, the national courts have the possibility of request to the European Court of Justice according to article 267.<sup>o</sup> of TFEU. The request for a preliminary ruling, is intended to give the national courts the opportunity to apply to the Court of Justice, according to article 267.<sup>o</sup> of TFEU. When a question about a European rule or concept need to be clarified, for some dispute resolution inside a member state, the national court may stay the proceedings and refer the question to the European Court of Justice. The question formulated by the national Court is referred to the Court of Justice, which answers with a judgment, and not with a mere opinion, in order to underline the binding nature of its decision. Nevertheless, the reference for a preliminary ruling is not a litigation procedure designed to resolve an internal dispute. It represents only one element of a global judicial case that begins and ends before a national court. The aim of this process is, first of all, to ensure a uniform interpretation of European Union law and, with it, the unity of the EU legal order. In addition to this function of preserving the uniformity of EU law, this process also plays an important role in protecting individual rights. The guarantee that national courts are given the possibility to verify the compliance of national law with Union law and, in the event of incompatibility, that the primacy of directly applicable Union law will prevail, requires that the content and scope of the provisions of the EU are clearly defined. As a general rule, only a request for a preliminary ruling can guarantee this clarity, so this process also allows Union citizens to oppose actions in their country contrary to EU law and to achieve the application of this law before national courts. This dual function of the preliminary ruling compensates to some extent the reduced possibilities for individuals to appeal directly to the Court of Justice and is of crucial importance for the legal protection of individuals. However, for it to ultimately work, national judges and courts must be 'willing' to refer the matter to the Court of Justice. In this context we can say that CJEU has a fundamental role in implementing the indeterminate concepts that we find in many European competition law rules.



### 1.1. The investigation objective

The aim of this work is to present the results of an investigation about article 101° of TFEU. The starting point for the development of this study was the analyze one decision of CJEU, called “Expedia Case” and her contribution to the interpretation of article 101 of TFEU. This study, developed in a Seminar about free competition, for the Master in Law Degree, in Faculty of Law and Political Science of Lusófona University of Porto, intends to reflect on the consequences of the jurisprudence of CJEU on the interpretation and application of article 101° of TFEU. This CJEU decision was published in 13/12/2012, in the process number C-226/11. Is known as « Case Expedia», because one of the processual parts is a Travel Agency, called Expedia. The disput between Expedia company and the NAC: «*La Autorité de la Concurrence*». In this preliminary ruling, the french national court (Cour de Cassation Française) had put two questions to CJEU:

- 1<sup>st</sup>. Which is the effect of «*de minimis*» communication on national authorities?
- 2<sup>nd</sup>. Which is the interpretation of the concept of «*sensitive restriction*» of competition according to the article 3(2) of Regulation (EC) N° 1/2003 of 16 December 2002 and the article 101° of TFEU?

Thus, this are the investigation questions to analyze, from the point of view of the CJEU considering the consequences on enterprises life and to the market competition.

### 1.2. Methodology

Considering the rules of investigation on issues of law we have to clarify that this is a case-law study. So the starting point is to analyze the case 'Expedia' and its comparison with other cases decided by the Court, before and after these decision. This jurisprudential analyze will be supplemented with some relevant doctrinal references. With some comparative analyze of other judgements of the CJEU is possible to conclude how the ECJ did the interpretation and developed the sense of the concept. As central issue we want to find systematic definition of the criteria to recognize, in reality, how and when can we conclude that certain agreement between corporations can be restritive of free competition, and so, illegal and invalid for the european law. After analyze all the answers from CJEU to the diferent questions to decide we conclude with a critical apreciation of the consequences of this jurisprudence.

## 2. LEGAL FRAMEWORK: THE EUROPEAN LEGAL ORDER AND COMPETITION LAW

By establishing the Union, Member States have limited their sovereign legislative powers and created an independent legal order which binds them, as well as their nationals, and which should be used by their courts. This autonomy was clearly recognize in one of the most well-known cases judged by the CJEU, the «Costa v. ENEL case» in 1964, in which Mr. Costa brought an action against the nationalization of electricity generation and distribution and the consequent acquisition of the business of the former electricity companies by ENEL, the new public company. In this judgement the CJEU states the primacy of european law and the autonomy of the legal order of european community. It states, clearly, that all kind of discrimination between corporations from diferent member states, monopolistic policies or competition restritions are against european Treaty.

### 2.1. Autonomy of the legal order of the European Union

The autonomy of the EU legal order has a fundamental meaning for itself, as it is the only guarantee that EU law will not be distorted by interaction with national law and that it can be applied uniformly in all Member States. As a result of this autonomy, eu legal concepts are interpreted primarily in the light of the requirements of EU law and objectives.

This determination of concepts, specific to the European Union, is essential, as the rights guaranteed by the EU legal order could be in jeopardy if each Member State could have the final say to decide for itself what it would make of the principles relating to freedoms guaranteed by EU law. Moreover, the standard for assessing EU acts is exclusively EU law and not the national or constitutional law of a Member State (Miranda & Medeiros, 2010: 360; 508). So, given this notion of autonomy of the EU legal order, how can we describe the relationship between EU law and national law? The EU legal order and national legal systems are in fact interdependent and cooperating with each other. The competition law is an evidence of that autonomy and interdependency. (Verhoeven, 1996: 861-887). The introduction of a system promoting the European economy with an autonomous legal order often leads to conflicts between national legal systems and the rules resulting from EU law (Reyna & Ezrach, 2019: 19-21). It is essential to have a process of adaptability of these two levels of law, the national and the European. In this context, the role of the CJEU is of fundamental importance for understanding and reconciling European competition law and national law (Close, 1978: 81-87; Mendes, 2012: 235-237).

## 2.2. Competition law in the EU

The idea of free competition encourages companies to offer consumers goods and services at the most favourable terms. It encourages efficiency and innovation and reduces prices. To be effective, competition requires companies to act independently of each other, but subject to the competitive pressure exerted by the others. (Stigler, 1957: 1-17). However, although the principle of free competition is the rule stated in the Treaty, we must not forget that it entails exceptions, as is apparent from Article 106(2) TFEU. (Anjos, 2016: 33-41; 75-105). Also in accordance with CJEU the ultimate purpose of the rules that seek to ensure that competition is not distorted in the internal market is to increase the well-being of consumers. Competition law and competition policy have an undeniable impact on the specific economic interests of final customers who purchase goods or services, and so, they are crucial for the well-being of European citizens.<sup>1</sup> European antitrust policy is developed from two central rules set out in the Treaty on the Functioning of the European Union:

- **1<sup>st</sup>.** Article 101 of the Treaty prohibits agreements between two or more independent market operators which restrict competition. This provision covers both horizontal agreements (between actual or potential competitors operating at the same level of the supply chain) and vertical agreements (between firms operating at different levels, i.e. agreement between a manufacturer and its distributor). Only limited exceptions are provided for in the general prohibition. The most flagrant example of illegal conduct infringing Article 101 is the creation of a cartel between competitors, which may involve price-fixing and/or market sharing.
- **2<sup>nd</sup>.** Article 102 of the Treaty prohibits firms that hold a dominant position on a given market to abuse that position, for example by charging unfair prices, by limiting production, or by refusing to innovate to the prejudice of consumers.

<sup>1</sup> This idea is evidenced in several judgements of CJEU, such as: Joined Cases T-213/01 and T-214/01 *Österreichische Postsparkasse and Bank für Arbeit und Wirtschaft v Commission* [2006] ECR II-1601, pag. 115. Case C-52/09 *TeliaSonera Sverige* [2011] ECR I-527, pag. 22. Joined Cases C-468 to 478/06 *Sot. Léloukas and Others* [2008] ECR I-139, pag. 68. Case C-280/08 *P Deutsche Telekom v Commission* [2010] ECR I-9555, pag. 176. Case *Raw Tobacco Italy* (Case COMP/C.38.238/B.2) Commission Decision of 20 October 2005. Joined Cases C-264/01, C-306/01, C-354/01 and C-355/01 *AOK Bundesverband and others v Ichthyol-Gesellschaft Cordes and others* [2004] ECR I-2493, pag. 30-31. Case 26/75 *General Motors Continental v Commission* [1975] ECR 1367. Case 27/76 *United Brands v Commission* [1978] ECR 207. Case C-177/16 *Autoritāte un komunikāciju konsultāciju aģentūra (AKKA)/ Latvijas Autoru apvienība (LAA)* [2017] ECLI: DE:Deutsche Post AG (Case COMP/C-1/36.915) Commission Decision 2001/892/EC [2001] OJ L331/40. And many others.

For adaptation to the European reality, which is crucial for the evolution of national competition laws, was particularly important the development introduced by Council Regulation (EEC) No 17/1962 of 21 February 1962 (hereinafter Reg. 17/1962) and Council Regulation (EC) No 1/2003 of 16 December 2002 (hereinafter Reg. 1/2003), with as basic guidelines for the application of European Union Competition Law for all European Territory. Competition Law, is constantly evolving politics and transformation, so «perfect competition» is only a concept of «effective competition» or viable competition and nothing more. (STIGLER, 1957:16; Reyna & Ezrach, 2019:21). In this field the CJEU has made an evolution from the concept of perfect and free competition to a concept of workable competition. (Collins & Hutchins, 1988: 20-23) Workable competition is the best we can have in free market. In this market condition, we can say that the sellers are free to sell the products at the best price, where each unit of sale will seek the maximum net result, but without limitation of the buyer's freedom of choice because he has several choices and alternatives to buy the product (Mateus, 2004: 1-17). This idea is according to the process of building the EU, based on a logic of integration and liberalization of markets in an environment of free competition. For that it was necessary to introduce a competition law, efficient, with a view to protecting the market from restrictions on competition attributable to both isolated behaviour of economic subjects and related behaviour of groups of undertakings (Waelbroeck, 1986:37-49; Stigler, 1957: 1-17). Therefore, in EU, a strict free competition defense was guaranteed from the first hour, eliminating all distorting factors from the free movement of goods and services between member States. (Vicente, 2013: 223-240). In short, all abusive or restrictive practices of free competition within the EU are forbidden (Peixoto, 2013:49-51). The fundamental objective of Community competition rules is to ensure that competition is not distorted. However, effective competition is not an end in itself, but a condition for achieving a dynamic and free internal market, which functions as one of several instruments to promote general economic well-being. (Anjos, 2016: 151-206; Laguna de Paz, 2009:53-69)). The EU's decisively innovative feature in relation to previous attempts is that, in order to unify Europe, it does not use violence or submission, but rather the force of law. Only a union based on free will can have a lasting future, a union based on fundamental values, such as freedom and equality, and preserved and embodied by law. It is in this view that the Treaties that created the European Union are based (Anjos, 2016:33-62). In other words, it is a Union based on law. However, its application to specific cases will always raise questions and controversial issues (Pais, 2011:20). Thus, in the construction of the EU, the role of the CJEU is fundamental and its jurisprudence is a guiding light for EU citizens and businesses. Fundamental in the interpretation and development of legal concepts. We can say that the study of concrete cases involves, always the study of the jurisprudence of the CJEU that determines the limits or beacons to the legal concepts (Morais, 2006:25; Reyna & Ezrach, 2019: 20-23). The 'Expedia' case is particularly interesting for defining the limits of the restrictive concept of the restrictive agreement of the restrictive market agreement and the relevance of minor restrictive agreements.

### **3. THE CASE «EXPEDIA»: FACTS AND QUESTIONS TO DECIDE**

The 'Expedia Case' corresponds to the decision of the CJEU of 13-12-2012, delivered in Case No 226/2011, in which the intervening parties were Expedia Inc. and the French NAC (Autorité de la Concurrence). This is a preliminary ruling procedure promoted by the High Court of the French Republic, 'Cour de Cassation' addressed to the CJEU, to clarify two questions about the effect of «de minimis» communication on national authorities and the interpretation of the concept of «sensitive restriction» of competition according to the article 3(2) of Regulation (EC) N° 1/2003 of 16 December 2002 and the article 101° of TFEU.

### 3.1. Facts of case Expedia

The French Competition Authority condemned the American company Expedia and the French railway undertaking, SNCF, for considering that the establishment of a common Travel Agency constituted an agreement which had the object and effect of restricting competition and was, in those words, prohibited by national competition law (Article L.420-1 of the French Commercial Code) and Article 101 of the Treaty on the Functioning of the European Union ("TFEU"). Expedia Inc. is one of the world's largest travel advisors, which controls, in addition to Expedia, the Hotels.com, Trivago, Hotwire, Orbitz, CheapoTickets, Travelocity, Wotif Group, Local Expert, Venere, Egencia, HomeAway, among many others. Expedia appealed against the administrative decision alleging, inter alia, that the French Authority had overvalued market shares, with the partnership agreement falling under the «de minimis» exemption established by the European Commission. The Court of First Instance, Cour d'Appel, held that, in the light of the wording of Article L. 464-6--1 of the French Commercial Code and, in particular, the use of the verb 'may', the French Authority had the possibility of punishing restrictive practices of undertakings with market shares below the thresholds set by that Code and «de minimis» Communication. Expedia appeals the Cour de Cassation, which decided to stay the proceedings and ask the Court of Justice of the European Court ("Court of Justice" or "Court") whether Article 101(1) TFEU and Article 3, Regulation (EC) No 1/2003 of 16 December 2002 ("Regulation No 1/2003") opposed a practice which could affect trade between Member States but carried out by undertakings whose market share do not reach the thresholds set in the De minimis Communication, to be prosecuted and punished by a national competition authority. So, the «Cour de Cassation» wishes to know from the European Court of Justice:

- 1<sup>st</sup>. The assessment by the national authorities of the sensitive nature of a certain restriction of competition must necessarily take place in the light of the criteria which have been published at European Union level, by means of the *Commission's de minimis* communication?
- 2<sup>nd</sup>. A national authority can presuppose the verification of a sensitive restriction of competition in a case where the agreement between undertakings it assessed does not reach the market share limits provided for in the *de minimis communication*, but reveals an anti-competitive objective?

### 3.2. The CJEU Judgement

The CJEU did appreciate the case Expedia and in the judgement concludes that articles 101 to 109 of the Treaty on the Functioning of the European Union (TFEU) contain competition rules in the internal market as rules of competition. Under those articles, agreements between undertakings which may restrict competition are prohibited. An undertaking which holds a dominant position is prohibited from unfairly serving its position and thus affecting trade between Member States. As concentrations and Community dimension are controlled by the European Commission and may even be prohibited in certain cases. The granting of State aid to certain products or undertakings which distort competition is forbidden, although it may in certain cases be authorised. As competition rules also apply to public undertakings, public services and services of general interest. These rules may be repealed if the achievement of the objectives of these specific services is compromised. In order to be covered by the prohibition of Article 101 TFEU, an agreement between undertakings must restrict competition «in a sensitive manner and should be likely to affect trade between Member States.» The sensitive character of the restriction must be assessed on the basis of the actual framework in which that agreement is inserted, in particular, taking into account the economic and legal context in which it is inserted, the nature of the products or services affected and the actual conditions of the functioning and structure of the market<sup>5</sup>. The Court recalled the distinction between infringement by object and infringement by effect, and concluded that an agreement which may

affect trade between Member States and which has an anti-competitive object constitutes, by its nature and irrespective of any specific effect, a restriction which is sensitive to competition. Furthermore, the Court recalled that the Commission's «de minimis» Communication is not binding either on the competition authorities or on the courts of the Member States (as mentioned in paragraph 4). «It only binds the Commission» which cannot deviate from its content without breaching general principles of law, such as equal treatment and the protection of legitimate expectations. Thus, in determining the sensitive nature of a restriction on competition, the competition authority of a Member State may take into account the thresholds set out in point 7 of the «de minimis» Communication, even if it is not obliged to do so. Those thresholds constitute only indications, inter so, capable of enabling that authority to determine whether or not a restriction is sensitive in accordance with the actual framework in which the agreement forms part. In the judgment delivered to the CJEU, it was interpreted that Article 81(1) EC and Article 3(2) of Regulation (EC) No 1/2003 were interpreted as meaning that the competition authority of a Member State may be prosecuted and punish an undertaking between undertakings, infringement of competition rules, even if the limits set by the European Commission in its 'de minimis communication' are not reached, provided that the authority in which it has taken account of such communication and the misinformation of any means by admitted law that the agreement in question has the effect of sensitive competition from. It also pointed out that the «de minimis» communication is not binding and must be interpreted as meaning that the market share limits contained therein are irrelevant where it concerns to assess the sensitive nature of restrictions on competition which are the result of agreements between undertakings concluded for anti-competitive object.

CJEU conclude that: *«Article 101(1) TFEU and Article 3(2) of Council Regulation (EC) No 1/2003 of 16 December 2002, on the enforcement of the competition rules laid down in Articles 81 [EC] and 82 [EC], they must be interpreted as not precluding a national competition authority from applying Article 101(1) TFEU to an agreement between undertakings which is likely to affect trade between Member States, but that it does not reach the thresholds set by the European Commission in its Communication on minor agreements which do not significantly restrict competition under Article 81 (EC) (de minimis) (de cordance) (de de minimis) in accordance with article 81 (de minimis), provided that such an agreement constitutes a significant restriction of competition within the meaning of that provision.»*

#### 4. ANALYSIS OF EXPEDIA JUDGMENT

Is important to point that the judgment of the Court was proclaim according by Article 81(1) EC and Regulation No 1/2003, which was adopted for its implementation. Anyway, the article 81° coincides with the current Article 101° of the Treaty of Lisbon (December 2009), TFEU. The legal framework did not change with the TFEU. In the first answer of CJEU, as regards the absence of binding effects on the part of the de minimis communication, it appears that the Court of Justice got its decision right by clarifying that the Commission's communications in the area of European competition law have no binding effect on national authorities and courts. The same is true of the communication of de minimis in the present case and its limits of market shares provided for there in. That is because the very content of the «de minimis» communication merely expresses the Commission's legal interpretation, making it clear that it is not binding on the authorities and courts of the Member States. The Communication itself expressly states that its content is without prejudice to the interpretation of Article 81 EC (now Article 101 TFEU). In that communication, the CJEU took the view that the Commission intended only to make its administrative practice transparent in the application of Article 81 EC and to make available to undertakings active in the internal market, the authorities and courts of the Member States with useful interpretative indications.

It also clarified to the Court that the Commission adopts in that case a general opinion or recommendation on competition policy, within the framework of the responsibility conferred on it for the maintenance and development of a competition system. However, such opinions or recommendations are not binding (Article 249 fifth paragraph, EC, current Article 288, fifth paragraph, TFEU). Only the European Council may adopt binding provisions for the implementation of the competition rules enshrined in the European Treaties and does so in the form of regulations or directives (Article 83 EC, current Article 103 TFEU). Furthermore, the CJEU pointed out that the publication of the *de minimis* communication in the C series of the Official Journal of the European Communities shows that it did not seek to adopt binding legal provisions. Unlike its L series, the Purpose of the C series is not to publish legally binding acts, but only information, recommendations and notices relating to the Union. Moreover, the legal basis for the competition authorities action against anti-competitive agreements between undertakings is not provided by the «*de minimis*» communication. In fact, the prohibition on cartels, as provided for in EU law, is set out in Article 81 EC (now 101 TFEU), therefore at the level of primary law, in a provision contained in the Treaty, which, as such, has direct effects both to and from the detriment of undertakings. The decision examined here has also made it clear, in our point of view correctly, that the communication «*de minimis*» has the nature of «soft law». The importance of this understanding in the competition process, both at European and national level, is that it must be taken into account in many similar cases. Thus, as regards administrative competition proceedings at national level, the «*de minimis*» communication, as it expressly points out, seeks to provide guidance to the courts and national authorities for the application of Article EC. Although it is not binding on them, such guidelines are decisive for the functioning of the decentralised system of application of competition law, as set up by Regulation N° 1/2003. It is therefore true that those guidelines contribute to the basic objective of the effective and uniform application throughout the EU of the European competition law, contained in Articles 101 and 102 TFEU. Even if the communication «*de minimis*», as regards the assessment of agreements between undertakings in the light of competition law, does not result in binding impositions on the competition authorities and the national courts, they must take into account the assessments as to the sensitive nature of the restrictions on competition expressed by the Commission in that communication and, in the event of divergence, justify them by giving the evidence the judicial reasons. Another question abording by CJEU was the concept of «market share», because this is one of the methods to draw limits, and are one of several quantitative and qualitative indications in the light of which you can assess whether or not an agreement between undertakings produces a significant restriction of competition. The CJEU stated that the national authorities and courts may act against agreements between undertakings, even if the limits laid down in the «*de minimis*» communication have not be enreached, provided that they have duly taken into account the Commission's indications contained in that communication. It must be analyzed case to case, because there are other indications than market shares, to conclude if the relevant market on competition is or not appropriate. The CJEU then did a thorough analysis of the relevance of the «market share» limits contained in the «*de minimis*» communication as a guideline for national authorities and courts decide, in each case, if agreements between undertakings are being or not anti-competitive.

## 5. CONCLUSIONS

So we conclude that, in the CJEU point of view, «*de minimis*» notice, in substantive terms, is based on the case-law of the Court of Justice, according to which the prohibition of cartels provided for the Article 101 TFEU covers only sensitive restrictions on competition. In other words, the requirement of a sensitive character generally applies to restrictions of competition both by object and effect.

However, this does not mean that the requirements for proof of the sensitive character are in both cases the same. On the contrary, those requirements differ from each other, depending on whether an agreement between undertakings has an anti-competitive object or is limited to having such an effect. The CJEU pointed out that only if there is insufficient evidence to verify an anti-competitive object does Article 81(1) EC require proof of the production of concrete anti-competitive effects by a particular agreement. If, on the other hand, it is established that the agreement in question has an anti-competitive object, according to the case-law, there is no need for concrete proof of the production of negative effects on competition by that agreement. In this case, it is sufficient to demonstrate that the agreement is specifically capable of preventing, restricting or distorting competition in the internal market. Therefore, we concluded that for CJEU the market share limits contained in the *de minimis* communication are irrelevant when it is important to assess the sensitive nature of restrictions on competition which are the result of agreements between undertakings concluded for anti-competitive purpose. We can synthesize by saying that the restrictive impact of an agreement must be assessed by determining the relevant market, the market share of each of the players or the joint market share of all actors related (if there are a cartel), and the magnitude of affected consumers. These are the criteria to assess if a particular agreement may «significantly restrict competition.» The Court recalled the distinction between infringement by object and infringement by effect, and concluded that an agreement which may affect trade between Member States and which has an anti-competitive object constitutes, by its nature and irrespective of any specific effect, a restriction which is sensitive to competition. Furthermore, the Court recalled that the Commission's *De minimis* Communication is not binding either on the competition authorities or on the courts of the Member States. Although this solution is correct from the formal point of view of the application of the law; in addition to not contributing to legal certainty in the application of European competition law, this solution may call into question the uniform application of that law. In this field the *Expedia* decision is dangerous. As regards the second question, the Court assumes that an infringement by object necessarily affects competition in a sensitive manner. It should be noted that the Commission's own *De minimis* Communication also excluded from its scope the so-called serious restrictions. Nevertheless, that decision of the Court seems to take a different direction from the previous case-law on the sensitive nature of competition. In other words, the answer to the first question was quite flexible and open to different interpretations. The answer to the second was much more imperative and rigid. This view is the one that the CJEU found, in the diversity of understanding about the questions that were raised, an escape, with an open answer and another very closed. From the point of view of the harmonization of concepts interpretation at stake this Judgment makes a good theoretical contribution but leaves many open questions. The appreciation to case-by-case does not contribute to the security of citizens and businesses as to the application of competition law. This CJEU decision took a different sense from the previous case-law about the concept of «sensitive restriction of competition». It contributes to a better understanding of what can be understood by «agreements of minor relevance», and as such, susceptible de não violar o direito da concorrência, apesar do seu caráter restritivo. But the means that point to the interpretation of Articles 101 and 102 TFEU are even more indeterminate than the legal concepts contained in those articles themselves. Although the decision is excellent from a formal and theoretical point of view, it maintains a great uncertainty and conceptual ambiguity.

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## HOW RESIDENTS PERCEIVE THE IMPACTS OF TOURISM - THE CASE OF THE HISTORIC CENTER OF PORTO

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### ABSTRACT

*Considering the increase in the number of tourists and tourist flows in the city of Porto, especially in the parishes that make up the UNESCO World Heritage area and its surrounding protected areas, it is extremely important to analyse the perception that residents and professionals have about the dynamics that tourists bring to the city and the impacts of tourism in economic, socio-cultural and environmental terms. Thus, this study aims to assess the perception that residents of the city of Porto have on the impacts of tourist activity in the Historic Centre of Porto (CHP) and whether there is a relationship between the place of residence, the place of professional activity or study and the perception of the impacts of tourism in the Economic, Socio-cultural and Environmental aspects. For this purpose, a questionnaire survey was applied to a sample of 322 professionals and residents in the city of Porto. The results suggest that the respondents consider that tourism in Porto is growing harmoniously with the city and tourism activity has a direct influence on the overall improvement of the Centre of Porto. The aspects that is most relevant to the positive perception of tourism in the city is the socio-cultural component that shows that tourism development process in Porto is in an expansion phase.*

**Keywords:** *Environmental Impact, Development, Economic Impact, Socio-cultural Impact, Tourism*

### 1. INTRODUCTION

Tourism in the city of Porto has had a very expressive growth in recent years and the city is currently a stage of great changes. Recent studies indicate that in 2019 the city had 13 more hotel establishments than in the previous year, registering 107 in total. The Local Accommodation has registered the biggest increase, with a 120% increase from 2017 to 2018 and a 5% increase in 2019 compared to 2018. In 2019 there were 8,000 Local Accommodation establishments in the city of Porto. In total, in 2019 the city had an increase of 5.2% in overnight stays compared to the previous year and has a total accommodation capacity of around 15,000 beds, according to data from INE. Taking into account the increase in the number of tourists in the city of Porto, especially in the parishes that make up the UNESCO World Heritage area and its surrounding protection areas, and knowing that this area of the city has a large number of resident and floating population (professionals who travel to the city of Porto every day to practice their profession) it is extremely important to analyse the perception that residents and professionals who inhabit the Historic Area of Porto have about the dynamics that tourists bring to the city and the tourism impacts in economic, socio-cultural and environmental terms.

## 2. LITERATURE REVIEW

Tourism is a sector of high importance for the development of historic cities whose heritage wealth is an important attraction for tourist activity strongly anchored in heritage and culture. The enhancement of the urban heritage and its touristification offer new opportunities for the physical and socioeconomic recovery of cities, also contributing to the increase in the number of tourists in urban centres (Vaquero & Hernández, 1998). This being a reality, it is also known that tourism is not an innocuous activity; its development impacts on destinations and the local population. The duality between preserving and sharing culture can create some constraints between resident communities and tourists (Besculides, Lee & MacCormick, 2002) and the way residents and tourists interact is a theme that has been widely studied since the last decades. The evaluation that the receiving community makes of tourism depends, among other factors, on its tolerance to this activity, having repercussions on the way this community interacts with tourists and, therefore, on the concept of hospitality (Aires, Pequeno & Fortes, 2010). This, being a social phenomenon, involves a set of structures and attitudes on the part of the local population and is based on a social relationship based on the principle of reciprocity permeated by greater or minor inequalities (Fortuna, 1999). Hospitality depends on the quality of life of the hosts and this, in turn, is intrinsically related to the perceptions they have regarding the impacts of tourism activity (Aires, Pequeno & Fortes, 2010). Authors such as Doxey (1975) and Cohen (1984) argue that the relationship between tourists and residents goes through several stages related to the stages of tourism development in destinations and that, if tourists are initially treated as part of traditional relationships, gradually, with its increase, resistance also arrives, based on the Butler Tourism Life Cycle (1980). It should be noted, however, that there are studies that contradict the trend that the perception is all the more negative the more mature the destination is (Besculides et al., 2009), verifying that the populations of mature destinations perceive the benefits in development tourism based on economic and cultural benefits (Dyer, Gursoy, Sharma & Carter, 2007). The first studies on the perception of the local community on the impacts of tourism focused, essentially, on the economic impacts and only later did they begin to show the physical and social aspects, where variables of a qualitative order predominate (Hernández, 2000); in these, authors such as Mathieson and Wall (1982) and Pearce (1980) stand out, who typified the impacts of tourism as physical, economic and social. In the last two decades, studies on the perception of residents regarding the impacts of tourism have focused their analysis on the economic, socio-cultural and environmental aspects (Andereck, Valentine, Knopf & Vogt, 2005; Andriotis, 2005). Multiple authors show the economic benefit as the main motivation of the receiving community in relation to tourism (Diedrich & García-Buades, 2009; Gursoy, Jurowski, & Uysal, 2002; Haralambopoulos & Pizam, 1996; Krippendorf, 2001; Liu & Var, 1986; Vargas- Sánchez, Plaza-Mejía & Porras-Bueno, 2009), and which demonstrate that the economic impacts can be perceived as positive, resulting in job creation, the development of the local economy, the growth of investment, diversification economic activity, the increase in tax revenues, both at local and national levels, and in the increase in income and quality of life. However, these impacts can also be assessed negatively, resulting from the perception, by the residents, of an increase in the cost of living (increase in the price of goods and services) and an unequal distribution of benefits (Andereck & Vogt, 2000; Andriotis, 2005; Liu & Var, 1986; Haralambopoulos & Pizam, 1996;). Andereck et al., 2005, concluded that, at first, the receiving populations give account of the economic impacts reflected in inflation, the increase in employment and income, but also in the increase in the cost of living. With regard socio-cultural impacts, studies highlight the importance given by communities to the resurgence of traditions and their cultural sharing (Weickert & Kertstetter, 1996). These authors demonstrate that the tourist valuation of ancestral traditions supposes a renewal of the identity and pride that the communities have of their own culture, which positively influences the increase in the quality of life and image of the community, as

well as their perception of the activity tourism (Besculides, Lee, & McCormick, 2002; Gursoy & Rutherford, 2004; Sirakaya, Teye & Sönmez, 2002). There are, however, several studies that indicate that residents have a negative view on the impacts of tourism in the socio-cultural sphere (Johnson, Snepenger & Akis, 1994; Jurowski, Uysal & Williams, 1997; Tosun, 2002), namely with regard to respect to the involvement of local populations in cultural activities (Dyer et al., 2007). Jurowski and Gursoy (2003) showed that communities further away from touristic activities consider that socio-cultural impacts are more positive. Regarding the environmental aspects, the positive impacts on the protection of wildlife and protected areas can be highlighted, but also the negative impacts in terms of increased air and water pollution, the destruction of natural life, vandalism and crime, and the excess waste caused by tourism (Andereck et al., 2005; Brunt & Courtney, 1999). In the last decade, some studies have appeared that focus on the perceptions that local communities have about the impacts of tourism on their quality of life. In a 2011 study, & Nyaupane's analysed the perception of local communities about the impacts of tourism on quality of life, considering some variables, such as well-being, lifestyle, pride and community awareness, natural and cultural preservation, economic importance, animation and substance abuse and crime. The results of the study show that there is a positive impact of tourism on the quality of life of communities when the local community has frequent contact with visitors and their relationship is intense and satisfactory and when they perceive that the development of tourism strengthens the economy and facilitates greater access to services (restaurants, shops, etc.) and attractions (festivals) (Andereck & Nyaupane's, 2011). On the other hand, Carneiro and Eusebio (2015) conclude that, even when the interaction between residents and tourists is low and superficial, there are positive perceptions of the impacts of tourism in the different areas of their quality of life. It is important to highlight that local authorities must make efforts to include the local community in cultural animation activities, in order to keep it close to the spaces of socialization and cultural enjoyment, favouring the interaction between both communities (Vargaz-Sánchez et al., 2014). However, it is necessary to consider that there are constraints that influence the way the local community perceives the impacts of tourism. The literature has shown, above all, that residents agree to establish shares with tourists because these exchanges bring them more benefits than costs, in reference to the Social Exchange Theory (Mazon, Huete & Mantecon, 2009) and, thus, these have a such a positive reaction with tourists the greater their perception of the benefits of this sharing. Communities that obtain direct benefits from tourism and that are closer to home in relation to tourist attractions have a more positive perception of the impacts of this sector (Andereck et al., 2005; Andriotis & Vaughan, 2003; Haralambopoulos & Pizam, 1996; Jurowski & Gursoy, 2003). The work developed by Davis, Allen and Cosenza (1988) presents the 4 types of residents studied by Krippendorff and concludes that type 1 includes people who have a direct relationship with tourists due to the profession they develop; type 2 are residents and business owners who do not have regular contact with tourists; the type no. 3 are residents who have direct and frequent contact with tourists, but whose income only benefits part of the tourists. The members of this group can feel the advantages, but they also have a critical view of the disadvantages. The type no. 4 includes places that do not have direct contact with tourists. This group has a variety of attitudes, ranging from approval to rejection, interest or indifference, this attitude being the most common. This study concludes that there is a correlation between the time that residents live in the place and their more pessimistic view on tourism. The study also shows that there is a relationship between the economic link to tourism and the positive perception of its impacts and between the distance from the residence to the tourist site. The greater the distance, the greater apathy for its impacts. In short, the perceptions about the impacts of the tourist activity are formed taking into account extrinsic aspects (moment of development of the tourist destination, type of tourists in the destination and seasonality of the destination) and extrinsic aspects (geographical proximity or contact with the tourist,

characteristics sociodemographic, direct benefits of the tourist activity, degree of dependence, degree and type of participation of the resident in leisure activities, seniority of the residents in the place, which determines their connection to the terrain, knowledge of the individual and how this enables the levels of understanding tourism activity, political and demographic position, values and personality (Fredline & Faulkner, 2000). According to several author the familiarity among residents and tourists benefits residents perception about tourism impacts (Harrill, 2004; Ko & Stewart, 2002; Vargas-Sanchez, Porras-Bueno & Plaza-Mejia, 2011). As tourism is one of the main drivers of development, urban, economic and social transformation of cities, and playing residents a crucial role in any tourist destination, it is therefore necessary to count on the participation and support of the local population in the models of tourism development, as essential elements for the success of destination management and planning (Pulido-Fernández, López-Sánchez & Pulido-Fernández, 2013).

### 3. CONCEPTUAL FRAMEWORK

According to the literature review, resident's perceptions and their overall evaluation of tourism impacts are determined by their socio-demographic characteristics. The theory suggests that if residents perceive that the positive impacts of tourism activity development are greater than the negative impacts, they can be more involved in the exchange process and support tourism development in their community (Andereck et al., 2005; Andriotis et al., 2003; Davis et al. 1988; Fredline & Faulkner, 2000; Haralambopoulos et al., 1996; Harrill, 2004; Jurowski & Gursoy, 2003; Ko & Stewart, 2002; Mazon et al., 2009; Vargas-Sanchez et al., 2011). The hypotheses developed for this study are:

- H1 - Place of residence has influence on residents' perceptions of tourism impacts
- H1a: Place of residence has influence on residents' perceptions of tourism impacts on economic aspects.
- H1b: Place of residence has influence on residents' perceptions of tourism impacts on Socio-cultural aspects.
- H1c: Place of residence has influence on residents' perceptions of tourism impacts on environmental aspects.
- H2- Place of work/study has influence on residents' perceptions of tourism impacts
- H2a: Place of work/study has influence on residents' perceptions of tourism impacts on economic aspects.
- H2b: Place of work/study has influence on residents' perceptions of tourism impacts in socio- cultural aspects.
- H2c: Place of work/study has influence on residents' perceptions of tourism impacts on Environmental dimension.

#### 3.1. Survey instrument and data collection

A survey questionnaire method was used for data collection. The questionnaire was based on previous studies on resident's perceptions of tourism development impacts in the community (Andereck et al., 2005; Andriotis, 2005). The result is a questionnaire divided in 2 parts. The first part consisted in 32 questions categorized and structured according to a five-point Likert Scale, ranging from "strongly disagree" option to "strongly agree" option. Those questions can be further divided into 3 blocks of statements regarding the following topics: 1) economic impacts of tourism development; 2) environmental impacts of tourism development and 3) socio-cultural impacts of tourism development. The second part collected resident's socio-demographic information: age, gender, education level, occupation and link to tourism industry. There were also considered geographic variables such as the length of time the respondent has been living/working in the area. A pre-test was conducted between in April and allowed to estimate the time needed to fill in the questionnaire.

The results suggested that 12 minutes were needed. The residents and workers were contacted and invited to fill in a questionnaire in May 2018. A previous analysis was conducted to identify questionnaires with missing data. To avoid biased results, questionnaires with missing data were eliminated.

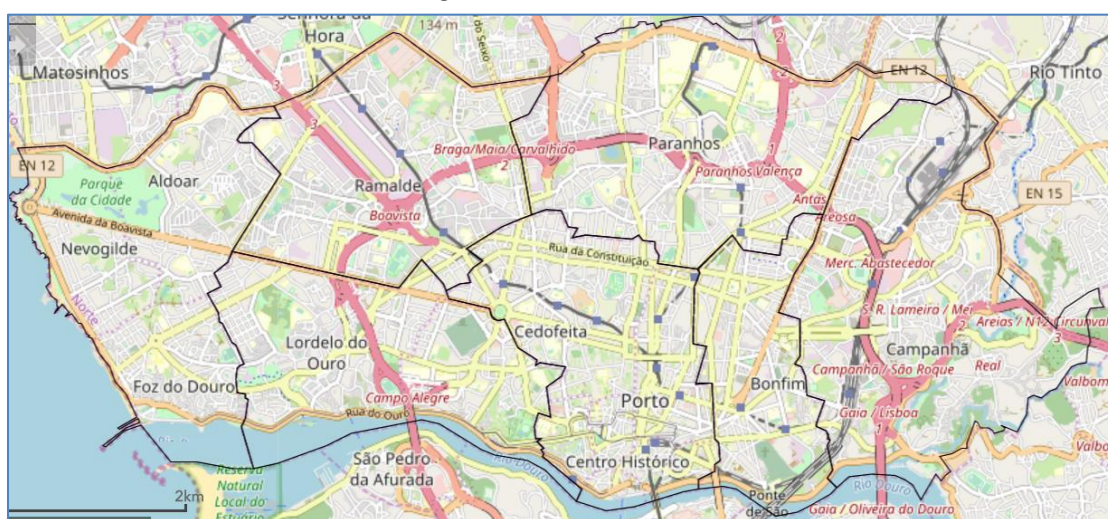
### 3.2. Statistical procedures

To reach our aim, several statistical procedures were carried out using SPSS (version 25). It was conducted a descriptive analysis to investigate resident's perceptions and to obtain a sample profile using socio-demographic information. To measure the internal consistency of the three factors alpha Cronbach's coefficient was computed for each factor. T-tests were used to identify differences between socio-demographic variables regarding the three scales measuring the perceived impacts of tourism development. When the independent variable is divided in two groups. When the independent variable was divided in three more groups ANOVA tests were applied.

### 3.3. Study location

The surveys were distributed to the 7 parishes in the municipality of Porto. The parish of the city with the highest concentration of tourists is the Union of parishes of Cedofeita, Santo Ildefonso, Sé, Miragaia, São Nicolau and Vitória, where the historic downtown is located and the historic set classified by UNESCO as World Heritage.

*Figure 1: Porto Parishes*



*Source: INE*

## 4. EMPIRICAL RESULTS

### 4.1. Profile of the respondents

Among the respondents, the majority are in the age group between 19 and 35 years (41.6%), followed by the interval between 36 and 50 years (23%) and, with a lesser representativeness, are those who are over 66 years old (6.8%). Regarding gender, 51.2% are men and 48.4% are women. In the scope of the parish of residence, the respondents live, mostly (35.4%), in parishes outside the municipality of Porto, followed by the parish of Campanhã, with 18.6% of representativeness. The one with the least expression is the parish of Ramalde. In the case of the work/study parish, most respondents came from Cedofeita, Santo Ildefonso, Sé, Miragaia, São Nicolau and Vitória, followed by the parish of Bonfim (with 14.9%). The smallest parish is Ramalde (1.2%). In the case of professional occupation, the highest percentage of responses concerns to professionals unrelated to the Tourism sector (34.5%), followed by employees

linked to commerce (14.9%). Owners in the field of activities related to the hotel industry are those who were least represented in this study, with a percentage of only 1.6%. Now moving to literary qualifications, most have secondary education (50.6%), followed by graduates (23.3%), those with basic education (17.1%), those with a master's degree (6.2%) and, finally, those with a PhD degree (2.5%). As a last criterion to characterize the sample, we have the time spent in the workplace/study, with the greatest weight of responses being in the period of more than 10 years (48.4%), followed by the period less than 1 year (21.7%), with the least expressive period being between 6 and 9 years. In short, this study has a sample consisting mainly of the following characteristics: age group between 19 and 35 years old, mainly male, mostly resident in parishes outside the municipality of Porto and working/studying, in greater quantity, in Cedofeita, Santo Ildefonso, Sé, Miragaia, São Nicolau and Vitória, with a professional occupation, especially outside the Tourism sector, with literary qualifications at the level of secondary education and who has remained in the workplace/study for more than 10 years.

#### 4.2. Descriptive analysis

The most relevant aspects are the socio-cultural one, which is in line with the studies by Weickert and Kertstetter (1996), that demonstrate that the tourist valuation of cultural traditions can improve the perception of communities about the activity of Tourism.

*Table 1: Descriptive Statistics – aspects*

	N	Minimum	Maximum	Average	Deviation error
Economic aspects	322	1,73	5,00	3,4960	,54823
Socio-cultural aspects	322	1,82	5,00	3,6823	,57318
Environmental aspects	322	1,10	5,00	3,3365	,61574
Valid N (from list)	322				

In the context of the variables considered in the economic aspects, the ones that stood out most as being positive for the respondents' perception were the investment that Tourism attracts in the CHP and the increase in training at the level of Tourism professionals (both with a percentage of 4, 30). Still close to these figures, we highlight the increase in jobs generated in the CHP (4.21), the increase in the income of economic agents (4.19) and the relevance that Tourism has for the development of the economy, in general, in CHP (4.18). What is assumed to have a less positive impact is the price of housing, followed by the cost of living, both in the CHP. These data are in line with the various authors who highlight the positive aspects of Tourism (Diedrich & García-Buades, 2009; Gursoy et al., 2002; Haralambopoulos & Pizam, 1996; Krippendorff, 2001; Liu & Var, 1986), but also approach those who refer to their most negative aspects (Liu & Var, 1986; Haralambopoulos & Pizam, 1996; Andereck & Vogt, 2000 and Andriotis, 2005). That is, if on the one hand Tourism can bring in revenue, on the other hand, it leads to an increase in the cost of living, which is also highlighted by Andereck et al. (2005). Finally, in the case of the socio-cultural aspects, the variable that stood out most positively was the fact that Tourism allowed a revitalization of the CHP (4.01), followed by the increase and/ or improvement in public infrastructure (3, 82), security (3.78), the conservation of natural resources (3.74) and the improvement of accessibility and means of transport in the CHP (3.64). As less positive, the highlight is for traffic, pollution and dirt, in the CHP, which is in line with the studies by Andereck et al. (2005). Regarding the variables analyzed in terms of the environmental aspects, the highlight goes to the importance that Tourism can have in terms of a better understanding of the culture and society of other countries (4.29), following

the dynamics that the tourist activity is creating at CHP, namely in terms of restaurants, nightlife, street entertainment, among others (4.16). The dynamism brought by tourists, the good integration between tourists and the people of Porto and the taste they have in welcoming people from other regions, also obtained expressive results, with average values in the order of 4. The biggest concerns are the construction of hotels and other tourist facilities and the lack of characterization of the CHP's identity, as a consequence of tourism activity. Positive and negative aspects of tourism, at the environmental level, were considered by Andereck et al. (2005) and Brunt and Courtney, (1999).

### 4.3. Reliability of the scales

A confirmatory factor analysis showed the unidimensionality of the scale, consequently the values of the 11 items were summed and averaged to create economic impact construct (Cronbach alpha = .75). Socio-cultural aspects were measured using a scale of 11 items. The confirmatory factor analysis reveals unidimensionality for the construct and the 11 items were also summed and averaged (Cronbach alpha = .81). Environmental impact was measured using a scale of 10 items. The confirmatory factor analysis reveals unidimensionality for the construct and the 10 items were also summed and averaged (Cronbach alpha = .78).

### 4.4. ANOVA analysis

A simple ANOVA was conducted using the statistical package SPSS. The results showed that the place of residence has influence on residents' perceptions of tourism impacts on economy ( $p < .05$ ). Residents consider that tourism has a positive impact on local economy (mean=3.50). This finding is in line with the results of the study Andereck et al., 2005; Andriotis & Vaughan, 2003; Davis et al., 1988; Diedrich & García-Buades, 2009; Gursoy et al., 2002; Krippendorf, 2001; Liu & Var, 1986; Haralambopoulos & Pizam, 1996; Jurowski & Gursoy (2003). According to the results parishes with higher levels of touristic activities consider that the impact is less positive like Bonfim (mean = 3.36), Cedofeita, Santo Ildefonso, Sé, Miragaia, São Nicolau e Vitória (mean = 3.31), Lordelo do Ouro e Massarelos (mean = 3.15) than those that are further away such as Aldoar, Nevogilde e Foz do Douro (mean = 3.8), Ramalde (mean = 3.8), Paranhos (mean = 3.71) and Campanhã (mean = 3.56). The findings indicated that the place of residence has no statistically significant influence on residents' perceptions of tourism impacts on socio-cultural aspects ( $p > .05$ ). This evidence is no similar to the study by Davis et al., (1988). Results have demonstrated that place of residence has statistically significant influence on residents' perceptions on environmental effects of tourism ( $p = 0.000$ ). This finding is similar to the result of the study (Fredline & Faulkner, 2000; Davis et al., 1988; Harrill, 2004; Ko & Stewart, 2002; Vargas-Sanchez, Porras-Bueno, & Plaza-Mejia, 2011). The results suggest that residents do not have a very expressive positive position about the perception of tourism impact in terms of environmental aspects (mean=3.34). Although, the results shows that parishes where tourism activity is greater consider that the impact is less positive like Cedofeita, Santo Ildefonso, Sé, Miragaia, São Nicolau e Vitória (mean = 3.03), Lordelo do Ouro e Massarelos (mean = 3.05) than those that are further away like Aldoar, Nevogilde e Foz do Douro (mean = 3.75). Regarding place of work/study, it has influence on residents' perceptions of tourism impacts on local economy ( $p < .05$ ). The result showed that workers and students consider that tourism has a positive impact on economic aspects (mean=3.50). This finding is in line with the results of some studies (Andereck et al., 2005; Andriotis & Vaughan, 2003; Davis et al., 1988; Diedrich & García-Buades, 2009; Gursoy et al., 2002; Haralambopoulos & Pizam, 1996; Jurowski & Gursoy, 2003; Krippendorf, 2001; Liu & Var, 1986). According to the results parishes where tourism activity is greater consider that the impact is less positive (Cedofeita, Santo Ildefonso, Sé, Miragaia, São Nicolau e Vitória [3,4]; Lordelo do Ouro e Massarelos [3,25] than those that are further away like Aldoar,



Nevogilde e Foz do Douro (mean = 3.85) and Campanhã (mean = 3.62). Regarding place of work/study, it has influence on residents' perceptions of tourism impacts on socio-cultural aspects ( $p < .05$ ). The results suggest that workers and students consider positive the impact of tourism in terms of socio-cultural aspects (mean=3.68). This finding is in line with the results of Andereck and Nyaupane's (2011), Fredline and Faulkner (2000), Davis et al., (1988) and Jurowski and Gursoy (2003). The results showed that workers and students that develop their activity in parishes where tourism activity is less expressive (parishes further away from the historic center) evaluate more positively the impact of tourism in this aspects: Aldoar, Nevogilde e Foz do Douro (mean = 3.97), Campanhã (mean = 3.86), Bonfim (mean = 3.73), Paranhos (mean = 3.67), Ramalde (mean = 3.55), Cedofeita, Santo Ildefonso, Sé, Miragaia, São Nicolau e Vitória (mean = 3.59) and Lordelo do Ouro e Massarelos (mean = 3.43). Finally, place of work/study has influence on residents' perceptions of tourism impacts on environmental aspects ( $p < .05$ ). Workers and students showed a positive perception, although slight, about the impact of tourism in environmental aspects (mean = 3.34). This finding is in line with the results of the studies: Davis et al. (1988), Fredline and Faulkner (2000), Harrill (2004), Ko and Stewart (2002) and Vargas-Sanchez, Porras-Bueno, and Plaza-Mejia (2011). The results suggest that workers and students who develop their activity in parishes where tourism activity is greater Cedofeita, Santo Ildefonso, Sé, Miragaia, São Nicolau e Vitória (mean = 3.21) and Lordelo do Ouro e Massarelos (mean = 3.22) consider the impact less positive, unlike workers and students from parishes that are further away consider that the impact is more positive as Aldoar, Nevogilde e Foz do Douro (mean = 3.90). The above finding evidence the following results.

- H1 - Place of residence has influence on residents' perceptions of tourism impacts
- H1a: Place of residence has influence on residents' perceptions of tourism impacts on economic aspects – Accepted
- H1b: Place of residence has influence on residents' perceptions of tourism impacts on Socio-cultural aspects– Rejected
- H1c: Place of residence has influence on residents' perceptions of tourism impacts on environmental aspects– Accepted
- H2- Place of work/study has influence on residents' perceptions of tourism impacts
- H2a: Place of work/study has influence on residents' perceptions of tourism impacts on economic aspects - Accepted
- H2b: Place of work/study has influence on residents' perceptions of tourism impacts in socio- cultural aspects – Accepted
- H2c: Place of work/study has influence on residents' perceptions of tourism impacts on Environmental dimension - Accepted

## 5. CONCLUSIONS

From this study it can be concluded that residents, professionals and students from the city of Porto have a positive perception of tourism in the city. Of the aspects studied, we can highlight that it is socio-cultural that has the most expressive value. It is also possible to verify that the place of residence has influence on residents' perceptions of tourism impacts on economic and environmental aspects, but there is no correlation between the place of residence and the socio-cultural aspects. Regarding the place of work/study, it influences the perception of economic, socio-cultural and environmental impacts. The results suggest that the respondents consider that tourism in Porto is growing harmoniously with the city and tourism activity has a direct influence on the overall improvement of Porto Downtown. In general residents showed a positive perception of tourism impacts in all the aspects: economic, socio-cultural and environmental, although it is perceived that the respondents have a more positive perception the greater the distance from their home and workplace/study to the places of greatest tourist

pressure in the city. This evidence suggests that tourism development process in Porto is in an expansion phase and that if residents have an important role in any tourist destination, it is necessary to count on the participation and support of the local population in the models of tourism development, as essential elements for the success of destination management and planning.

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# STRATEGIC ALLIANCES IN INTERNATIONAL TRADE: THE JOINT VENTURE CONTRACT

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## **ABSTRACT**

*Currently, in the global world in which we operate, and given the splendor achieved by international trade, it is of particular interest to carry out a reflection on the importance of strategic alliances, especially in joint venture contracts. The cooperation of companies, depending on the structural characteristics and targets, is increasingly becoming an alternative to conquer other markets. However, in spite of the various legal and doctrinal conceptions that involve this legal business, it presents itself as a common enterprise, having as content the common purpose itself and the obligation to pursue it. These instruments aim at the union and approaching companies for carrying out a joint project that otherwise would not be possible to achieve. Here lies the practicality of these contracts. Their structure leads to an analysis, which we will carry out, through doctrine, and real examples, seeking to highlight the main commercial legal aspects.*

**Keywords:** *contract, enterprise, International, joint venture*

## **1. INTRODUCTION**

The evolution of legal-economic relations has assumed great importance, especially in terms of cooperation and relationship between companies. Globalization has brought complex cooperative relations between companies contributing decisively to the exponential economic development. In developing countries, the needs for strategic alliances arose, above all, after the Second World War, serving the purposes of the much desired economic independence, especially by companies located on the old continent, eager for recovery. In turn, in Eastern European countries, joint ventures were the recommended solution for opening up to foreign investment (Pinheiro, 2003). The 1980s saw cooperation between companies based in the European Community and companies located in the USA, particularly in the automotive, aerospace, telecommunications and IT sectors. There was a real articulation between certain business groups (Morais, 2006). Along with the relationships between companies, in which each maintains their individuality, there are cases of concentration, where the dilution of the personality of each is shown. We found that these relationships arose under the guise of a business phenomena cooperation or, even, business concentration, having contributed to the appearance of joint ventures. In terms of business internationalization, we found that business cooperation has been a dominant attitude. Consequently, these instruments come to occupy a prominent place and provide legal support for this type of relationship. Whenever cooperation takes on the shape of business internationality, the figure of joint venture contracts is particularly prominent. These are achieved through a link between two or more companies that want to pursue a common project.

## **2. EMERGENCE**

However, it is important to underline that, only from the 1960s onwards these contracts gain great international prominence. There are determining factors for its value that must be considered, in the scope of international commercial relations and in the conquest, by the companies, of new markets. It is important to bear in mind that the use of this type of instruments, which enhance strategic alliances, is mainly related to the high costs of

technological innovation. Through these types of contracts, it is possible to achieve, on the one hand, risk sharing, on the other hand, investment expenses. Similarly, states that receive foreign investment often demand from their investors, usually multinationals from developed countries, the participation of their local companies in the businesses in question. In this way, they intend to achieve the deserved development and the much desired international visibility. Regarding small and medium-sized companies, it has been verified and is still verified, nowadays, that they will only be able to reach the longed for internationalization through the existence of intense business collaboration. This will allow them to gather the means for future expansion. Roughly speaking, this cooperation proves to be a skillful mechanism for implementing business strategies. It is customary to point out the origin of the joint venture contract in North American business practice. American jurisprudence has also played an important role in identifying the characteristics of this contractual figure (Astolfi, 1981). They thus identified as essential elements of the contract: the existence of an express or tacit agreement by the parties involved, the existence of a common interest, the sharing of profits and losses and the need for mutual control. In short, cooperation, company and joint venture (Antunes, 2009). With the growth of these cooperation agreements, States have recognized their importance and implemented some policies to encourage inter-company cooperation. According to the Organization for Economic Cooperation and Development (OECD), we will be facing a joint venture whenever there is participation of several companies in the capital of an economic unit, legally independent, resulting in the sharing of assets, profits and business risk. In other words, there should be legal independence for the new company from those that give rise to it, sharing management and control over assets and profits. We cannot fail to mention the degree of social typicality that these contracts present, either at the national level of each state, or in the international trade scope.

### **3. MODALITIES**

Joint venture agreements take two forms: unincorporated joint ventures (or contractual joint venture) and incorporated joint ventures (or equity joint venture). As for the former, we will say that these are associations of interests in which two or more companies, of different nationalities, sign an agreement with the purpose of exercising a certain activity, not giving rise to a new company (Pereira, 1988). The relationships between them are only mandatory. This modality has the following main characteristics: the reciprocal control of the members who are part of it, the contribution of each one to the joint venture, the pursuit of a common project, implying, e.g. a new productive capacity, new technology, presentation of a new product for the market and ability to enter new markets. Regarding the second modality, we will already be faced with the constitution of a new entity, of a legal person. Thus, there is a new organization with legal personality. We will be in the presence of an incorporated joint venture whenever a company is formed with the participation in the capital of partners/members, whether foreign or national. It may happen that participation in the capital takes place through an existing company. In view of these two modalities, it is also customary to identify them by the term contractual joint venture and corporate joint venture, respectively mandatory or organized cooperation. Joint venture contracts operate mainly in the construction, industry (production) and investment sectors (Pereira, 1988). Here, it is important to emphasize that, regarding joint ventures in the construction sector, consortia arise of purely contractual origin, where the regulation of the activity they intend to develop and the responsibility they will assume towards third parties with whom they establish contractual/business relationships are established (construction owner). At the same time, they provide for the sharing of risks, but not of profits. This is due, essentially, to the fact that the respective members of the joint venture thus continue to have control over the value of the work they do. With regard to joint ventures that operate in the industrial sector, we can say that its members are on an equal footing, with the intention, in

particular, of minimizing production costs. Finally, the latest joint ventures operating in the investment sector, want to achieve what is called direct profit. The purpose of these alliances is commonly referred to as an incorporated joint venture.

#### **4. CHARACTERISTICS**

The essential characteristics of this contract are: the pursuit of a common interest, the *intuitus personae* and object of cooperation. We can also add that the intended joint venture necessarily implies the observance of close collaboration between the parties. When we talk about joint venture contracts, we must keep in mind that they always assume a base contract. However, around it, there are complementary agreements, which normally deal with the regulation of the various specifics regarding the execution of the contract. Therefore, we will have an essential contractual nucleus through which all the organization's regulation materializes. This contractual element will manage the business activity that the parties intend to pursue (Morais, 2006). Thus, the head of agreement will define the common economic purpose, determining the ways of its implementation, listing the rights and obligations of the parties involved (Antunes, 2009). As for the complementary agreements, these are usually called *side agréments*, which will regulate, in the “specialty”, certain situations covered by the head of agreement. The collaboration that is established between the members of the joint venture cannot be reduced to a process of collaboration. These are effectively collaborative contractual relationships (Morais, 2006). It is also important to mention that the relations between the members of the joint venture are guided by the principle of non-competition. The common interest determines it, and may even entail sacrifices for the individual interests of each of the companies. These strategic alliances designated either as common enterprise agreements or referred to as joint ventures, must also establish the applicable law and the method of resolving disputes. Usually, they establish the arbitral route for the resolution of possible disputes between the parties to the agreement, and they often enshrine other extrajudicial mechanisms, such as mediation, negotiation, among others. Regarding to *side agréments*, it is also worth noting the existence of committees, made up of representatives of each of the companies, which are responsible for implementing guidelines to be followed by the members of the agreement (Pinheiro, 2003). We should keep in mind that these business agreements are characterized by some social characteristic, although the emphasis that differentiates them must be placed on the strategic alliance that is established among its members. Therefore, common interest and *intuitus personae* are not enough.

#### **5. APPLICABLE LAW**

In this type of cooperation, in addition to the place where the activity takes place, it is also significant the place where the activities of the companies that enter into the joint venture agreement. This undoubtedly affects the characterization of the contract. Assuming great importance in determining its internationality (Pinheiro, 2003), as well as in the problem of applicable law. Private International Law, called classic or traditional, regulates international private relations through an indirect process individualizing the applicable legal order through a given connection. However, this branch of law has dragged, through the ages, other forms of regulation of international private relations into its scope, also starting to deal with direct ways. We speak of the material or substantive way, special, capable of regulating international contracts, whether from an internal or an international source. The phenomenon of the international disclosure of certain international contracts and, among them, the joint venture contracts, seems irrefutable when, together, they are subject to conformation and regulation by norms of International Law and can be appreciated by international jurisdictions. Furthermore, there is a tendency to admit that international trade contracts can be shaped and regulated through an Autonomous International Trade Law even in the face of national legal systems

(Vitta, 2003). It is important, with regard to international contracts, and in this case it is not an exception, to refer to the principle of autonomy of the parties in Private International Law. In this scope, it means that the parties can choose the law applicable to the contract. Usually, it is the *lex fori* of each country that decides whether to admit the autonomy of the parties' will as a connecting element. Although, at present, this principle has achieved transnational acclaim, ending up becoming one of the tenets of international trade. It is based on this principle that international trade operators make use of a wealth of uses and customs. We are talking, of course, about *lex mercatoria*. It is known that it originated in the expansion of international maritime trade, being born in the fairs of the Middle Ages. (Fioratti, 2004). At this moment, no matter when and how it was born, only its contribution to the theme is interesting. Today, it is unquestionably stated that international trade has contributed and still contributes, increasingly, to the formation of a normative body capable of regulating it (Manriruzzaman, 1999). This search is rooted in the fact that national laws and international law are inadequate to regulate international trade relations. *Lex mercatoria* thus presents itself as a very attractive option, and can be seen as a set of principles and rules for spontaneous creation, with international trade as a precursor (Goldman, 1964). We should also take into account its sectorial character, as the uses and customs emerge from different sectors of international trade. At the same time, the use of arbitration as a way of resolving conflicts in international trade has unquestionably contributed to the development of an autonomous system, in view of its neutral and effective role in resolving conflicts. Thus, *lex mercatoria* began to settle based on some uniformity of normative sources, namely commercial practices, standardized contractual clauses, standard contracts and arbitration jurisprudence. Not forgetting the unparalleled contribution of certain transnational organizations, created for the purpose of contributing to the harmonization of international trade law. We speak of the United Nations Commission on International Trade Law, UNCITRAL, the International Institute for the Unification of Private Law, UNIDROIT, among others (Glitz, 2012). Thus, in view of this global standardization, instruments were created that are capable of regulating at least some of the key aspects of international contracting. We are talking about hard law instruments, namely international conventions ratified by States and soft law, flexible law, not only customary, of spontaneous formation, but the result of the activity of certain entities, some of the mentioned above as well as others, as is the case of the Chamber International Trade Commission, CCI. In addition to all this, we still have the admissibility of contracts without law (state, international or transnational), in which it is the contract that regulates itself. The diversity of sources of regulation in relation to this type of contracts is, as we can see, a not insignificant reality (Pinheiro, 2003). Intercompany cooperation, having assumed outlines of great international relevance, has also contributed to the sedimentation of this type of instruments. This has been one of the main factors for the emergence and improvement of new contractual modalities, the joint venture being one of those realities.

## 6. EXAMPLES

Chevron Corporation and Weyerhaeuser Company. Development of renewable biofuels by converting biomass from cellulose into low-carbon biofuels. The two leaders in the cooperative fuel market, through funds, aimed to develop technology, to have more manpower to create renewable fuel sources. Unilever and Perdigão (Brazil). Unilever, owner of the brands and producer of Becel and Doriana products, and Perdigão, distributor, guaranteed through a strategic alliance the entry of brands into new markets. The two collaborating companies jointly contribute to marketing and innovation. Hewlett-Packard (HP)/ Sony and Yokogawa Electric. Scope: operating in the Asian market. Nintendo/Gradiente and Estrela (Brazil) joint venture "Playtronic ". Launching of several games console. Examples: Super NES video games, Nintendo64.

Sony Ericsson and Globosat, channel programmer from Brazil. They got the Universal Channel, TeleCine Network, among others, to Brazil. Nokia and Siemens (2006). Nokia Siemens Networks, based in Espoo, Greater Helsinki, capital of Finland. Joint Venture motivated by other unions of companies in the industry. Telecommunications equipment manufacturers Sony Ericsson, one of the best known joint venture companies in the world. Union between Sony and Swedish company Ericsson, a manufacturer of telecommunications equipment. Hisun-Pfizer joint venture. The largest drug company in the world, Pfizer, has teamed up with the Chinese pharmaceutical company, Zhejiang Hisun. The merger of the company came after Pfizer detected a decline in its sales and for the potential of the Chinese market.

## 7. CONCLUSIONS

Joint ventures are presented as an instrument for business implementation, especially in the international aspect, for the conquest of new markets. As a concept, it presents some flexibility, being able to adjust to the type of enterprise according to the will of the parties. International business cooperation has been decisive for certain economic sectors, also facilitating the expansion of small and medium-sized companies to other markets. International strategic alliances end up being a means of enhancing great innovation, allowing the sharing of risks and contributing to world development. The competition factor has also contributed to a better coordination of efforts, especially by foreign authorities, in decision-making, even worldwide. In international joint ventures, it is possible to choose a law, normally arbitration and the choice of applicable law, which may fall under flexible law.

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## THE MECHANISMS OF AGGLOMERATION EXTERNALITIES AND ENTERPRISE PERFORMANCE IN RUSSIA

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### ABSTRACT

*Our paper is devoted to the role of agglomeration externalities in the firms' performance in Russia. We employ firm level data for the years 2000-2008 covering manufacturing sector. Literature on Russian enterprises is extended by studying various aspects of agglomeration levels, such as specialization or localization level on one hand and urbanization level on the other hand, as well as by taking into consideration enterprise and regional indicators. Specific features of industries are taken into account. Localization levels in the settlements (cities, towns and smaller localities) are found to have a non-linear shape. Positive effects of localization probably diminish after some point due to excessive competition for customers and for resources. Another variable reflecting concentration of same industry enterprises, a share of industry in the output by all firms in the settlement, is also characterized by an inverted U shape. Urbanization indicator shows strong positive impact on productivity for the firms belonging to all groups of industries. While analyzing agglomeration variables we keep in mind mechanisms of agglomeration externalities: a shared market of production factors, including labor; common infrastructure that firms can use within agglomeration, and knowledge or information spillovers. To account for some of these mechanisms, we include a variable associated with the level of human capital in the region: average wage. Wage demonstrates positive effect on productivity emphasizing the importance of human capital for the firms' successful performance. The results of this paper can be useful for regional policy development.*  
**Keywords:** *industry groups, localization, regional economy, spatial concentration, urbanization*

### 1. INTRODUCTION

It is known that the level of development tends to vary across regions and settlements (cities, towns and smaller localities). Therefore a number of important issues need to be addressed. Among them is motivation behind enterprise location choice, because if enterprise location is motivated by market factors, enterprises tend to locate so that they benefit from agglomeration effects. In other words, enterprises locate close to the other enterprises of the same or different industries, possibly in larger settlements, in order to benefit from presence of each other. These benefits can include common labor market and infrastructure, as well as information spillovers.

Moreover, researchers pose a question if the existing enterprise location is optimal, i.e. if enterprises internalize agglomeration economies, or they do not do this and then cluster policy is needed (Martin et al., 2011). In order to shed light on agglomeration economies we analyze the impact of spatial concentration of economic activity on enterprise productivity. We consider various aspects of economic activity concentration: localization or specialization and urbanization levels in a settlement (urbanization being interrelated with industrial diversity). Regional characteristics are taken into account in our study. One of the basic concepts in this paper is agglomeration, spatial concentration of economic activities in some territory or in a settlement. If enterprises are located close to each other, then their activities and interaction tend to generate agglomeration externalities, in other words, agglomeration economies. Estimation of agglomeration economies is important for development and analysis of regional policy. While choosing enterprise location in the Soviet Union, policy-makers were guided by social necessity and political factors rather than by economic efficiency (Mikhailova, 2011). It seems reasonable to assume that to some degree modern firms in Russia are located in the same places as enterprises during the times of planned economy. As for internalization of agglomeration economies by enterprises, enterprise location in Russia is found to be non-optimal, showing that enterprises tend to be located in places where they do not benefit fully from agglomeration externalities (Davidson, Mariev, 2018). The evidence on the agglomeration externalities is controversial. A meta-analysis revealed only positive effects in more than 60% of empirical papers; in 13% of papers both positive and negative effects were found, and in 24% of the papers externalities were found to be insignificant (Beaudry, Schiffauerova, 2009). Research also shows that positive agglomeration externalities start decreasing after a certain level of economic activity concentration is reached, i.e. agglomeration economies are characterized by the inverted U shape. It happens due to congestion costs that firms face in agglomerations because of transport costs and high rents arising from high density (Mills, 1967). Along with these findings there is strong evidence of positive agglomeration externalities that enterprises experience. Sveikauskas (1975) finds that industries gain on average 5.8% increase in productivity due to doubling of city size. For urban districts of USA it was found that productivity increases 2–4% when human capital density doubles (Abel et al., 2010). In Russia population density and distance between towns differ substantially across regions in the Eastern and Western parts of the country. Therefore economic development of the regions is uneven (Demidova, 2015). According to New economic geography there are mechanisms that can mitigate disparities among regions. They include improvement of transport infrastructure and communications, decrease in trade costs, removal of institutional barriers, and social policy for the lagging regions (Kolomak, 2014). Another observation that can be useful for economic policy is cumulative nature of agglomeration process, when agglomeration externalities attract new firms to the agglomeration, and entry of these new firms further increases agglomeration externalities (Ottaviano, Thisse, 2004). Our research is based on SPARK firm level data, extended with regional data of the Federal Service for State Statistics (Rosstat) to obtain well-rounded information on the economic situation. The data covers the years 2000 to 2008, the period between two economic crises. It allows us to analyze the impact of agglomeration levels on economic activity during a rather favorable time period, without major distortions. Manufacturing enterprises producing tradable goods were chosen for the analysis because enterprises producing non-tradable goods tend to have some degree of market power, and it is difficult to disentangle its effects from agglomeration externalities. Besides, companies producing tradable goods can potentially gain more from externalities as they can increase their output and enter the neighbouring markets. As for manufacturing enterprises versus extracting industry firms, location choice of extracting industry firms is evidently strongly affected by the presence of natural resources, while agglomeration effects do not play a major role for them.

## 2. INDUSTRIAL CLASSIFICATION

According to the life cycle theory, agglomeration externalities vary across enterprises of different age. The results differ among the papers, but newer enterprises tend to gain relatively more from diversity externalities than older firms, and older firms tend to gain more from localization (specialization) externalities, while diversity (variety of industries in a settlement) and urbanization (size of a settlement) levels are interrelated. Overall, empirical research shows that agglomeration effects differ across industries. For example, Henderson (2003) studies agglomeration effects in high tech and machinery industries using plant-location fixed effects and industry-time fixed effects. He finds that localization externalities are present in high tech industries, while diversity externalities are found for the corporate sector of machinery industry. Industrial classification and agglomeration mechanisms typical for various manufacturing industries are presented in the Table below. Resource and infrastructure sharing, matching on the labor market, and learning or information spillovers have different importance for various groups of industries. These differences arise from industries' specific features and needs; analysis of these differences helps to understand deeper the mechanisms behind agglomeration externalities. In our paper we use a modified Pavitt (1984) classification to account for specific features of various industries. We rely on the industrial classification of the Russian Federation, OKVED (identical with NACE 2 classification), 3-digit, while calculating the agglomeration indexes.

*Table 1: Differences in agglomeration effects across various industrial groups*

	Sharing	Matching	Learning
Traditional goods	Substantial, arise from localization	Substantial, arise from localization	Not important
Basic materials	Substantial, arise from localization	Substantial, arise from localization	Not important
Basic machinery	Important; arise both from localization and from diversity	Important; arise from localization	Important; arise mainly from diversity
Integrating machinery	Important; arise both from localization and from diversity	Very important; arise from diversity	Important; arise mainly from diversity
Science based	Important; arise both from localization and from diversity	Important; arise both from localization and from diversity	Very important; arise mainly from diversity

*Source: Vorobyev et al. (2010) and Pavitt (1984)*

Industries producing traditional goods include manufacture of textiles, manufacture of other wearing apparel and accessories; manufacture of footwear; manufacture of products of wood; printing and service activities related to printing; manufacture of jewellery and related articles; manufacture of musical instruments; manufacture of sports goods and others. Basic materials cover such industries as preparation and spinning of textile fibres; textile weaving; manufacture of knitted and crocheted fabrics; manufacture of articles of paper and paperboard; manufacture of plastic products; manufacture of glass and glass products; manufacture of ceramic goods other than for construction purposes; manufacture of ceramic tiles and flags; manufacture of bricks, tiles and construction products, in baked clay; manufacture of cement, lime and plaster; manufacture of various fabricated metal products; recycling of metal waste and scrap etc. (Vorobyev et al., 2010).

Basic machinery industries are manufacture of machinery for the production and use of mechanical power; manufacture of other general purpose machinery; manufacture of agricultural and forestry machinery; manufacture of machine tools; manufacture of electric motors, generators and transformers; manufacture of electricity distribution and control apparatus; manufacture of insulated wire and cable; manufacture of various electrical equipment; manufacture of parts and accessories for motor vehicles and their engines etc. Integrating machinery industries are manufacture of motor vehicles; building and repairing of ships and boats; manufacture of railway and tramway locomotives and rolling stock; manufacture of motorcycles and bicycles; manufacture of other transport equipment n.e.c. Finally, science based sectors include manufacture of office machinery and computers; manufacture of various electronic components; manufacture of medical and surgical equipment and orthopedic appliances; manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes; manufacture of industrial process control equipment; manufacture of optical instruments and photographic equipment; manufacture of watches and clocks; manufacture of aircraft and spacecraft; software consultancy and supply; database activities; research and experimental development; architectural and engineering activities and related technical consultancy etc.

### 3. EMPIRICAL ANALYSIS

To test our hypotheses, based on the previous findings discussed in introduction, we construct the following econometric model:

$$revenue_{i,t} = \beta_0 + \beta_1 fa_{i,t} + \beta_2 labour_{i,t} + \beta_3 core_{j,z,t} + \beta_4 core_{j,z,t}^2 + \beta_5 loc_{j,z,t} + \beta_6 loc_{j,z,t}^2 + \beta_7 urb_{j,z,t} + \beta_8 wage_{r,t} + \beta_9 aroad_{r,t} + \beta_{10} rwroad_{r,t} + \beta_{11} grppc_{r,t} + fe_i,$$

where:

- $revenue_{i,t}$  – revenue of firm  $i$  in the time period  $t$ , rubles;
- $fa_{i,t}$  – fixed assets of firm  $i$  in the time period  $t$ , rubles;
- $labour_{i,t}$  – number of workers of firm  $i$  in the time period  $t$ ;
- $loc_{j,z,t}$  – localization coefficient of industry  $j$  in the settlement  $z$  in the time period  $t$ ;
- $core_{j,z,t}$  – specialization coefficient of industry  $j$  in the settlement  $z$  in the time period  $t$ , share of industry  $j$  in the total revenue of the settlement  $z$ ;
- $urb_{j,z,t}$  – urbanization coefficient of industry  $j$  in the settlement  $z$  in the time period  $t$ ;
- $wage_{r,t}$  – average wage in the region  $r$  in the time period  $t$ , rubles;
- $aroad_{r,t}$  – automobile road density in region  $r$  in the time period  $t$ , km per 1000 sq.km;
- $rwroad_{r,t}$  – railway road density in region  $r$  in the time period  $t$ , km per 1000 sq.km;
- $grppc_{r,t}$  – gross regional product of region  $r$  in the time period  $t$ , rubles;
- $fe_i$  – firm level fixed effects.

We follow the approach of Henderson (2003) and Vakhitov and Bollinger (2010) who estimate the impact of agglomeration levels on enterprise performance using output (sales) as a dependent variable. Other possibilities include using value added and TFP in the estimation process (Martin et al., 2011). Along with urbanization coefficient, reflecting the volume of economic activities in a settlement, a diversity coefficient can be applied in order to shed light on the externalities arising actually from diverse economic activities (Davidson, Mariev, 2015). These two coefficients tend to be correlated (Vorobyev et al., 2010). To estimate the model, we use logarithms of these variables. First two indicators of the list above are controls on the firm level; the next three ones are agglomeration indicators, calculated on the settlement level, using

3-digits NACE 2 industrial classification; the last four indicators are region level controls that reflect infrastructure and wealth in the regions where the settlements under consideration are located. The model is estimated using panel data regression with fixed effects. Fixed effects are included on the firm level to account for firms' specific features that are time-invariant in order to eliminate possible bias in the results. Firm level fixed effects also account for time-invariant specific features of industries, settlements and regions, as the firms under consideration do not change their location and specialization. Estimation is conducted only for manufacturing industries producing tradable goods. The results of the estimation are presented in Table 2.

*Table 2: The impact of agglomeration levels and regional factors on firms' performance*

Dependent variable: Revenue	All tradable industries	Traditional industries	Basic materials	Basic machinery	Integrating machinery	Science based
Fixed assets	0.196*** (30.96)	0.161*** (12.55)	0.191*** (17.74)	0.179*** (8.47)	0.155** (2.24)	0.205*** (17.35)
Labour	0.532*** (51.13)	0.583*** (22.57)	0.504*** (25.45)	0.537*** (18.35)	0.681*** (6.80)	0.473*** (25.61)
Specialization	7.512*** (32.23)	8.001*** (9.92)	8.386*** (18.46)	7.641*** (11.30)	4.641*** (3.26)	7.053*** (9.92)
Specialization <sup>2</sup>	-4.750*** (-20.16)	-5.589*** (-7.25)	-5.600*** (-11.94)	-4.691*** (-7.51)	-1.496 (-1.12)	-5.139*** (-6.14)
Localization	0.034*** (7.15)	0.022* (1.66)	0.051*** (6.31)	0.067*** (5.39)	0.099*** (3.90)	-0.013 (-0.90)
Localization <sup>2</sup>	-0.002*** (-6.90)	-0.001 (-1.41)	-0.003*** (-6.09)	-0.004*** (-5.76)	-0.006*** (-4.74)	0.001* (1.74)
Urbanization	0.269*** (22.51)	0.199*** (6.99)	0.250*** (12.05)	0.282*** (7.87)	0.415*** (5.25)	0.259*** (8.16)
Wage	0.358*** (15.94)	0.498*** (8.83)	0.274*** (7.14)	0.391*** (6.22)	0.844*** (5.07)	0.571*** (11.14)
Automobile road density	-0.057*** (-2.63)	-0.055 (-0.98)	-0.158*** (-4.43)	-0.125** (-2.25)	-0.228 (-1.42)	-0.020 (-0.40)
Railway road density	-0.128*** (-2.97)	-0.138 (-0.92)	-0.047 (-0.54)	0.217 (0.66)	-0.376 (-0.33)	-0.155 (-1.46)
GRP per capita	0.083*** (3.34)	-0.031 (-0.50)	0.230*** (5.43)	0.109 (1.58)	-0.406** (-2.33)	-0.113** (-2.08)
Constant	1.643*** (4.97)	3.527*** (3.68)	1.434** (2.33)	-0.077 (-0.04)	2.090 (0.36)	1.828** (2.06)
Fixed effects	+	+	+	+	+	+
Obs.	114998	15194	30951	13375	1680	28443
Adjusted R <sup>2</sup>	0.563	0.538	0.625	0.581	0.596	0.573

*Source: Own estimations, based on SPARK and Rosstat data; Standard errors are reported in parentheses, \*  $p < 0,1$ , \*\*  $p < 0,05$ , \*\*\*  $p < 0,01$*

Results are in line with our expectations based on the literature. As for the control variables on the firm and regional levels, we observe positive impact of the fixed assets (capital) and labour, with stronger effect of labour. On the regional level, we observe positive effect of the GRP per capita for the overall sample, while the results for specific groups of industries are controversial. Besides, negative effects of the road density are observed. Such result seems not to be surprising, as firms with the highest revenues in Russia are connected to the natural resources

and are generally located in the northern regions, where road infrastructure is either underdeveloped or almost non-existent. It is especially evident if we look at the significance of this coefficient across the industrial groups. Railway road density is significant only for tradable industries in general. Automobile road density is also significant for tradable industries in general, while on the subsample level it is highly significant only for the basic materials group, having lower significance for basic machinery group. The wage effect is significant and positive for all sectors emphasizing the importance of human capital quality reflected in the regional wage level. As for the agglomeration economies, our results show that the specialization and localization effects have a non-linear nature. Since coefficients for the indicators squared are negative while actual values are positive, we conclude that in general and for separate industrial groups these effects have an inverted U shape, meaning that localization and specialization effects grow to a certain point, and decline afterwards. The only exception from this pattern is localization effect for science-based firms. There we find a non-significant negative effect of localization and 10%-significant positive effect of localization squared. As it is different from all other results, further investigation is needed. Urbanization is the most important for the firms of integrating machinery, basic machinery and science based industries, which is partly in line with our assumptions (Table 1 above). It should be noted that the urbanization effect is statistically significant and positive across all sectors.

#### 4. CONCLUSION

The results show that Russian firms benefit from localization, specialization and urbanization levels, and that these benefits vary across industrial groups, remaining valid for all of them. The main research question that we addressed was the impact of a settlement specialization, localization and urbanization levels on the enterprise performance. Our results are in line with the findings that have been put forward in the literature previously. The results for localization and specialization economies show that for the majority of the industries the economies tend to increase up to a certain level of agglomeration, and after this level is reached they become insignificant or start decreasing. This might happen due to intensive competition that becomes excessive at some agglomeration level or due to the limitations of the urban infrastructure. Infrastructure of a small settlement can handle small number of firms very well but will not be able to sustain larger amounts of firms if not improved. Overall, our results demonstrate different agglomeration economies for different industry groups in Russia. The results obtained allow us to talk about the need to take into account agglomeration factors in the formation of regional economic policies and spatial development policies. One of the policy implications is that it is worth taking into account firms' specific features while analyzing their potential benefits from location choice. Namely, the results lead to the conclusion that it is beneficial for the firms belonging to the integrating machinery group to choose for their location highly urbanised areas with some degree of specialization. Meanwhile, for the firms belonging to the traditional industries, specialization and localization are quite important. One of the ways to expand this study is to use data for the other periods of time when the economic situation was not so favorable. It would allow us to assess the applicability of the findings to the periods of crises and economic stagnation. Another issue for further research is addressing agglomeration levels in a more detailed way, by taking into consideration a more precise enterprise location and by doing so capturing the actual distance between enterprises. Finally, the results of the cluster policies could be compared with the enterprise location choices and agglomeration levels guided by the market forces.

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## FROM THE RIGHT TO BE LET ALONE TO THE CONTROL OF PERSONAL DATA (IN THE LABOUR CONTEXT)

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### ABSTRACT

*The theme of this paper is the paradigm shift in the outlook of workers' privacy protection. The focus of this work is the successive and recent evolution of this theme, defending an active approach to privacy, per which the workers have an effective control over their personal data. The adopted methodology is based on the theoretical framework of the worker's right to privacy and its adaptation to the current technological world. It includes the study of the legislation, doctrinal and jurisprudential positions, and guidelines from various bodies and entities. The conclusions summarize the new challenges faced by the labour jurist, in an era when NICT (new information and communication technologies) are part of the corporate environment, in order to find ways to raise awareness about the reaffirmation of limits and control of technology, as the only way to guarantee the safeguarding of the workers' fundamental rights, which are undoubtedly essential for defending the worker in a potentially absorbing context outside his domain, being subject to corporate power. The conciliation between the defense of workers' privacy, on the one hand, and business interests and rights, on the other hand, is the reference for balance.*

**Keywords:** corporate powers, data protection, NICT, workers' privacy

### 1. INTRODUCTION - THE PECULIARITY OF WORKERS' PRIVACY

The protection of privacy as a fundamental right is a transversal theme to the human experience. It is grounded in the underlying dignity of the human person and, as such, involves the human person in any of their facets. That is why we see the protection of privacy by law, as the main bastion of the defense of the human person. We see the protection of privacy, for example, in constitutional law, criminal law, family law and, obviously, labour law. In truth, when rendering their work, the involvement of the person of the worker is intense and profound. This derives from various aspects in which the complex labour relation unfolds. The employment contract, being intrinsically intuitu personae, supposes the concrete person of that worker. But is also presupposes the involvement of the worker in rendering their work. And, being the worker subject to the power of control by the employer, there is a high potentiality of permeability to possible violations of the worker's rights by the employer or someone in their representation, affecting, potentially or concretely, the worker's right to privacy. Well, the worker is still a human person; they are still citizens; they are, in short, still themselves when they transpose the company's gates <sup>1</sup>. In 2002, the Article 29 Working Party <sup>2</sup> already stated that "[W]orkers do

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<sup>1</sup> Portuguese national jurisprudence has always defended and imposed the impermeability of the employer in relation to the worker's privacy strongholds, even for disciplinary purposes. To that regard, among others, see the Court Decision by the Portuguese First Court of Appeal of Lisbon, from 03.05.2006, Proc. 872/2006-4, retrieved 20.02.2020 from <http://www.dgsi.pt/jtrl.nsf/33182fc732316039802565fa00497eec/2ee49abdddb133948025717f0042790b?OpenDocument>, or the Court Decision by the Portuguese First Court of Appeal of Porto, from 21.11.2011, Proc. 520/08.9TTMTS.P2, retrieved 20.02.2020 from <http://www.dgsi.pt/jtrp.nsf/-/9E7AF332EE8B614E80257981005420CC>.

<sup>2</sup> Abbreviated as WP29, created by article 29 of the no longer in force Directive 95/46/EC of the European Parliament and of the Council of 24.10.1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data (Official Journal L 281 , 23.11.1995 P. 0031 – 0050), retrieved 21.02.2020 from <https://eur-lex.europa.eu/legal-content/eng/TXT/?uri=celex%3A31995L0046>.



not abandon their right to privacy and data protection every morning at the doors of the workplace. They do have a legitimate expectation of a certain degree of privacy in the workplace as they develop a significant part of their relationships with other human beings within the workplace”<sup>3</sup>. At the workplace, as an employee, they are particularly exposed and vulnerable to aggressions to their privacy. The worker spends the vast majority of the working hours of their day at the workplace, and there they develop working relationships, but also social relationships, of friendship, of sharing information and aspects of their personal lives. That is normal, it is healthy, and it is inevitable. But that permeability on the worker’s personal life which we ineluctably witness in a work relationship is, or can be, detrimental to the worker’s privacy if, in addition to the aforementioned, account is taken of the relevant aspect of the worker being subject, legally, to the power of control by the employer. “A inseparabilidade da actividade de trabalho da pessoa do trabalhador evidencia-se nos seguintes traços do vínculo laboral: na relevante e permanente indeterminação da prestação de trabalho; no conteúdo amplíssimo dos poderes laborais; e no envolvimento integral da pessoa do trabalhador no vínculo”<sup>4</sup> (Ramalho, 2009: 449). This power of control, being legal and even desirable for business success, comprises, however, the potential ingredients for a serious and profound injury to the worker’s intimacy. Hence, the worker can (and should) invoke their rights and their privacy, dueling against an employer power that shows to be intrusive<sup>5</sup>, while the law must impose especially protective measures in this segment of manifestation of the human personality: the worker. These are rights that “embora de todos os homens, para os trabalhadores assumem mais interesse ... porque a experiência do constitucionalismo consiste, toda, na aquisição progressiva dos direitos daqueles que careçam de proteção”<sup>6</sup> (Miranda, 2017: 143).

## 2. ALLUSION TO THE TRANSNATIONAL ROOTS IN PROTECTING PRIVACY

The protection of privacy, in general, has already been widely proclaimed in international bodies for over a century. The emblematic Universal Declaration of Human Rights (1948)<sup>7</sup> can be quoted, in Article 12, stating that “No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks”. Likewise, the International Covenant on Civil and Political Rights (1966)<sup>8</sup> also provides that “1. No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honour and reputation. 2. Everyone has the right to the protection of the law against such interference or attacks” (Article 17). At the European level, under the aegis of the Conseil of Europe, the Convention for the Protection of Human Rights and Fundamental Freedoms (1950) enshrines the right to respect for private and family life, asserting that “1. Everyone has the right to respect for his private and family life, his home and his correspondence. 2. There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a

<sup>3</sup> In “Working document on the surveillance of electronic communications in the workplace”, adopted by WP29, 29.05.2002, p. 4, retrieved 21.02.2020 from [https://ec.europa.eu/justice/article-29/documentation/opinion-recommendation/files/2002/wp55\\_en.pdf](https://ec.europa.eu/justice/article-29/documentation/opinion-recommendation/files/2002/wp55_en.pdf).

<sup>4</sup> Free translation: “The inseparability of the work activity from the person of the worker is evident in the following features of the employment bond: the relevant and permanent indeterminacy of the provision of work; the very broad content of labour powers; and the integral involvement of the worker’s person in the bond”.

<sup>5</sup> According to PINTO, P. C. C. D. M. 2000. A Protecção da Vida Privada e a Constituição. *Boletim da Faculdade de Direito*, p.183 and ASSIS, R. 2005. *O Poder de Direcção do Empregador*, Coimbra Editora. p. 261, which assume a catalog of citizenship rights that limit the exercise of the employer’s powers.

<sup>6</sup> Free translation: “despite belonging to every man, for workers assume more interest ... because the experience of constitutionalism consists, as a whole, in the progressive acquisition of the rights of those who lack protection”.

<sup>7</sup> Retrieved 03.03.2020 from <https://unric.org/pt/wp-content/uploads/sites/9/2019/07/Declara%C3%A7%C3%A3o-Universal-dos-Direitos-Humanos.pdf>.

<sup>8</sup> Retrieved 3.03.02.2020 from <https://www.ohchr.org/EN/ProfessionalInterest/Pages/CCPR.aspx>.

democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others” (Article 8). This legal standard has been frequently used by the European Court of Human Rights <sup>9</sup> and its decisions have been a valuable auxiliary to the densification of privacy, particularly in the scope of labour. Also within the scope of the Conseil of Europe, the Convention 108 for the protection of individuals with regard to the processing of personal data <sup>10</sup>, throughout its regulations, reinforces the purpose of protecting the rights, freedoms and guarantees of individuals with an emphasis on the right to private life, and therefore, in Article 1, object and purpose, states that “The purpose of this Convention is to protect every individual, whatever his or her nationality or residence, with regard to the processing of their personal data, thereby contributing to respect for his or her human rights and fundamental freedoms, and in particular the right to privacy”. In the Charter of Fundamental Rights of the European Union (2016) <sup>11</sup>, the European Union member countries proclaim “the right to respect for his or her private and family life, home and communications” and already pave the way for the right to the protection of personal data (Articles 7 and 8). In Portugal, this right to protect the privacy of one’s personal and family life is protected under the Constitution (Article 26). The right to the privacy of one’s personal life materializes in two derived rights (both negative): the right to prevent others from having access to information about the person’s private and family life; the right that no one should disclose information they may have regarding the individual’s private or family life. The notion of protection of the privacy one’s personal life is comes to be defined by the Portuguese Constitutional Court throughout its jurisprudential work. As the Court explains, it is the “direito de cada um a ver protegido o espaço interior ou familiar da pessoa ou do seu lar contra intromissões alheias. É a privacy do direito anglo-saxónico” <sup>12</sup>. It’s the “direito a uma esfera própria inviolável, onde ninguém deve poder penetrar sem autorização do respectivo titular” <sup>13</sup>, which comprises the autonomy and the “direito a não ver difundido o que é próprio dessa esfera de intimidade, a não ser mediante autorização do interessado” <sup>14 15 16</sup>. The protection and tutelage of privacy is closely linked to the dignity and freedom of the individual.

<sup>9</sup> See, among others, the Court Decision from 16.12.1992, Niemietz vs. Germany, retrieved 12.03.2020 from [https://hudoc.echr.coe.int/eng#{"languageisocode":\["FRE"\],"appno":\["13710/88"\],"documentcollectionid2":\["CHAMBER"\],"itemid":\["001-62344"\]}](https://hudoc.echr.coe.int/eng#{), the Court Decision from 2.07.2017, Vinci Construction et GTM Génie Civil et Services vs France, retrieved 12.03.2020 from [https://hudoc.echr.coe.int/eng#{"appno":\["63629/10"\],"itemid":\["001-153318"\]}](https://hudoc.echr.coe.int/eng#{). And, in the labor scope, Court Decision from 25.06.1997, Halford vs United Kingdom, retrieved 12.03.2020 from [https://hudoc.echr.coe.int/fre#{"itemid":\["001-62600"\]}](https://hudoc.echr.coe.int/fre#{) and Court Decision from 5.09.2017, Bărbulescu vs. Romania, retrieved 12.03.2020 from [https://hudoc.echr.coe.int/eng#{"languageisocode":\["FRE"\],"appno":\["61496/08"\],"documentcollectionid2":\["GRANDCHAMBER"\],"itemid":\["001-177083"\]}](https://hudoc.echr.coe.int/eng#{) (in line with Court Decision from 3.07.2007, Copland vs United Kingdom, retrieved 13.03.2020 from [https://hudoc.echr.coe.int/eng#{"languageisocode":\["FRE"\],"appno":\["62617/00"\],"documentcollectionid2":\["CHAMBER"\],"itemid":\["001-79997"\]}](https://hudoc.echr.coe.int/eng#{)).

<sup>10</sup> Retrieved 03.03.2020 from <https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1>.

<sup>11</sup> Retrieved 03.03.2020 from <https://eur-lex.europa.eu/legal-content/eng/TXT/PDF/?uri=CELEX:12016P/TXT&from=FR>.

<sup>12</sup> Free translation: “right of each person to see the inner or family space of the person or their home protected against intrusion by others. It’s the privacy of the anglo-saxon law”.

<sup>13</sup> Free translation: “right to one’s own inviolable sphere, where no one should be able to penetrate without authorization from the respective holder”.

<sup>14</sup> Free translation: “right not to see disseminated what is particular to that sphere of intimacy, except upon authorization by the interested party”.

<sup>15</sup> Portuguese Constitutional Court, Decision no. 128/92, from 01.04.1992, Process no. 260/90, published in the Portuguese Republic Diary, Series II, from the 24.07.1992, p. 6807 and forth, retrieved 24.02.2020 from <https://www.tribunalconstitucional.pt/tc/acordaos/19920128.html>.

<sup>16</sup> On the same line, Portuguese Constitutional Court, Decision no. 319/95, from 20.06.1995, Process no. 200/94, published in the Portuguese Republic Diary, Series II., from the 2.11.1995 and retrieved 26.02.2020 from <https://www.tribunalconstitucional.pt/tc/acordaos/19950319.html> and Portuguese Constitutional Court – Decision no. 368/02, from 25.09.2002, Process no. 577/98, retrieved 26.02.2020 from <https://www.tribunalconstitucional.pt/tc/acordaos/20020368.html>, with abundant doctrinal citation.

It means being able to choose between exposing oneself or reserving a space of your existence without the intrusion of other people. It is the right to be alone or “o interesse do indivíduo na sua privacidade, isto é, em subtrair-se à atenção dos outros, em impedir o acesso a si próprio ou em obstar à tomada de conhecimento ou à divulgação de informação pessoal”<sup>17</sup> (Pinto, 1993: 508-509). This notion of privacy has very recently been reaffirmed<sup>18</sup>, in regard to the analysis of access to telecommunications and Internet data by officials of public entities.

### 3. THE WORKER, CORE OF PROTECTION

The right to dignity and privacy directed towards labour law serve as a foundation and support for the most recent rights to informational identity and the right to data protection, seen by some as a “direito de personalidade”<sup>19</sup> (Pinheiro, 2015: 803)<sup>20</sup>. However, the original, traditional perspective that supports the right to privacy, per anglo-saxon law, the right to be left alone (even if adding “a liberdade de actuação, mas igualmente a liberdade de não actuar .. a passividade”<sup>21</sup> as a right to the development of personality) (Pinto, 1999: 203), today, seems insufficient, particularly in the labour scope and in areas where technological advances are particularly felt (such as the paradigmatic case of an employer's biometric control). The development of information and communication technologies has brought about profound changes in the paradigm of the employment relationship, affecting worker privacy in a particularly important way. Indeed, “um dos direitos que mais tem sido afetado por estas tecnologias é o direito à privacidade”<sup>22</sup> (Moreira, Julho/Dezembro 2017: 15), since the NICT assume an ambivalent character, operating “simultaneamente, como instrumento para desempenhar a actividade produtiva e como mecanismo de controlo da prestação de trabalho executada pelo trabalhador”<sup>23</sup> (Moreira, 2010: 421), resulting in “o aumento, quer da quantidade, quer da qualidade da informação pessoal de que o empregador passa a dispor acerca do seu trabalhador, associadas ao seu tratamento cada vez mais veloz e mais acessível”<sup>24</sup> (Castro, 2018: 273). The responsibility lies with the courts, if it comes to that, to assess the employer's use of technology and how they apply that power of control. And this is undoubtedly the case<sup>25</sup>. But it does not seem that an a posteriori jurisdictional control, that is, after an injury to the worker's privacy has already been inflicted (impossible to repair in natura) could calm the world of jurists.

<sup>17</sup> Free translation: “the individual's interest in their privacy, that is, to withdraw from the attention of others, to prevent access to themselves or to hinder the apprehension of knowledge or the disclosure of personal information”.

<sup>18</sup> According to Portuguese Constitutional Court, Decision no. 464/2019, from 18.09.2019, Process no. 26/2018, retrieved 24.02.2020 from <https://www.tribunalconstitucional.pt/tc/acordaos/20190464.html>.

<sup>19</sup> Free translation: “right of personality”.

<sup>20</sup> PINHEIRO, A. S. 2015. *Privacy e Protecção de Dados Pessoais: A Construção Dogmática do Direito à Identidade Informacional*, Lisboa, AAFDL., pp. 525-663, explains the international experience in the field of data protection.

<sup>21</sup> Free translation: “the freedom to act, but also the freedom to not act... the passivity”.

<sup>22</sup> Free translation: “one of the rights that has been most affected by these technologies is the right to privacy”.

<sup>23</sup> Free translation: “Simultaneously, as an instrument to perform the production activity and as a mechanism to control the rendering of work performed by the worker”.

<sup>24</sup> Free translation: “The increase, both in quantity and quality, of personal information now available to the employer about their worker, associated with its increasingly faster and more accessible treatment”.

<sup>25</sup> See Decision Portuguese Supreme Court of Justice from 9.01.2019, Process no. 2066/15.0T8PNF.P1.S1, retrieved 24.02.2020 from

<http://www.dgsi.pt/jstj.nsf/954f0ce6ad9dd8b980256b5f003fa814/4f61b25673a10f428025837e0039cd13?OpenDocument> that, although for procedural reasons (conviction on an object other than that of the request) does not confirm the conviction for violation of the employee's right to privacy, it does not call into question the substantial assessment of the court a quo which repudiates the employer's behavior when, using a geolocation device installed in the vehicle, controls the worker by locating the vehicle, even when it was used for the purposes of their private life, far beyond their working hours, thus allowing the employer to establish a profile of the worker's behavior, diurnal and nocturnal, and to track their private life habits. However, if such a device is used exclusively for professional purposes, the position of this Court is actually the opposite, understanding that it must be compressible with other legitimate interests, namely the power of management that belongs to the employer and the protection and safety of people and goods or the particular requirements inherent to the nature of the activity (according to Court Decision from 13.11.2013, Process no. 73/12.3TTVNF.P1.S1, available at <http://www.dgsi.pt/jstj.nsf/954f0ce6ad9dd8b980256b5f003fa814/e32eab3444364cb980257c2300331c47?OpenDocument>).

The purpose must therefore be to preventively and efficiently halt the unjustified and unlawful injury to the worker's privacy. The worker must be assured that the law protects that intimate sphere of theirs from injury, making it unreachable to the employer. This applies without prejudice to the full awareness that the aforementioned protection of the worker's right to private life does not constitute an absolute right and "pode ser limitado, por exemplo, se estiver em causa a protecção da saúde pública ou a segurança do próprio ou de terceiros"<sup>26</sup> (Abrantes, 2018: 168), so sometimes it may be necessary to restrict it, as long as the constitutional assumptions inherent are upheld, or other relevant rights or interests are harmonized, namely the right to business organization by the employer. However, "também aqui, por imposição constitucional, a reserva da intimidade da vida privada deve ser a regra, não a excepção, apenas se justificando a sua limitação quando interesses superiores o exigam"<sup>27</sup> (Abrantes, 2018: 143). Aware of this need for harmonization, it is stated that the "infra-estrutura teleológica do problema da tutela da privacy é caracterizada por uma fundamental contraposição: de um lado, o interesse do indivíduo na sua privacidade, isto é, em subtrair-se à atenção dos outros, em impedir o acesso a si próprio ou em obstar à tomada de conhecimento ou à divulgação de informação pessoal (interesses estes que, resumindo, poderia dizer-se serem os interesses em evitar a intromissão dos outros na esfera privada e em impedir a revelação da informação pertencente a essa esfera); de outro lado, fundamentalmente o interesse em conhecer e em divulgar a informação conhecida, além do mais raro em ter acesso ou controlar os movimentos do indivíduo"<sup>28</sup> (Pinto, 1993: 508-509). The fulfillment of the right to the privacy of one's personal life in the legal framework of infra constitutional labour law is justified and imposed by the special characteristics that the employment relationship brings to the life of the worker, since the dependency (legal, economic and / or social) of the worker in relation to the employer is an inherent and practically general reality in the employment relationship. However, this legal subordination cannot be unlimited and has to adhere to what directly concerns the organization of work, because otherwise, under the pretext of the existence of an employment contract, there is an unjustified intrusion and submission of the worker, perfectly unacceptable because they retain a stronghold of autonomy and protection of their private life.<sup>29</sup> Currently, this perspective is largely undisputed. Due to all these factors, it was becoming pressing to attend to the safeguarding of the right to protect one's private life in an area as specific and enabling as the employment relationship. That is why it is understood that the worker's right to privacy, in a digital and potentially total world, cannot be limited to being viewed in the traditional negative perspective, of exclusion, of keeping others away from the sphere of the worker. It is imperative that privacy be added a positive, dynamic, interventional dimension, so that workers (and, indeed, individuals in general) have the right to control the information that concerns them and, therefore, it is inalienably theirs and cannot be appropriated by the employer who may use it however, whenever and until whenever they please. More so when "la condición de responsable a efectos de tratamiento de datos personales puede ser compartida por varos

<sup>26</sup> Free translation: "can be limited, for example, if the protection of public health or the safety of oneself or others is at stake"

<sup>27</sup> Free translation: "here too, per constitutional imposition, the right to the privacy of one's personal life should be the rule, not the exception, with its limitations only being justified when higher interests demand it"

<sup>28</sup> Free translation: "teleological infrastructure of the problem of the tutelage of privacy is characterized by a fundamental opposition: on the one hand, the individual's interest in their privacy, that is, to withdraw from the attention of others, to prevent access to themselves or to hinder the apprehension of knowledge or the disclosure of personal information (interests which, in short, could be said to be the interests in avoiding the meddling of others in the private sphere and in preventing the disclosure of information belonging to this sphere), on the other hand, fundamentally the interest in knowing and disseminating the information apprehended, in addition to the rarer having access to or controlling the individual's movements"

<sup>29</sup> The CNPD (Comissão Nacional de Protecção de Dados), the Portuguese Data Protection Authority, in Deliberation no. 32/96, from 4.06.1996, retrieved 20.02.2020 from <https://www.cnpd.pt/bin/decisoes/1996/htm/del/del032-96.htm>, considers that "the automated processing of data (using magnetic card) which aims to control the presence of workers in health facilities... constitutes an attack on their private life and the dignity of the human person", (free translation) and is therefore unlawful.

sujetos... que dos o más empresas colaboren, de uno u outro modo, en la correspondiente actividad productiva”<sup>30</sup> (Murcia and Cardo, July / December 2017 : 65). To that extent, the concept of traditional privacy has to be completed and fulfilled with the right to informational self-determination. This right, as far back as 2008, was defined as the “direito de subtrair ao conhecimento do público factos e comportamentos reveladores do modo de ser do sujeito na condução da sua vida privada”.<sup>31 32</sup> However, currently its content must also assume a dynamic perspective that is granted by the right to data protection. “A autodeterminação informacional só pode considerar-se efectuada se o titular dos dados tiver a possibilidade de decidir sobre a sua utilização, nomeadamente a capacidade de se opor a uma armazenagem ilimitada ou o seu cruzamento arbitrário, de modo a obter respostas mais completas sobre o referido titular”<sup>33</sup> (Pinheiro, 2015: 515). This right implies that the worker is given the possibility to act, to have the freedom to intervene (yet without losing the original defensive facet, of preventing intrusion into the private area of the worker's life). This new dynamic facet implies that companies conform to the binding indications of the General Data Protection Regulation<sup>34</sup> and, in the Portuguese labour context, it also implies its implementation at the internal legislative level, carried out maxime by the Labour Code (Arts. 14 to 22) and Law no. 58/2019, of 2019.08.08 (Art. 28).<sup>35</sup> And the employer, as the responsible for data processing “ao disponibilizar meios tecnológicos para o desempenho da atividade profissional...tem de assegurar que não tratará, por qualquer forma, dados pessoais que revelem aspetos da vida privada ou da vida não profissional dos seus trabalhadores”<sup>36</sup> (Calvão, 2018: 6). Nowadays, when it comes to the protection of their privacy in the workplace context, the worker is no longer satisfied by keeping their private life (or parts of it) away from the intrusion of the employer, all the more so since today it is “ao alcance dos privados meios que podem atentar contra a esfera privada dos outros sujeitos”<sup>37</sup> (Barbosa, 2017: 13). Therefore, in addition to this exclusionary power, the worker demands and intervenes to control their personal data in the employer's possession for processing.<sup>38</sup> This effective control of their personal data is a new and interventional facet that must be recognized and protected so that the employee's privacy is not affected.

#### 4. CONCLUSION - THE PARADIGM SHIFT: ACTIVE PROTECTION!

Technological development carries increased risks to the labour world with regard to workers' privacy. Subject to the employer's power of control, they may be affected by covert forms of

<sup>30</sup> Free translation: “the condition of being responsible for the purposes of the treatment of personal data can be shared by various subjects... that two or more companies collaborate, in one way or another, in the corresponding activity of production”.

<sup>31</sup> Free translation: “right to withdraw from the public knowledge facts and behaviors revealing of the subject's demeanor in conducting their private life”.

<sup>32</sup> In Portuguese Constitutional Court – Decision no. 230/08, from 21.04.2008, Process no. 396/07, retrieved 24.02.2020 from <https://www.tribunalconstitucional.pt/tc/acordaos/20080230.html>.

<sup>33</sup> Free translation: “Informational self-determination can only be considered effective if the holder of the data has the possibility to decide about its usage, namely the ability to oppose its unlimited storage or its arbitrary crossing, in order to obtain more complete answers about the mentioned holder”.

<sup>34</sup> Regulation (EU) 2016/679 of the European Parliament and of the Council of 27.04.2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

<sup>35</sup> For an analysis of the Portuguese national legislation and application in comparison with GDPR and ECHR, see MESTRE, B. 2018. O RGPD, o TEDH e as relações laborais: um equilíbrio complexo. *Prontuário de Direito do Trabalho*. Centro de Estudos Judiciários., pp. 177-189.

<sup>36</sup> Free translation: “by providing technological means for the performance of professional activity ... must ensure that they will not process, in any way, personal data that reveals aspects of the workers' private or non-professional life”.

<sup>37</sup> Free translation: “within the reach of private entities means that can assault the private sphere of other individuals”.

<sup>38</sup> According to principles regarding personal data processing in CORDEIRO, A. B. M. 2020. *Direito da Proteção de Dados*, Coimbra., pp. 152-163, PINHEIRO, A. S., COELHO, C. P., DUARTE, T., GONÇALVES, C. J. & GONÇALVES, C. P. 2018. *Comentário ao Regulamento Geral de Proteção de Dados*, Coimbra, Edições Almedina, S.A., pp. 204-338 and PINHEIRO, A. S. 2018. Apresentação do Regulamento (UE) 2016/679 do Parlamento Europeu e do Conselho, de 27 de Abril de 2016 - Regulamento Geral de Proteção de Dados (RGPD). *Revista do CEJ*., pp. 312-318.

intrusive control, exceeding what is the business interest of control (which is serious, relevant and protected) as a legitimate power of the employer. Thus, limits to this power must be established and implemented, as it currently grows exponentially on the back of the NICT. It is no longer enough to assert privacy as a space of exclusion, on a negative side. It is imperative to apply the principles of personal data protection, increasingly present and alert, nowadays. These principles undoubtedly fill the new positive aspect of the employee's privacy, granting them instruments of defense against a possibly abusive control of the employer, doing so, predominantly, in a preventive manner.

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# EU COUNTRIES TRANSPORT MARKETS MODAL SHIFT AS A FACTOR DETERMINING THE QUALITY OF THEIR LOGISTICS MACROSYSTEMS

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## ABSTRACT

*The main research subject focuses on the examining of mutual relations existing between the transport market performance, reflected by its modal split and the achieved quality of logistics systems at the example of selected EU countries. The aim of research is to define the character and strength of these relations, and consequently to assess the level of efficiency of the EU transport policy with regard to the regulation of transport markets under their efficiency in implementing the strategy of sustainable development. Hypothesis was set, that modal split existing in these countries, resulting from their market decisions exerts significant impact on the efficiency and quality of operations within their logistics macrosystems. In order to verify it and fulfil the objective of research, there have been applied the methods of economic analyses, including comparative analysis and statistical instruments used to analyse changes in the generic and modal structure of the transport markets. Moreover, the competitiveness indices (CCI), the enabling trade indices (ETI) and the logistics performance indices (LPI) of the EU selected economies were analysed. The obtained results indicate that the assumed research hypothesis needs modifying. However, it has been revealed that not in all of analysed cases there was a significant level of correlation between the country's modal split and the level of efficiency of the its logistics macrosystem measured by ETI and LPI indices. Detailed research proved that the strength of these relations depends mainly on the level of convergence of modal structure of each transport macrosystem to the structure of demand for transport services generated by the logistics macrosystem. Defining this regularity allowed to classify the EU countries under analysis in terms of an impact of their transport systems' modal splits, reflecting level of their sustainability, on the efficiency of their logistics macrosystems defined by ETI and LPI indices.*

**Keywords:** *Logistics macrosystem, Logistics performance index, Modal split, Transport market, Sustainable mobility*

## 1. INTRODUCTION

The transport markets within the EU countries are subject to regulation. It is implemented by a wide range of activities taken within the EU transport policy. The transport policy has been playing the role of key instrument correcting the existing transport markets regulatory defects – mainly within the segment of network services. With the use of proper pricing instruments, this policy should lead to the increase in rationality in selecting the transport operator, and consequently, better transparency of the transport market through thoughtful impact on its demand side. In practice, it means that the aim of the EU transport policy is to change the current distribution of the demand for transport services – its modal distribution and consequently, the change in the current modal split through price leverage, i.e. through the introduction of new pricing model based on complete social costs of service providing (SMCP). These prices should take into account the external costs of service production that currently, within, the so-called indirect, fiscal internalization of these costs, burden these providers only partially (Grzelakowski, 2010; European Commission DG, 2018). Since primarily the costs fall upon the economy and society.



In order to develop and implement this new pricing model regarding transport services, indicating to shippers the correct, from the macroeconomic point of view, criteria for selecting the transport route and means of transport anchored to the paradigm of sustainable mobility, the EU has been developing the new model of demand distribution on the global transport market – the new modal split. The model should reflect, within each EU transport macrosystem, typical of its market supply and demand side of modal split, that should be treated as the basic synthetic indicator for implementing the strategic goals of the EU transport policy, leading to the reduction of external costs. The implementation of new market principles of global demand distribution within the transport macrosystems, and the achievement of required modal split, requires efficient and comprehensive actions aiming at:

1. developing the new model of transport market organization, which involves separating the operational section from the transport infrastructure management section, and the latter, from the regulatory section (market regulator),
2. introducing new principles of defining prices for transport services, based on the operator's own costs, increased by the component of external costs, corresponding to the scale of nuisance generated by the operator's activity for the environment, (internalization),
3. defining prices based on total, real social costs under marginal cost formula, defined as per types of transport under short-run (SRMSC) or long-run (LRMSC) marginal costs. Such new pricing model will allow to introduce basic principles of sustainable mobility in the EU transport sector. They include requirements, such as: 1/ equal treatment of all transport users, 2/ polluter pays, which applies to the requirement of internalization of transport external costs, 3/ user pays, which defines the obligation to pay for using the infrastructure, and makes it possible to finance it from these charges, 4/ full cost recovery, which requires defining the prices for using the transport infrastructure under full, social marginal costs of its real use (European Commission, 2011).

In this manner, by applying efficient and effective instruments from the EU public regulatory sector, through the modification of transport market pricing mechanism, we can observe public – euro economic rationalization of its functioning. In the process of developing the sustainable transport within the European perspective, we can also observe the rationalization of the transport sector, the external effect of which should reflect „the sustainable modal split”, defining the efficiency of newly developed market mechanism, with clearly defined pricing system indicating preferences for selecting a particular transport operator. In such circumstances, this should lead directly to developing the Single European Transport Area (SETA), able to co-determine the European TSL sector and its relations with global environment (Grzelakowski, 2011). Whereas, the open question and concurrently the research question, the solution of which has not been provided in this article, is whether and to what extent, the activities rationalizing the EU transport markets and generating the new, model of transport tasks distribution within the transport macrosystems (modal split), based on the standard of sustainable mobility, will change the qualitative standards of the logistics macrosystems in particular EU countries. More precisely, the article is seeking answers to the question whether the new model of mobility in the above mentioned formula, will contribute to the increase in operational efficiency as well as optimization of the European logistics area, perceived as a set of integrated logistics macrosystems of the EU Member States (ELS), and whether this area will meet the standards of and be consistent with the mega logistics area.

## **2. EU MODAL SHIFT AND THE MAIN TRANSPORT MARKET CHANGES**

The modal structure of transport in the EU countries results from market decisions taken by shippers or forwarders representing them or logistics operators. Upon selecting the means of transport and transport operators, a wide range of criteria is taken into account, such as: price

of transport, delivery time, safety, reliability, comprehensive offer, etc. which are usually treated by the decision-makers individually. The final result of these decisions, reflected ex post in the transport market in each transport macrosystem in the form of modal shift, reflects the distribution of effective demand within the potential supply of transport services, offered on this market. Since in each transport macrosystem the volume of demand and its structure as well as the capacity of transport infrastructure network, and transport potential within particular transport sectors sometimes significantly differ from each other, the modal split of each macrosystem is also different. The differences existing between the EU Member States' transport macrosystems are presented in the table 1.

*Table 1: EU modal split between 1995 and 2016 (in % ) \**

Year	Road	Rail	Inland Waterways	Pipelines	Sea	Air
1995	45,3	13,6	4,3	4,0	32,7	0,1
2000	46,5	12,5	4,1	3,9	32,9	0,1
2005	48,6	11,5	3,8	3,8	32,2	0,1
2010	49,4	11,4	4,5	3,5	31,2	0,1
2011	48,7	12,1	4,1	3,4	31,7	0,1
2014	48,2	11,8	4,3	3,2	32,4	0,1
2015	48,9	11,9	4,2	3,3	31,7	0,1
2016	49,3	11,2	4,0	3,1	32,3	0,1

*\* Key: The time series for maritime transport performance has been revised, for the period from 2005 onwards, by replacing previous estimates on port-to port distances with more accurate measurements by Eurostat. The time series from 1995 to 2004 has been recalibrated by DG MOVE in line with the new Eurostat figures to avoid break in series. The revision of tkm figures mainly concerns the calculation of distance travelled and not the tonnage transported by sea. Air and Sea: only domestic and intra-EU-28 transport; estimates for air and for sea (1995-2004). Road: national and international haulage by vehicles registered in the EU-28 until 2004, from 2005 onwards the activity performed by European drivers within the EU territory*

*Source: European Commission, EU Statistical Pocketbook, 2018*

The statistical data included in table 1 reflects the current distribution of transport tasks in the EU in the segment of freight transport, and allow to determine the scale and rate of changes observed in the analysed 21 years on the transport market, comprising also the segment of short sea shipping. In the analysed time, road transport has not only maintained its dominant market position but also strengthened its role, reaching in 2016 ca. 50 % of share in the EU transport market (based on the volume of transport performance). The second place, unchanged during observed in the analysed 21 years on the transport market, comprising also the segment of short sea shipping. In the analysed time, road transport has not only maintained its dominant market position but also strengthened its role, reaching in 2016 ca. 50 % of share in the EU transport market (based on the volume of transport performance). The second place, unchanged during that time, belongs to short sea shipping with nearly 1/3 of share in the total EU transport market. The rail transport ranks third, losing during the analysed time only (- 2.4 %) of share in the global market. Inland waterway transport is also losing its market share, although to a small extent, amounting to ca. 4 % these days. Slightly lower level, namely ca. 3 % today, refers to the pipeline transport; however, its share in the total transport performance has been regularly decreasing. Insignificant, namely mere 0.1 % of share belongs to air transport (cargo transport) and between 1995- and 2016 its share remained on the same level. This modal shift, practically unchanged for 21 years, remained in the EU despite intensive actions taken by the European

Commission, Council and Parliament for the implementation of the strategy of transport sustainable development and support for the construction of new model of transport tasks distribution meeting the standards of sustainable mobility. Unfortunately, it was not possible through legal and administrative activities as well as proper financial instruments to decrease the growth rate of road transport, and obtain expected market results regarding the promoted very pro-ecological sectors of transport, i.e. rail, short sea shipping and inland waterways. The EU transport policy in this area has ended in a fiasco. The transport market operating under unchanged principles proved to be the only regulator of the demand (European Commission MaT, 2018, p. 2 and 19-22). The existing in the EU modal shift has also maintained its position within these 21 years, despite very dynamic changes in the volume of effective demand for transport services. Since the transport tasks generated by the Member States' logistics macrosystems for their transport macrosystems indicated significant rate of growth. The volume of freight volume increased and, as a result of the continuous openness of transport markets – their liberalization, the volume of transport performance measured in tkm. This rate of growth related to transport performance as per particular transport sectors is presented synthetically in table 2.

*Table 2: Growth rate of transport in the EU between 1995 and 2016 as per transport sectors (based on transport performance in bn tkm and year to year in %)*

<b>Period of time</b>	<b>Road</b>	<b>Rail</b>	<b>Inland Waterways</b>	<b>Pipelines</b>	<b>Sea</b>	<b>Air</b>	<b>Total</b>
1995 – 2016	40,0	6,1	20,6	0,2	26,9	47,1	28,6
per year	1,6	0,3	0,9	0,0	1,1	1,9	1,2
2000 - 2016	19,5	1,4	10,0	-9,4	10,7	20,1	12,8
per year	1,1	0,1	0,6	-0,6	0,6	1,2	0,8
2015 - 2016	5,2	-0,8	-0,1	0,7	6,4	1,8	4,5

*Source: European Commission, EU Statistical Pocketbook, 2018*

The data of the European Commission (EC) presented in table 2 proves that between 1995 and 2016, the volume of transport performance in tkm achieved in the Member States' transport macrosystems increased by 28.6%, i.e. on average by 1.2 % annually. The increase was observed, to the largest extent, in air transport (over 47%) and road transport (as much as 40.0%) as well as maritime transport – 26.9%. The rail transport was responsible for relatively small part of the increase in demand for transport services, recording at that time the increase of only 0.3 % annually. Whereas, the rate of growth related to inland waterway transport was three times higher – 0.9 %. However, between 2000 and 2016, the rate slowed down noticeably. The total increase amounted to slightly below 13%. The largest increase within particular sectors referred to air transport (over 20 %) and road transport (19.5 %), and inland waterways and maritime transport recorded increase of 10 % and more (however, below the average for the EU market). On average, the annual increase in transport performance at that time amounted to 0.8%, and the increase in the typically pro-ecological transport sectors, such as rail, maritime and inland waterways amounted to 0.1 and 0.6%. Whereas, between 2015 and 2016, the rail and inland waterway transport recorded a negative rate of growth in production measured in tkm, whereas maritime transport saw the increase (6.4 %), exceeding the road transport (5.2 %) and air transport (1.8). The presented structure of modal distribution of tasks on the global EU transport market (EU modal split) fails to reflect the modal shift typical of particular Member States' transport macrosystems. Since the typical modal shift is developed by characteristic and sometimes specific factors as well as transport and logistics conditions typical of each macrosystem. The number of factors influencing modal shift and the selection of transport modes is in fact widespread.

Key determinants for passenger transport are linked to spatial patterns (e.g. urban density and the proximity to infrastructure and services and journey characteristics) and socio-demographic characteristics (e.g. car ownership, household size, occupation and wage levels). Key determinants for freight transport are related to the shipment characteristics and may depend on cost, time and quality of different transport services. Whereas, these determinants are different in each transport macrosystem. Table 3 presents, under transport performance, modal shift for the segment of land transport (excluding short sea shipping) in selected EU Member States between 1995 and 2016. Moreover, the „European” segment of modal distribution of transport performance within 7 transport systems of the EU Member States was compared with US modal shift for 2016. The analysis of data in table 3 indicates that from among 8 models of modal distribution of transport tasks, the US modal shift is the most sustainable one. Compared to this model, the obtained European standards in this respect are far away not only from the assumptions and objectives of the EU transport policy, but also the criterion of market rationality of modal distribution of demand, perceived through the logistics efficiency and effectiveness (time and costs of meeting the demand). The EU country under analysis, that meets the demand of sustainable transport development, to the largest extent, reflected in the form of modal shift is the Netherlands. Since the share of road transport in fulfilling the transport demand reached in that country, in 2016, less than 47%, namely slightly more than in the US. It means that other transport sectors featuring much lower rate of generating external costs (4-5-times lower)

*Table 3: Modal split of freight transport on land 2016 – by EU selected country and USA (tkm in %)*

<b>Country</b>	<b>Road</b>	<b>Rail</b>	<b>Inland waterways</b>	<b>Pipelines</b>
<b>Germany</b>	70,3	18,2	8,5	2,9
<b>Netherlands</b>	46,8	5,7	42,3	5,2
<b>France</b>	83,2	10,5	2,7	3,7
<b>Italy</b>	80,1	13,8	0,0	6,1
<b>UK</b>	87,2	8,0	0,1	4,7
<b>Spain</b>	90,1	5,1	---	4,8
<b>Poland</b>	67,9	22,3	0,0	9,8
<b>USA</b>	40,1	34,3	6,5	19,0

*Source: Own elaboration based on European Commission, EU Statistical Pocketbook, 2018*

participate in more than 52 % in fulfilling the transport needs of this country where inland waterway transport reached unprecedented share of over 42 %. In other countries presented in table 3 the share of road transport amounts to 70% and more, and the upper over 90% limit unseen in other EU countries, apart from Malta, Cyprus, Ireland and Greece, was reached in Spain. The share of rail transport in the total transport market of these countries is relatively low, amounting to 5.1 – 22 %. Poland, Germany, Italy and France are the only countries with over 10 % share. Whereas, very low share of this transport sector in modal split can be observed in Spain, the Netherlands and UK. Apart from the Netherlands and Germany, inland waterway transport plays a minor role in the transport systems of these countries Grzelakowski, 2019). Whereas, the share of pipeline transport amounts on average to 5 % and is three times lower than the US modal shift. In the segment of passenger transport the absolutely dominant position in the modal shift of analysed group of countries refers to motorised individual transport (passenger car transport). In each of these countries, apart from Poland, its share in total transport amounts to more than 80 % (in Poland in 2016 – 77.2 % based on p-km). Whereas, the average for the EU modal split amounts to 81.3 % and this is the level of market share

observed in Italy. In the conditions of absolute dominance of individual transport, the role of rail transport in this segment of transport market in these countries is relatively small. In the EU, it amounts only to 6.7 %, and among the analysed countries the highest share of rail transport in passenger transport can be observed in the Netherlands – 10.9 %. In the passenger modal split slightly lower share of rail transport can be observed in France (9.5 %) and in the UK and Germany (slightly more than 8.5 %). Lower share refers to Poland (7.3 %) and Italy (6.0 %). The analysis of currently existing modal shift in the freight market as well as passenger one on the EU global transport market and selected Member States with high, medium and less developed transport systems leads to the conclusion that due to several reasons, significant shift to less carbon intensive transport modes is still far from being fully achieved. The results of analysis conducted for the purpose of this study, i.e. to determine the relationships between the existing modal shift and the quality of macro logistics systems of the EU countries, clearly highlighted that road freight is the dominant transport mode. Moreover, current projections seem to confirm that no particular shift between modes occurred between 1995 and 2016, and long-term prognoses for 2050 suggest that road transport will maintain its dominant position for both freight and passenger transport. Whilst the modal share for road freight transport is expected to remain stable in the long perspective, this share for road passenger transport is expected to decrease from 74% in 2016 to 69% in 2050, expressed in p-km. Road transport is subject to high level of taxation, but has relatively inflexible demand. The possibility that policies set by the 2011 White Paper on transport could significantly influence modal shift are therefore limited, and likely to be effective only if targeted to specific demand segments (e.g. through special pricing system, increased levels of charges for the use of infrastructure in environmentally sensitive areas, etc.) (European Parliament, 2018, p. 112-114). Rail could deliver further modal shift in specific transport demand segments, but at the cost of large investments. The development of high speed railway (HSR) alone does not seem to be sufficient to shift significantly passengers from road to rail. Due to high costs related to HSR, investments should focus only on where HSR has the greatest potential, and also on upgrading selected sections of conventional lines – where the potential for modal split is higher - and improving the reliability of HSR and conventional services. With respect to multimodal freight transport, the ongoing process of amending the Combined Transport Directive is expected to facilitate further the development of multimodal transport. The investment in multimodal projects (e.g. in the rail-road terminals (RRT) or in inland waterway terminals) has been low compared to other infrastructure, so far, which needs to be addressed. The technology is important in helping to deliver modal shift for both passenger and freight transport. However: (a) for passengers, it could lead to modal shift between modes that are alternative to road; and (b) for freight, road transport has greater potential to change vis-à-vis rail (Schade, Helfrich, Peters, 2010, p. 71).

### **3. TRANSPORT FACTORS DETERMINING THE QUALITY OF EU COUNTRIES LOGISTICS MACROSYSTEMS**

The quality standards of logistics macrosystem, i.e. its efficiency and effectiveness perceived in the logistics categories within the comprehensive management of freight and passenger flows using the transport infrastructure network of each county, are determined by numerous factors. Among them, at the time of industrial revolution 4.0 and development of sharing economy, apart from factors (often barriers) of legal, organizational, administrative and financial nature, the key role refers to the transport factor. It determines not only the quality of logistics macro systems but also the effectiveness of the EU Member States' economies, including their competitiveness as well as efficiency in handling the trade with foreign economic macro systems. Due to lack of transport infrastructure meeting the required global logistics standards, and necessary network capacity, its expected technical and operational coherence, low quality of network and transport as well as logistics services, the economy and international trade, the

driving force of its development, fail to achieve the potential results. Therefore, the underdevelopment of transport macro-systems – in their quantitative and qualitative aspects, becomes the barrier for the development of logistics macro-systems, and consequently the economies of countries suffering from such constraints, leading sometimes to significant reduction in the scale of benefits they could draw from participating in the international division of labour (MDS, 2018 p.9; World Economic Forum, 2017). Such barriers are identified by specialized international economic organizations and associations (fora) analysing their grounds and effects and indicating necessary reparatory measures. In this context, particularly important are: the World Trade Organization (WTO), the World Economic Forum (WEF) and the World Bank (WB). In analysing their seasonal reports and statements as well as specialized publications with a number of detailed indices one can identify these factors – in the practice of potential transport and transport-related barriers, and define activities necessary to their reduction or elimination. By conducting research on the competitiveness of economies on a global scale since 2005, the World Economic Forum, under detailed surveys and analyses of macroeconomic indices of usually about 140 countries in the world, provides annually a detailed report (The Global Competitiveness Report - GCR), presenting the ranking of particular countries developed under the so-called Global Competitiveness Index - GCI. (World Economic Forum, 2019). This is the most thorough as well as reliable report in the world, meticulously developed regarding the methodology and content-related aspects, provided under the supervision of prof. K. Schwab (WEF) and prof. X. Sala-i-Martin (Columbia University). GCR contains detailed characteristics of each country, namely its profile with the developed set of statistical data, indispensable for calculating the competitiveness indices and developing the global ranking. The competitiveness is defined as an external effect of joint activity of a number of institutional, political and other, e.g. economic factors defining the efficiency of each country on a global scale. The level of competitiveness is measured by applying as many as 114 factors aggregated in 12 pillars (groups), which co-determine the competitiveness to a different degree, scored within the range from 1,00 (min) to 7,00 (max). Among them, the important second place refers to widely understood technical infrastructure – including transport infrastructure, constituting grounds for the national network industries. On that basis, 114 detailed indices within this range are calculated; they constitute the statistical base applied to determine the synthetic index (GCI) for each country (World Economic Forum, 2019). In the group of factors within the infrastructure grouping (pillar 2), the key importance is attached to the technical infrastructure of transport and telecommunications. It is assumed that in each country they form the main transport and logistics base by determining the competitiveness level of economies. Under this criterion only, included in the global competitiveness index, as an aggregate of correctly weighted factors, the ranking of economies of particular countries is also provided, by categorizing them by the level of competitiveness of their transport infrastructure systems (Global Insight, 2016). The networks of transport infrastructure and the quality of transport services affect not only the economy competitiveness level, but also the efficient flow of commodities in international trade within its transport and logistics system. They can facilitate the trade in goods or constitute a significant barrier to handling the trade. Therefore, within the Enabling Trade Programme, supported by WTO (“Bali Package”) and the World Economic Forum’s Supply Chain & Transport Industry Partnership, The Global Enabling Trade Report is developed annually since 2008. The report defines the basic factors which determine the level of benefits the countries may draw from their participation in the global division of labour (World Economic Forum, 2017). By means of the developed synthetic index based on the standard of WTO and WEF - ETI (Enabling Trade Index), the report provides the ranking of countries in terms of provided trade facilitation instruments. ETI, comprising a number of single partial indices, including partial index C – infrastructure, reflects the selected types of facilitation instruments, presenting thereby the level

of facilitation, existing in a particular country, regarding the system of commodity exchange. A relatively significant level of importance in terms of determining ETI is attributed to subindex C, recognising that the quality of logistics, transport availability and efficiency of border administration are more important in providing trade facilitation instruments and defining costs of exchange than customs tariffs. The index defining the level of facilitation in terms of handling the commodity exchange from the perspective of trade and logistics conditions (subindex C – infrastructure), comprises a group of 19 properly weighted indices defining three main aspects of this parameter. They include: 1. availability and quality of transport infrastructure (railroad, road, air and seaport) – 7 indices in total, 2. availability and quality of transport services, including the presence and competences of logistics and transport companies and ease, timeliness and cost of shipment – 6 indices in total, 3. availability and use of information and communications technology (ICT) and quality of these services – 7 indices (World Economic Forum, 2017). Based on each of the abovementioned partial indices as well as the overall subindex C, the ranking of particular countries is provided, regarding their commodity flow efficiency and the final ranking is presented, taking into account all other factors defining the achieved level of trade facilitation (see table 4). In the comparison of international standards, both quantitative and qualitative, between the transport and logistics macrosystems of EU countries, analysed in terms of their impact on the economy competitiveness and efficiency in handling international trade, they are also evaluated by means of the Logistics Performance Index - LPI). The indices are developed by the World Bank, providing the ranking of countries in terms of their achievements in implementing the most important logistics standards. The indicators reflect the weighted average of the achieved results resulting from evaluating the said efficiency in all 160 countries. Apart from the synthetic index LPI, the ranking of countries also includes a set of indices calculated for each of the 6 separate areas of logistics co-defining its efficiency (they fall within the range from 1 – the lowest level to 5 – the highest). The evaluation covers six basic fields – areas of logistics activity which determine the said efficiency. They include:

1. efficiency of border procedures – including customs clearance (rate, simplicity, predictability),
2. quality of trade and transport infrastructure important for handling international trade,
3. ease of negotiating and arranging competitive prices,
4. quality of logistics services and competence of companies rendering such services (transport and logistics operators, forwarders, customs agents, brokers, etc.),
5. ability to track and trace consignment real-time,
6. timeliness of shipments in line with the scheduled or expected deadline. (World Bank IBRD, 2018).

It should be emphasised that nowadays trade and transport related infrastructure (e.g. ports, railroads, roads, information technology) is regarded as one of the most important components of this composite index (LPI). Ea solet feugait vis. The rankings of countries presented by the World Bank, regarding the obtained level of logistics efficiency measured by LPI parameter, apart from the synthetic indicator, also take into account a set of partial indices, calculated for each of the 6 separate fields, co-defining LPI, also falling within the range from 1 to 5. The data presented in the last 2018 WB report proves that four European countries (EU) reached the highest level of logistics efficiency in the world, outrunning USA (rank 10) and Japan (rank 7). In total, today the first 10 highest score countries comprise as many as 6 logistics macro systems originating from the EU countries. Interestingly, their standing regarding the logistics efficiency measured by the synthetic index LPI fails to coincide with their position in the list of countries offering the best facilitation of international trade, and sometimes with their standing regarding the set of transport and logistics sub-indices within ETI ranking (table 4).

*Table 4: Ranking of selected EU Member States and USA in the category of their international competitiveness as well as transport performance and logistics efficiency (status as at 2018) \**

Country	HG	GCI	GCI Inf./ Tra. Inf.	ETI	ETI- Inf.	ETI-AQTS	LPI	LPI Inf.
<b>USA</b>	2	2	13/12	22	7	14	10	6
<b>Germany</b>	3	7	8/7	9	8	6	1	1
<b>Netherlands</b>	5	4	2/2	2	9	4	2	3
<b>France</b>	7	15	9/10	13	4	17	15	12
<b>Italy</b>	9	30	18/17	36	22	34	21	20
<b>UK</b>	10	9	11/11	8	10	11	6	7
<b>Spain</b>	17	23	7/9	15	6	23	18	22
<b>Poland</b>	22	37	25/25	31	47	37	31	40

\* Key: HG – rank in the global trade (based on exports), GCI – rank in the global competitiveness (based on Global Competitiveness Index), ETI – position in the global ranking of trade facilitation instruments based on the Enabling Trade Index, LPI – Logistics Performance; GCI-Inf. – evaluation of the infrastructure development level in terms of its impact on the country competitiveness, GCI – Tran. Inf. - ETI-Inf. – availability and quality of transport infrastructure, ETI-AQTS – availability and quality of transport services, LPI-Inf. – transport infrastructure as a factor defining the level of the country logistics efficiency/performance.

Source: Developed under reports by World Economic Forum, 2016-2018, World Bank, 2019

The analysis of data presented in tab.4 unambiguously proves the existing disparity between the transport and logistics systems of the analysed countries as well as their efficiency and quality regarding real needs and requirements defined by the volume of trade with foreign countries. The disparities are particularly visible in the case of Italy and France. They indicate the transport and consequently logistics barriers existing in these countries, limiting the scale of benefits the countries could potentially draw from the trade development and full participation in the international division of labour. As a result, it is reflected in the level of competitiveness of these economies on a global market (World Economic Forum, 2019). The relatively balanced relations in the analysed areas can be observed in Germany, Netherlands, Great Britain, and USA. Therefore, these countries of highly developed both transport and logistics systems, coherent with the framework of commodity markets, achieve not only significant competitive advantage, but also indispensable potential to capture the total financial and economic effects of their participation in the global trade. Consequently, the elimination of still existing transport barriers, a long-term process difficult to perform due to significant capital intensity of such activities and inability to coordinate them on a global scale, is in the interest of each country as an open economic macro system providing more opportunities for development and enhancing its macro system quality standard.

#### **4. COUNTRY'S LOGISTICS PERFORMANCE AND ITS MODAL SPLIT –MAIN RESEARCH RESULTS**

The compound logistics performance index (LPI) as the weighted average of the country scores on the abovementioned six key dimensions, consists of both qualitative and quantitative measures of achieved performance of any logistics macrosystem. They allow comprehensive and reliable assessment of the efficiency of logistics system in each individual country. As far as the EU Member States' logistics systems is concerned, it is worth stressing that based on



global LPI, 23 EU countries are ranked in the top 50 out of 160 countries compared by the World Bank, with Germany, Luxembourg, the Netherlands and Sweden taking the first four places (World Bank IBRD, 2018; Eft & Jda, 2019). However, in the context of provided research objective and the required verification of formulated working hypothesis, this high position of the EU Member States in the world ranking regarding the logistics capacity, fails to provide complete answer to the question providing to what extent the position of each analysed country co-determines the group of *stricte* transport factors, defined under efficiency of real and regulatory area of their transport systems. Assuming, with regard to the objective of study and determined research hypothesis, that the efficiency and effectiveness, but also – in particular at the current time of building lasting grounds for sustainable mobility – macroeconomic rationality, are measured by modal split generated by transport macrosystem, we can evaluate the importance of transport factors in this respect. This is an indirect method, providing, however, substantive grounds for verifying the defined hypothesis. Since both partial and synthetic factors (compound indices) LPI for each of the analysed EU countries, are based on the results of surveys, the respondents of which include numerous entities performing transport and logistics activity (including shippers) in a particular logistics macrosystem. The same entities operate also on the transport markets in the analysed countries, taking real decisions on selecting the means and route of transport. Thereby, through defining the modal distribution of effective demand, they co-determine modal split appropriate for each of their transport macrosystems. Based on these assumptions we can determine, under conducted studies, that:

1. the analysed group of transport macrosystems in the EU Member States differs significantly as per quality, measured level of sustainability typical of their modal shift; the level of sustainability is, in turn, determined by the achieved level of implementation of the EU sustainable mobility goals, and can be measured by the percentage share of proecological modes of transport within total transport tasks generated by the logistics macrosystem for each transport macrosystem in a particular country,
2. under the criterion of sustainable modal split, the analysed group of transport macrosystems can be classified in the following order: the Netherlands, Germany, Italy, Poland, France, Great Britain, and Spain. The ranking also includes, as one of crucial factors that determine the level of sustainability of transport macrosystem and its modal split, the volume of transport performance and type-related structure of transport service supply. It should be noted that at the current stage none of the analysed EU modal shifts is on a par, in terms of its level of sustainability, with the US modal shift, which can be treated nearly as the model one (table 5),
3. mutual relations between market modal split of transport macrosystems of the analysed EU countries and the USA, and the quality and efficiency of their logistics macrosystems measured by ETI and LPI indicators, are presented in table 5.

*Table 5: Ranking of EU countries selected the level of sustainability of their modal split and enabling trade index (ETI) and logistics performance index (LPI) between 2016 and 2018*

Country Measure-Index	DE	NL	FR	IT	UK	ES	PL	USA
SMS*	2	1	5	3	6	7	4	I**
ETI	9	2	13	36	8	15	31	22
LPI	1	2	15	21	6	18	31	10

Key: \* - Sustainable Modal Split (ranking of EU countries); I\*\* - Model Modal Split  
Source: Own elaboration based on World Economic Forum 2017 and 2019; World Bank, 2018

4. The analysis of data included in table 5 fails to confirm the defined hypothesis, but also fails to provide grounds for its falsification. Therefore, the research hypothesis should be modified in terms of the obtained research results.
5. Since the results confirm the defined assumption providing that there is significant and important relation between the achieved modal split and the level of its sustainability and the parameters of efficiency of transport and logistics macrosystems, assessed under ETI and LPI indices only in these of analysed EU countries, who have transport systems of the highest level of adapting the volume and structure of network and transport service supply to the quantitative and qualitative requirements of the demand side, defined under the structure of needs of the logistics macrosystems in these countries. This group of countries includes: the Netherlands, Germany and Great Britain.
6. In the case of France, Spain and Italy the level of correlation in this respect is definitely lower. It means that these countries reached the current level of modal split sustainability in the conditions of no structural balance of the transport market – no full adaptation of transport service supply to the demand. It also means that their transport macrosystems perform transport tasks under strong pressure from the EU transport policy focused on achieving the goals of sustainable mobility. However, it can be achieved at the expense of lowering the market effectiveness of demand and decrease in the quality of offered logistics services,
7. The Polish case unambiguously highlights that in this case there is virtually no correlation between SMS and ETI and LPI parameters. Relatively low quality standards of the transport macrosystem supply offer generated the acceptable (however, it does not mean – sustainable) modal split, that is a certain „work of chance” and is practically detached from the quality standards of transport and logistics macrosystems in Poland.
8. Whereas, the US is a perfect example of country presenting nearly model sustainable modal split and transport system as per market categories, yet reaching lower than expected results of its logistics macrosystem, expressed with the use of ETI and LPI indices. However, it results – and fails to refer only to this particular case – firstly from the nature of measures applied in this study. The issue is not related to their methodological shortcomings but to the fact that they were developed to measure the efficiency of complex economic systems and compare them with each other as similar elements, which in this case could have been used only partially.

However, nowadays there are no better measures than ETI and LPI indices to measure the issue analysed in this study. Secondly, in the case of the US the result arises from introducing into this country logistics macrosystem increased safety standards (special safety and security procedures), which consequently decrease its capacity expressed by ETI and LPI indices. Since they are based on the criterion of time related to the completion of logistics processes as a measure of efficiency which, in the conditions of increased safety standards, is sometimes significantly prolonged. This gives rise to the need to search for new measures to analyse transport and logistics relations subject to analysis in this study.

## 5. FINAL REMARKS, CONCLUSIONS AND RECOMMENDATIONS

There are numerous factors influencing modal shift and the choice of transport modes in the EU countries. Key determinants for freight transport are related to the shipment characteristics and usually depend on cost, time and quality of different transport services. Despite still ongoing increase in freight volumes on all EU transport markets, the modal share of road, rail and inland waterway freight transport remained substantially unchanged between 1995 and 2016, both for passenger and freight transport, with road transport showing a slight increase.

Looking at future projections, road transport is expected to keep its predominant position both for the passenger and freight sectors. However, its modal share is expected to decrease by a few percentage points, mainly to the benefit of rail transport (European Parliament, 2018). The main studies carried out by the EC and EU Parliament on future evolution of transport demand clearly indicate that due to several reasons, a significant shift to less carbon intensive transport modes is still far from being fully achieved (European Parliament, 2018; European Commission, 2012). Even the general analysis carried out for the purpose of this study clearly highlighted that road freight is the dominant transport mode. Moreover, current projections seem to confirm that no particular shift between modes occurred in the period 2005-2016 and long-term prognoses for 2050 suggest that road transport will maintain its dominant position for both passenger and freight transport. Whilst the modal share for road freight transport is expected to remain stable in the long perspective, this share for road passenger transport is expected to decrease from 74% in 2015 to 69% in 2050, expressed in passenger-kilometre (p-km). Road transport is subject to high levels of taxation, but has a relatively inelastic demand. The possibility that the policies set by the 2011 White Paper on transport could significantly influence modal shift are therefore limited, and likely to be effective only if targeted to specific demand segments (e.g. through urban pricing, increased levels of charges for the use of infrastructure in environmentally sensitive areas, etc) (Van den Bosche et al., 2017). Taking on EU level the comprehensive activities oriented on implementing environmentally friendly modal split on all EU macro systems, it should be taken into account that the potential for modal shift is higher where transport demand is concentrated; for passengers this is in urban areas, while for freight this is where multimodal connectivity is at its highest and TEN-T core network corridors are fully operational. Rail could deliver further sustainable modal shift in specific transport demand segments, but at the cost of large investments. The development of high speed railway (HSR) alone does not seem to be sufficient to shift significantly passengers from road to rail. With respect to multimodal freight transport, the ongoing process of amending the Combined Transport Directive is expected to facilitate further the development of multimodal transport. The investment in multimodal projects (e.g. in the rail-road terminals (RRT) or in inland waterway terminals) has been low compared to other infrastructure, so far, which needs to be addressed. Technology is important in helping to deliver modal shift for both passenger and freight transport. However:

1. for passengers, it could lead to a modal shift between modes that are alternatives to road; and
2. for freight, road transport has a higher potential to change as compared to rail.

Finally the main recommendations can be proposed. They are as follows:

1. Set objectives that are clearly expressed and measurable over time. The modal shift targets set out in the 2011 White Paper on transport are quite general and can be interpreted in different ways and thus lead to different interpretation of whether or not a target has been achieved. For example, different modal shares will be obtained by calculating it in terms of tonnes moved compared to measurements made on the basis of t-km.
2. Establish targets differentiated by transport segment. Looking at the projected demand increase, it is clear that some demand segments can change quickly and thus deliver the desired results sooner. The case of intermodal transport is a good example, as its increase has driven mainly the growth of rail freight demand over the last decade. In a context in which the quality of macro logistics systems is constantly growing and other EU and national policies influence demand patterns, it is important to differentiate targets by segment. To this end, the data collected should be made available at a more disaggregated level so that progress can be better monitored.

It is very important recommendation from the methodological point of view which can significantly improve the in-depth-research in this field.

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## RELIGIOUS EDUCATIONAL REFORMS AND THE SHAPING OF MOROCCAN IDENTITY: ISLAMIC EDUCATION TEXTBOOKS AS A CASE STUDY

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### ABSTRACT

*Islamic education curricula reforms have been at the core of many debates in Morocco lately. After the 9/11 events and the Casablanca bombings in 2003, Islamic education became associated with the discourse of extremism and violence, thus becoming a top priority in the process of religious reforms. This study seeks to explore the way Islamic education textbooks shape Moroccan identity and how they reflect the state's religious policies. It also tries to explore the main differences between the old and new textbooks in terms of values and terminology, and how such reforms are perceived by teachers of Islamic education. A mixed-methods approach, based on Summative Content Analysis, is used to compare old and new curricula. Interviews with Islamic education teachers are conducted, questionnaires administered to third year, high school students. The results show that the Islamic terminology and values are compromised to focus on ethics, citizenship and human rights values. They also indicate that teachers are against such reforms, especially that of the year 2016. The new textbooks have succeeded to a certain extent to shape students' religious identity, fostering moderation, tolerance, openness and co-existence. However, the results also show that students' religious identity is much more stable and developed than their national identity.*

**Keywords:** *Islamic education, identity, extremism, textbooks, citizenship, values*

### 1. INTRODUCTION

Morocco has been undergoing tremendous reforms in several fields in the past years. The religious realm has been at the core of this process to restrict the influence of other religious doctrines that the Moroccan state considers opposing, such as *Wahhabism* and *Shia*, etc. Notably, this issue of reforms reflects the concern of Morocco to preserve a 'Moroccan version of Islam', through elaborating "sophisticated tools" to encourage more moderate religious interpretations (Maghraoui, 2009; Aourid, 2017). These reforms, however, are thought to be more about pragmatic and politically strategic factors than about the important questions as to the sacred text, the nature of religiosity and/or the relationship between religion and politics. They are adopted as "counter-terror" strategies to "bureaucratize" religion in response to the 'war on terror' that 'originated' in the United States, and which Morocco experienced in Casablanca bombings in 2003 (Maghraoui, 2009; Waincott, 2017; Feuer, 2016). Thus, after Casablanca bombings, the state recognized that the main threat is the Salafi ideology that advocates violence and the Moroccan Islamic movement became vital in the bid to limit Jihadi Salafism (Darif, 2017). Conversely, before the 9/11 events, precisely during the 1980s and 1990s, the *Wahhabi Salafism* was encouraged and supported by late Hassan II, then king of Morocco, to counter and combat opposition embodied by the leftist parties as well as by *Al Adl-wa-Ihsan* (Justice and Charity) Islamist movement. The expansion of this ideology was encouraged and even supported because the monarchy deemed it as the most "effective means of countering the potential effects that Ayatollah Khomeini's 1979 Islamic revolution in Iran

could have [had] in the country' (Alonso&Rey,2007: 573). Since 9/11, religious education, in Morocco and the rest of the Arab world alike, has been at the centre of interest for the United states' policy makers, associating Islamic religious schools or what is called 'Madrasas' (Koranic schools) with terrorism, violence and intolerance (Faour,2012; Thobani,2007). The US urged Islamic states to reconsider their religious dynamics and their relation with the 'Other' in this age of globalization, new mass media and modern information and communication technologies. Morocco thereby adopted a unique religious policy to (re)-shape its cultural heritage and keep it away from the impacts and threats of extremism and terrorism; education was at the heart of this religious 'reshuffling' policy, especially when the king made religious organization a top priority, laying emphasis on Islamic values of tolerance, co-existence and acceptance of different cultures and religions within the framework of the Maliki rite or school. Subsequent to the 2003 Casablanca bombings, King Mohammed IV issued the main guidelines that Islamic education curricula should incorporate as part of education reforms, fostering the tolerant and moderate Islamic values, reforms which were considered as the state's response to terrorist attacks (Wainscott,2017). The said reforms were initiated in 2004 and officially implemented in 2005; and in 2016 new changes were implemented, although numerous aspects in this respect remain to be addressed. The present study, therefore, seeks to analyse the differences between the old and new textbooks in terms of values and terminology. It tries to explore Islamic education teachers' perception of these reforms, their impact on Moroccan youth's identity together with how they (the reforms) reflect the state religious policies.

## 2. METHODOLOGY

### 2.1. Research design

The present study makes use of Islamic education textbooks, namely those assigned to third years of middle school and high school, as a basis of its analysis. It uses the 'intrinsic case study' as the most suitable type of case study to be used because (i) the intent is to understand the case better, and (ii) because it represents other cases (Baxter & Jack, 2008). It is a method that not only makes it possible to analyse certain issues in a holistic and meaningful way in their real life context, but also to further consolidate the analysis through other methods (Kohlbatcher,2006). The 'Summative content analysis' is the approach that is more suitable to analyse the old and new Islamic education textbooks in terms of terminology and values, for it permits the search for word frequency and comparison so as to have more insight into the collected data. This study adopts an exploratory sequential design based on mixed-methods. In order to explore Islamic education teachers' perceptions of reforms, some units of the textbooks were first examined to have an idea about the main changes brought by the reforms; these changes were then taken as a ground to generate semi-structured interview questions; qualitative data (i.e., codes and themes) and quantitative instrument (i.e., a questionnaire) was developed

#### 2.1.1. The Qualitative phase

- **Participants:** In the first phase of this study, the qualitative design, a purposive sampling technique was used to include snowballing methods to select middle and high school teachers of Islamic education in six schools in Errachidia, the capital city of the Drâa - Tafilalet region located in the south-east of Morocco. The selected participants were the teachers who showed notable differences in terms of seniority (years of experience) and the levels taught (middle or high school).
- **Data collection and analysis:** 12 face –to-face semi-structured interviews were conducted to keep a flexible agenda and reveal new anticipated aspects. All interviews took between 20 to 40 minutes; they were all but two audio-recorded. for ethical reasons, the purpose of the study was explained to the participants verbally.

Participants were assured that their contributions would be anonymous; they did not have to unveil their names nor provide any other information likely to reveal their identity. They were told that they had the right to skip any question or withdraw from the interview process. All interviews were translated from Moroccan Arabic into English to make sure the translation is genuine. After the data was collected, we went through the data to generate codes and categories, using ‘line by line’ coding of each interview in order to develop themes, following Creswell (2012) method.

### *2.1.2. Quantitative phase*

The quantitative part involves administering questionnaires to third year high school students, who were randomly selected from two high schools in the city of Errachidia; the selected students were different streams or tracks, namely those of sciences and humanities. 120 potential subjects were identified; however, some invalid survey answers were not included. The final sample size was 100.

## **2.2. Data collection and analysis**

The questionnaire contains two types of questions: 9 open-ended questions and 8 close-ended questions. Open-ended questions were chosen because, unlike close-ended ones that are limited to certain pre-stated alternative responses, they allow participants to express their opinions freely. The other questions are demographic, dichotomous (yes or no answers) or multiple choice questions. The multiple choice questions are designed based on Likert (1932) rating scale. Since there is a combination of close and open-ended questions, 43 variables were identified from different types of categorical variables: nominal, ordinal and interval (scale). For non-numerical data (open-ended answers), a quantizing process is used to convert such qualitative data into quantitative (Maxwell, 2010) using a statistical analysis, including descriptive statistics, data screening for the variables using (SPSS) software.

## **3. RESULTS**

Results presented in this part are based on the data collected from summative content analysis of Islamic education textbooks of third years of middle and high schools, semi-structured interviews and questionnaires. Given that exploratory sequential mixed-methods design has been adopted, the qualitative results are presented first followed by the quantitative results.

### **3.1. Results of ‘summative content analysis’**

#### *3.1.1. Terminology*

The first section of the results deals with analysing Islamic education terminology and values in old and new textbooks, starting with those of third year, middle school.

#### *3.1.2. Third year middle school textbooks*

In terms of terminology, the new textbook encompasses terms related to social and economic development, (public interest, donation, charity, social cohesion, sustainable development); political discourse (the commandment of the believers, guardian of religion and people unity, allegiance (*Bay’a*), adherence to monarchy, supreme governance, territorial integrity); environment development (landscaped areas, planting, afforestation, ecological system); moral values (generosity, charity, moderation, justice, altruism, fraternity, sacrifice, peace, freedom of religion, equity, affection), and Islamic discourse terminology (faith, creed, monotheism, servitude to God, religiosity, divinity, worship, etc.). Concerning the old textbook of third year of high school, the terms fall into eight categories: Social and economic development (social cohesion, sustainable development, kinship ties, preventing mendicancy, orphan fostering, alms, usury, etc.), political discourse (allegiance (*Bay’a*), subjects, state building, state



constitution), environment and health development (health care, psychological health, cleanliness, planting campaigns, ecological balance, natural resources); moral values (modesty, mercy, affection, fidelity, honesty, solidarity, clemency, forgiveness, generosity, kindness, wisdom, moderation, accepting difference and the Other); features of Moroccan Islam (peace, ease, tolerance, affection, respect, equality, co-existence, freedom of belief); Islamic discourse (Creed, faith, justice, *Al-Fath* (victory), prevalence of Islam) and negative acts (Immoderation, inflexibility, radicalization, extremism, intolerance, alienation, sins, legitimization, greed, violence, lies, dogmatism). It is clear from that, contrary to the old one, the new textbook lays more emphasis on values and virtues without bringing to light the opposites of these values and virtues. It also avoids issues that could sound controversial, such as usury.

### 3.1.3. Third year high school textbooks

Similarly, the terminology included in the new third year high school textbook can be divided into five categories, namely political discourse (governance, politics, state), moral values (mercy, solidarity, justice, respect, freedom), Moroccan Islam (religious renewal, balance, moderation, freedom of belief, flexibility, co-existence), Islamic discourse (*Da'wa* 'missionary activity', monotheism, faith, worship, judgment day) and Negative acts (murder, alienation, adultery, extremism, racism, corruption, atheism). The terms used in the old textbook can be categorized into four groups, namely moral values (tolerance, forgiveness, affection, respect, harmony, mercy, equality), Moroccan Islam (balance, moderation, fatwa contradiction, cultural diversity, freedom, accepting the other), Islamic discourse (mediation, religious unity, alms, *Ghayb* (unseen), criminal legislation) and negative acts (Ignorant religiosity, childish jurisprudence, doctrine imitators, blasphemy accusations, doctrinal intolerance, intellectual deviation, moral deviation, racism, atheism, violence, adultery, economic corruption).

### 3.1.4. Values

The values that the new third year middle school textbook lays emphasis on are co-existence, openness, freedom of religion, accepting difference, equality, freedom; they are even repeated at least twice as lessons in this textbook. The old textbook has balanced components comprising Islamic legal provisions, values and religious obligations, while emphasizing the protection of *Da'wa* (promoting religion or missionary activity) and establishing the (Islamic) state). This balance is embodied in values, such as avoiding radicalism, prohibiting usury and economic monopolization. However, both of them share the same values about faith, moderation and social values, as, for instance, protecting the environment, honouring parents and believing in god. Like the previous curriculum, the new high school textbook brings into focus values of faith in God, which reoccur in different lessons throughout the textbook, such as belief in the divine message, belief in the Quran, universality of Islam and submission to God. In contrast, the old curriculum concentrates more on issues such as family, marriage, economic transactions, issues that are totally absent in new curriculum. The old curricula of both levels make a clear distinction between what is lawful and unlawful from the perspective of Islamic jurisprudence, whereas the new textbooks confine themselves to what is commonly believed as right values and behaviours, such as honesty, peace, freedom, tolerance, etc.

## 3.2. Results of semi-structured interviews

This section of the qualitative phase shows the findings of the semi-structured interviews conducted with middle and high school's Islamic education teachers, of which the objective was to find out about their perceptions and views on the reforms. During the analysis of data, a number of themes came to the fore, namely bugged curriculum, prohibited or forbidden trinity, 'we are subjects ... we do as we are told' and the evil other, which we discuss below.

### 3.2.1. *'Bugged Curriculum'*

This is how interviewee no.6 described the reformed textbooks of 2016. The majority of the teachers who have participated in the interviews were not satisfied with Islamic education reforms, and they have cited several problems with regard to the form and content. For them, the form was quite boring, since it incorporated 'problematic situations' that were 'abstract and far from reality'. For example, interviewee no.6 described the lesson structure as 'incoherent' with 'cracks', which forces teachers to make extra efforts to compensate for these gaps and help students understand their lessons. Some participants, however, showed positive interest in the new textbooks, especially the link they created between students and value-based content, a property that the old curriculum lacked. Interviewee no.8 went even further to stress that the old curriculum incorporated a sort of 'indoctrination' with the sole focus on information. The emphasis on values in the new textbooks has been perceived differently by teachers, especially when it comes to the role of Islamic education in protecting students from the threats of globalization, atheism and extremist movements. For instance, interviewee No.4 stated that the old curricula 'clearly did the job'; they were more effective in protecting students from the global culture; In other words, for him the new curriculum has a lenient tone in presenting the Islamic material.

### 3.2.2. *'The Prohibited Trinity'*

The theme "Prohibited Trinity" stands for the three elements that people still avoid talking about, viz. religion, politics and sexuality. Religion and politics are important elements and will be discussed as part of the political dimension that cropped up the analysis of the participants' perception of religious reforms within a larger political context. Enquired about the King's use of 'religious education' instead of 'Islamic education', Interviewee no.1 suggested that 'the king's speech in 2016 was rather ambiguous and was open to various interpretations'. When asked about adding a lesson entitled 'commandment of the believers', another interviewee provided a striking statement, stating that that there was no need for such lessons and that it was hard to make students understand the real meaning of such concepts and that the 'commander of the believers' was not synonymous to the 'king'; he also claimed there being contradictions between the religious and the political, especially when it comes to these labels. Therefore, they try to restrict students' questions and comments about these issues to refrain from entering the minefield and criticizing the regime openly and explicitly. Some participants, moreover, thought that the removal of certain controversial lessons, i.e., those pertaining to jihad and inheritance, was motivated by a purely political agenda.

### 3.2.3. *'We are subjects ... we do as we are told'*

"We are subjects and we have to do what we are asked to do" is the answer provided by interviewee no. 2 when asked if they had sent their complaints and/ or recommendations to the Ministry of Education, especially as to their concerns about the pitfalls of the new textbooks. This very fact reveals the main challenges that Islamic education teachers face. such as, for example, the lack of communication between teachers and the competent authorities, notably the ministry of education. In addition to that, interviewee no. 5 described the textbook designing committees as mysterious and intriguing committees that nobody knows anything about. Therefore, in addition to the other challenges, teachers have to serve as coaches and problem solvers, especially with regard to the 'imposed/parachuted curriculum', of which teachers know a little, if any.

### 3.2.4. *The Evil Other*

The last theme presents the distinction between the West versus Islam, or 'Dar Assilm' (the home of peace) as opposed to the home of war, or the home of Islam as opposed to the home

of disbelief and apostasy, which was blindingly omnipresent in the data collected from the interviewees. This dichotomy puts Islam as a religion in opposition with the west, the global culture or ‘the other’ in general. Asked about the claim that Islamic Education encourages extremism, one of the interviewees stated that both “previous and new textbooks set for themselves the task to get rid of the illusion that Islam encourages violence and exclusion of the other. I think that Islamic Education is immunity against extremism, those who try to vilify Islamic Education aim to intentionally tarnish religion’. When asked about the Ministry’s substitution of “Religious Education” for ‘Islamic Education, interviewee no.8 stated that this was due to allow for inclusion of other religions and creeds, a fact which would confuse students, for if they are taught Islam, Christianity and Judaism, they would be overwhelmed; and , because they are not qualified enough to use their cultural sieve and “weighting” (Tarjih). Thus, introducing other religions’ teachings is still considered threatening to these teachers. The ‘Islamic” Vs ‘Universal’ dichotomy is another crucial element mentioned by participants. For instance, interviewee no. 6 argued that “the elimination of ‘Jihad’ (holy war) lessons was due to their controversial nature and incompatibility with universal culture that rejects violence. Similarly, interviewee no. 2 thought that the themes or lessons likely to foster cultural and religious clashes in the old curriculum were removed from new ones”.

### **3.3. Quantitative findings**

This part presents the results of the quantitative data analysis of this mixed-methods approach. This phase aims at supplementing the qualitative sections in a bid to explore the repercussions of the reforms implemented in Islamic Education textbooks on Moroccan students’ religious identity. The demographic analysis of the participants shows that females’ participation was 64% whereas males’ participation was only 34%.

#### *3.3.1. Textbooks assessment*

One of the questions in the questionnaire asked students to give their opinion as to Islamic Education textbooks. The findings show that 33% thought that their Islamic education textbooks were average, 22% thought they were pretty good. The remaining 17% said that the textbooks were ‘weak’. In order to explore students’ critical thinking abilities and their willingness to be open and tolerant vis-à-vis the ‘other’, they were asked to express their point of view about the Pope’s visit to Morocco the previous year. 45 % of the students thought that the visit was a positive thing, 43% were against it, while 12% were neutral. The students who described the event as a way to emphasize the values of openness and co-existence were 46%, while those of them who described as offensive were only 17%. However, most of them were against the ritual that brought together a Muslim Imam’s calling for prayer (Aḍān) with Jewish woman singing a prayer in Hebrew and a Christian woman singing “Ave Maria” on stage.

#### *3.3.2. Values*

This part tried to explore the values that students thought were of great importance to them; those that Islamic education brings to light subsequent to the said reforms. In this connection, students were asked to rate these values from the most important to the least important. Below is a summary of the answers provided. More than 66% considered freedom very important; 38% considered National unity not important at all. While 32% thought openness was of low importance, 37% thought that the value of co-existence was important. For 33% of the participants, ‘sacrifice’ was also of low importance.

## **4. DISCUSSION**

The results from the mixed methods approach suggest that there are significant changes between the old and new Islamic Education textbooks, especially with regard to the terminology

used and the values emphasized. The terms included in the old textbooks the comprise several disciplines of life, with traditional Islamic terminology being used to address different issues. Besides, such textbooks combine terminology from Islamic law, Islamic jurisprudence and religious obligations. While the new textbooks focus more on terms that lack Islamic tone, with emphasis laid on values and virtues and controversial issues avoided. The new textbooks put more emphasis on values of co-existence, openness, tolerance, freedom of religion and state Morocco's religious terms of reference, i.e., the Maliki rite or school, Ash'ari doctrine and Sufism. The old textbooks, on the other hand, focus more on values of moderation, balance, accepting differences and unity, inter alia. Concerning the semi-structured interviews, the results show that teachers have reservations vis-à-vis the constant changes of textbooks. They brought to the fore the various challenges that they have faced since the implementation of the said reforms, especially regarding the contents that, instead of being confined to Islamic materials, have come to cover materials stressing the values of citizenship, openness and co-existence. They also voiced their concerns as to the unfair treatment of Islamic education by state authorities and students alike. Their contributions, moreover, have revealed that Islamic Education is now being used to serve a specific political agenda. The results of the questionnaire reflect the students' interest in the subjects of Islamic education and their complaints about the insufficient time allotted to such subjects. Although the textbooks have fulfilled the job of developing in students the disposition of openness and willingness to accept 'the Other' regardless of their religious creed and beliefs, students were still unsatisfied, as is clear from their assessment of the textbooks as just average. The results also show that students do not take everything for granted; they rather approach textbooks critically and point out to what is acceptable and what is not in these textbooks. Despite the textbooks' emphasis on national unity and citizenship, students still consider such values are not that important.

## **5. INTERPRETATION OF THE FINDINGS**

### **5.1. 'Cherry picking'**

Given the fact that Islamic education has been relegated to a cultural and civilizational subject, Islamic teachings have been geared toward to cultural identity materials that attempt to 'Islamize' knowledge (Karimizadeh & Abolghasemi, 2016); they intend to make it more compatible with democratic and human rights values. Likewise, it is argued that attempts to remove some terms and content with unmodern connotations and inject religious material via a different terminology will do nothing more than deepening the religious crisis' (Dakhouch, 2016: 25). To use Geerts's (1968) words, it is as though old wine was put into new bottles just as old bottles contained new wine. The new approach that incorporates "universal values" in Islamic education curricula seeks to make change students view on Islam as simply as a "religion", and engage them in an interdisciplinary material likely to blur the boundaries between what is religious and what is secular, which is probably the main goal of these reforms (Douglas & Shaikh, 2004). Therefore, the kind of 'cherry picking' does not seem to be the solution; instead, these religious reforms should aim at developing mature citizens with twenty first century skills, taking Islamic teachings as a starting ground.

### **5.2. Islamic Education teachers as 'Traditional intellectuals or scholars'**

If at all anything can be deduced from the above interpretations of results, it is that the label 'state bureaucrats' (Wainscott, 2017) is not suitable to describe Islamic education teachers and how they function in the Moroccan religious apparatus. One may borrow Antonio Gramsci's concept of 'traditional intellectuals' or scholars to refer to those teachers. Traditional intellectuals, for Gramsci, are the opposite of "organic intellectuals"; organic intellectuals are subjects directly integrated in society's economic structure and try to homogenize lay people's ideology; traditional intellectuals, on the other hand, remain on the sidelines of society's

economic structure, as a way to deny their belonging to any social class or submitting to any ideological discourse. Islamic education teachers are those traditional intellectuals who are aware of state hegemony and its attempts to ideologically shape their way of perceiving religion and subsequently turn them into “organic intellectuals”. Aware of the government’s political agenda as they may, these Islamic Education teachers have no say and remain just passive receivers of others’ interpretations. They just implement what they are told and practice self-censorship to keep themselves from getting involved in any controversial debate. These teachers and intellectuals feel helpless and unable to approach religious text from a different perspective due to political, social and cultural constraints. In other words, religious texts and exploited and interpreted by political and social institution to suit their own purposes and interest;

### **5.3. A New generation of students**

Although the new Islamic education curriculum was implemented in 2016, the impacts of its changes have become visible in the way Moroccan youth perceive their religious identity. It is true that the state has succeeded to a certain extent in making students more open, tolerant and willing to accept difference. However, embodying such values is conditioned by the political and social circumstances of the Moroccan society as well. Moroccan youth appreciate initiatives that would reflect the openness of Morocco and its cultural uniqueness. However, religion for them remains so sacred that it should in no way be manipulated. As an illustration of this, one of the students commenting on the Pope’s visit to Morocco said that it was ‘a failure, and it aimed to ridicule Islam’. His comment was not directed to the visit per se, but rather to the way the Muslim call for prayer was chanted together with Christian and Hebrew songs. For students, such initiatives are just a manipulation of religion that would encourage more offending acts towards Islam. Having said this, it is clear that students’ religious identity is more important, stable and developed than their national or cultural identity; Islam, they say, is the first uniting factor and preserving it is a top priority (Al-kalakhi, 2018; Housni et al, 2018).

### **5.4. Islamic Education: a reflection of new state policy**

The subject of Islamic education has been a field of constant debates, not to say struggles, between teachers and teaching inspectors, the ministry and the monarch. The religious reforms have put Islamic education in a vital position that reflects new policies and future tendencies. After 9/11 and Casablanca bombings in 2003, the state tried counter the Salafi movement and reduce its impact in Morocco in a bid to produce a “semi-enclosed” religion that can be easily controlled and manipulated ((Darif, (2017), and this very fact is clearly reflected in the way new Islamic education textbooks were designed after 2003, focusing on Moroccan identity of moderate Sunni, Maliki school within the framework of the Commandment of the believers. However, the year of 2011 was a turning point especially with the rise of 20 February movement that advocated an “open” religious policy reflecting the requirements of the 2011 constitution. The new strategy allowed political authorities to open up to those that were considered against the state’s religious doctrine, either in Morocco or outside. There emerged a tendency to stress Morocco’s religious and cultural diversity as opposed to the then prevailing “mono-religious” policy that prevailed in the previous years. It should be noted that involving Islamic education in this clash of political interests puts Moroccan religious identity in a tight spot. The subject should be totally independent of any kind of political interference that could manipulate Moroccan citizens and the way they perceive religion.

## **6. CONCLUSION**

It follows from the above interpretations of the results that new approaches to design Islamic education textbooks are needed to allow a smooth development of a coherent and consistent

Islamic identity, taking into consideration the needs of young generations, and the daily challenges they face so that practical solutions to their problems could be found. Also, there should be a two-way (rather than the one-way communication that currently prevails) communication between the authorities and Islamic education teachers and professionals in view of improving the quality of teachings methods and the curricula's content. Given that the case study is a descriptive one, conclusions derived from the content analysis did not tackle the way these textbooks are designed and the way the content is introduced in each educational level. Class observations also would uncover new issues about the way Islamic education is taught and the way students interact with the subject. The small sample of participants that took part in interviews may also have impacted the validity of this study; more interviewees could have provided additional insights. The Moroccan religious reforms are considered a model to be followed by neighboring countries. Exploring the way such model is applied in other contexts would also be an interesting area of future research. Exploring the reforms in other state-run institutions such as 'Traditional education' (*Ta'lim Attiq*), in terms of curriculum implementation would reveal other facets of the Moroccan religious policy.

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## HIGHER EDUCATION TEACHERS WITH BURNOUT

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### ABSTRACT

*Burnout is considered by the World Health Organization an extreme response to cumulative and prolonged occupational stress, with teachers being among the professionals most affected by it. This disease influences physical and psychological well-being, affecting negatively the relationship between teachers and students. It also compromises the quality of teaching which, in turn, is associated with absenteeism and may increase professional abandonment. Our study aims to understand the degree of incidence of Burnout in Professors from the Portuguese Higher Education Institutions. A first study was carried out based on a sample of 520 teachers. Overall 41 (7.9%) Higher education teachers presented high scores of Burnout. A second phase of the study aimed to characterize the group of burnout Teachers in terms of socio-demographic and socio-professional characteristics. The MBI (Maslach Burnout Inventory) and a questionnaire built for this purpose were used to collect the study data. The results indicate that the teachers with Burnout are mostly women (63.4%). The majority is aged between 40 and 59 years old (75.6%) and married (68.3%). Overall, 41.5% had 10 to 19 years of service and 39.0% between 20 and 29 years of service. The teachers with undetermined contract (48.8%) and temporary contract (36.6%) have more levels of Burnout, but the self-employment worker (4.9%) appears in residual amount. Teachers at Public Polytechnic Institutes are most affected by Burnout (48.8%), than Public University teachers (41.5%). Teacher's burnout is a serious problem and should be considered by the Higher Education Institutions regarding the development of good teaching practice.*

**Keywords:** *burnout, higher education teachers, universities and higher polytechnic institutes*

### 1. INTRODUCTION

The human being can be more or less vulnerable to develop stress depending largely on his perception of the factors that surrounds him, as well as the phase of life that he is experiencing. According to the National Institute for Occupational Safety and Health (1) 25% of employees consider work as one of the greatest stressors of their life and 75% consider their employment more stressful compared to the previous decade. This institute also recommends that emphasis should be placed on the study of improving the quality of life on professionals, promoting safety, protecting workers and promoting their general well-being (1). The WHO (1) considers Burnout Syndrome as a form of occupational stress, which arises as a result of elevated and chronic stress levels. From the new classification of ICD11 (International Classification of Diseases, version 11, in (1)) this syndrome will be classified as a disease. Different theories were conceptualized in order to explain Burnout, Maslach and Jackson (1981), Gil Monte (2002), Edelwich and Brodsky (1980, in (2)) and is an extremely investigated phenomenon.



The model chosen in this study is the Maslach's model (3), since it is one of the most investigated in the scientific world. Maslach's model diagnoses Burnout in workers with chronic work stress when manifestations of specific signs and symptoms appear that explain a specific physical and mental condition, particularly feelings of lack of energy or exhaustion, emotional detachment, negativism, cynicism in relation to the place of job. A decrease in professional efficiency with feelings of low personal fulfillment it is also a characteristic. These symptoms are integrated into three defining dimensions of Burnout: Emotional Exhaustion, Depersonalization and low levels of Personal Achievement. In a literature review Souza e cols (4) concluded that universities are work contexts where there is pressure on teachers in order to intensify their work, specifically academic productivity. There are studies where the precarious work of university professors is still evident, considering the increase in precarious contracts and the instability associated with temporary work (4). Marques Pinto, Lima, and Lopes da Silva (5) observed high levels of burnout in 6.3% of teachers. In this study, 30% of teachers were still at risk of developing the syndrome, these values are being pointed as common to other European studies. Some manifestations of Burnout Syndrome in teachers promote mental health problems that can vary depending on their individual and / or work characteristics (6). The result of a study with Portuguese teachers, from all levels of education, except higher education, showed that 76.4% of the respondents presented signs of emotional exhaustion, of which 11.6% had worrying levels, and 15.6% with critical signals. About 7.6% had critical Depersonalization and 42.5% low Personal Achievement values (7). Women seem to be more predisposed to Burnout (8). Muñoz, Campaña and Campaña (9) in a study with university teacher in Colombia concluded that women teachers of higher education are more likely to feel emotionally worn out and less capacity for self-engagement. They also consider that women seem to be more vulnerable than men to stress, with a 5.3 times higher risk of presenting Burnout compared to men (9). Age has been a commonly studied aspect of Burnout studies. Younger teachers seem to be the most vulnerable to stress. However, older teachers are the ones who have higher levels of burnout (10). With career progression and aging itself, there is an increased feeling of deterioration. The high demand for work and the social role of teachers seem to be associated with this experience of burnout (11). Teachers who have more years working have more tendency to develop Burnout (12). In a Portuguese study (7), the levels of emotional exhaustion were found to be directly associated with length of service. Bedoya and cols (8) found that the most experienced teachers had a better adaptation to work, possibly due to the learning of didactic strategies that lead to less exhaustion in this population. According to Mancebo (13) there will be a higher percentage of temporary work in higher education throughout the years. In the precarious contractual nature, it requires teachers to look for new forms of income to meet their needs of support, personal and family. For Marengo-Escuderos, and Ávila-Toscano (22), professors with fixed-term contract or undetermined duration of fixed-term contract, noticed that the fixed-term contract have more Burnout, justified for not having professional stability and feeling more professional exhaustion. Married ones have lower levels of professional exhaustion compared to single, divorced or widowed people: seems that social support is a very important variable in this syndrome (2). In a study by Carlotto (2) with Portuguese teachers, they observed that single teachers have significantly higher levels of depersonalization in parallel to married ones. In several studies, married teachers have lower levels of Burnout (2; 3; 14). Being in a stable affective relationship seems to be a protective factor when individuals are faced with situations that induce Burnout. Teachers who are parents look like they feel overwork and feel they accomplish more than their obligations, lower feelings of Personal Achievement as well as disinterest in work (2). Having children was considered a risk factor for Burnout Syndrome in some studies (9). However, this idea is opposed by Merino-Plaza, and cols. (15) who consider that family involvement stimulates a better ability to deal with emotional conflicts and problems.

Few studies about geographic areas observed that residents in a more developed socioeconomically have higher levels of stress than those who live in the less economically developed ones (Moriana Elvira & Herruzo Cabrera, 2004; Garcia Arroyo, 2017). In the national study by IPSSO (18), there were no differences between geographic areas. Looking at public and private schools, the average level of Emotional Exhaustion appears in both institutions, being higher in public institutions (19). A study involving three Portuguese universities and a polytechnic institute found that the existence of physical fatigue and Emotional Exhaustion was correlated with Burnout, the same was not confirmed in relation to cognitive fatigue (20). Regarding to scientific areas, university professors in the basic social sciences seem to have lower values of Emotional Exhaustion (8). The present study aimed to:

1. Understand the degree of incidence in Severe Burnout in a group of higher education teachers.
2. Describe the group of Teachers in Severe Burnout, regarding the socio-demographic and socio-professional characteristics.

## **2. METHODS**

### **2.1. Participants**

The sample was chosen after an exhaustive compilation of all HEIs in Portugal and their teachers. 524 questionnaires were received, 4 were eliminated as they were incorrect or incomplete. The final sample included 520 respondents. According to the sample calculation for this study, 320 respondents would be needed to obtain significant results, considering a sampling error of 5% with a 95% confidence level. A greater number of participants was achieved. The survey and the scale were emailed to the teachers asking them to complete it, after total guarantee of confidentiality in the treatment of the respective results. The Google Forms digital questionnaire platform was used, ensuring that data were confidential and with the guarantee that quantitative and statistical data would be the only ones to be used in investigations. Of the 520 respondents, 339 (65.2%) are women and 181 (34.8%) men. A total of 41 teachers (7.9%) have signs and symptoms of Severe Burnout. Regarding age, 104 (20%) participants are under 40 years old, 197 (37.9%) between 40 and 49 years old, 182 (35.0%) between 50 and 59 years old and 37 (7.1%) over 60 years. Most participants are married (63.7%), 22.3% are single, 13.5% are divorced and 0.6% are widowed. Regarding the number of children 148 (28.5%) of the teachers do not have children, 132 (25.4%) have 1 child, 181 (34.8%) 2 children and 59 (11.3%) have more than 2 children. As for the distribution by the Country's Zone, 41.5% of the teachers teach in the North, 30.6% in the Central Zone and 27.9% in the South of Portugal.

### **2.2. Instruments**

In the initial phase of the study, three instruments were used: the Maslach Burnout Inventory (MBI) (3) the Perceived Stress Scale (PSS) (21). A third instrument was added: the sociodemographic questionnaire, which was prepared by the authors and consists of questions concerning age, gender, years in the teaching profession (“less than 10 years”, “10 to 19 years”, “20 to 29 years”, and “30 or more years”) and scientific areas the person teaches (“Social Sciences”, “Health Sciences”, “Technological Sciences”, “Arts and Humanities” and “Others”). The MBI and PSS used are versions translated and adapted by the Institute for the Prevention of Stress and Occupational Health (IPSSO) (18). Authorization was asked to use these instruments. The Maslach Burnout Inventory (MBI) reveals the existence of three dimensions that address the sociopsychological characteristics of the “Burnout Syndrome”, namely: emotional exhaustion (EE - 9 items), personal accomplishment (PA - 8 items) and depersonalization (DP - 5 items). Answers should be given on a 7-point Likert scale, corresponding to 0 “never”, 1 “a few times a year or less”, 2 “once a month or less”, 3 “a few

times a month”, 4 “once a week”, 5 “a few times a week” and 6 “every day” (Cronbach's Alpha for Emotional Exhaustion  $\alpha = 0.92$ , for Personal Accomplishment  $\alpha = 0.81$ , indicators of internal consistency and for Depersonalization  $\alpha = 0.71$ , which indicates a substantial internal consistency). The Perceived Stress Scale (PSS) used was the version translated and adapted by Mota-Cardoso, Araújo, Ramos, Gonçalves, and Ramos [11]. Answers were obtained using a Likert scale of 5 alternatives, ranging from 0 to 4 points, corresponding to 0 “never”, 1 “almost never”, 2 “sometimes”, 3 “very often” and 4 “many times. In the second phase of the study, only the MBI and the sociodemographic questionnaire were considered in order to characterize the group of burnout Teachers in terms of socio-demographic and socio-professional characteristics.

### 2.3. Data analysis

To analyze the data, high values of Emotional Exhaustion (Score > 32; P > .66), Depersonalization (Score > 6; P > .66), and low Personal Achievement (Score < 35; P < .33) (22; 14) were considered. Severe burnout was defined when the participants simultaneously obtained these scores in the three dimensions. After the identification of teachers with Severe Burnout levels, descriptive analysis were carried out to prove the profile that defines this group, considering the socio-demographic and socio-professional variables. The association between the Emotional Exhaustion, Depersonalization, Personal Achievement and Perceived Stress dimensions and the demographic and socio-professional characteristics of teachers with high levels of burnout was assessed with Pearson's correlation.

### 3. RESULTS

Considering the definition of Severe Burnout, it was found that 41 higher education teachers (7.9%) had indicators of this level of burnout

Table 1.

*Table 1: Teachers participating*

Burnout	n	%
Without Burnout	479	92.1
<b>Severe Burnout</b>	41	7.9
Total	520	100,0

The Table 2 presents the matrix of correlations between the dimensions of burnout Emotional Exhaustion, Depersonalization and Personal Achievement. Emotional exhaustion has positive and statistically significant correlations with depersonalization and perceived stress, as well as a negative and significant association with personal achievement. Depersonalization is directly associated with perceived stress and inversely associated with personal achievement. In turn, personal achievement has a negative correlation with perceived stress.

*Table 2: Pearson's correlation of the three dimensions of burnout, Depersonalization Emotional Exhaustion and Personal Achievement, with Perceived Stress*

	Emotional Exhaustion	Depersonalization	Personal Achievement	Perceived Stress
Emotional Exhaustion	-			
Depersonalization	.489*	-		
Personal Achievement	-.237*	-.376*	-	
Perceived Stress	.696*	.417*	-.362*	-

$$* p < 0.01$$

### 3.1. Teachers with Severe Burnout and social demographic variables

Most teachers are women (63.4%). Regarding to age 19.5% are under 40 years old, 39.0% between 40 and 49 years old, 36.6% 50 at 59 years old and 4.9% over 60 years old. About marital status, 22.0% of the participants are single, 68.3% are married or living with someone, 7.3% are divorced or separated and 2.4% are widowed. A total of 10 teachers (24.4%) have no children, 36.6% have 1 child, 36.6% with 2 children (2.4% more than two children. Regarding geographic distribution 29.3% of teachers with severe burnout who teach in the North of Portugal 31.7% in the Central Portugal and finally 39.0% in the South of Portugal.

Table 3: *Teachers in Severe Burnout and Sociodemographic Variables*

<b>Severe Burnout – Socio-demographic Variables</b>		
<b>Sex</b>	<b>n</b>	<b>%</b>
Women	26	63.4
Men	15	36.6
<b>Age</b>	<b>n</b>	<b>%</b>
Less 40 years	8	19.5
40 - 49 years	16	39.0
50 - 59 years	15	36.6
Over 60 years	2	4.9
<b>Marital Status</b>	<b>n</b>	<b>%</b>
Single	9	22.0
Married	28	68.3
Divorced	3	7.3
Widow	1	2.4
<b>Number Children</b>	<b>n</b>	<b>%</b>
0	10	24.4
1	15	36.6
2	15	36.6
3 or more	1	2.4
<b>Geographic Distribution</b>	<b>n</b>	<b>%</b>
North	12	29.3
Center	13	31.7
South	16	39.0
Total	41	100

### 3.2. Teachers with Severe Burnout and Social Professional variables

From the group of teachers with Severe Burnout comparing with the socio-professional variables (cf. Table 3), there are 6 (14.6%) teachers with less than 10 years of teaching service, 17 (41.5%) between 10 years and 19 years of service, 16 (39.0%) between 20 and 29 years of service and finally with more than 30 years of service, there are 2 (4.9%) teachers in Severe Burnout. Regarding the institution where the Teachers in Burnout teach, 17 (41.5%) and 20 (48.8%) of the Public Polytechnic appear in Public Universities, in Private Universities 2 (4.9%), the same values appear in Private Polytechnic 2 (4.9 %). About the contractual relationship with the institution where they work, 48.8% have undetermined duration contracts, 36.6% with temporary contract contracts, 4.9% are Self-employed worker and 9.8% with another contractual modality. Taking into account the teaching area, 16 teachers (39.0%) are from the Social Sciences, 8 (19.5%) are from the Health Sciences, 10 (24.4%) are from the Technological Sciences, 6 (14.6%) teach in Arts and Humanities and 1 (2.4%) teaches in other areas not specified.

*Table 4: Description of Teachers with Severe Burnout and Socio-professional Variables*

<b>Severe Burnout– Variables Socio-professional</b>		
<b>Years of Service</b>	<b>n</b>	<b>%</b>
less 10 years	6	14.6
10-19 years	17	41.5
20-29 years	16	39.0
30 more years	2	4.9
<b>Work institution</b>	<b>n</b>	<b>%</b>
Public University	17	41.5
Public Polytechnic Institutes	20	48.8
Private University	2	4.9
Private Polytechnic Institutes	2	4.9
<b>Contract Type</b>	<b>n</b>	<b>%</b>
Undetermined duration	20	48.8
Temporary contract	15	36.6
Self-employed worker	2	4.9
Others	4	9.8
<b>Training Areas</b>	<b>n</b>	<b>%</b>
Social Sciences	16	39.0
Health Sciences	8	19.5
Technological Sciences	10	24.4
Arts and Humanities	6	14.6
Others	1	2.4
<b>Total</b>	<b>41</b>	<b>100</b>

#### 4. DISCUSSION

The university teacher is the one who teaches a set of knowledge, wisdom and "know-how" to instruct those who intend to follow a certain profession, expecting them to exercise it with responsibility, ethics and competence. Taking into account the demands placed on the roles of 20th century teachers, in view of the constant change and innovation required, it is one of the professions most associated with high levels of stress (18). The requirement associated with this profession places it as a profession at risk of burnout and stress. In this study, we found that 7.9% of higher education teachers have severe levels of burnout that corroborates previous studies results (3). Other results are consistent with the literature in the domain. It was also found that this population consists mainly of women (8) and middle-aged teachers (10; 11). In this study, married teachers are overrepresented in the group of teachers with severe levels of burnout, contradicting different studies when they state that married people have lower levels (6; 3; 14; 2). As previously indicated, the fact of having one or two children is a risk factor in Burnout, in line with the idea of Muñoz P. and cols. (9). It is also noteworthy that there is more Burnout in teachers who teach in the south, contradicting the idea that more developed areas are more prone to Burnout (Mariana Elvira & Herruzo Cabrera, 2004; Garcia Arroyo, 2017). Teachers in career development (between 10 and 29 years old) will be more affected, with more emphasis on those between 20 and 29 years old, not having been found in the IPSSO study (18). The teachers of social sciences and technological sciences also stand out as most affected by Burnout. A noteworthy result refers to the fact that a large part of the teachers with severe Burnout have an effective employment relationship. We did not find studies on these variables, but we found that self-employed people appear in a residual percentage with Burnout, which

somehow contradicts the idea shared by Mancebo (13) when he mentioned that professional instability causes more professional exhaustion.

In the present study, it appears that those who have a stable job are the ones with the greatest professional exhaustion. Teachers who teach at Public HEIs are more predisposed to Burnout than their colleagues at Private HEIs, being higher in teachers at Public Polytechnic HEIs followed by University Public HEIs. On the other hand, those undetermined duration of fixed-term contract and with temporary contract are also the most affected, as are the ones who teach in the areas of “social sciences”. The risk factors for teachers with a greater propensity for Burnout will be women, married, with one or two children, aged between 40 and 59 years old, or working in the south of the country. Regarding the socio-professional factors, a greater number of cases with Burnout become more evident in teachers in career development between 10 and 29 years of service, in those who work in Public HEIs, in the cases of undetermined duration of fixed-term contract and temporary contract or in those who teach in the social and technological sciences. The limitations found in this study should be taken into account, namely the dependent variables under study, Burnout carried out by online questionnaires, with no room for doubts that may have arisen during the application. Another limitation is the fact that it is a cross-sectional investigation that does not consider previous and subsequent factors, which does not support doubts about possible factors that may influence the data. Making different measurements in different academic moments in the current year, would allow checking the variations at different times. In future investigations it will be important, to understand why teachers in the middle of their career feel more pressured and more exhausted, what reasons correlate marriage to burnout. It is important to understand the phenomenon of self-employed workers: if they have more economic instability, no permanent contract why they have less burnout? It should also be taken into account other variables that may influence the experiences of burnout, as well as distinguish the variables under study considering different levels of low, moderate and severe burnout characterizing each of these levels, aiming to identify the risk and protector factors in the Burnout of this professional group. In summary, realizing that the professional class of university professors has a great tendency to develop signs and symptoms of occupational stress, with this study this hypothesis is confirmed, and, it is expected that this study will contribute to a better knowledge of Burnout in the context of Portuguese HEIs.

Conflicts of Interest: The authors declare no conflicts of interest.

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# INVESTIGATING THE ROLE OF EMPLOYEE READINESS TO CHANGE ON EFFECTIVE ORGANIZATIONAL CHANGE IMPLEMENTATION: A THEORETICAL PERSPECTIVE

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## ABSTRACT

*The purpose of this study is to examine the role of employees' readiness to change on effective organizational change implementation. In this study the components of self-determination theory (SDT) and components of knowledge management (KM) are taken as independent variables with moderating effect of self-efficacy. The research model is developed in such a way that the three components of SDT Perceived competence, Perceived relatedness and Perceived autonomy have direct impact on Employees readiness to change. Similarly, two components of KM Codification strategy and Personalization strategy also have a direct impact on Employees readiness to change. The population of this study is public sector organizations based and data will be collected using survey questionnaire based on conveniences sampling approach. For inferential analysis the Structural Equation Modeling (SEM) approach will be used. Several studies have been conducted on SDT but none has put emphasize on its impacts in organizational change implementation context. Therefore, the current study contributes to body of knowledge and examines the role of employee readiness to change on organizational change implementation.*

**Keywords:** *Employees' readiness to change, Organizational change implementation, Self-determination theory, Knowledge management theory, Self-efficacy*

## 1. INTRODUCTION

The purpose of this research is to examine the role of employees of an organization when organization wants to implement change. How employees perceive the change implementation, why some employees want to implement change and why other dislikes any sort of change in the organization. There are different factors which play important role to define employees' preferences for change implementation. These factor directly or indirectly impact employees' willingness to change implementation. These different factor are but not limited to perceived autonomy, perceived competence and perceived relatedness and these comes from Self-determination theory (SDT). Other factors are personalization strategy and codification strategy from Knowledge management strategy (KMS). All of previously mentioned factors directly influences employees' readiness for change implementation. Employees' readiness for change has a direct relation with organizational change implementation while self-efficacy playing a role of moderator between the both. The aim of this research study is to examining the role of employee readiness to change in organizational change implementation with integration of self-determination theory and knowledge management strategies. The primary objectives of this research are:

1. To measure the impact of Self-determination theory (SDT) on "Employees' readiness to change".

2. To examine the impact of Knowledge management (KM) on “Employees’ readiness to change”.
3. To measure the impact of “Employees’ readiness to change” on Organizational change implementation.
4. To examining the moderating effect of “self-efficacy” between “Employees’ readiness to change” and “Organizational change implementation”.

## **2. LITERATURE REVIEW**

The theoretical background is much important for any type of research. Without a sound theory a research study couldn’t be of rich quality. Change is an inevitable part of the organizations today and managing the change implementation process in the organization is much important. Human capital/resources is a vital asset of an organization without which an organization cannot implement change. How to get employees ready for the change implementation in organization is not an easy task to handle. Organizations spend a lot money for change implementation still they can’t get assured whether the change implementation would be a success for organization. This paper has been worked on to know the relationship between Employees’ readiness for change and Organizational change implementation. When employees show their willingness for change implementation there are a few other factors which plays their part to make employees’ ready for the change. The research paper also involve other factors like Self-determination theory and Knowledge management theory to know what role they plays between the both above mentioned variables. With regards to this research settings the Self-determination theory has been discussed first following the knowledge management theory.

### **2.1. Self-Determination Theory (SDT)**

Self-determination theory is a popular and wildly discussed topic in research. It has been discussed with different angles and within different contexts of life. Self-determination theory (SDT) is motivational theory which consists of three factors that are perceived relatedness, perceived competence and perceived autonomy (Rahi Samar & Abd.Ghani Mazuri, 2019). This theory talks about the intrinsic motivation. SDT has been applied in different sectors of life for example health, education, business, science, recreation and so on. Niemiec and Ryan (2009) have applied SDT in education sector and they found that SDT detects the inner motivational resources that all students retain, and it offers recommendations to teachers as how they can manage to utilize these resources for a better engagement with students and their betterment. Reeve (2012) found that SDT recognizes students sometimes lack of self-motivation, act irresponsibly and display disaffection and teachers can tackle this situation when they have better engagement with students. Earlier Xie, Debacker, and Ferguson (2006) and later Chen and Jang (2010) applied SDT in online learning and they mentioned that SDT is a proper outline for addressing motivation in the online learning environment. Eyal and Roth (2011) applied SDT in leadership and they found that leadership style has a significant impact on motivation and well-being of subordinates. This theory has been also applied in psychology by different researchers i.e. Ng et al. (2012) applied SDT in psychological health sector and they have found that by fulfilling three basic needs of competence, relatedness and autonomy a person can leads to developed mental health. Calvo, Cervelló, Jiménez, Iglesias, and Murcia (2010) have applied SDP in Sports context, soccer players were selected as a sample for research and research shows that continued participation in sports was influenced by self-determined motivation and three factors i.e. competence, relatedness and autonomy of the theory were positively influenced soccer players and their motivation level to participate in the game.

### *2.1.1. Perceived competence*

Competence, Autonomy and Relatedness are the basic human psychological needs from the prospect of self-determination theory, and meeting those needs is critical for improvement of life. (Deci & Ryan, 2000). How one perceived oneself skilled and effective in a particular situation is known as perceived competence. Perceived competence is an idea of one's abilities to respond in a specific situation (Deci & Ryan, 2000). It is a self-perception of one's abilities to control the situation and environment. Competence is not just an ability or power to perform some task it also includes personal importance to that task (Rodgers, Markland, Selzler, Murray, & Wilson, 2014). A number of studies (Bandura & Cervone, 1983; Harter & Jackson, 1992) have shown that perceived competence influences intrinsic motivation. When people gave importance to some task they feel more confident to complete that task. A high competency level has a positive impact on employees' readiness for change in the organization. Perceived competence level influences motivation level to perform some task (Ferla, Valcke, & Schuyten, 2010). With a high competence level, motivation to complete some task also increases.

- **H1:** Perceived competence has direct impact on Employees' readiness for change.

### *2.1.2. Perceived Relatedness*

Relatedness is a particular type of connectedness. Every human feels a specific type of connection or engagement with other persons. The feelings that how much a person is connected or engaged with other person is perceived relatedness. Self-determination theory indicates that managers need more to approach their sub-ordinates to establish a friendlier and supportive environment to create the feelings of relatedness in them (Marshik, Ashton, & Algina, 2017). A high level of perceived relatedness increases motivation level of employees (Leversen, Danielsen, Wold, & Samdal, 2012). Different researches (Furrer & Skinner, 2003; McAllister & Irvine, 2002) indicates that employees feel more confident, engaged and connected to organization when they are intrinsically motivated and they work hard when they know that managers cares about them and gave value to their thoughts and feelings. When managers or organization gave importance to its employees it creates a bond between the both and employees feels a connection with their organization and their level of perceived relatedness increases which make them more confident and increases their willingness for change.

- **H2:** Perceived relatedness has direct impact on Employees' readiness for change.

### *2.1.3. Perceived Autonomy*

Perceived autonomy is a vital part of self-determination theory, it is as much important as perceived competence and perceived relatedness are. When someone have power, capacity or authority to do some course of action or to make some decision on its own without any dependence it is known as self-autonomy. It is one of the necessary human psychological needs. One's own belief about his or her power or authority to make decisions in his or her life or at workplace is called perceived autonomy. Immanuel Kant defined perceived autonomy in three different phases, Firstly autonomy is the privilege for one to settle on their own choices barring any impedance from others. Secondly autonomy is the power of making decisions based on one's own thinking or reflection of mind. Thirdly self-autonomy is supreme way of living life. Everyone wish to live his or her life with rich self-autonomy and that's why it plays is very important role in someone's life. Managers provide supports for autonomy to their subordinates when they take subordinates' concerns into account and acknowledge their feelings (Mageau & Vallerand, 2003). Different researches i.e (Moreau & Mageau, 2012) shows that autonomy supports employees at workplace in dealing with different challenges.

Employees at work place face different tough situations and they have to take decisions immediately before getting permission from their leaders or managers, in this way a high support for autonomy empowers employees in their sudden decisions (Skaalvik & Skaalvik, 2014). Autonomy may also cause employees to freely choose and set their goals, set working methods and working strategies which employees think are best suited for organization and for themselves (Skaalvik & Skaalvik, 2014). With reference to all above studies the following hypothesis has been suggested.

- **H3:** Perceived autonomy has direct impact on Employees' readiness for change.

## **2.2. Knowledge management theory (KM)**

Managing an organization's knowledge asset is very important for organization's success and profitability. When organizations get knowledge managed in a good systematic way it adds value to the organization and also increase the goodwill of the organizations. Being so important in the organization the KM now has been a topic of discussion. According to Knowledge management theory it has two parts one is codification and other is personalization. Both of these two has been discussed in detail in the following section.

### *2.2.1. Codification strategy*

If talk about just the word codification, it is a process of organizing rules or laws according to a system or plan of an organization for its betterment. Codification strategy in business world is something different. In the codification strategy knowledge is extracted from the person who developed it, made independent of that person, and reused for various purposes in the organization. Personalization also known as customization, it is a process of tailoring a service or a product according to the needs of specific individuals, A number of organizations use personalization to improve customer satisfaction, marketing results, branding, and improved website metrics as well as for advertising, while the personalization strategy focuses on dialogue between individuals. Previous research shows that KM can improve corporate performance and competitiveness (Bell DeTienne & Jackson, 2001; Holsapple & Jones, 2005). Knowledge management strategy is successful when corporate performance is improved. We can measure knowledge management contribution to performance (Tseng, 2008). If we manage codified knowledge we can save time (Haas & Hansen, 2007) and we can improve coordination (Wu & Lin, 2009). According to previous literature (Ofek & Sarvary, 2001) personalization strategy improves quality.

- **H4:** Codification in an organization has direct impact on Employees' readiness for change.

### *2.2.2. Personalization strategy*

Personalization is the second strategy in the knowledge management theory (Hansen, Nohria, & Tierney, 1999). Individuals in the organization share their knowledge with their colleagues via personal relations or person-to-person interaction (Storey & Kahn, 2010). There could be two mechanisms in personalization strategy, one is formal mechanism and other is informal mechanism (Storey & Kahn, 2010). A formal mechanism deals with issues such as project meetings while informal mechanism deals with coffee break conversations and/or unscheduled meetings. The sharing of tacit knowledge which is hard to communicate acquire and store within individuals is resulted by personalization strategy (Storey & Kahn, 2010). Personalization strategy is as important as codification is, but the requirement levels of implementation of the both codification and personalization strategies is identified by the organization according to its procedure, environment and needs.

Knowledge management has a direct impact on employees' readiness for change implementation in the organization. Following hypothesis has been proposed based on above studies and researches.

- **H5:** Personalization in an organization has direct impact on Employees' readiness for change.

### 2.3. The mediating role of Employees' readiness for change

A number of studies has been done to identify attitudes toward change (Lines, 2005; Vakola, Tsaousis, & Nikolaou, 2004). Every individual experiences change in a unique way. For some people it means a source of joy, benefits, or advantages, whereas for others it is a source of suffering, stress, and disadvantages (Bouckennooghe, 2010). According to our knowledge, the first scholarly article on attitudes toward change appeared in the late 1940s and it addressed ways to overcome resistance toward change (Bouckennooghe, 2010). In 1957, about a decade later, Jacobson devised the more positive term readiness for change (Bouckennooghe, 2010). Readiness for change is considered and used as the dependent variable in both conceptual and empirical studies e.g. (Armenakis, Harris, & Mossholder, 1993). Change is concerned with solving the problems and challenges of an organization. It has been defined in the literature as to break down existing structures of an organization and create new ones (Shah & Ghulam Sarwar Shah, 2010). When an organization want change it overhauls its systems and procedures completely or partially. A change is an alteration of an organization between two points in time (Barnett & Carroll, 1995). A change in the organization may create anxiety uncertainty, and ambiguity in employees because each employee has different life experiences, motivational levels, knowledge, attitudes, socio-demographic characteristics, and behavioral patterns (Shah & Ghulam Sarwar Shah, 2010). Generally some employees become ready for the change and some didn't want any type of change in the organization, employees who are comfortable with changing environment and structure supports organizational change. A Change in organization whether small or large affects employee attitudes and behaviors because of shifting from one stage to another (Shah & Ghulam Sarwar Shah, 2010). Readiness for change is considered as an important factor for successful change initiatives (Rafferty, Jimmieson, & Armenakis, 2013). Sufficient level of readiness is required for both before and during change implementation process to achieve a smooth transition (Choi & Ruona, 2011). On the other hand, when level of readiness is low then efforts to implement change face resistance (Prochaska, Redding, & Evers, 2015; Vakola, 2014). So all in all employees' readiness for change has a direct impact on organizational change implementation. Based on above literature the following hypothesis have been proposed.

- **H6:** Employees' readiness for change has direct impact on Organizational change implementation.
- **H7:** Employees' readiness for change plays mediating role between Perceived competence and Organizational change implementation.
- **H8:** Employees; readiness to change plays mediating role between Perceived relatedness and Organizational change implementation.
- **H9:** Employees; readiness to change plays mediating role between Perceived autonomy and Organizational change implementation.
- **H10:** Employees; readiness to change plays mediating role between Codification strategy in an organization and Organizational change implementation.
- **H11:** Employees; readiness to change plays mediating role between Personalization strategy in an organization and Organizational change implementation.

## 2.4. Moderating effect of Self-Efficacy

Self-efficacy can be defined as one's belief that he or she can perform a particular task and possess all the knowledge and skills which required to perform that particular task (Bandura, 1977). This belief gave to employees' confidence that they required power and ability and they will perform much better. (Antoncic, Auer Antoncic, & Aaltonen, 2016). Bandura (1977) also states that self-efficacy is self-belief that one can perform a particular action on its own. Individuals having high self-efficacy will perform better in a particular task than individuals having low self-efficacy. Organizations cannot implement change if its employees have low or no self-efficacy for change implementation. Self-efficacy influences one's aims and acts and it is subjective to one's experiences in doing some task. (Barling & Beattie, 1983). People having high self-efficacy will continue to work hard as they will be aware that they can succeed, on the other hand people with low self-efficacy lack confidence in their abilities they don't believe they can succeed so they will leave earlier and will fail. Successful people have built-in self-efficacy for the thing they are successful in and in the same way failure undermines self-efficacy (Bandura, 2010). When employees enjoys success at their workplace they try hard to make the difference for their organization. If a person has a high perceived self-efficacy he or she will set high challenging goals for itself (Bandura, 2010). Self-efficacy affects human's functions in many ways, it influences humans in four different ways: cognitive, affective, selection processes and motivational (Bandura, 1993). One effect of self-efficacy is that it affects human's choice of doing work. People try to avoid task in which they think their efficacy is low while they go to perform task in which their efficacy is high. Wrongly perceived self-efficacy can lead to over estimation or over confidence and it can also causes havoc results. Bandura, A (1977) also states that a person may perform extraordinarily, adequately or poorly with the same knowledge and skills depending on the fluctuations in self-efficacy thinking. Collins (1982) performed experiment on children to know the relationship between self-efficacy and its contribution to performance. The children with higher level of self-efficacy performed better than children with low level of self-efficacy. Higher level of self-efficacy affects motivation positively while lower level of self-efficacy affects motivation level negatively. For change implementation in the organization self-efficacy plays a role of moderator between employees' readiness to change and organizational change implementation.

- **H12:** Self-efficacy has a moderating effect on Employees' readiness to change and Organizational change implementation.

## 2.5. Organizational change implementation

A Process by which organizations move from their one state to some other desired state to increase their effectiveness is known as organizational change (Rosenbaum, More, & Steane, 2018). To be competitive and their survival organizations continuously pressurized to adopt new technologies and procedures (Anyieni). Doing thing differently in order to catch up new changes in the organization environment is called change. A change has different dimensions it could be proactive or reactive. A change of any type or in any part of the organization may affect the whole organization. Taking proactive change, it should necessarily be planned to get prepare the organization for future challenges. Management normally initiate proactive change. On the other hand a reactive change may be automatic response to a change taking place in the organization. (Al-Darmaki, 2015). A change is a structured approach to transforming individuals and teams of an organization from one state to another desired state. It has to be done to achieve maximum benefits for all the stakeholders of organization and to minimize risk and failures ("Literature Review On Organisational Change Management," 2016). The major issue in the change implementation is "resistance to change" (Aswathappa, 2010). Resistance to change has been discussed in later part of this literature.

### 3. RESEARCH METHODOLOGY

#### 3.1. Research Paradigm

Research paradigms are research beliefs by scientists (S. Rahi & M. Ghani, 2016; Rahi, Ghani, & Ngah, 2020). These are the set of rules and agreements of how to tackle the research problems and conducting the research (Creswell, 2003; Rahi, 2016a, 2016b). So these paradigms are basic research assumptions of how to carry on the research (Samar Rahi, 2017; Rahi, Ghani, & Alnaser, 2017; R. Samar, Norjaya, & Feras, 2017; S. Samar, Ghani, & Alnaser, 2017). There are four types of paradigms i.e. positivist paradigm, interpretive paradigm, advocacy/participatory paradigm and pragmatism paradigm (F. M. I. Alnaser, M. A. Ghani, S. Rahi, M. Mansour, & H. Abed, 2017; Samar Rahi, 2017). In this research the positivist paradigm has been followed. The followers of this paradigm believes that knowledge can be obtained through observations and experiments (FMI Alnaser, Ghani, & Rahi, 2017; Samar Rahi, 2017). It is also called Scientific method, empirical method and quantitative research. Positivism paradigm can be better used in social sciences (F. Alnaser, M. Ghani, S. Rahi, M. Mansour, & H. Abed, 2017; Hirschheim, 1985; Rahi, 2015).

#### 3.2. Study Level

There are two study/theory levels i.e. Inductive level and deductive level (Samar Rahi, 2017; Rahi, Ghani, & Muhamad, 2017; S. Rahi & M. A. Ghani, 2016). This study is at deductive level in its approach because we already have a theory generated by researchers and we are not inducting any new theory rather we are to testing a theory by collecting the fresh data from respondents and observe the findings by applying various statistical tests (Rahi, 2016a; Samar Rahi, 2017).

#### 3.3. Research Methods

##### 3.3.1. Qualitative Method

Qualitative method as the name suggests is related to some sort of quality and is used to collect the in-depth details on a particular research area (F Alnaser, Ghani, & Rahi, 2018; F. M. Alnaser, Ghani, & Rahi, 2019; S. Rahi & M. A. Ghani, 2018b). This approach considers a person's feelings and emotions unlike quantitative method which ignores the same (Lune & Berg, 2016; Rahi, Ghani, Alnaser, & Ngah, 2018; Rahi, Ghani, & Ngah, 2018). According to Ghani, Rahi, Yasin, and Alnaser (2017) explained that this approach is used when researcher wants to observe or interpret an environment with the intention to develop a theory. In this study we are not developing a new theory rather we are testing existing theory with some statistical tests so this method is not recommended for this study (F. M. Alnaser et al., 2018; Rahi & Abd. Ghani, 2018; S. Rahi & M. A. Ghani, 2018a).

##### 3.3.2. Quantitative Method

Quantitative method is a scientific technique which is used to identify results by using data quantitatively and its grounds can be identified in positivism (Grinnell Jr & Unrau, 2010; Samar Rahi, 2018; Rahi, Alnaser, & Ghani, 2019) and this approach is mostly used by the Positivists. This approach focuses on collecting fresh data in accordance to the problem from large population and analysis of the data but ignore an individual's emotions and feelings or the quality matters unlike of qualitative methods (Bell & Bryman, 2007; Rahi & Ishaq, 2020). Quantitative method has been applied for this study as the research has not been inducting new theory rather dealing and examining an existing theory by applying new statistical tools (Rahi & Abd. Ghani, 2019a; Rahi Samar & Abd Ghani Mazuri, 2019).

### **3.4. Research Design**

Research Strategy or design means that the collection and interpretation of data is in a systematic order and describing that data in the same order (Rahi, 2019; Rahi & Abd. Ghani, 2019c). So, for this particular research, author used the strategy for research which is illustrated below: First of all, an area of interest to research on was selected and accordingly a topic was chosen which needs to be studied in real. The topic was further purified according to the instruction of research supervisor. An extensive review of literature was done. There were a number of studies that were conducted to check the impact of these variables but particularly organizational change implementation and moderating effect of Self-efficacy was not discussed in this context. After the collection of data, analysis was made on the collected data in accordance to the research question and objectives of the study which was followed by a discussion on the results which are produced from the data by applying statistical tests. Furthermore, results and findings of the study were presented on next level and suggestions and recommendations were made for the organization to make better efforts while implementing change in the organizations. Finally, a conclusion was drawn from the study. In the end, list of complete references is also generated to reference the material that was discussed in the study.

### **3.5. Population and sampling**

On whom people, items and/or organizations we want to apply our study and the results of the study is the population of the study (Samar Rahi, 2017; Rahi, 2019; Rahi, Abd. Ghani, & Hafaz Ngah, 2019). The representative part of the population is known to be the sample. Due to some constraints we cannot examine the whole population therefore we select a representative part of that population to study on (Rahi & Abd. Ghani, 2019b). The constraints we cannot examine whole of the population are but not limited to Cost, time, work burden and materiality. A smaller part of a population has an ability to get inference about the larger part or whole of the population (Malhotra & Birks, 2007). Population of the study is employees of organizations having direct dealing with the customers. In others word services industry i.e Hotel industry, Banking sector and Education sector are main focus. Selection of sampling technique depends on the type of research (Samar Rahi, 2017; S. Rahi, 2018a, 2018b). There are two primary types of sampling one is probability sampling and other is non-probability sampling technique. Convenience sampling technique has been applied in this study which is a sub type of non-probability sampling technique (S. Rahi, 2017; S. Rahi & M. Ghani, 2018). Convenience sampling can be defined as a process of data collection from population that is close at hand and easily accessible to researcher. Convenience sampling allows researcher to get responses conveniently.

## **4. EXPECTED OUTCOME**

Self-determination theory is positively effects Employees readiness to change. When employees have greater perceived autonomy, perceived relatedness and perceived competence they show positive incline towards change implementation in the organization. Knowledge management strategies are also positively related with employees' readiness to change. When organizations implements knowledge management and codification strategies in the right direction it helps employees to be ready for change implementation. Employees' readiness to change is a mediator between self-determination theory, Knowledge management strategies and Organizational change implementation. Self-efficacy moderates the effect between Employees readiness to change and Organizational change implementation. Employees with greater self-efficacy feel ease with the change implementation and vice versa.



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## DEVELOPMENT OF HOUSEHOLD INCOME TOWARDS MODERN WELFARE ECONOMICS IN LATVIA

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### ABSTRACT

*Latvia in international comparisons is among the countries with rather low average income for households but rather high differences in income in households, especially in highest income households (richest quintile) characterised with significant indicators of variability in euro zone countries by Household and Consumption Survey conducted by Bank of Latvia by methodology of European Central Bank in all eurozone countries and according EU- SILC (European Union Statistics on Income and Living Conditions) data. This current research is devoted to analysis of development of income and variability of income of households in Latvia in comparison with other OECD countries and eurozone countries. Research methods used: scientific publications and previous conducted research analysis, analysis of Household and Consumption Survey data, EU-SILC data on differences in income depending household size, from regions and from territory (urban/rural), interviews of regional authorities on various income inequality reduction arrangements and applications in regions with lower income level. Data analysis methods: descriptive statistics (indicators of central tendency or location – arithmetic mean and median, indicators of variability – standard deviations, standard error of mean), cross-tabulations of household income by regions, by household size, by territories, testing of statistical hypotheses on differences of arithmetic means by analysis of variance (ANOVA) for significance of income differences by regions and by household size. Results of analysis has indicated that Latvia has significant challenges where several innovative approaches could be applied to find best solutions for income inequality decrease and increase of overall satisfaction with life and support for economic development of the country.*

**Keywords:** *EU-SILC, Household size, Income differences, Labour Force Survey, Regions*

### 1. INTRODUCTION

There are several analysis for reflecting income and results on income differences. Latvia in international comparisons is among the countries with rather low average income for households but rather high differences in income in households especially in highest income households (richest quintile) characterised with significant indicators of variability in euro zone countries by Household and Consumption Survey conducted by Bank of Latvia by methodology of European Central Bank in all eurozone countries and according EU- SILC (European Union Statistics on Income and Living Conditions) data.

This current research is devoted to analyse the development of income and variability of income of households in Latvia in comparison with other OECD countries and eurozone countries. Research methods used: scientific publications and previous conducted research analysis, analysis of Household and Consumption Survey data, Labour Force Survey, EU-SILC data on differences in income depending household size, from regions and from territory (urban/rural), interviews of regional authorities on different income inequality reduction arrangements and applications in regions with lower income level. Data analysis methods: descriptive statistics (indicators of central tendency or location – arithmetic mean and median, indicators of variability – standard deviations, standard error of mean), cross-tabulations of household income by regions, by household size, by territories, testing of statistical hypotheses on differences of arithmetic means by analysis of variance (ANOVA) for significance of income differences by regions and by household size. Results of analysis has indicated that Latvia has significant challenges where several innovative approaches could be applied to find best solutions for income inequality decrease and increase of overall satisfaction with life and support for economic development of the country.

## 2. THEORETICAL FINDINGS

Income differences have been analysed and discussed in many academic research findings world-wide as the differences in income often cause problems, it is stressed also by international organisations, like OECD which has discussed in the publication why from less inequality benefit all (OECD, 2015). World Economic Forum on regular basis analyses various aspects related to inequalities including gender wage gap (World Economic Forum, 2019). Researchers in publications often mention that different people, different countries (Filauro, Parolin, 2019; Papatheodorou, Dafermos, 2013; Katrougalos, 1996; Frick, et al, 2010; Beblo, Knaus, 2001; Arts, Gelissen, 2002, Batraga, et al, 2020; Salkovska, et al, 2019), different nationalities (Saarela, Finnäs, 2004; Elwert, Tegunimataka, 2016; Dribe, Lundh, 2008; Chi, 2015), different gender (especially related to so-called glass ceilings) (Mueller, 2007; Schwartz, 2010; Davis, 1984; Arulampalam, Booth, Bryan, 2007), different education level (Pöyliö, 2019; Mare, 2016; Monaghan, 2015; Kalmijn, 2012; Fu, Heaton, 2008; Bouchet-Valat, 2014) and different age groups (Lindquist, Sjögren Lindquist, 2012; Batraga, et al, 2019; Fernández, Guner, Knowles, 2005) feel and act differently in the same situation. Different and detailed analysis methods have been applied to estimate income inequality (Ferrera, 1996; Bourguignon, 1979) and measurements of structure of inequalities (Cowell, 1980) and evaluations of best approaches for analysis (Cowell, 1988). Researchers have investigated the structure of overall inequality in the EU-15 by investigating the extent to which total inequality is attributed to inequality between or within the individual European countries (Papatheodorou, Pavlopoulos, 2014). The decomposition analysis was applied for population subgroup utilizing micro-data from the ECHP and EU-SILC surveys. A number of inequality indices were employed to capture the different aspects of inequality and test the robustness of the results (Papatheodorou, Pavlopoulos, 2014). The analysis has shown that the between-countries differences account only for a small part of overall inequality in the EU-15. Furthermore, the contribution of the between country component to total inequality has shrunk dramatically. The overall EU inequality has been affected disproportionately by income disparities at the various parts of the income distribution in different countries (Papatheodorou, Pavlopoulos, 2014). Mentioned researchers recommend to reduce inequality within each country would be far more effective in reducing overall inequality in the EU than policies targeting to reduce only disparities between member states. The findings question the effectiveness of EU policy priorities to decrease inequality that have mainly focused on reducing cross-country and/or regions differences regarding certain macroeconomic indicators such as per-capita income (or GDP).

The evidence of researchers Papatheodorou and Pavlopoulos have suggested that the social protection system provides a useful tool in explaining the differences in inequality between countries and their contribution to overall EU inequality (Papatheodorou, Pavlopoulos, 2014). The purpose of the paper of researchers from China was to use cross-sectional data collected from six cities in China to examine the relationship between subjective wellbeing and male and female earnings and also to consider the contribution of differences in subjective wellbeing to explaining the gender wage gap (Mishra, Smyth, 2014). The paper have used survey data for 3,390 respondents working in a variety of blue collar and white collar jobs across a range of sectors including government, heavy and light manufacturing, mining and services in six Chinese cities: Chengdu, Dalian, Fushun, Fuxin, Fuzhou and Wuhan (Mishra, Smyth, 2014). The authors of the mentioned research paper have used the ordinary least squares, Lewbel instrumental variable and Blinder-Oaxaca decomposition to econometrically analyze the relationship between subjective wellbeing and gender wage gap. The paper of researchers Mishra and Smyth have found that the relationship between subjective wellbeing and wages is stronger for males than females. The authors noted that 0.2 percent of the observed gender wage gap can be attributed to differences in mean subjective wellbeing in favor of females, while 53.5 percent can be ascribed to gender differences in returns to subjective wellbeing in favor of males (Mishra, Smyth, 2014). The authors also have found evidence that the relationship between subjective wellbeing and income is non-linear and that income peaks at higher levels of subjective wellbeing for men than women. The role of differences in subjective wellbeing in explaining the gender wage gap is on research agenda also for other researchers in several countries. The aim of Nordic researchers was to study two native and equal population groups, Finnish speakers and Swedish speakers in Finland, to examine whether there is income variation across couples that differ on ethno-linguistic composition, and if such variation can be attributed to differences in education, educational homogamy and other observable characteristics (Härtull, Saarela, 2018) - was used detailed register-based household data. The authors estimate OLS models to compare endogamous and exogamous couples with respect to income of the man, the woman, and both partners, respectively. Endogamous Swedish-speaking couples are found to have on average 25 per cent higher income than other couples. The advantage was not related to differences in educational homogamy, but primarily to man's income, and roughly half of the income difference is explained by the higher educational level of Swedish-speaking men in endogamous couples. Although women in endogamous Swedish-speaking couples are higher educated than other women, and there is a higher degree of educational homogamy in these couples, their education has only a modest bearing on the income differential. In the case of Finland, educational homogamy did not affect income variation across native couples that differ on ethno-linguistic composition. Nordic researchers have concluded that endogamous mate selection seems to increase economic inequality, uphold gender inequality, and help the native minority group in sustaining its own community (Härtull, Saarela, 2018). There are numerous other relevant aspects analysed in other scientific publications.

### **3. EMPIRICAL RESEARCH FINDINGS**

An important source for obtaining comparable and representative data from Eurozone countries is Household Finance and Consumption Survey (HFCS). The HFCS is a statistical survey conducted in the euro area countries by collecting and compiling data on the real assets, financial assets, debt, income and consumption of households. The HFCS is carried out by the European Central Bank and the national central banks of the EU Member States. In order to ensure the cross-country comparability of data and gain a uniform understanding on the situation in each euro area country, the HFCS is carried out in accordance with the methodology of the European Central Bank (Bank of Latvia, 2019). The HFCS is conducted once in three years.



In Latvia, the HFCS was conducted by Bank of Latvia in cooperation with the Central Statistical Bureau of Latvia which ensured the collection of the HFCS data and the use of the administrative data (Bank of Latvia, 2019). The HFCS was carried out using the sampling method and the sample was obtained by randomly selecting addresses. Broader representation was ensured for households with higher income. The HFCS data was collected on site, with the aid of the CAPI (Computer Assisted Personal Interviewing) (Bank of Latvia, 2019). Main data on annual gross income per household in Eurozone countries average and Baltic countries are included in table 1.

*Table 1: Annual gross income per household arithmetic means – breakdowns in Eurozone average and Baltic countries in 2017 (thousand EUR)*

Income	Latvia		Lithuania		Estonia		Euro zone	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Total	14.3	0.3	10.8	0.6	22.9	0.4	40.3	0.3
Bottom 20	2.7	0.1	0.6	0.4	3.8	0.1	9.2	0.1
20-40	5.7	0.3	4.1	0.4	8.5	0.3	20.1	0.1
40-60	10.2	0.3	7.2	0.4	16.4	0.5	31.3	0.3
60-80	16.9	0.4	12.4	0.8	28.1	0.6	48.0	0.3
80-90	24.7	0.7	20.0	1.1	42.0	0.9	70.3	0.5
90-100	47.5	1.6	40.3	3.1	73.1	1.8	135.7	2.2

*Source: Author's calculations based on European Central Bank Household Income and Consumption Survey, 2017*

Data in table 1 indicate that Latvia has serious steps to be taken to increase annual gross income in comparison with Eurozone countries and also in comparison with Estonia. Especially strong measures have to be taken for bottom 20% of households as their average income per year in 95% confidence interval is between 2.5 thousand euro and 2.9 thousand euro. Main statistical indicators of disposable income in households of Latvia by statistical regions are included in table 2.

*Table 2: Main statistical indicators of total disposable household income (anonymized) by statistical regions of Republic of Latvia in 2017 (EUR)*

Statistical Regions of Republic of Latvia	Mean	N	Standard Deviation	Grouped Median	Standard Error of Mean
Rīga	13070.69	1913	11086.91	10028.38	253.49
Pierīga	13083.00	859	11693.28	9996.40	398.97
Vidzeme	9400.84	579	7772.30	7043.35	323.01
Kurzeme	10772.99	927	9345.37	8031.39	306.94
Zemgale	10305.06	857	9337.64	7285.57	318.97
Latgale	7658.45	879	6552.01	5736.26	220.99
Total	11179.81	6014	10022.00	8164.33	129.23

*Source: Author's calculations based on EU-SILC data, 2017*

Data of table 2 indicate that there are serious differences in income by statistical regions in Latvia with very low average income in Latgale and quite serious distribution of income, as half of households in Latgale had income less than 5.7 thousand euro and half of households in Latgale had income more than 5.7 thousand euro (characterized by median). Main results on testing statistical hypothesis on significance of difference in income by statistical regions with analysis of variance (ANOVA) are included in table 3.

*Table 3: Testing statistical hypotheses on differences of total disposable household income (anonymized) by statistical regions of Republic of Latvia in 2017 (EUR) with ANOVA*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.349E10	5	4.698E9	48.631	0.000
Within Groups	5.805E11	6008	9.661E7		
Total	6.039E11	6013			

*Source: Author's calculations based on EU-SILC data, 2017*

Results of ANOVA indicate that the income in regions of Latvia do differ statistically significantly with sig 0.00. Main statistical indicators of disposable income in households of Latvia by number of persons in the household are included in table 4.

*Table 4: Main statistical indicators of total disposable household income (anonymized) by number of persons in the household of Latvia in 2017 (EUR)*

Number of persons in the household	Mean	N	Standard Deviation	Grouped Median	Standard Error of Mean
1	5053.70	2133	4578.19	3542.80	99.13
2	10907.33	1948	7664.08	8741.74	173.65
3	16012.59	925	10535.03	13870.37	346.39
4	19117.56	619	11308.04	16950.39	454.51
5	21691.83	244	14077.38	19158.85	901.21
6	20741.80	91	11781.92	18687.99	1235.08
7	24203.90	37	16379.99	18548.00	2692.85
8	24568.51	7	13327.75	20760.68	5037.41
9	17354.07	6	12421.01	13009.16	5070.85
10	48174.51	2	2077.93	48174.51	1469.32
11	57334.24	2	18199.08	57334.24	12868.70
Total	11179.81	6014	10021.99	8164.33	129.23

*Source: Author's calculations based on EU-SILC data, 2017*

Data of table 4 indicate that there are marked differences in income by the number of persons in household in Latvia with significant differences in average income in families with 4 households indicating by high indicators of variability.

*Table 5: Testing statistical hypotheses on differences of total disposable household income (anonymized) by number of persons in household of Latvia in 2017 (EUR) with ANOVA*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.908E11	10	1.908E10	277.317	0.000
Within Groups	4.131E11	6003	6.882E7		
Total	6.039E11	6013			

*Source: Author's calculations based on EU-SILC data, 2017*

Main results on testing statistical hypothesis on significance of difference in income by number of persons in household in Latvia with analysis of variance (ANOVA) are included in table 5. Results of ANOVA indicate that the income by number of persons in household of Latvia do differ statistically significantly with sig 0.00. Main statistical indicators of distribution wages and salaries in Latvia in 2019 are included in table 6.

*Table 6: Last month's net (after taxes) wage and salaries from the main job in Latvia*

	Frequency	Percent	Valid Percent	Cumulative Percent
Up to EUR 284.57	2606	6.7	6.7	6.7
EUR 284.58 –EUR 426.86	1565	4.0	4.0	10.7
EUR 426.87 –EUR 711.44)	12276	31.4	31.4	42.1
EUR 711.45 –EUR 1422.87	18593	47.6	47.6	89.7
EUR 1422.88 and more	3235	8.3	8.3	98.0
Was not calculated	119	0.3	0.3	98.3
Was calculated, but was not paid	662	1.7	1.7	100.0
Total	39055	100.0	100.0	

*Source: Author's calculations based on Labour Force Survey of Latvia in 2019*

Main statistical indicators of distribution wages and salaries by urban and rural area in Latvia in 2019 are included in table 7.

*Table 7: Last month's net (after taxes) wage and salaries from the main job by administrative territory in Latvia*

	Administrative territory		Total
	Urban area	Rural area	
Up to EUR 284.57	1982	624	2606
EUR 284.58 –EUR 426.86	1331	235	1566
EUR 426.87 –EUR 711.44)	10236	2039	12275
EUR 711.45 –EUR 1422.87	15831	2762	18593
EUR 1422.88 and more	3073	162	3235
Was not calculated	0	119	119
Was calculated, but was not paid	662	0	662
Total	33115	5941	39056

*Source: Author's calculations based on Labour Force Survey of Latvia in 2019*

Main statistical indicators of distribution wages and salaries by persons attending training courses in Latvia in 2019 are included in table 8.

*Table 8: Last month's net (after taxes) wage and salaries from the main job in Latvia depending from courses attended*

	Purpose for person attending any training, courses, seminars (for work or overall interest) outside the regular education system within the last 4 weeks		Total
	Mainly job-related (professional)	Mainly personal/social	
Up to EUR 284.57	2392	214	2606
EUR 284.58 –EUR 426.86	1355	210	1565
EUR 426.87 –EUR 711.44)	11172	1104	12276
EUR 711.45 –EUR 1422.87	15839	2754	18593
EUR 1422.88 and more	3235	0	3235
Was not calculated	0	119	119
Was calculated, but not paid	662	0	662
Total	34655	4401	39056

*Source: Author's calculations based on Labour Force Survey of Latvia in 2019*

Statistical indicators of distribution wages and salaries by number of hours actually worked in main job during the reference week and gender in Latvia in 2019 are included in table 9.

*Table 9: Last month's net (after taxes) wage and salaries from the main job in Latvia depending from hours worked during week*

Sex		Number of hours actually worked in the main job during the reference week				Total
		0 hours	1-39 hours	40 hours	41 or more hours	
Male	Up to EUR 284.57	214	466	0	0	680
	EUR 284.58 –EUR 426.86	393	0	533	0	926
	EUR 426.87 –EUR 711.44)	0	0	1889	485	2374
	EUR 711.45 –EUR 1422.87	1540	678	4675	711	7604
	EUR 1422.88 and more	0	623	1546	307	2476
	Was not calculated	0	0	0	119	119
	Total	2147	1767	8643	1622	14179
Female	Up to EUR 284.57	965	350	612	0	1927
	EUR 284.58 –EUR 426.86	0	287	352	0	639
	EUR 426.87 –EUR 711.44)	1780	3390	4446	286	9902
	EUR 711.45 –EUR 1422.87	503	2288	8081	115	10987
	EUR 1422.88 and more	0	0	759	0	759
	Was calculated, but not paid	662	0	0	0	662
	Total	3910	6315	14250	401	24876

*Source: Author's calculations based on Labour Force Survey of Latvia in 2019*

Main statistical indicators of distribution wages and salaries by statistical region and gender in Latvia in 2019 are included in table 10.

*Table 10: Last month's net (after taxes) wage and salaries from the main job in Latvia by statistical regions*

Sex		Statcal region of populated area						Total
		Riga	Pieriga	Vidzeme	Kurzeme	Zemgale	Latgale	
Male	Up to EUR 284.57	0	0	0	214	0	466	680
	EUR 284.58 –EUR 426.86	0	628	0	0	210	88	926
	EUR 426.87 –EUR 711.44)	821	150	131	932	77	263	2374
	EUR 711.45 –EUR 1422.87	3593	617	272	1082	1413	628	7605
	EUR 1422.88 and more	2162	0	171	143	0	0	2476
	Was not calculated	0	0	0	119	0	0	119
	Total	6576	1395	574	2490	1700	1445	14180
Female	Up to EUR 284.57	779	187	105	458	297	102	1928
	EUR 284.58 –EUR 426.86	0	113	0	199	0	326	638
	EUR 426.87 –EUR 711.44)	5459	93	629	647	1063	2010	9901
	EUR 711.45 –EUR 1422.87	7914	569	682	756	482	585	10988
	EUR 1422.88 and more	406	191	0	0	162	0	759
	Was calculated, but not paid	662	0	0	0	0	0	662
	Total	15220	1153	1416	2060	2004	3023	24876

*Source: Author's calculations based on Labour Force Survey of Latvia in 2019*

Main statistical indicators of correlation analysis of wages and salaries and gender in Latvia in 2019 are included in table 11.

*Table 11: Last month's net (after taxes) wage and salaries from the main job in Latvia correlation by sex*

Sex			Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Male	Interval by Interval	Pearson's R	-0.382	0.007	-49.173	0.000 <sup>c</sup>
	Ordinal by Ordinal	Spearman Correlation	-0.400	0.007	-52.030	0.000 <sup>c</sup>
	N of Valid Cases		14180			
Female	Interval by Interval	Pearson's R	-0.256	0.005	-41.716	0.000 <sup>c</sup>
	Ordinal by Ordinal	Spearman Correlation	-0.283	0.006	-46.515	0.000 <sup>c</sup>
	N of Valid Cases		24876			

*a. Not assuming the null hypothesis. b. Using the asymptotic standard error assuming the null hypothesis. c. Based on normal approximation.*

*Source: Author's calculations based on Labour Force Survey of Latvia in 2019*

Research results indicate that there are statistically significant differences in wages and salaries by gender. Interviews with officials in Daugavpils region municipality have shown that even in the most economically depressed region innovative methods are applied for involvement in education process and providing social support for households living far from more populated areas.

#### 4. CONCLUSION

Research world-wide has indicated that there are numerous innovative approaches in studies of best possible solutions for social inclusion and reduction of poverty and inequality depending on country, on education level of parts in society, on age groups, regions, involvement in education and training activities and gender. Results in different sources and analysis of these results regarding the situation in Latvia indicate to the importance of involvement in training activities in relation to higher wages and salaries. Improving the knowledge, skills and competences of the workforce reduces social exclusion and improves the quality of life. It must be remembered that both the quality of educational services and the interaction between education and the socio-demographic situation, which can affect income inequality, are important. However, incomes do differ in Latvia by statistical regions and by persons in households. Females have significantly lower salaries and wages than males.

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## THE IMPACT OF SOCIAL NETWORKS MARKETING ON THE COMPANY'S BUSINESS IN THE NORTHWEST OF CROATIA

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### ABSTRACT

*The subject matter of the paper is an overview of the development of marketing, the comparison of traditional and digital forms of marketing and determining how social network marketing affects business operations of a company. Today, the companies can choose between numerous traditional and digital marketing activities. The social networks today are one of the most widely used channel of communication on the Internet representing a huge potential for enhancing the company's visibility and improving business operations. The purpose of this paper is to examine whether the companies in northwestern parts of Croatia predominantly use the traditional or digital marketing, whether they use social networks for marketing promotional activities and what kind of an influence these forms of marketing activities have on business operations of the company. The survey was conducted using an anonymous questionnaire on the sample of 81 companies from the Varaždin County, Međimurje County, Krapina-Zagorje County and Koprivnica-Križevci County, and by analysing the literature. The results of the survey have shown that most companies use social networks and that marketing activities on social networks have a positive impact on business operations of most companies.*

**Keywords:** *marketing 4.0, digital marketing, traditional marketing, social network*

### 1. INTRODUCTION

Technological development has enabled the companies to expand their business operations overseas, to exchange experience and communicate more quickly, as well as to collect and analyse data on consumer behavior. Therefore, the companies are introducing different technological solutions which help them conduct business operations and make decisions. Due to globalisation and Internet accessibility worldwide, the entire world is connected within a few clicks. Therefore, corporate marketing needs to be adapted to other countries in which the company wishes to operate. It is also necessary to understand the needs of consumers in a specific country so as to create a marketing mix tailored to the specific needs of a particular country (Jimenez-Zarco, Rospigliosi, Pilar Martinez-Ruiz & Izquierdo-Yusta, 2017). Moreover, together with globalization, new competitors and types of consumers have appeared on the market as well. When purchasing a product, these new consumers do not make decisions based primarily on the price and quality of the product, but take into consideration business practices as well, including the corporate social responsibility, environmental protection and human rights protection (Jimenez-Zarco et al., 2017). Today, companies can choose among a wide range of traditional and digital marketing activities. Although the modern technology that we see today can make us think the traditional forms of marketing are outdated and have no significant impact, they are nevertheless important and the consumers find them reliable.



On the other hand, digital forms provide many more possibilities and are more accessible to the consumers who use the Internet. Using technology, consumers can express their opinion and share their experience about a specific product or service, thus influencing the other consumers and their decision to purchase the product, share their ideas on product and service development, thus participating in the creation of a new product paying attention to the consumers' needs and wishes. Moreover, the technology and accessibility of the Internet enable the consumers to check the availability of the product and learn more about the product at any time. Nowadays, consumers play a significant role in marketing and special attention should be paid to them. One of the most common ways of sharing experience and interacting with other users and manufacturers is through social media. Social media are online platforms intended for communication which include social networks (such as Facebook, LinkedIn, etc.), content-sharing media (such as Wikipedia), and multimedia and promotion (such as YouTube). Social media remove the demographical and geographical boundaries, thus facilitating integration, communication, and cooperation between consumers and manufacturers (Kotler, Kartajaya & Setiawan, 2017). The new technologies have made it easy for anyone to create and distribute their own content. Social media comes in many forms: blogs, social networks, media-sharing sites, social bookmarking, review sites, forums and virtual worlds (Zarella, 2010.).

## **2. FORMS OF MARKETING**

### **2.1. Traditional form of marketing**

We are surrounded by different forms of traditional marketing that include ads in newspapers and magazines, on the radio, TV, leaflets and billboards, trade fairs, conferences, etc. The advantages of traditional marketing are their faster achieving of results if the ads are in the right place. Consumers have more trust in traditional forms of advertising, considering the potential Internet scams. Disadvantages of the traditional marketing include the following: higher costs; the results which are difficult to measure or not measurable at all; in case of changes, ad content cannot be changed so quickly; advertising is targeting a particular market segment, but not individual consumers, so consumers cannot get pricing options for a specific product or service (Kotler, 2017). Although more and more consumers are turning to digital media nowadays, the traditional forms of marketing are still important as they are widespread, consumers are used to such forms of advertising and these forms of advertising can reach the consumer groups that digital forms of marketing may not reach. Traditional marketing plays a crucial role in building awareness and consumers' interests at the very beginning of the development of relations between consumers and manufacturers. As their relationship is developing, consumers require a more responsive approach, and this is where digital marketing confirms its importance because it is focused on the individual. Digital marketing is focused on the achievement of results, while traditional marketing focuses on initiating interaction with consumers (Kotler et al., 2017).

### **2.2. Digital form of marketing**

Digital marketing is a type of marketing which includes the use of digital technology, predominantly on the Internet, and on mobile devices and other digital media, as well. It includes SEO (Search Engine Optimisation), content marketing, social networks, influencer marketing, e-mail marketing, banners, e-books, text messages and multimedia messages, as well as other forms used online. The advantages of such a form of marketing are the following: it is less expensive compared to traditional marketing; it facilitates communication with consumers; it enables market expansion, which is important for small companies. The Internet enables the implementation of marketing all over the world and in a particular area, if necessary. Online information is also permanently available, and users can decide for themselves whether they will read the ad content or not; they can communicate with the manufacturer and other

consumers, share their opinion and experience. Digital marketing provides unlimited content that can be modified quickly, that is measurable and can be adapted to the users' needs and wishes based on their behaviour on the Internet and their profiles. The disadvantages of digital marketing are the following: the content and campaigns on the Internet can be easily copied; problems may occur related to website operation, such as problems with the Internet connection or technology; the webshop does not enable its customers to try a product before purchase and customers still do not trust electronic payment and online shopping enough. In addition to this, there are various online scams which increase consumers' distrust, as well as manufacturers' distrust in case the consumers do not purchase the ordered product. Older generations are often less open to new technologies and the forms of digital advertising do not get through to them (Todor Raluca, 2016). In order to reach a wider market and customer groups, it is necessary to combine both the traditional and digital marketing methodology. Depending on the type of products and services it provides, the company must determine which marketing forms it will find more useful. Marketing methodology will vary depending on whether the product is intended for teens or pensioners. In the first case, digital marketing approach is required, including social networks which are popular among young people, while the second case requires a marketing approach which is directed towards advertising on TV, newspapers and leaflets.

### **3. MARKETING DEVELOPMENT**

In recent decades, marketing has developed through several different stages (Jimenez-Zarco et al., 2017), such as:

- Marketing 1.0. - product-centric marketing,
- Marketing 2.0. - customer-oriented marketing,
- Marketing 3.0. - brand-oriented marketing,
- Marketing 4.0. - data-driven marketing.

#### **3.1. Marketing 1.0**

Marketing 1.0. was used in the 1950s and 1960s and it was influenced by the Industrial Revolution. It was based on the marketing mix and its purpose was to sell the product to the masses and attract new clients, but it did not pay any particular attention to consumer satisfaction or clients' needs (Jimenez-Zarco et al., 2017).

#### **3.2. Marketing 2.0**

With the appearance of the economic crisis in the 1970s and 1980s, there has been a development in IT and it also led to changes in the market and increased competition. Owing to technology development, consumers became more informed, they could compare different products and they were the ones to define the value of the products (Jara, Concepción Parra & Skarmeta, 2012). The manufacturers became aware that they had to become consumer-oriented and focus on the consumers and their needs in order to achieve visibility in the market. This is the way Marketing 2.0., that is, consumer-oriented marketing developed. This has led to further investment in product development and adaptation to consumer preferences in a particular market. Marketing 2.0. postulates that consumers are passive in marketing campaigns (Jimenez-Zarco et al., 2017).

#### **3.3. Marketing 3.0**

Marketing 3.0 developed in the 1990s and the beginning of 2000s, when consumers became aware of and sensitive to social, economic and environmental issues (Jara, 2012). When choosing a product, in addition to taking into account the price and quality of the product, consumers began to show interest in the company's business practices and the way it treats its

employees, the community and the environment, i.e., the values it promotes. As the technology advances, and social networks in particular, consumers can interact with each other and exchange their experience and opinion about a particular product. In Marketing 3.0, companies are trying to differentiate themselves from the others by the values they promote within their corporate vision and mission (Kotler, Kartajaya & Setiawan, 2010). Companies must find a way to gain consumers' trust, associating their values with the brand's values, and respect their opinions and views.

### **3.4. Marketing 4.0**

According to Kotler, the latest form of marketing is Marketing 4.0., which connects together the online and the offline means of communication between manufacturers and consumers, combining artificial intelligence and technology and improving the communication with the consumer (Fuciu&Dumitrescu, 2018). The very development of technology and connection with artificial intelligence results in the collection of large amounts of data about each consumer and the consumer's behaviour on the Internet. Big data marketing allows the companies to have insight into what consumers mostly use, what they want and the way the company can offer them what they really need based on their interests and preferences. Marketing 4.0. uses technology to improve communication between consumers and products, to check whether a specific product meets the consumers' needs and wishes or not, to verify the activities conducted by the company in accordance with their values, and to determine the brand's integrity and reputation through their activities and experiences of their customers (Jara, 2012). Today, however, due to the availability of information, consumers have become overly dependent on other people's opinion and experience that often have precedence over their own wishes (Kotler et al., 2017). The companies must take the role of consumers in the development of their brand seriously. They must also make sure their product meets the consumers' needs and wishes. Both the consumers' positive and negative experiences are available on the Internet, and the potential customers use them in order to make a purchase decision. Considering their competitors have access to information as well, the companies must dedicate more attention to the quality of their products, brand development and communication with customers in order to ensure a successful market survival. The brand will develop through the product's value for money, the customers' experience with the product and the implementation of activities in line with the corporate values (Jara, 2012). In order to describe the process through which consumers evaluate the brand, the four As of marketing have been identified, which are as follows: aware, attitude, act, and act again. First of all, consumers must become aware of a particular brand in the market (aware); they can like or dislike the brand (attitude); based on their preferences they make a purchase decision (act) and decide whether the product is good enough for them to repeat the purchase (act again). However, in the times of globalization and an increased social influence, this framework is substituted by the five A's, which is as follows: aware, appeal, ask, act and advocate. Consumers are aware of the brands in the market (aware) and, based on the information available; they find particular brands more appealing than others (appeal). Afterwards, through their friends, family, media or the brand itself they collect additional information about the brand and consumers' experience (ask). Based on the information gathered, they make a purchase decision (act). If a consumer has got positive experience with the brand and repeats the purchase, loyalty to the brand is developed and the consumer becomes the brand's advocate (advocate) (Kotler et al., 2017). Nowadays, consumers are surrounded by all kinds of ads, informations about products and brands, leading to information overload and the seeking of reliable experiences within the social circle of friends and family (Kotler et al., 2017). Therefore, manufacturers should make extra efforts in order to ensure their customers are satisfied with their products or services and the values they support, with the purpose of encouraging consumers to promote their brand.

## **4. SOCIAL NETWORKS**

### **4.1. New rules of marketing**

What all the Internet forms and techniques have in common is that together they represent the best form of direct communication with the target market. The problem is the attitude of specific companies that send advertising messages to their customers, not bothering to build a relationship with them, i.e., trying to attract the customers using unidirectional messages. The new rules of marketing imply that companies build a direct relationship with customers. The Internet provides an opportunity to reach the customers in small market niches through targeted messages. While the advertising messages were previously unidirectional and product-oriented, the Internet marketing is oriented towards the delivery of useful content at the moment the customer asks for it. The old rules of marketing were the following (Meerman Scott, 2007):

- Marketing implied only advertising,
- The commercials addressed the masses,
- Advertising relied on sudden interruptions forcing people to pay attention to a particular message,
- Advertising was unidirectional: from the company towards the customer,
- Advertising was focused exclusively on the sales of products,
- Advertising was based on the campaigns with a limited lifespan,
- Creativity was considered the most important element of the commercial,
- For an advertising agency, it was more important to receive an award from the industry than to attract new customers for their clients,
- Advertising and PR were separate disciplines led by different people, each with their own goals, strategies and performance measurement criteria.

Nowadays, companies communicate directly with consumers, so marketing specialists must change their thinking from the mass marketing to the strategy of targeting a vast and disregarded audience through the Internet. The most efficient Internet strategies cater for the consumers' needs in advance, providing a content that can meet their needs even before the consumers ask them to do so. The new rules of marketing imply the following (Meerman Scott, 2007):

- Marketing is much more than advertising,
- PR is not intended solely for the mass media audience,
- You are what you publish,
- People seek authenticity, not just a story well put together,
- People want to participate, not just listen to propaganda,
- The purpose of marketing is to deliver the content at the right moment,
- Marketing specialists must direct their attention from mass marketing to the strategy of addressing a great multitude of disregarded consumers using the Internet,
- The purpose of PR is not a TV commercial that might satisfy the general manager, but to achieve visibility on the Internet that will satisfy the consumers,
- The purpose of marketing is not to earn an award for the agency, but to provide new business deals to the company,
- The companies must persuade people to buy their products using an excellent Internet content,
- Social networks, blogs, e-books and other forms of online content enable the companies to communicate directly with the consumers in a way that suits them.

The companies that wish to improve their business, achieve better financial results and meet the set objectives must shift the focus from their products or services to the customer. The 4P's model does not work anymore and in order for the companies to be successful, they must first

do research on their customers. The modern consumer wants to know what problems will a specific product or service solve and they expect the company to explain it to them in a simple manner.

#### **4.2. Social networks**

The expression Social Network contains two terms, namely social and network. Social refers to communication between individuals with common interests, a group or a community. The term network implies a medium, a channel or a platform that enables the creation and exchange of the content created by the user. Over a short period of time, social networks have achieved social acceptance. Therefore, it is not surprising that social networks and their commercial value have become evident and attracted the attention of managers and marketing experts in all the organizations present on the Internet. The companies consider social network a platform through which they can connect directly with the existing and new users of their products and services. This represents a significant shift from the traditional marketing, because one can approach the customer directly and cost-effectively in just a few clicks. Moreover, from the consumers' point of view, social networks facilitate online communication through the exchange of information, comments and product reviews that are beyond the control of the company. The companies present on social networks want to increase the visibility on the Internet and promote their products and services. Social networks are useful for the development of social and business networks, as well as for the exchange of knowledge and ideas. For the purpose of research of a company, a product or a service, the modern customer initiates its research on the Internet, because it is there that he or she can find up-to-date information. The communication is continuously available on the Just In Time principle, which means that all the information is available in time. Social networks bring two types of benefits to the company, such as the increased visibility and the increased turnover. Nowadays, almost all the companies are present on social networks, particularly on Facebook, LinkedIn and Instagram. There are 4 things necessary for maintaining a successful presence on social networks:

- Content – it is considered the most important element, since in case the information published is not up-to-date, relevant or it is not published on a regular basis, the social networks traffic will be low. Therefore, we can conclude that the mere presence on social networks is not sufficient without having published some content.
- Involvement – for the purpose of a successful business operation, the companies must actively engage in the communication with their customers. The companies engaged in the communication through social networks are considered to be friendly by the customers and are perceived in a positive way, leading to an increase in the company's turnover, as well as the image and brand development, and product, service or company loyalty, because in this way people will become the ambassadors of the company, product or service working for free.
- Skills – specific skills are required for using social networks as a live medium for promotion. The skills require the knowledge of research, design,
- management, analysis, optimization, monitoring, etc. Knowledge of the stated disciplines leads to the publication of the right content at the right time.
- Consistency - Knowing what is necessary for the purpose of the positive presence on social networks and how to do it is not enough if we do not do it on a regular basis.

The negative effects of marketing and promotional activities on social networks affect the company or the brand as well. In the new age of marketing, the power shifts from the manufacturer to the customer, and the customer expresses his or her positive and negative attitudes, sharing them with millions of other potential customers, leading them to become the

driving force of the company. Marketing experts are facing the challenge of how to communicate with these potential customers. Social networks enable the individuals to communicate with one another and build a relationship. The communication of customers with the company through social network is more personal with respect to the traditional marketing methodology. Social networks do not affect only the companies, but marketing methodology as well; a continuous communication with the customers takes place, as well as the building of trust and communication with the customers in the right way, the fastest possible, putting the marketing experts in such a position so as to face the customers and manage the brand. The most represented social networks, according to the conducted survey are:

- Facebook  
One of the largest social networks that was originally intended primarily for Harvard University students. It is a popular free-of-charge social network that enables its registered users to create a profile, upload pictures and video content, send text messages and communicate continuously with their friends, family and colleagues. It is one of the most popular network channels for advertisers, because it enables them to target specific audiences (Ištvančić, Crnjac Milić & Krpić, 2017.).
- LinkedIn  
LinkedIn is a business social network intended for connecting employers and potential employees. The purpose of this network is to present professional competences of its members and to achieve a faster connection with the potential employees, the exchange of experiences and opinions, and content sharing.
- Instagram  
Instagram is a social network intended for the sharing of photos and videos that can be edited using different filters and tagged using a #hashtag. Instagram campaigns do not sell products or promote discounts, but they try to tell the story of the product (Ištvančić et al., 2017.).

#### **4.3. Social Networks Marketing**

Social Networks Marketing is a recent phenomenon starting with the domination of social platforms in the communication on the Internet. Social Networks Marketing is used primarily for the activities related to content, photo or video sharing, or the sharing of photos for the purpose of marketing and promotional activities. Online Marketing or Internet Marketing includes website development, blog marketing, e-mail marketing and article marketing. Social Networks Marketing and Online Marketing are often used interchangeably, though they are not synonymous. Social Networks Marketing is a segment of Online Marketing. Online Marketing has become a useful tool for entrepreneurs, small businesses, as well as corporations. Social Networks Marketing helps create a relationship between the company and its customers through interaction with its members on social networks. Social networks enable the customers to express their opinion about everything related to the company, be it a new ad, product or service. The key benefits of social network include building of a recognized name, increasing turnover and making new business opportunities or partnerships. Evolution of possibilities offered by social network has resulted in a significant increase in the number of users. Social networks have evolved as a marketing tool for achieving professional goals on the internet (Biloš&Kelić, 2012.). An increased use of social networks facilitates communication about the companies, products or brands. The new generation of consumers implies the presence of their favorite companies and brands on social networks (Kotler et al., 2010). Companies should create profiles on different social networks to increase their use of social networks and therefore their recognizability on the Internet (Biloš&Kelić, 2012.).

## 5. RESEARCH SCOPE AND GOALS

Nowadays, social networks are an indispensable place to search for information on the company, its products and the customers' experiences. Therefore, the companies on social networks have got a high potential for marketing and promotional activities. The scope of research of this paper is to provide an answer to the following questions:

- Do the companies in the northwest of Croatia use the traditional or digital marketing more often?
- Do they use social networks for marketing and promotional activities, and what is the effect of such marketing activities on the company's business operations?

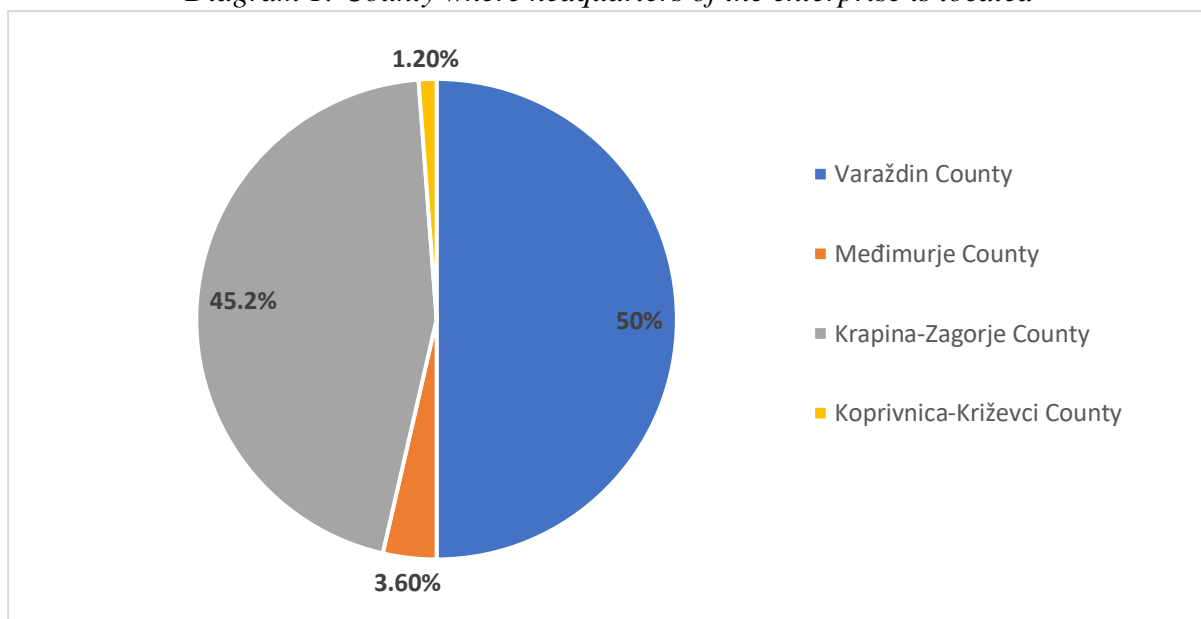
### 5.1. Data Collection Sources and Methodology

Professional and scientific literature, books and scientific papers, as well as the Internet were used for the purpose of writing this paper. An anonymous survey was conducted on the companies on the territory of Varaždin County, Međimurje County, Krapina-Zagorje County and Koprivnica-Križevci County. The questionnaire included 28 questions related to the basic information about the company, the ways marketing activities are conducted at the company and the use of social networks. The survey was conducted using Google forms and was available for compiling in the period from June 10th, 2019 to June 18th, 2019. The selection of companies that received the questionnaire was performed at random using the Poslovna Hrvatska business portal, as well as by sharing it on Facebook. The questionnaires were sent to 800 addresses in total, with 81 response received, accounting for a response rate of 10 %.

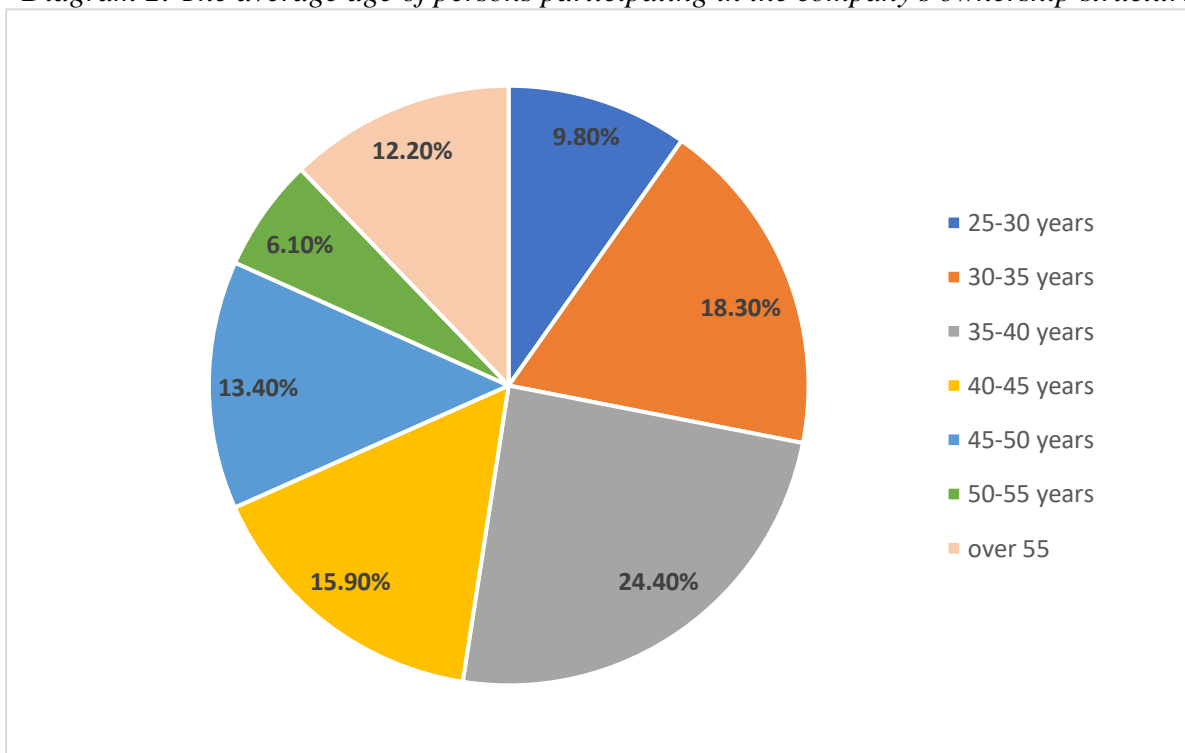
## 6. RESEARCH RESULTS

In the first part of the survey, the basic questions about the company were asked. Most companies participating in the survey have been operating for 0-5 years (24.7%), more than 20 years (21%) and between 10 and 15 years (21%). They are followed by the companies operating for 5 to 10 years (16%), 15 to 20 years (9.9%) and the few those operating for less than a year (7.4%). Most of the participants are micro enterprises with up to 10 employees (77.8%). The others are small enterprises with up to 50 employees (16%), medium enterprises with up to 250 employees (4.9%) and one large enterprise with more than 250 employees (1.2%). The most common forms of organization were Ltd. (cro. d.o.o.) (50.6%) and trade (39.5%), with other forms, such as simple Ltd. (cro. j.d.o.o.) (7.4%) and institutions (2.4%). There were no replies provided by a JSC (cro. d.d.). According to the NACE (National Classification of Economic Activities) (cro. NKD), the most common economic activity is service industry (27.7%), IT and communication industry (12%), processing industry (10.8%), trade (9.6%) and construction (9.6%). The other economic activities account for a much lower percentage or no percentage at all. Most participants come from the counties of Varaždin (50%) and Krapina-Zagorje (45.2%), with a small number of those coming from the counties of Međimurje (3.60%) and Koprivnica-Križevci (1.20%) (Diagram 1).

*Diagram following on the next page*

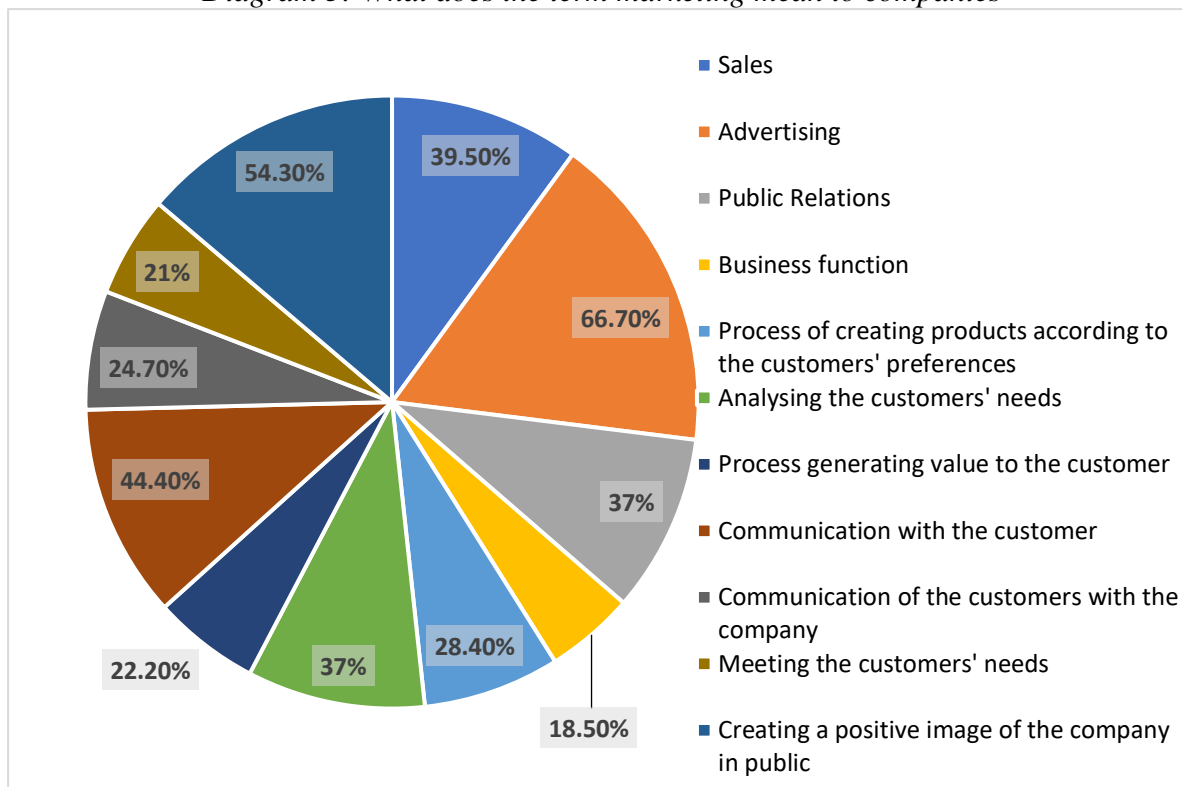
*Diagram 1: County where headquarters of the enterprise is located**Source: created by the Author*

The average age of persons participating in the company's ownership structure is between 35 and 40 (Diagram 2).

*Diagram 2: The average age of persons participating in the company's ownership structure**Source: created by the Author*

Further on in the paper, the questions were asked related to marketing and the use of social networks. The companies predominantly associate the term marketing with advertising (66.7%), creating of a positive image of the company in public (54.3%) and communication with the customer (44.4%) (Diagram 3).

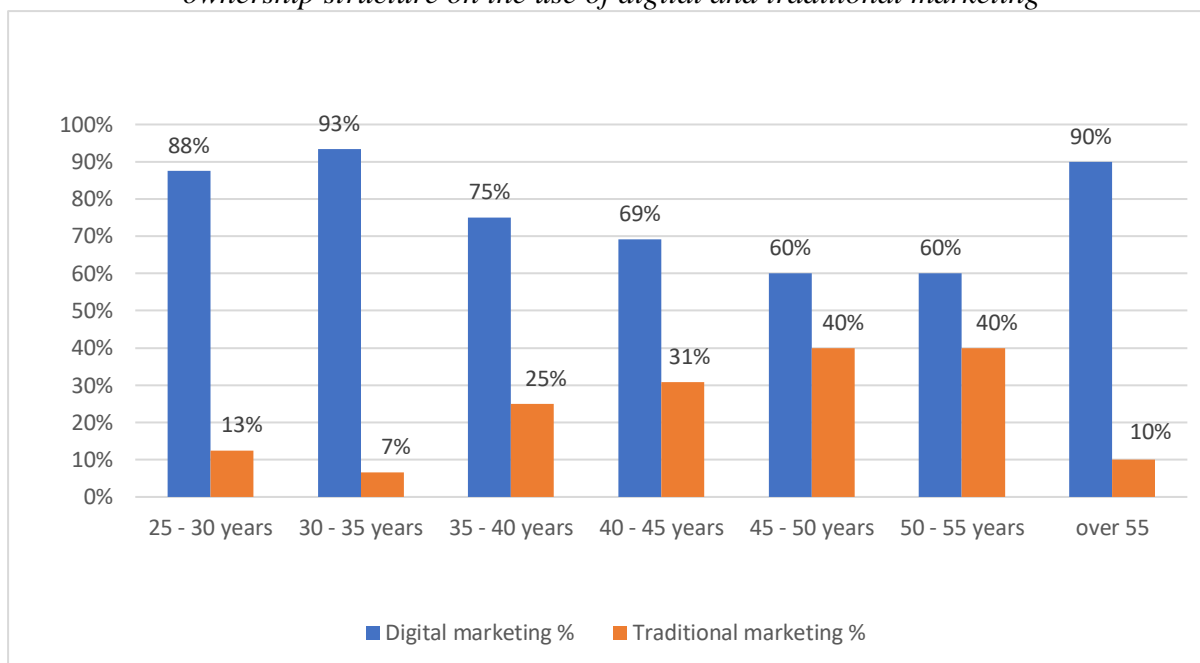


*Diagram 3: What does the term marketing mean to companies**Source: created by the Author*

The 93.8% of the companies are familiar with the expression digital marketing, while the 67.9 % of the companies are familiar with the term marketing 4.0. The companies use predominantly the digital forms of marketing, such as websites, social networks, banners, email marketing, etc. (78.6%), while the traditional forms of marketing, such as TV, radio, newspapers, magazines, leaflets, fairs etc. account for 21,4%. The comparison of data gathered on the average age of the persons participating in the company's ownership structure, as well as the more commonly used form of marketing (the comparison between the digital and traditional form) is shown in Diagram 4. The Diagram shows that younger owners, aged 25 to 35 , predominantly use the digital form of marketing with respect to the owners aged 35 to 55. The exceptions are the persons aged over 55, which can be explained by the fact that these are the persons who have started transferring their knowledge about the company management to their heirs who are more open to digital forms of marketing or who have hired a person in charge of marketing activities in order to become more competitive in the digital age.

*Diagram following on the next page*

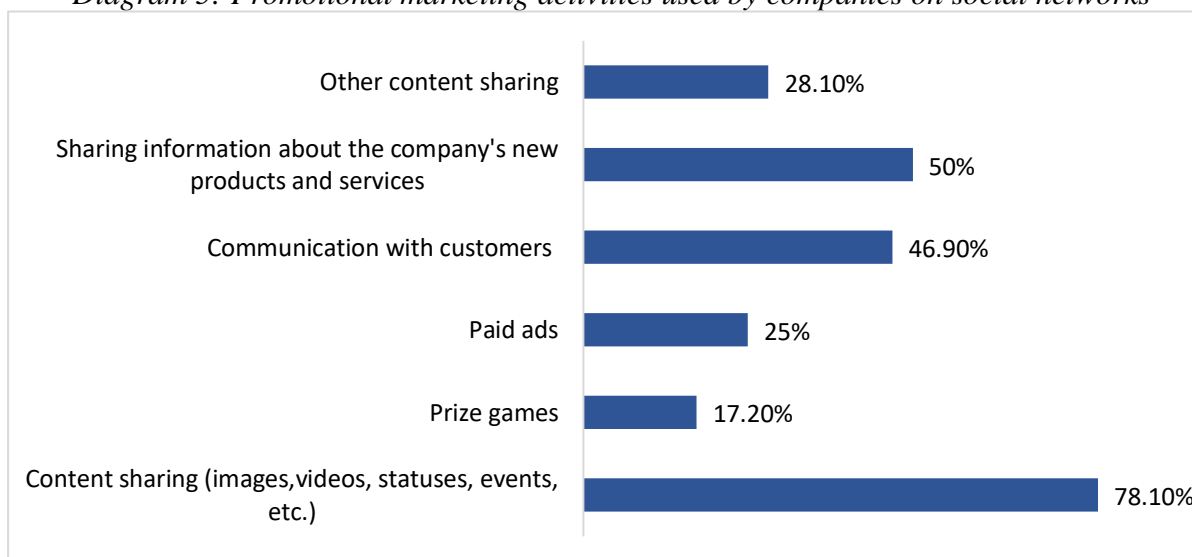
*Diagram 4: The influence of the average age of the persons participating in the company's ownership structure on the use of digital and traditional marketing*



*Source: created by the Author*

Taken separately, among the following marketing forms, the companies predominantly use the website (56.8%), social networks (59.3%), leaflets and brochures (29.6%), attend the trade fairs and conferences (28.4%), participate in sponsorship and donations (22.2%) and use magazines and newspapers (18.5%). The 69.1% of the companies have got their website, and 67.9% of them have created a profile on social networks. The companies with the registered profile on social networks mostly use Facebook (66.7%), LinkedIn (27.2%) and Instagram (24.7%). Some of the questions were intended only for the companies that use social networks. The companies use social networks equally on a daily, weekly and monthly basis. They use social networks predominantly for sharing content (78.1%), sharing information about new products (50%) and communicating with customers (46.9%). (Diagram 5)

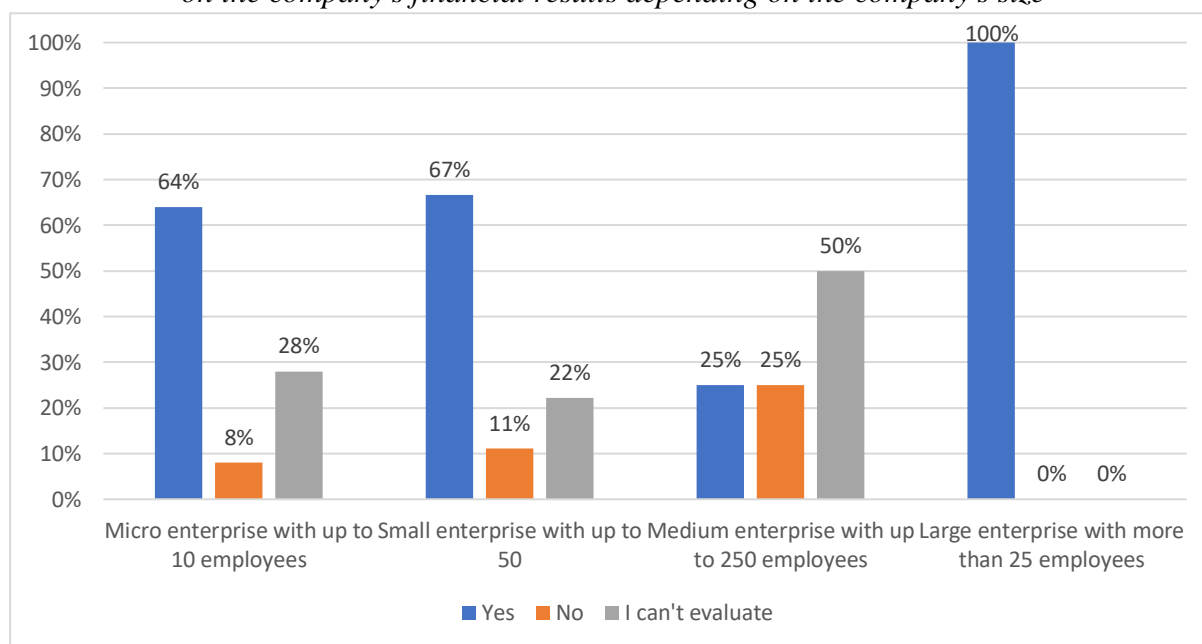
*Diagram 5: Promotional marketing activities used by companies on social networks*



*Source: created by the Author*

The 88.9% of the companies have noticed the positive effects of Social Network Marketing on their business operations in the form of an increased number of customers' inquiries (75.4%), an increased volume of work (50.8%) and increased sales (36.1%). The 62.5% of the companies consider marketing activities on social networks to have a positive impact on the corporate financial results, while the 9.4% of them consider there is no positive impact, and the 28.1% of them cannot tell whether the stated activities have made a positive impact on the financial results or not. Considering the size of the companies (Diagram 6), Social Network Marketing has got a positive impact on the financial results of the micro and small enterprises, as well as the large enterprise. The medium-sized enterprises cannot assess the impact. As for the medium-sized and large-sized enterprises, the low response rate must also be taken into account, so their results cannot be regarded as statistically relevant.

*Diagram 6: The influence of marketing activities on social networks and their positive impact on the company's financial results depending on the company's size*



*Source: created by the Author*

The companies have recognized the importance of customers' satisfaction and 87.7% of them use the suggestions and remarks of their customers for the purpose of improving their products and services. Most companies (75%) have got no special department or person within the company that would be in charge of processing the data gathered through social networks. Only 10.6% of the companies use the services of external experts specialised in the processing of data collected through social networks. The companies that analyse the collected data usually analyse them on a monthly basis (30.4%), and less frequently on a weekly (14.5%), annual (11.6%) and daily basis (8.7%). The 61.2% of the companies analyse their competitors through social networks, and the 73.4% of them consider the availability of data about the clients, companies and competitors contributes to decision making. In the event of negative comments on social networks, the companies try to solve the issue and identify the reasons of the customer's dissatisfaction (69.2%) or they try to address the issue in public (12.3%). The 13.8% of them have not got a person in charge of solving the complaints and addressing the negative comments on social networks. The 4.6% of the companies ignores such comments, because they believe they cannot harm the company. Most of the companies (95.7%) believe that the activity of customers and companies on social networks will become even more significant in future.

## 7. DISCUSSION

The purpose of the survey was to obtain answers to the following questions: "do the companies in the northwest of Croatia use the traditional or the digital form of marketing more frequently?" and "do they use social networks for marketing and promotional activities, and what is the impact of such a form of marketing activities onto the company's business operation?". The questionnaire was mostly compiled by micro enterprises with up to 10 employees, since in Croatia, according to the data obtained from the Croatian Chamber of Commerce, the 98.5% of legal persons are micro and small enterprises. Moreover, in small enterprises one can quickly and easily reach the person in charge of completing the questionnaire. In large enterprises, more time is necessary in order to identify the person in charge of completing the questionnaire, and it is more probable that the questionnaire gets lost when forwarding it to the persons in charge. Although the questionnaire was sent to e-mail addresses randomly using the Poslovna Hrvatska business portal, it was also shared on Facebook, so most participants in the survey come from the Varaždin and Krapina-Zagorje County since the authors of the paper come from the said counties. The companies see marketing mostly as a form of advertising of their products or services and the way of creating a positive corporate image, showing that the companies are aware of the fact that they have got to develop their brand in order to achieve visibility in the market and in order for their advertising to be successful. Moreover, the companies believe that their communication with the customers is one of the important factors of the company's success. Digital marketing is all around us and is used on a large scale. Therefore, most companies are familiar with such a type of marketing. Marketing 4.0. is a rather new term and the fact that 67.9% of the companies are familiar with the term shows that companies keep up with the latest news and trends within the world of marketing. The answer to the first question of this research, the one concerning the form of marketing which is more frequently used in the northwestern part of Croatia, confirmed that the digital form of marketing is commonly used (78.6%). Considering the type of the companies that predominantly participated in the survey and the area in which they operate, we can confirm that most micro enterprises on the territory of the Varaždin County and Krapina-Zagorje County mostly use the digital form of marketing. The second question, aimed at determining if they used social networks for the purpose of marketing and promotion and what was the impact of such a form of marketing activities on the company's business operations, generated the answers given below. Most of the companies have a registered profile on social platforms and they conduct marketing activities mostly on social networks, Facebook in particular. Promotional and marketing activities they mostly use are content sharing, the sharing of information about new products and services, and communication with customers. Most of the companies have noticed the positive effects of promotional and marketing activities on their business operations, mostly in the form of increased inquiries from the clients, which proves that social networks help the companies increase their visibility and expand their market, and this contributes to an increased volume of work and sales. More than half of the companies believe that such activities have got a positive impact on the corporate financial results. Almost a third of the companies cannot decide whether there is a positive impact on the corporate finances or not. This is evident mostly in the medium-sized enterprises, and the reason for this may be that the person in charge of marketing who completed the questionnaire does not have a full insight into the corporate finances. Since the authors of the research have received only one reply from a large enterprise, the results obtained for large enterprises are not statistically relevant. The positive impacts on the financial results are the most evident in micro and small-sized enterprises, showing that today social networks represent an indispensable element of the company's operations. Most companies use the suggestions and remarks of their customers in order to improve their process. Therefore, the companies are oriented towards the customers and the meeting of their needs and wishes.

Although they are aware of the importance of social networks, most companies have not got a separate department or person in charge of the processing of the collected data. Therefore, for the purpose of achieving even better business results, it would be good to analyse occasionally the collected data according to one's possibilities in order to help them make decisions as to what are the further steps they must make with the purpose of improving their products and services. In addition to monitoring their own business operations, the companies analyse their competitors, as well, with the availability of data helping them in decision making. In case of potential negative comments, the companies try to solve the source of discontent, but there are still some companies that decide to ignore such comments. Companies believe that the activities of consumers and companies on social networks will have an increased importance in future, which is in line with the current pace of development of technology, the expansion of the Internet and its availability on different devices.

## 8. CONCLUSION

The companies on the territory of the northwest of Croatia use social networks for the purpose of promotion, and most of the companies have noticed the positive impacts of promotional and marketing activities on their business operations. Moreover, the companies are aware of the fact that social networks and the activities of consumers and companies on social networks will have an increasing importance in future. The companies that are still not present online must become aware of the importance of digital marketing and the use of social networks. It is not sufficient to conduct only traditional marketing activities anymore, but the companies must turn to the online forms of advertising as well, in order to achieve visibility, expand their market and be available for communication with their customers in real time. Social networks are a free tool that, if used properly, can help the companies boost their visibility on the market, attract new clients and improve their business, and is one of the most common types of communication channels. The Internet provides endless possibilities and sources of information so every entrepreneur can, with a little bit of will, time and effort, learn how to use social networks in order to improve his or her business operations. Today, the online form of advertising is an essential part of every company's business operations.

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## CONTINUING TEACHER TRAINING IN CONFLICT MEDIATION: A SOCIO-EDUCATIONAL STRATEGY FOR THE CURRENT SCHOOL

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### ABSTRACT

*We are aware of the challenges that constantly affect the present society and with them comes, frequently, social and coexistence issues. Working as a teacher demands a permanent upgrade that keeps up with society and the evolution of knowledge. In addition, the school and the teacher are also required to contribute to the student's integral education. For this issue in question it was defined the main goal: analyze the contribution of continuing teacher training in conflict mediation and the performance of the mediating professor as strategies to answer to school's current socio-educational challenges. According to the general objective presented, this is a qualitative study, as we are still faced with few scientific studies on this subject. We resorted to a semi-structured interview to gather data. The group of participants in the study is composed of nine teachers, aged between 33 years and 62 years, of both sexes, and who work as teachers in schools or groups of schools in the north of Portugal. The data analysis was done based on analysis of content technique, according to the interview's codification, upon the register units, from where emerged categories and subcategories. The results lead to the fact that continuing formation in conflict mediation it's important for upgrading and innovating knowledge and strategies leading to a better professional exhibition. This training in mediation promotes the acquirement of skills that aim for dealing with nowadays school's socio-educational challenges in an easier way. We noted too, that there is a perfect link between socio-educational abilities developed in mediation and the ones that are requested to students through their mandatory schooling journey.*

**Keywords:** *Continuing teacher training, Conflict mediation, Socio-educational skills*

### 1. INTRODUCTION

Differences of opinion and interests are often witnessed, often culminating in conflicts which also end up manifesting themselves within the school. According to Silva (2014), the "conflicts are constituent elements of human reality and, therefore, should be recognized in their different aspects: meaning, relevance, modes of recognition, appropriation and resolution". Conflict, discord, disagreements are inherent phenomena of living in society. Therefore, since situations of conflict are inevitable, it makes perfect sense to have an educational intervention in order to transform it into situations of learning and personal enrichment. The School, being also an area of socialization, has the function of training scientifically and socially competent citizens who are able to act effectively and responsibly in a society in constant evolution. Education for citizenship is one of the educational priorities of this early century. From the perspective of Pinto da Costa e Teles (2015), "citizenship implies ethical and social values that allow interaction in community". In order to respond to the constant social challenges carried to the school context, teachers feel the need to update and innovate their knowledge and tools, and therefore make use of continuous training (Mucharreira, 2018). In this context, training in conflict mediation can become an asset for professional teaching performance, as it contributes to the acquisition and promotion of skills and abilities that allow better management of

interpersonal relationships as well as to use them in an educational way to promote students' relational skills. Mediation contributes, as Pinto da Costa (2016, p. 13) says, to the development of "basic social skills for community life". Mediation promotes constructive conflict resolution, as it allows for mutual recognition based on dialogue, active listening and otherness (Silva, 2018). Mediation in a school context is considered a methodology of interpersonal relationship management and conflict resolution that fosters the participation and responsibility of the school community. It provides an opportunity to learn new forms of communication and social interaction, in accordance with respect for human rights, and supports a harmonious coexistence that favors the teaching and learning process. To better understand how the teacher can find in mediation a way to deal with the social and relational challenges facing school citizens, the following starting question was formulated: How does continuous training in conflict mediation and the teacher's action with this training contribute to responding to the socio-educational challenges of the current school? To the extent that it aims to understand and find meaning through the narratives of the interviewed teachers (based on their perceptions, opinions and evaluations), the option for qualitative study, of an inductive and interpretative nature, allowed a greater knowledge of the socio-educational reality identified for the study.

## **2. TEACHERS AND THE CHALLENGES OF THE 21ST CENTURY SCHOOL**

The teaching of elites has given way to mass education. The school that guaranteed future success and social position, became compulsory and is viewed with discredit. Faced with diversity, plurality and multiculturalism, the school seeks to give orientation to its educational mission. In fact, the world in which we live today poses new challenges to education. We live in a global society in constant change, economic, technological, in forms of communication and cultural expression, as well as in interpersonal relationships. Thus, according to França (2018), the school, as a privileged place for learning, has to ensure the construction of knowledge in times of rapid and unpredictable change. In this follow-up, the school's mission is to value knowledge and intellectual curiosity, with the aim of forming citizens aware of collaborative action for the construction of a sustainable future (Santos & Leal, 2017). All these changes raise concern to those who teach. Mucharreira (2018) states that the challenges facing teachers are increasingly complex and diverse and that there is a growing need for training. The competencies of students leaving compulsory school, for the 21st century, foreseen in a national official document, define a set of knowledge, attitudes and values that should prepare them for school, personal, professional and community life (Veras, 2017). Now, the teacher of the 21st century must be able to teach students what they need to learn in order to become active and aware citizens, capable of analyzing, reflecting and participating in the society in which they live (Silva, 2014). It is required that the teacher has the competence to work from a problem-solving perspective and to develop projects that encourage students to mobilize their knowledge in an active and cooperative way. For this, the teacher must also adopt a reflective attitude about his practices, his context and his interactions in order to better prepare himself to perform his role as an educator.

### **2.1. Continuous teacher training as a response to the challenges of the 21st century school**

Teachers are professionals in human development, thus showing the importance that continuous training assumes in professional and educational success. Teacher training is an indispensable factor for change in several areas, such as: education, professional conceptions and teaching professionalism. According to Canário (2006), there is a need to promote the adaptation, updating and innovation of teaching practices from initial and continuing training. According to the author, "school is the place where teachers learn the essentials of their profession, since this learning corresponds to a process of professional socialization" (Idem, p. 65). Teacher training also takes place in a working context and is based on two aims: one of training and the



other of identity building. The teacher must be more than a transmitter of knowledge he must be a "constructor of meaning" (Idem, p. 69). His main mission is to help build knowledge by using different sources of information and appropriate pedagogical practices, often acquired through continuous training (França, 2018). The teacher is considered to be an agent of change in the school community, requiring from him a growth in his political awareness in pedagogical action, and for this he must be in constant commitment to his technical-pedagogical competence (Freitas & Pacifico, 2020). This continuous adaptation, to which the teacher is subject, in order to respond to the demands of society, and consequently of the students who arrive at school, fits into the concept of lifelong learning/training, from a formal (continuous training), non-formal or informal perspective (Martins, 2017). Working in teams and by projects, with differentiated pedagogies, growing responsibilities are, for example, dimensions that impose demands on the performance of the teacher, in the fight against school failure and in the development of citizenship, with recourse to research and reflective practice (Gonzalez & Lopez, 2017). Continuous teacher training is linked to the quality of education and the quality of teaching. Continuous training aims to enable teachers to perform better pedagogically. They seek to find in it strategies that promote the success of students as well as allowing them to be aware of the changes in the school community in order to promote the integral development of the student and his integration into society. Consequently, continuous training (specialized or transversal) should be thought in a perspective of updating knowledge and promoting the skills necessary for adequate professional performance in the context of the school and society. Through in-service training, teachers seek to deepen knowledge and skills that promote, for example, social integration, employability and the exercise of citizenship by students.

## **2.2. Continuous training of teachers in conflict mediation**

Specifically, the continuous training of teachers in conflict mediation enables them to enhance their skills and abilities for the constructive and transformative resolution of disputes through communication, active listening and mutual respect, promoting autonomy and accountability and providing the school with an improved social climate. Skills in the fields of knowledge, know-how and social and real-world knowledge can be enhanced through participation in the mediation process, but above all through training in mediation. The continuous training of teachers in conflict mediation focuses on school problems, values the experiences of students and teachers, is articulated with the quality of school life, presents potential for improving interpersonal relationships and the teaching-learning process, and can be reflected both in better student achievement and in a higher satisfaction of the teachers' professional performance. A constructivist vision is privileged in this type of training, which starts from a contextualized reflection for the assembly of socio-educational devices of interaction, communication and pedagogy processes. From the perspective of Monteiro e Cunha (2018, p. 125), he who assumes the role of mediator "has as his main desideratum (and challenge) the alteration of a cultural paradigm, contrary to the current one of competitive and punitive nature, when it comes to dealing with the conflict". This change presupposes a culture of collaboration, based on democratic values and the exercise of citizenship. Overall, the entire educational community can benefit if the school uses conflict mediation to intervene, in a preventive and educational way and in a collective and organizational way, in addressing problems of coexistence, creating a better environment for the socialization and integral education of students. Mediation at school is a process of social (re)construction, an educational process and a way of building a healthy coexistence (Pinto da Costa, 2019).

## **3. METHODOLOGY**

The qualitative research, which has been carried out for this study, is suitable for understanding the problem in question. According to Amado (2016, p. 57), this research methodology

promotes in the researcher the reflexive capacity, facilitating the understanding of reality and giving more confidence in the "how" and in the "why" about the object and the process of research, and thus understanding, interpreting, the meanings of subjectivities and interactions that develop in the context of the study. Qualitative research assumes a naturalistic, interpretative and inductive dimension.

### 3.1. Objectives

The general objective of the study is to understand the contribution of continuous teacher training as a strategy to respond to the socio-educational challenges of today's school. As specific objectives it is intended:

- 1) Recognize the needs of teachers in conflict mediation training;
- 2) To analyse how teachers evaluate in-service training in conflict mediation;
- 3) To inquire about the performance of the teacher with training in conflict mediation.

### 3.2. Participants

The group of participants in the study consists of six female and three male individuals, aged between 33 and 62, belonging to five unassembled School Groupings/Schools in the northern part of the country and one teacher who had not been able to get a school placement. All the participants had done their training in conflict mediation, and the time they had done it varied between 10 years and 1 year.

PA1	PA2	PA3	PA4	PA5	PA6	PA7	PA8	PA9
53	51	51	36	52	62	33	61	60
Fem.	Masc.	Fem.	Masc.	Fem.	Masc.	Fem.	Fem.	Fem.
English and German	Portuguese	Natural Sciences	EVT and EV	Physical Chemistry	Ed. Physics	Philosophy	Portuguese	History
±10 years	±2 years	±2 years	±1 year	±2 years	±1 year	±4 years	±5 years	±5 years

*Table 1: Description of study participants*

### 3.3. Method and procedure

The semi-structured interview was the instrument selected for data collection for the study. The interview aims to obtain relevant and detailed information about a theme, phenomenon or problem, also allowing a better understanding of the relationship between facts. The interview allows to deepen subjects that need more explanation by the individuals involved in the actions, processes, decisions and contexts. The interview script was carefully prepared. Thus, a set of questions was organized that took into account the objectives of the investigation and, specifically, the categories extracted from the literature review. According to Flick (2005, p. 78), "the conception of the script and its conduction must obey four criteria: non-direction, specificity, amplitude and depth, and also attention to the personal context of the interviewee". The fulfillment of such criteria allows the researcher to obtain extremely valuable data about the subject of study. The interview was recorded and then transcribed into written text. For data analysis the technique of content analysis was used, which, according to Bardin (1995), aims to convert an extensive text into a set of content categories, and the category system must be objective and reliable, since only in this way is it guaranteed that the investigation produces valid results. Thus, it was opted for a codification of units of registration of the text of the interviews, according to a previous categorization and also an emerging categorization as a consequence of the analytical and interpretative exploration of the data. The anonymity of the participants in our study was safeguarded with respect to the ethical issues of the research.

## 4. ANALYSIS OF RESULTS

### 4.1. Motivations for further training in conflict mediation

The analysis of the results obtained through the interviews (n=9) allowed us to infer that the teachers interviewed sought to carry out continuous training in conflict mediation according to the following needs:

- 1) school is different: *"... because the school has changed..."* (PA8), *"...for all the problems of today's kids..."* (PA4);
- 2) to deepen knowledge to intervene in school indiscipline: *"to be aware that there were disciplinary problems"* (PA1), *"in relation to issues of indiscipline..."* (PA6);
- 3) update strategies for responding to social problems at school: *"...we felt the need to deepen our knowledge"* (PA6), *"...we felt this need, ...we realized that there was a need to complement our formation"* (PA8), *"...we felt this need to do the formation..."* (PA9), *"...learn...how to act and deal with kids and solve situations"* (PA9).

Thus, the perception of the social problems of the current school, denounced by the teachers interviewed, is an explanation of the motivation to do continuous training in conflict mediation.

### 4.2. Assessment of further training in conflict mediation

The teachers (n=9) gave a positive assessment of the ongoing training in conflict mediation, as the following testimonies point out: *"it was very positive"* (PA1), *"very positive, very interesting"* (PA2), *"very good"* (PA3), *"... I was immensely pleased..."* (PA4), *"It was very beneficial"* (PA5), *"it was such that my colleague and I... started applying it right away"* (PA6), *"Positively"* (PA7), *"Very good, I really liked the training..."* (PA8), *"Very good. I really liked it. I really liked it"* (PA9).

Positive evaluation by teachers results from the usefulness of the tools acquired in the training, for example:

- 1) training in dealing with various situations and actors in the school community: *"It was an added value, it gives us tools to act..."* (PA1), *"helps us to deal with students, to deal with colleagues"* (PA1), *"gives us tools to deal with students and people in a different way"* (PA1), *helped me a lot (...)* (PA8), *"... we start applying right away. We started applying right away..."* (PA6), *"We liked it so much that we decided to bring it here. It was an added value"* (PA9);
- 2) continuous application of the techniques: *"Currently I am still trying to put this training into practice..."* (PA2), *"is still very present"* (PA8);
- 3) the possibility of working on concrete situations in the classroom and in the various school spaces: *"... continues to serve as a motto to keep in mind in the classroom itself and in the playground, in the spaces where I meet the students"* (PA2);
- 4) positive appreciation that they made at the time of formation and now: *"for us to act not only in the short term but also in the long term"* (PA1), *"Today this formation continues to make a lot of sense"* (PA3), *"Today I continue to evaluate in exactly the same way"* (PA4), *"Now also positive"* (PA7), *"It was an added value and continues to be so"* (PA9);
- 5) confidence to act in problematic situations; *"it helped me a lot and gave me (...)* on the one hand more confidence, but on the other hand, an enormous responsibility" (PA3); *"although I am no longer as stuck as I was at the beginning and I ... not running away from the fundamental principles I have already arranged my own way of being and solving problems with them"* (PA3). In short, the professors interviewed evaluated the training in mediation as being very good/positive, both after its realization and in the present at the time of the interview, giving it a practical and useful vocation for the socio-professional context.

### 4.3. Teacher's performance with training in conflict mediation

As long as social interactions occur, conflicts may arise in which mediators may have to intervene. Thus, it was our attempt to understand the type of mediation that the teacher with mediation training performs at school. Three interviewees (PA1, PA2, PA3) shared that the teacher acts in the management of conflicts between the various actors of the school community, with predominance in situations of conflict between students:

*"In cases of mediation between students, student-student, between class-teacher, and between teacher-class. Therefore, basically between student-student and class-teacher. Between class-student, I know situations in which there is a rejection or discrimination to a student or a behavior that should not exist in the class towards a student, a behavior that should not exist between the class towards a teacher or between two students" (PA1). "(...) concrete situation of conflicts between students and very few between students and teachers, but it is more between student-student..." (PA2). "Almost always among students, but I've also acted in a student-employee and student teacher situation, but less" (PA3).*

Mediation between students is not confined to the office space, where formal mediation is done. Two respondents (PA5 and PA7) reported that they performed informal mediation in other spaces, such as during breaks and in the classroom:

*"With my classes, with other students that in the breaks I realize that something is not going well, or they also bring situations from other classes" (PA7). "With situations already booked here in the office or with informal mediations in the recesses and breaks. When I see a less pleasant situation" (PA5).*

The analysis of the data showed that teachers practice conflict mediation in various contexts and in various interpersonal dynamics. The teachers favor mutual listening and cooperation, prostituting a symbolic space for non-violent communication and the construction of shared understandings. As Quinquiolo (2017) says, the mediating teacher must build a favorable means for students to recognize and understand problem situations and to act to resolve them.

The nine interviewees (n=9) also shared the opinion that the role of the mediating teacher in the office helps to improve the school climate, in several aspects:

- 1) the very existence of the mediation office, which demonstrates a commitment to a culture of peace: *"It helps to improve the school in two fields, in the perception that the students have as a school culture ... they know that there is a space that has the door open for those more fragile students ... On the other hand, the aggressors themselves the kids who have / live these conflicts, ... also know that they have a space that if they are interested, ... will work more as a way to help them resolve some postures and some relationships ... essentially that, that they have a space where they will not be punished, but that helps them to be better kids, better citizens ..." (PA2);*
- 2) the collaborative and non-violent methodology of managing interpersonal relationships and conflicts that is implemented at school: *"...it helps a lot because the kids when they come here know that it is a space where they are at ease to say what they feel, they are not punished, ...they are listened to...they are at ease to tell the truth..." (PA5). "It helps straight away because it makes it possible to resolve situations in a more consensual way for everyone" (PA6). "It helps to improve because it helps students to think of an alternative to the violent resolution of all problems..." (PA3);*
- 3) the teamwork and the good interaction that is intended to spread from the conflict mediation office: *"the office, when it works, creates some relationship both between the team and between the students themselves. Most of the cases will end up ... solving themselves successfully. So, when things are successful, they become easier. I think mediation is facilitating" (PA6).*

The existence of teachers trained in mediation, whether or not inserted in mediation offices, allowed us to verify, in agreement with Martins et al (2016, p. 586), that and the interpersonal relationship in the educational community "has undergone positive changes". As in another study on teacher training in conflict mediation by Pinto da Costa e Sá (2019), it is confirmed that teachers apply conflict mediation from pre-school to high school, enabling the educator/teacher to assume a central socio-educational role in school coexistence.

## 5. CONCLUSION

The school institution has been undergoing changes in order to follow the evolution of society. The human heterogeneity, competitive along with great technological and digital transformations, also present in schools, demands from teacher's knowledge and professional skills that the initial training has not provided them (Ribeiro, 2017). However, there are skills that can only be acquired in a working context through "professional socialization" (Canário, 2006), either through the experience of everyday school life or through continuing training focused on concrete issues. The continuous professionalization of teachers is justified not only by the need for updating, improvement and innovation, but also by the very nature of the education system which has been undergoing successive changes to meet societal challenges. Thus, the training of teachers should take into account the problems of contemporaneity and bet on competent professionalism capable of responding to the challenges of professional and personal daily life, as well as preparing autonomous citizens, critical, reflective, responsible and constructively intervening in society. In this perspective, we define as an objective of this study to understand the contribution of the continuous training of teachers in conflict mediation. Thus, the research carried out allowed us to recognize that:

- 1) the motivations of teachers to train in conflict mediation, highlighting the need to update knowledge and action strategies, since the public attending school is changing, and problems related to indiscipline arise more often. It was understood that teachers had as their main objective to acquire socio-educational skills to better deal with students and be better prepared to face the socio-educational challenges of school life.
- 2) continuous training in conflict mediation, theoretical and practical and preferably in context, constitutes an added value for teachers, who evaluated it positively, transporting the skills and abilities acquired to professional practice, maintaining a methodology of socio-educational intervention practicable after training, not only as a technique but also as a culture of dealing with school social interactions.
- 3) the teacher with a background in conflict mediation acts more frequently in student-student conflicts and, to a lesser extent, between student-teacher and class-teacher, including informal mediations during breaks. It is confirmed that continuous training in conflict mediation reinforces teachers' role in the socio-educational promotion of school coexistence. By acting in the management of interpersonal relations and conflicts, the teacher is exercising his mission as educator of young citizens living in society. In this context, the teacher assumes a new role - that of mediator. The school, and consequently the teacher, is faced with a wide-ranging action in which he must know how to intelligently combine the transmission of scientific knowledge with social learning. The adaptation and improvement of educational practice has become a necessity, if not a requirement, of the teacher inserted in a global society in constant change. To this extent, teacher training is a means of renewing skills that best enables them to work with all students according to their real possibilities. It is about better responding to the objectives of inclusive education and educational improvement.

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## THE ROLE OF IMPACT INVESTMENT IN SOCIAL ECONOMY - CASE STUDY OF IMPACT INVESTMENT EXCHANGE (IIX)

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### **ABSTRACT**

*We live in a time of extraordinary technological advancement that has generated new ways of living in society and new ways of transmitting knowledge. Nevertheless, society is far from generating widespread well-being, which is why social economy initiatives are vital in minimizing situations such as inequality, poverty, migration, etc. One of the great challenges of the social economy is to secure the necessary funding for the organizations and institutions in the sector. About a decade ago a new stream of economics emerged - the impact economy. This is an exploratory study on the relevance that the new investment mechanism - impact investment - can play in financing the social economy. In recent years, new views on the economy have created innovative instruments with the aim of maximizing the quality of life and the well-being of citizens and promoting the increasingly threatened environmental sustainability. This is where the impact economy - a mechanism designed to capture value through the combination of financial, social and environmental returns - falls into place. Funding sources are as relevant as the complexity and new challenges that the tertiary sector faces today and are essential to bridge the funding gap to achieve the United Nations Sustainable Development Goals (SGD) by 2030 and help the world combat irreversible consequences as reported by the OECD and the World Bank. Our study allowed to conclude that impact investment can be an alternative source of funds for organizations in the tertiary sector; it can effectively create a highly efficient impact thus benefiting a larger number of projects and people.*

**Keywords:** *Impact Economy, Impact Investment, Social Economy*

### **1. INTRODUCTION**

The pressure of classic economic growth, measured mainly by indexes such as GDP, has contributed to increase disposable income per person on one hand, but on the other hand, the almost exclusive focus on profit, has created serious social and environmental problems worldwide. In addition, the level that society has reached has not yet made it possible to eliminate social imbalances that over generations make it necessary for organizations to intervene to minimize all kinds of social needs of millions of citizens around the world, immediately assigning a vital role to the social economy. The global economy is a tightly interwoven ecosystem. In the private sector, the strategies are oriented towards the return on investment, while the public sector seeks, at least, a value for the money spent. In recent years, new views on the economy have created innovative instruments with the aim of maximizing the quality of life and the well-being of citizens and promoting the increasingly threatened environmental sustainability. This is where the impact economy - a mechanism designed to capture value through the combination of financial, social and environmental returns - falls into place. This work does not intend to make a conceptual comparison between the social economy and the impact economy; nor does it analyze all the traditional sources of financing of the social economy. Two perspectives were the starting point for the work: the effective difficulty of countless organizations in the tertiary sector in obtaining funding and the emergence of new instruments capable of generating funds oriented towards development and social causes. This exploratory study was carried out with the purpose of looking at the impact economy, in particular for its main instrument - impact investment, as a source of promotion of innovative



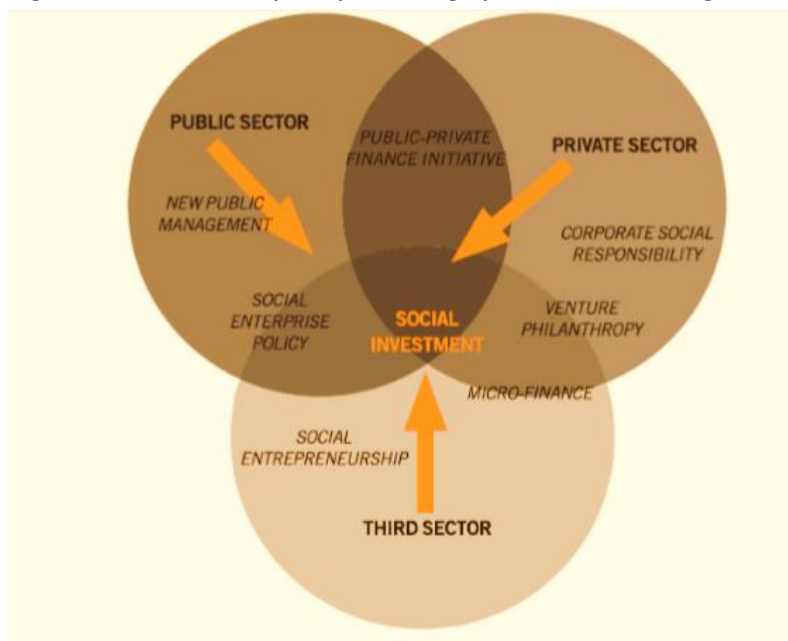
projects, but above all as a source of financing for social economy organizations. In terms of methodology, the work is based on reading according to the guidance proposed by Quivy and Campenhoudt: “to select a small number of readings and to organize themselves to get the most out of them” (Quivy & Campenhoudt, 1995, p. 51). Structurally, the work was organized as follows: in the next chapter, the second chapter, a brief approach to the social economy in terms of concepts and the challenges related to the financing of the sector's organizations. In the third chapter, the concepts of economy and impact investment are described, including origin and main characteristics. In the fourth chapter a brief case study is presented, describing the mission and amounts in real impact investment initiatives. In the last chapter, the fifth, the final considerations are presented. It should be noted that economics and impact investing are not recurrent themes in the academic environment, with limited literature available.

## **2. SOCIAL ECONOMY**

Terms such as social economy, tertiary sector, solidarity economy, alternative economy, non-profit, non-profit activity, voluntary sector, idealistic sector, etc. are increasingly used as synonyms. In particular, the terms social economy, tertiary sector and solidarity economy are often used at random and can take on different meanings in different geographies. As a terminology, it was decided to assume the one presented by Moulaert and Ailenei the social economy as a set of activities aimed at mobilizing the necessary resources not covered by profit-oriented institutions or by government institutions in their strictest sense, for the satisfaction human needs (Moulaert & Ailenei, 2005). The social economy can be defined in several ways and there is an ongoing debate about the content of some of these definitions as well as the scope of what should be considered. One definition is that the social economy includes organizations that are animated by the principle of reciprocity in pursuing mutual economic or social goals, usually through social control of capital. This definition would include cooperatives, credit unions, voluntary and non-profit organizations, charities and foundations, service associations, community businesses and social enterprises that use market mechanisms to achieve explicit social objectives. That is, it would include profit oriented companies, in which these companies share surpluses and benefits with members (and/or with the community in general) in a collective ownership structure (for example, a cooperative). This definition would not include non-profit and voluntary organizations that rely entirely on donations or grants (although some include such organizations in their definitions of the social economy). A similar definition describes the social economy as collectively owned companies (cooperatives, non-profit and mutual organizations) that use market-oriented production and the sale of goods or services to develop a social mission (Neamtan & Anderson, 2010). The social economy is essentially made up of voluntary, non-profit and cooperative sectors that are formally independent from the state. Its activities are aimed at achieving objectives that transcend the rules of the economic sector and, in this sense, “the social economy must logically be considered as a third sector” (Browne, 1997, p. 1). Still in terms of terminology, it should be noted that “non-profit sector and voluntary sector are designations used as synonyms for the tertiary sector” (Lorendahl, 1997, p. 76). The sector, therefore, presents itself as a field of action distinct from the private sector, whose objective is profit, and the State, however, should be defined and analyzed as it interrelates with these two. Currently the social economy represents a wide range of initiatives and organizational forms that generate what some authors define as a hybrid market (hybridization of the market) - given that the social economy “is not limited to the market but includes principles of redistribution and reciprocity” as argued by Laville (1994, p. 10) and Godbout (2000) cited by (Moulaert & Ailenei, 2005, p. 2044). However, development, initiatives, entrepreneurship, innovation and the markets themselves (including finance) evolve very quickly, as well as the intersection between them, creating greater complexity but also more opportunities.

Excluding from this analysis the role of very relevant actions such as corporate social responsibility or shared responsibility created mainly by business organizations (considered 'top down' - just outside the scope of the tertiary sector) whose impact is increasingly greater in the defense of social interests and of sustained development, it is understood that an inclusive vision of the social economy “must go beyond the problem of profit or non-profit” (Moulaert & Ailenei, 2005, p. 2046). This inclusive vision will be decisive in initiatives such as the United Nations Sustainable Development Goals (SDGs), for example. The SDGs represent the global priorities for the 2030 Agenda signed by more than 190 countries - they define global priorities and aspirations for 2030 and require action on a global scale by governments, companies and civil society to eradicate poverty and create a life with dignity and opportunities for all, within the limits of the planet. Both the OECD and the World Bank warn that there is much more that needs to be done to bridge the funding gap to achieve the Sustainable Development Goals by 2030 and help the world tackle irreversible consequences. An inclusive view of activities related to the social economy will also allow us to analyze how the new currents of business management that do not define profit as a priority in their development strategies and policies, but intend to put human and sustainability factors at the top of these policies can create new opportunities and dynamics in a sector with high global recognition. As Pereira points out, “the social economy has gained great recognition within the global economy, with the social investment market creating innovative dynamics” (Pereira, 2016). Global framework is favorable in the sense that classic economic growth is no longer the only or the primary instrument for measuring success and development both at the corporate and governmental levels through the growing relevance that indexes such as the Human Development Index (HDI) or the Gross National Happiness (GNH) - the latter assumes particular prominence in societies considered more developed like the Nordic countries. Social sector organizations have the ability to impact nations economically, environmentally and socially, solving the most sensitive problems through the supply of their innovative services and products. However, in order to present effective, efficient, innovative and quality services in response to their objectives, they need to have sufficient and sustainable funding (Sauti, 2019). Figure 1 represents the overview of the financing of social sector organizations:

*Figure 1: Overview of the financing of social sector organizations*



*Source: The Future of Funding for Social Enterprises. By Paul Chong (Harvard MBA Candidate) and Linda Kleemann (Kiel Institute for the World Economy)*

According to Nicholls social investment presents 3 types of challenges:

1. Being able to unlock investment from financial sources;
2. Developing support policies and infrastructure for the sector;
3. Broadening the skills of social enterprises (Nicholls, 2008).

At the same time, the sector also presents great opportunities for future development. According to the Monitor Institute 2009 report, despite the numerous challenges faced by the sector, there are a number of opportunities that allow for an optimistic perspective, namely (Monitor, 2009):

- a) Increased interest on the part of capital providers;
- b) Greater recognition of the need for effective solutions to social and environmental challenges;
- c) The constant record of successes obtained with new instruments so far;
- d) A set of new talents interested in the sector;
- e) Creation of new sources of financing for social businesses.

These five opportunities represent, according to Chong and Kleeman (2001) good reasons to be optimistic about the future financing of social organizations (Chong & Kleemann, 2011, p. 8). At the same time that profit oriented investments aimed at generating social and environmental good are being transferred from activist investors to the core of the main financial institutions (Monitor, 2009). In short, it is important to highlight, on the one hand, the inclusive view of the social economy and, on the other hand, the real need for the social economy to find new forms of financing.

### **3. IMPACT ECONOMY AND IMPACT INVESTMENT**

Impact economics is directly related to the concepts of development (not just economic development) and sustainability (social and environmental). Despite being implemented worldwide by several entities and having the support of reference organizations such as the United Nations Organization (UN), the World Economic Forum (WEF) or the World Bank (World Bank) the impact economy is still relatively unknown. In order to better understand the context in which the impact economy emerges, it is important to go back a little in time and review some historical landmarks, understand the main characteristics as well as the perspectives of several specialists. The Industrial Revolution is considered one of the most important developments in human history; the transition from an agricultural economy to an industrial economy radically changed the way people lived and worked, created new markets, created organic demand and provided exponential growth. That is why industrialization is considered to have triggered the first consistent and sustained increase in the average standard of living. From the perspective of Kaplan, Serafeim and Tugendhat, for example, since World War II, global corporations and market-driven capitalism have reduced overall poverty rates considerably (Kaplan, Serafeim, & Tugendhat, 2018). However, this development was not uniform and had also many negative consequences. Later, in the course of the 20th century, according to several sources, including the World Bank, the World Economic Forum and the OECD, the increasing efficiency of manufacturing processes led to a shift from an industrial economy to an economy of services - that is, an increasing number of people started to work providing services instead of creating a product. In recent decades, technological advances, particularly in technology and information technology, have created a knowledge economy that capitalizes on the intellectual production of the employees. Since the beginning of this millennium, globalization has taken on unprecedented significance, increasing the interdependence of global economies. Multinational companies exist in greater quantity than at any other time in history. International cooperation facilitates the increase in the movement of people, goods and services across borders, according to information collected on the websites

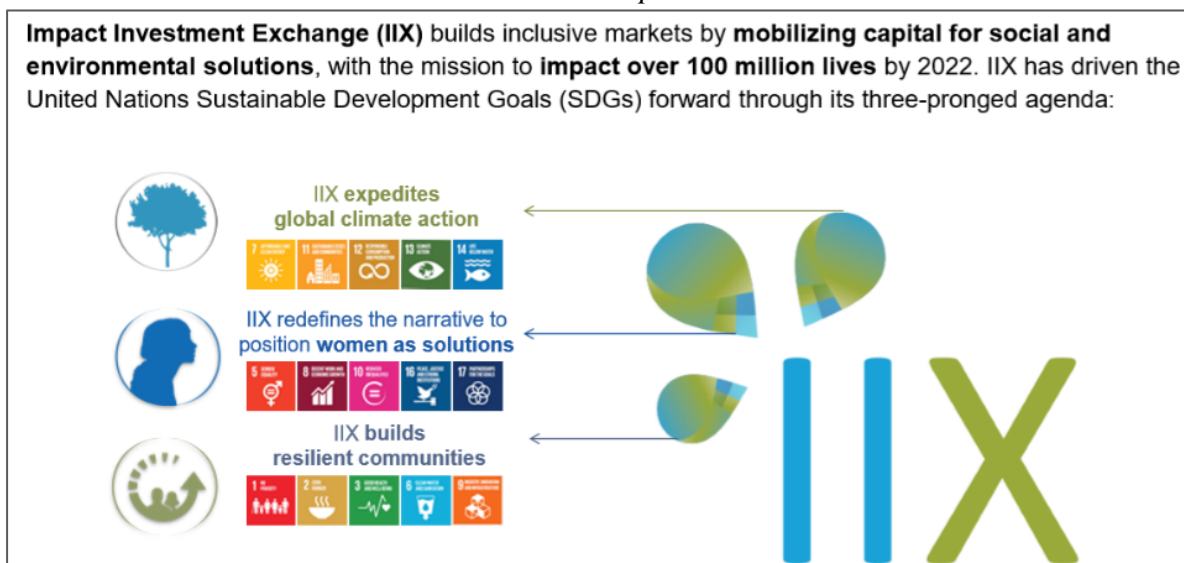
of various United Nations departments, on globalization, cooperation and migration. Alongside cooperation, international communication, thanks to the growing access to the internet, has never been easier or cheaper, which is one of the reasons why it can be said that the current era is also an era of increasing “media visibility” (Ratton Ferreira, 2006, p. 75). The evolutionary vision presented is important because it allows us to understand the environment that gave rise to the impact economy. It should also be noted that, like “institutional development”, as defended by Chang, there is no formula that countries can “import and apply directly to promote their economic development, however, in the impact economy, despite its complexity, its guidelines, respective application and measurement tools are well defined” (Chang, 2007, p. 13). The impact economy is, therefore, a highly integrated ecosystem of important actors focused on radically and fundamentally redefining sustainable value in various interest groups. An impact economy is, “a very different type of system than a traditional capitalist economy that prioritizes only financial returns. In impact economy, consumers and shareholders challenge entrepreneurs and executives to show that they generate their profits in a way that contributes to the public good” (Martin, 2013, pp. 3-6). According to Fine, Pandit, Hickson, & Tuinenburg, “this approach to doing business is already being implemented by some organizations at various levels - in the strategic choice, in the management of their supply chains, in the allocation of funds for investments (...). But, we have yet to see it embraced comprehensively by entire industries or national economies. Thus, we determine the main dimensions of a complete impact economy, the implementation of investment, the management of assets, the delivery of solutions, measurement and reporting” (Fine, Pandit, Hickson, & Tuinenburg, 2018, p. 5). In the impact economy, organizations fully leverage partnerships between the public and private sectors and civil society in a total market approach aimed at optimizing results (Martin, 2013). According to Martin's perspective, everyone is involved in creating value. Where this value creation intersects - which happens, frequently and significantly - all parties can bring their resources and capabilities to support the creation of that value (Martin, 2013). On the other hand, it should be noted that in the impact economy, organizations go beyond Corporate Social Responsibility (CSR) to create the so-called Corporate Shared Value (CSV); shared value is a concept developed and explained by Michael E. Porter and Mark R. Kramer. These authors consider that CSR is accessory and according to them the shared value “can be defined as policies and operational practices that increase the competitiveness of a company, while trying to improve the economic and social conditions of the communities in which it operates. Creating shared value focuses on identifying and expanding the connections between social and economic progress. The concept is based on the premise that both economic and social progress must be addressed using principles of value. Value is defined as cost-related benefits and not just benefits” (Porter & Kramer, 2011, p. 6). Furthermore, a fundamental difference between economic impact organizations and their predecessors is the timeline in which they “measure the creation of value” (Fine, Pandit, Hickson, & Tuinenburg, 2018, p. 10) given that traditional financial markets promote environments in which a company's short-term financial performance is increasingly important, often forcing long-term concerns, financial or otherwise to lag behind. However, it can be said that the new initiatives are not exclusively altruistic. They are motivated by profit improvement, like any other commercial decision, because that is what makes them scalable and sustainable, but they arise mainly because “new solutions are essential for society, especially due to the lack of traditional resources” (Acevedo & Wu, 2018). Since the concept of impact investment was introduced in 2007, the field of impact investment has grown and diversified in a notable way” (Fine, Pandit, Hickson, & Tuinenburg, 2018, p. 4). Although some of the fundamental ideas and practices for impact investing and social entrepreneurship originated some decades ago, it was in 2007 that a group of Foundations and investors brought together by the Rockefeller Foundation launched the term “impact investment”, which was later defined as “investment

designed to create a positive impact beyond financial return" (Fine, Pandit, Hickson, & Tuinenburg, 2018). As such, they require management of social and environmental performance, in addition to financial risk and return, as already pointed out. The authors associated with the creation of the Brandenburg concept, Bugg-Levine, Leijonhufvud, O'Donohoe and Saltuk, say that they distinguish impact investments "as a more mature field of socially responsible investments (SRI), which generally seek to minimize the negative impact on rather than proactively creating positive social or environmental benefits" (Brandenburg, Bugg-Levine, Leijonhufvud, O'Donohoe, & Saltuk, 2010, p. 5). Currently, impact investing is considered to be related to "investments that intend to generate measurable social and / or environmental impacts, as well as a financial return. It is often described as doing well while doing good and is part of a broader strategy to transfer funding to more sustainable projects" (Commission E. , 2016, p. 3). In addition, impact investments, as defined by the Global Impact Investment Network (GIIN), are "investments made with the intention of generating a positive and measurable social and environmental impact in parallel with a financial return (Dallmann, 2018). Over the past decade, efforts have been made to build a formal global impact investing industry. Impact investments take several forms, including instruments common to those in traditional financial markets: equity and debt, guarantees or deposits are all examples of commonly used investment instruments. As Jackson points out, market infrastructures, networks, platforms and methods were created to invest, to manage and to measure social impacts (Jackson, 2013). In this regard, academic research has been providing empirical evidence that impact investing has been successfully implemented in a wide variety of ways (Ormiston, Charlton, Donald, & Seymour, 2015) demonstrating that "government institutions, such as the European Union Commission and the G8 Countries led by the United Kingdom, showed their support for impact investment "(Acevedo & Wu, 2018, p. 87). However, in the philosophical debate, as stated by Drexler & Noble about "the 'label' of impact investment and whether something qualifies as an impact investment is equally important, but it should not prevent the involvement of investors" (Drexler & Noble, 2014, p. 9). For these authors, the 'formal labels' and delimitation of the concept are not concrete outlines of what is "inside" and what is "outside" when it comes to investing with impact. In this perspective, "if we consider that all approaches within the universe of sustainable and responsible investments have merit and can have a positive impact, then the experience in any of these approaches can be a ramp for future additional engagements with other approaches in sustainability and responsibility" (Drexler & Noble, 2014, p. 9). In practical terms, impact investment moves billions of euros. In this sense and in the sense of global sustainable development, it is admitted that impact investment continues to grow, in fact, as advocated by Dallman, "impact investment is here to stay and grow exponentially over the next decade and beyond. It is simple, our future depends on it and people are finally understanding it" (Dallmann, 2018). To this end, it is believed that the role of global leaders will be decisive in raising awareness among individuals and those responsible for public and private organizations for the urgency of investing with a positive impact for society and for the protection of the planet.

#### **4. CASE STUDY - IMPACT INVESTMENT EXCHANGE (IIX)**

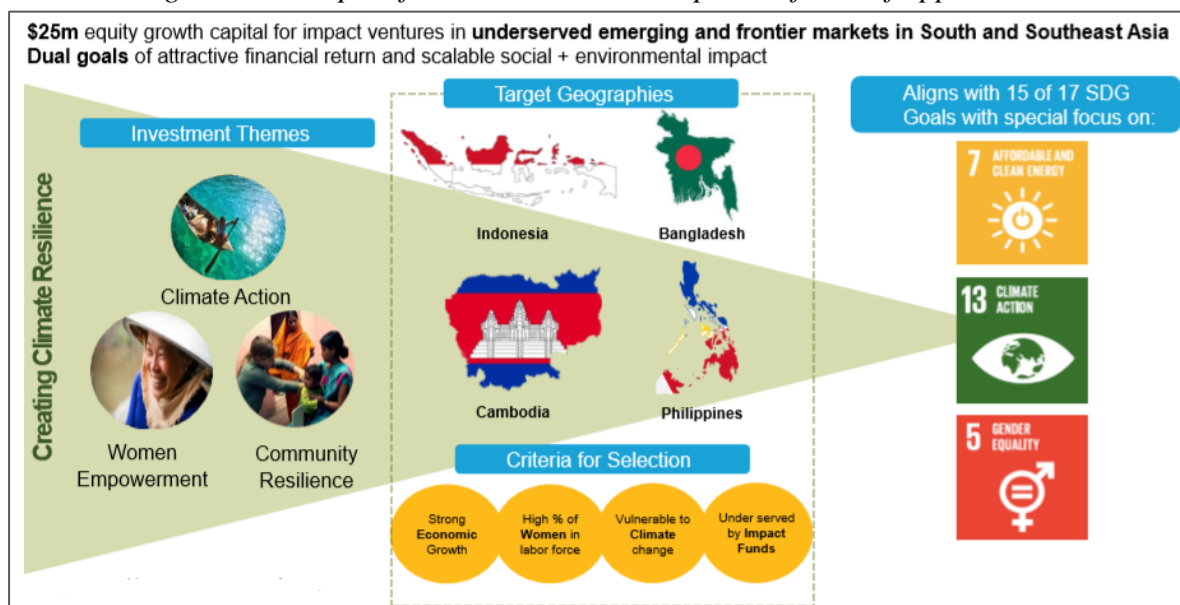
This brief case study aims above all to highlight the ability of financial organizations to mobilize capital to create social and environmental solutions. The example gives particular relevance to the Sustainable Development Goals (SDGs). Impact Investment Exchange was founded by Ms. Durreen Shahnaz, an entrepreneur and co-creator of the first social stock exchange. The organization's mission is to create a positive impact on the lives of 100 million people by 2022 (Kraybill, 2018). The data presented in figures 2, 3 and 4 describe the mission, organizations and demonstrate the involvement of global stakeholders, the enormous amounts invested in these initiatives and the merit inherent in them.

*Figure 2: Impact Investment Exchange (IIX) and involvement in the United Nations Sustainable Development Goals*



*Source: (Kraybill, 2018)*

*Figure 3: Example of Growth Fund and respective fields of application*



*Source: (Kraybill, 2018)*

*Figure following on the next page*



*Figure 4: Innovative Bonds for Sustainability*

Source: (Kraybill, 2018)

The data and the particular emphasis on the impact on people's lives, allow to infer that the use of this mechanism as an alternative source of financing for organizations in the tertiary sector can effectively create a highly efficient impact and is capable of benefiting a large number of people.

## 5. CONCLUSIONS

Based on the effective needs of many organizations in the tertiary sector to be able to sustainably finance their initiatives, which are fundamental to minimize the suffering of many human beings, protect the environment, etc. we tried to understand the framework of these organizations. The social economy has a major role in society. What was intended to be highlighted in this exploratory study was the growing intersection between the various sectors of the economy and that new tools of financing activities previously considered purely belonging to the tertiary sector should not be neglected now. Funding sources are as relevant as the complexity and new challenges facing the tertiary sector today and equally necessary to bridge the funding gap to achieve the Sustainable Development Goals (SGD) by 2030 and help the world tackle irreversible consequences, as reported by the OECD and the World Bank. The evolution of the paradigm that has been gradually taking place in the capitalist world, orienting investment towards assets that generate financial results, but above all have a social impact (positive), this being the basic characteristic of the impact economy, is in our point of view, a highly positive and until now an unparalleled opportunity for social organizations. Objectively, the fact that impact investing is aimed at profit is not neglected, but it is also relevant that this is not its main objective, with the prospect that this tool can become a positive feature of strategic business management. A more sophisticated and mature investment market, as referred by Fine, Pandit, Hickson, & Tuinenburg will emerge through the work of incubators, accelerators, universities, public-private cooperation, as well as partnerships between traditional investors and impact investors. When that future arrives, investors who have taken the time and effort to chart their own course in impact investments with the investment strategies, organizational capabilities and involvement in ecosystems best suited to their institution will have a competitive advantage in the market (Fine, Pandit, Hickson, & Tuinenburg, 2018). Given the extent of the world's social and environmental challenges, a major increase in the scale and reach of the impact economy is also urgently needed. Investors, entrepreneurs, governments and other stakeholders will need to overcome their own practical

constraints and be prepared to take on new roles. These individual efforts will be complicated by the dynamics of convincing multiple stakeholders to agree to the changes that must occur and compelling them to work together, rather than looking for individual agendas. None of this will be easy, but as the impact economy matures, it will bring new rewards for stakeholders, while increasing the well-being of people around the world (Fine, Pandit, Hickson, & Tuinenburg, 2018). The brief case study of the Impact Investment Exchange, proves exactly the larger number of people who can benefit from the initiatives launched under the impact investment formula. Not excluding the profit factor, the mission of these organizations is to create a positive social and/or environmental impact. As a result of this preliminary work, it is understood that at the academic level is important to deepen the study of the sustainability of the tertiary sector in its current parameters. It is also understood that it makes sense to study the most relevant organizations and their respective impact investment initiatives.

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## ENSURING CRITICAL INFRASTRUCTURE OPERATIONAL CONTINUITY

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### ABSTRACT

*Critical infrastructure means elements or systems of state infrastructure elements such as selected the most important organizations and institutions, facilities, transmission systems, equipment, services and ICT systems whose disruption or destruction due to risk factor will endanger or disrupt the political and economic operation of the state or life and health of the population. The failure of critical infrastructure elements can lead to emergencies or even crisis situations in society. Therefore, attention in the developed countries of the world focuses on the protection of the critical infrastructure elements which provides the functionality, integrity and continuity of the element's activities with the aim to prevent, avoid or mitigate the threat of disruption or destruction. The paper is dealing with the issue of ensuring the operational continuity of critical infrastructure, especially in terms of its protection, which in Slovakia must be ensured in the first place by the critical infrastructure operators in cooperation with the state administration authorities. It presents the obligations of critical infrastructure operators in the Slovak Republic with a specific focus on the electricity sub-sector, identifies risks to the supply of electricity, as well as the consequences of disruption of these supplies. Finally, it presents a proposal of specific binding measures for subjects of critical infrastructure protection in the Slovak Republic which are not yet defined in current legislation. These measures include also the elaboration of a Business Continuity Plan which should consider alternatives in terms of organizing the company's core operational processes in the event of a failure of critical operational segments as well as critical segments of suppliers and service providers. At the same time, the above mentioned measures contribute to reducing the vulnerability of the society due to the failure of important systems and services in the electricity sector.*

**Keywords:** *Critical infrastructure, Energy, Operational continuity, Society, Vulnerability*

### 1. INTRODUCTION

In today's modern age, the term critical infrastructure is relatively new but the systems and services necessary for people's lives have existed for centuries. Critical infrastructure (CI) has played an important role long-ago. Its protection has been dealt with by the ancient civilizations. Critical infrastructure means elements or systems of state infrastructure elements such as selected major organizations and institutions, facilities, transmission systems, equipment, services and ICT systems whose destruction or deterioration due to risk factor will endanger or disrupt the political and economic run of the state or life and health of the population (MISR, 2008). Based on current security risks in developed countries of the world as well as on the aspects of globalization, critical infrastructure in these countries is vulnerable as it consists of a system with a number of elements that are interconnected horizontally and vertically and, at the same time, there are close links to infrastructure of other countries. Typical examples are the electricity network, gas pipelines, road network, etc. The failure or destruction of some elements of the infrastructure can have negative consequences beyond the state where the event

occurred (Rehak et al, 2016). The Slovak Republic is one of the developed countries. This results in a high dependence on technology and energy supply. There are risks of malicious threats to the security of critical infrastructure objects such as crime and terrorism, as well as a range of accidental risks, including extreme weather, fires, industrial and traffic accidents, technical failures, organizational deficiencies, new disease mutations. In order to prevent disruption or failure of critical infrastructure, a system of protection and defence has been created in Slovakia, where the subjects of protection and defence of critical infrastructure are (MISR, 2008):

- government, public administration,
- territorial units, self-government,
- state operators,
- private operators.
- international partners, international organizations.

In the Slovak Republic primary and definite responsibility for CI protection bear state administration bodies in the field of critical infrastructure and the owners/operators of this infrastructure.

## **2. SECTORS AND ELEMENTS OF CRITICAL INFRASTRUCTURE, OBLIGATIONS OF OPERATORS**

Protection of CI is one of the priorities of ensuring the security of the Slovak Republic. Effective and efficient protection of CI elements requires their identification which enables the responsible authorities to ensure the functionality, integrity and continuity of the activities of CI elements and thus the functional continuity of the society. The method of their identification is given in the Act no. 45/2011 Coll. on Critical Infrastructure, based on the sectoral and cross-cutting criteria defined by the EU Council Directive 2008/114/EC of 8 December 2008 on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection. Sectoral criteria shall be determined according to the characteristics of the relevant sector. Cross-cutting criteria shall be determined according to the expected (Act no. 45/2011 Coll.):

- a) Number of vulnerable persons, including killed and injured persons.
- b) Economic impact which is the range of economic losses, deterioration in the quality of goods, deterioration in the quality of service provision in public interest, negative impact on the environment.
- c) Impact on the population which is deterioration in the quality of life of the population in terms of severity of failure in the supply of goods and the time of recovery, severity of failure in the provision of services in the public interest and time of recovery, availability of substitutes of supplies, availability of substitutes in the provision of services in the publicly interest.

Considering that the above mentioned criteria are classified in the Slovak Republic, we can only assume which facilities and entities are included among the elements of CI in Slovakia. An overview of individual CI sectors in Slovakia and examples of assumed elements is given in Table 1.

*Table following on the next page*

*Table 1: CI sectors in Slovakia and examples of expected CI elements*

<b>SECTOR CI</b>	<b>ELEMENTS WITHIN THE SECTOR</b>
<b>TRANSPORT</b>	Highways, major bridges, tunnels, railway junctions, fuel storages, airports, technical equipment.
<b>ELECTRONIC COMMUNICATIONS</b>	Networks and services of fixed electronic communications and mobile electronic communications, satellite communications.
<b>ENERGY</b>	Production, transmission and distribution of electricity, oil and gas transmission facilities, oil and gas storage facilities.
<b>POST</b>	Technological and technical complexes of postal services.
<b>INDUSTRY</b>	Enterprises in the chemical, metallurgical and pharmaceutical industries.
<b>INFORMATION AND COMMUNICATION TECHNOLOGY</b>	Information systems and networks, buildings, servers, data.
<b>WATER AND AIR</b>	Significant water structures, facilities for quality monitoring and distribution of drinking water.
<b>HEALTH</b>	Public Health Offices, Emergency Medical Operations Centres, National Transfusion Service.
<b>FINANCE</b>	Banking and financial market facilities.

*Source: Authors*

The basic obligations of CI operators in the SR as well as sanctions for breach of these obligations are defined in the above-mentioned Act no. 45/2011 Coll. on Critical Infrastructure. To achieve an adequate level of protection, operators shall take all measures necessary to protect the CI element, thereby guaranteeing the functionality, integrity and continuity of the CI element and in order to prevent, avert or mitigate the threat of disruption or destruction thereof. Significant aspects in relation to the operator's obligations include:

- Development and updating of the operator's security (OSP).
- Exercise according to the security plan at least every three years a model situation of threat of damage or destruction of the element.
- Providing the required information to the relevant bodies.
- Identification of the authorized person who is also the contact person for the European Critical Infrastructure element.

### **3. RISKS AND IMPACTS OF ELECTRICITY SUPPLY INTERRUPTION**

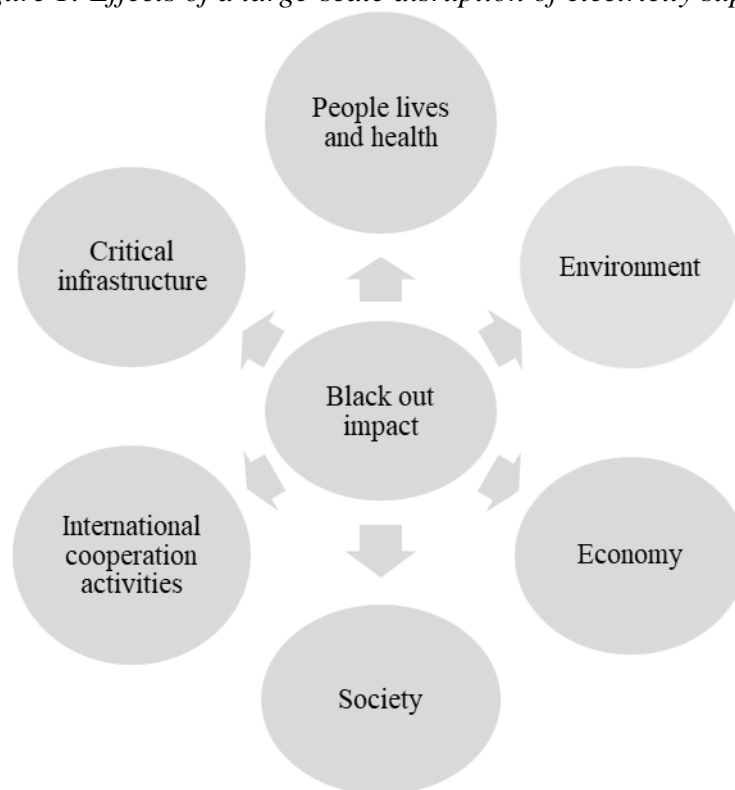
Today's advanced society is fully dependent on a reliable electricity supply. Disruption of electricity supply is one of the most serious threats to today's society. A long-term blackout in a large area would mean a disaster and a gradual collapse of the whole society in the affected area. The risks of the threat of disruption or destruction of individual critical infrastructure equipment are classified in the literature according to different aspects, e.g. external and internal, natural and social, intentional and random, etc. (Hudakova et al, 2018), (Nedeliakova et al, 2016). Bompard et. al. (2013) distinguishes four categories of threats: natural, accidental, malicious and emerging. Based on the acquired knowledge, the basic classification of the risks to a reliable electricity supply can include two categories:

1. Risks of intentional attack.
2. Accidental security and safety risks.

The source of intentional attack is a purposefully acting person, the motive of such act may be political or political-military, ideological, economic, personal. This is particularly the case for criminal activity and terrorism. Accidental security and safety risks include in particular occupational health and safety-related risks, industrial accidents, personnel security risks,

environmental risks, health disasters (epidemic, pandemic, famine), fire and other accidents, natural disasters, premises security risks. In the event of a disruption of large-scale electricity supplies, the impact on society will be seen in all areas of state functioning (see Figure 1).

*Figure 1: Effects of a large-scale disruption of electricity supply*



*Source: Authors*

#### **4. BACKGROUND FOR ENSURING ELECTRICITY SECURITY IN SLOVAKIA**

The main state body for the policy of electricity supply security in the Slovak Republic is the Ministry of Economy of the Slovak Republic. Important strategic documents dealing with the issue of energy security in Slovakia are:

- Energy Security Strategy of the Slovak Republic.
- Energy Policy of the Slovak Republic.
- Integrated National Energy and Climate Plan for 2021-2030.

The Energy Security Strategy of the Slovak Republic, with a view to 2030, was adopted in 2008. Energy security is understood as a reliable energy supply, ensuring access to energy sources and fuels in the required quantity and quality at fair prices. This strategy analyses the current state of energy security in the Slovak Republic and proposes a set of measures aimed at increasing it. Energy security is described in terms of security of electricity, heat, coal, oil and gas supply (MESR, 2008). In 2014, the Slovak Government approved the Energy Policy of the Slovak Republic which sets out the main objectives and priorities of the energy sector by 2035 with a view to 2050. The main objective is to ensure reliability and stability of energy supplies, efficient use of energy at optimal cost and ensuring environmental protection (MESR, 2014). Integrated National Energy and Climate Plan for 2021-2030 was approved in 2019 and developed under Regulation (EC) No. 1818/2003 on the management of the Energy Union and climate action. The issue of energy security is addressed here in terms of national objectives and targets, policies and measures and the current situation and projections based on existing policies and measures (MESR, 2019).

#### 4.1. Legal standards

Currently, the obligations and responsibilities in the area of ensuring the security of energy supply in the Slovak Republic are set out in Act No. 251/2012 Coll. on Energy. Obligations and responsibilities in the area of ensuring the security and protection of CI objects in the energy sector are laid down in Act No. 45/2011 Coll. on Critical Infrastructure. In accordance with § 88 of the Act on Energy, the Ministry of Economy ensures monitoring of compliance with the security of electricity supply, determines the application of measures to ensure the security of electricity supply if the security and reliability of the electricity system is threatened. On the basis of this monitoring, a Report on the results of monitoring the security of electricity supply is prepared annually (Act No. 251/2012 Coll. on Energy, 2012). National procedures aimed at the prevention and management of emergency situations are included in the Act No. 251/2012 Coll. on Energy and in the Decree of the Ministry of Economy of the Slovak Republic no. 416/2012 Coll. laying down the details of the emergency procedure in the field of electricity and the gas crisis (MESR, 2012). Decree of the Ministry of Economy of the Slovak Republic No. 80/2019 Coll., which from 1 April 2019 amends Decree No. 416/2012 Coll., reflects, inter alia, the requirements of Commission Regulation (EU) 2017/2196 of 24 November 2017 laying down the network code on emergency situations and the restoration of operations in the electricity sector (MESR, 2019), (EC, 2017). ENTSO-E Operation Handbook RG CE, especially Policy 5 – Emergency Operations establishes the reference rules for the operation of the system by the national transmission system operator Slovenská elektrizačná prenosová sústava, a. s. (SEPS) (ENTSO-E, 2010). The national transmission system operator (SEPS) shall have measures in place to deal with or prevent emergency situations. The SEPS has a defence plan in place to prevent the occurrence of serious failures, measures for emergency changes in frequency and voltage, as well as a plan to restore the system after a full or partial no-voltage condition (the so-called blackout status). The issue of safety, security and reliability is given high attention by the SEPS. To ensure this, the following measures are carried out within the electricity system of the Slovak republic (MESR, 2019):

- preventive measures - analysis of the results of calculations of network operation and calculations of short-circuit ratios, setting of protections, optimization of the tripping plan, regular maintenance of transmission equipment and processing of measures to deal with emergency situations. Furthermore, there are measures against the spread of major system failures and measures to eliminate the consequences after the emergence of major system failures (the so-called Defence Plan), measures in the field of preparation of operations and measures in the area of optimization of maintenance and development of transmission system,
- control measures - emergency assistance, interruption of work on transmission system facilities in coordination with distribution system operators, use of support services and system services, use of measures to deal with emergency situations, transmission system reconfiguration,
- technical measures - setting of protection, use of support services, effect of frequency characteristics and automatic voltage regulation.

In addition to the above-mentioned emergency and remedial measures, restrictive measures are laid down in the legislation:

- consumption reduction plan,
- emergency shutdown plan,
- frequency trip plan.

Current plans and procedures in the field of security of electricity supply will result from the implementation of Regulation (EU) 2019/941 of 5 June 2019 on risk preparedness in the

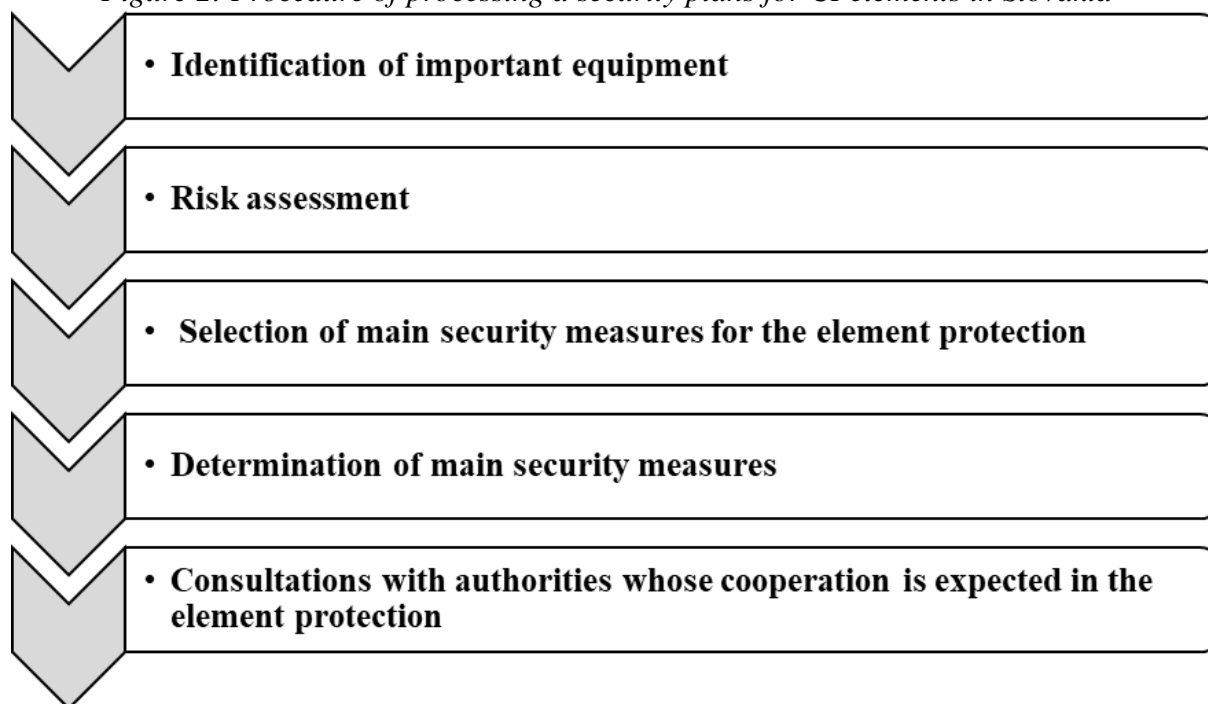
electricity sector and repealing Directive 2005/89/EC, including the obligation for the competent authority to prepare a preparedness plan on risks in consultation with stakeholders to ensure a common approach to crisis prevention and management (EC, 2019).

## 5. OPERATOR SECURITY PLANS

Part of the duties of CI operators in the Slovak Republic are security plans, the structure and minimum procedure of which is set out in Act No. 45/2011 Coll. The procedure of drawing up the security plan given by Act No. 45/2011 Coll. is shown in fig. No.2. When processing the security plan, the procedure shall be as follows (Act No. 45/2011 Coll.):

- A. Identification of important equipment.
- B. The risk of the threat of disruption or destruction of individual equipment of the element, their vulnerabilities, the anticipated consequences of their disruption or destruction on the functionality, integrity and continuity of the element are assessed.
- C. Main security measures for the protection of the element are selected and are divided into
  - a) Permanent security measures, which are investments and procedures to ensure the protection of the element, specifically
    1. Mechanical barriers,
    2. Technical security devices,
    3. Safety features of information systems,
    4. Organisational measures with emphasis on the procedure for notification and alerts, as well as crisis management,
    5. Specialized training of persons who ensure the protection of the element,
    6. Control measures for compliance with permanent security measures,
  - b) Special security measures that are to be applied depending on the intensity of the threat of disruption or destruction of the element.
- D. The main security measures for the protection of the element shall be determined.
- E. During its creation, the security plan is consulted with the authorities, whose cooperation is expected in the protection of the element.

*Figure 2: Procedure of processing a security plans for CI elements in Slovakia*



*Source: Authors*

From the above mentioned process of security plan elaboration follows that the protection of CI objects in the energy sector represents a certain way of risk management, i.e. the implementation of a set of coordinated and purposeful activities aimed at ensuring the required security of the CI object. This means that a system of protection is in place to prevent disruption or failure of a critical infrastructure element. This CI object protection system is understood to be an integrated set of real elements, activities, and processes, logically and functionally arranged to create a tool to ensure the security of CI objects at a given time and space. In terms of systemic approach, it can be considered as a synergistic system with target behaviour.

The required functions of the CI object protection system are:

- dissuade potential attackers from attacking a protected object,
- detection of violation of protected objects, areas and zones, or detection of a dangerous situation in the building, or. in its vicinity,
- slowing down the attacker's movement,
- response to violation of protected areas or zones, in order to prevent an attacker from accessing protected objects, areas or zones, or prevent him from actually endangering an object, its functions or persons in it (Hofreiter et al, 2013).

## 6. CONCLUSION

Act No. 45/2011 Coll. defines the obligations of CI operators. Organizational measures with an emphasis on notification and warning procedures as well as crisis management are very briefly mentioned in the development of the security plan. Just nowadays, when the coronavirus pandemic rages in the world, we are all aware that just these organizational measures are crucial to saving human lives and society as a whole, and that is why they need to be given great attention. Therefore, the above organizational measures should be elaborated in detail in the law and should include the following obligations:

1. Providing the necessary information to the crisis management authorities by individual critical infrastructure subjects - in order to manage the impact of an emergency or crisis on critical infrastructure, the relevant security authorities (crisis management authorities) must also have information on the facilities and measures taken or planned. These authorities must then incorporate the relevant scenarios into their own emergency plans and risk prevention plans.
2. Establishment of an operator CI crisis control centre - plans for internal measures should also be developed and updated in the event of an emergency. They include e.g.: telephone directory, identification of persons responsible for relevant measures, determination of procedures. This includes functioning crisis communication (in relation to warnings and information to the public, information to the media, communication with the relevant authorities, etc.). It includes the establishment of an operator CI control centre and space for the work of the crisis staff, including ensuring the conditions for its activities (communication, catering, accommodation, etc.). An important part of internal measures is formation of reserve teams for critical infrastructure operators in the electricity, gas and fuel supply sectors. It is imperative that they have a reserve team in case their key employees have to be in quarantine which we are facing these days. For example, it may be the case that workers directly operating a nuclear power plant or control centre of an electricity transmission will have to be in quarantine.
3. Elaboration of plans for elimination of failures and measures to ensure continuity of operation (Business Continuity Plans) – in order to maintain the operation of CI element as much as possible in the event of a crisis, business continuity plans for elimination of failures impacts and measures for operation continuity have to be prepared. Business continuity plans should take into account, in particular, proposals for alternatives for organizing the



CI element main operation processes in the event of a failure of the critical nodes of the CI element as well as the critical sectors of suppliers and service providers.

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## THE IMPORTANCE OF FINANCIAL STRUCTURE FOR THE PROFITABLE OPERATION OF A COMPANY

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### ABSTRACT

*Due to diverse business conditions, which are mainly generated by the environment, affected by adverse economic circumstances and frequent changes, companies are often faced with the scarcity of their own resources. Ensuring adequate sources of financing of its business development is a priority for every company; in other words, attention is drawn to the ability of a business to obtain appropriate funding. In order for a company to do business seamlessly, it is vital to secure optimal funds. Companies use funds to do core business, and we can even say that economic benefits are derived from company assets. The importance of the economic benefits the company obtains from the resources lies in the generation of revenue and expenditure as a consequence of doing business. The generation of revenue and expenditure leads to company business results. A positive financial result allows retention of a higher profit in the company while reducing debt. The company yields higher revenue than expenditure. In case of a negative financial result, the company fails to cover all expenditure due to insufficient collection of revenue. The aim of this paper is to research the relation between sources of financing companies use to do business and the business results of the company in the observed period. The conducted research covered a representative sample of companies in the business of trade. In order to examine and quantify the connection between variables of interest, an analysis of secondary data gathered from company financial reports published by the Financial Agency of the Republic of Croatia was conducted.*

**Keywords:** *debt, profitability, company, revenue and expenditure*

### 1. INTRODUCTION

The choice on the source of financing is termed the decision on the financial structure, a critical choice that has a significant impact on the performance of a company. A successful financing of a business leads to financial and economic benefits by reducing expenditure, that is, by increasing business efficiency. Due to diverse business conditions, which are mainly generated by the environment, companies are often faced with the scarcity of their own resources and, at times, with a very complex approach to external sources. In such conditions, companies are often not in the position to evaluate both alternatives and make choices regarding the financing of its development, and they are forced to accept the available one. It is important to select an option with acceptable availability deadlines that would not endanger solvency and profitability. Maturity should be aligned, that is, long-term assets should be equal to long-term maturities, and the same principle applies to short-term assets and maturities. A manager should make a decision on the desired ratio between short-term and long-term sources of financing, as well as on the size and structure of the sources of financing.

Misalignments may bring financial stability into question, which would consequently lead to insolvency. Long-term investments in material assets cause significant short-term cash outflows. The invested funds are immobilized into fixed assets in the long term. On the other hand, funds immobilized in the long term have slow returns into the exploitation of the project through amortization and net income. Asynchronicity between large financial outflows for investment in the present and minor inflows in the future can oftentimes lead to insolvency. Optimal solvency requires the company to be able to meet its liabilities within maturity period. Companies should utilize short-term sources of financing only to finance occasional current assets. Since long-term investments into material assets bind the funds in the long run, they should also be financed from long-terms sources. Companies should use the cheapest sources, and the credit period should match the money shortage period in order to avoid paying interest longer than necessary, thus endangering their profitability. A company's structure of capital, that is, the relation of internal and external capital, is visible in the report on the financial position of the company – the balance sheet.

## **2. LITERATURE REVIEW**

Financial structure, also known as capital structure, can be defined as the way a corporation finances its assets through some combination of equity and debt (Dare and Sola, 2010). However, it is appropriate to understand the concept of profitability, which is the most common measure of organizational growth and progress in terms of its efficiency and productivity. Profit maximization is a mandatory requirement for any business organization that wants to maintain its going concern status to the pleasure of its promoters, investors, and its management (Pandey, 2004). Eljelly (2004) noted that the management of a company's liquidity involves adequate planning and control of resources to meet the company's short-term obligations. Deloof (2003) argued that the financial structure of a firm is a determinant factor of its investment in current assets, which represents the resources used in day to day operations of the business entity. Smith and Begemann (1997) emphasized that the promoters of capital structure theory agreed that profitability and liquidity are the main goals of financial structure management. However, for a company to maximize these two goals, there is a need to be careful as attempts to pursue liquidity may affect profitability, and more emphasis on profitability can also affect liquidity (Uremadu and Efobi, 2012). In case of liquidity, a business enterprise is able to meet its short-term obligations, while profitability, on the other hand, is the ability to maximize the resources of a company above the break-even point. Managers of business entities sometimes experience difficulty in achieving the equilibrium point between liquidity and profitability in order to maximize the value of the firm. Since the 1950s, the debates on capital structure have gained noteworthy interest, and the idea was to find an optimal ratio between equity and debt that would minimize capital cost and maximize the companies' value (Zeitun and Tian 2007). Durand (1952) was the pioneer of this research, and his assumption could be maintained up to the point where the high debt level would determine the shareholders and the creditors to seek for higher returns, due to the increase of the insolvency risk. Using regression analysis, Roden and Lewellen (1995) found a positive relationship between profitability and total debt as a percentage of the total buyout-financing package in their study on leveraged buyout. Wald (1999) used the 1993 Worldscope data set to collect data on firms from approximately forty countries. The total sample size was over 3300 firms covered for the United States alone. Through regression analysis, Wald (1999) found a negative correlation between leverage and profitability. Chiang, Chan, and Hui (2002) collected data related to 18 developers and other 17 contractors from Hong Kong by using DataStream (an electronic financial database). Their empirical results found through regression analysis indicate that profitability and capital structure are interrelated. Abor (2005) took a sample of 22 firms listed on the Ghana Stock Exchange over a five-year period (1998-2002).

He found: i) a positive relationship between the ratio of short-term debt to total assets and return on equity, ii) a negative relationship between the ratio of long-term debt to total assets and return on equity, and iii) a positive association between the ratio of total debt to total assets and return on equity. In addition, he found a positive relationship between i) firm size and profitability and ii) sales growth and profitability. Mendell, Sydor, and Mishra (2006) conducted a cross-sectional study by using a sample of 20 forest industry firms traded on the US stock exchange for the years 1994-2003. Through regression analysis, they found a negative relationship between profitability and debt. Modigliani and Miller (1958) developed a theory of “capital structure irrelevance”, where they argued that financial leverage does not affect the firm’s market value with assumptions related to homogenous expectations, perfect capital markets, and no taxes. Sarkar and Zapatero (2003) found a positive relationship between leverage and profitability. Myers and Majluf (1984) found that firms that are profitable and generate high earnings are expected to use less debt capital comparing with equity than those that do not generate high earnings. Sheel (1994) showed that all leverage determinants factors studied, except firm size, were significant in explaining debt behavior variations. Using data from retailers in 14 European countries, which are grouped into 4 cultural clusters, Gleason et al. (2000) showed that capital structures for retailers vary by cultural clusters. This result holds in the presence of control variables. Using both financial and operational measures of performance, it is shown that capital structure influences financial performance, although not exclusively. A negative relationship between capital structure and performance suggests that agency issues may lead to use of higher than appropriate levels of debt in the capital structure, thereby producing lower performance. Graham (2000) integrated under firm-specific benefit functions to estimate that the capitalized tax benefit of debt equals 9.7% of firm value. A typical firm could double tax benefits by issuing debt until the marginal tax benefit begins to decline. It is inferred how aggressively a firm uses debt by observing the shape of its tax benefit function. Paradoxically, large, liquid, profitable firms with low expected distress costs use debt conservatively. Product market factors, growth options, low asset collateral, and planning for future expenditures lead to conservative debt usage. Conservative debt policy is persistent. Hennessy and Whited (2005) developed a dynamic trade-off model with endogenous choice of leverage, distributions, and real investment in the presence of a graduated corporate income tax, individual taxes on interest and corporate distributions, financial distress costs, and equity flotation costs. The study explained several empirical findings inconsistent with the static trade-off theory and showed that there is no target leverage ratio, firms can be savers or heavily levered, leverage is path dependent, leverage is decreasing in lagged liquidity, and leverage varies negatively with an external finance weighted average. Using estimates of structural parameters, they also found that simulated model moments match data moments. Chiang et al. (2002) results show that profitability and capital structure are interrelated; the study sample included 35 companies listed in Hong Kong. Raheman et al. (2007) found a significant capital structure effect on the profitability for non-financial firms listed on the Islamabad Stock Exchange. Mendell et al. (2006) investigated financing practices across firms in the forest products industry by studying the relationship between debt and taxes hypothesized in finance theory. In testing the theoretical relationship between taxes and capital structure for 20 publicly traded forest industry firms for the years 1994-2003, the study found a negative relationship between profitability and debt, a positive relationship between non-debt tax shields and debt, and a negative relationship between firm size and debt. Abor (2005) sought to investigate the relationship between capital structure and profitability of listed firms on the Ghana Stock Exchange and found a significantly positive relation between the ratio of short-term debt to total assets and ROE and negative relationship between the ratio of long-term debt to total assets and ROE. Gill et al. (2011) aimed to extend Abor’s (2005) findings regarding the effect of capital structure on profitability by examining the effect of capital structure on profitability of

the American service and manufacturing firms. A sample of 272 American firms listed on the New York Stock Exchange for a period of 3 years from 2005-2007 was selected. The correlations and regression analyses were used to estimate the functions relating to profitability (measured by return on equity) with measures of capital structure. Empirical results show a positive relationship between short-term debt to total assets and profitability and between total debt to total assets and profitability in the service industry. The findings of this paper also showed a positive relationship between short-term debt to total assets and profitability, long-term debt to total assets and profitability, and between total debt to total assets and profitability in the manufacturing industry.

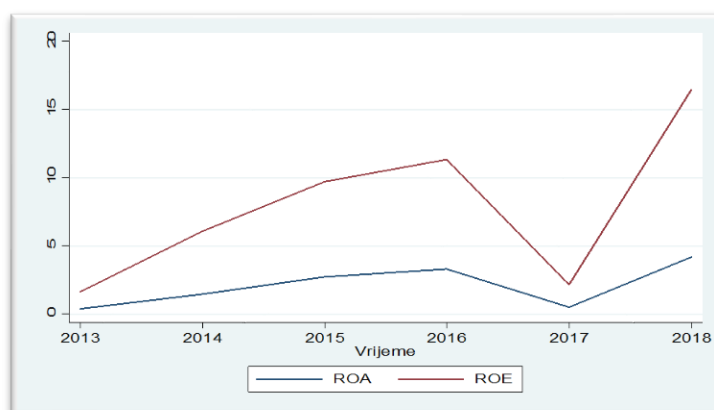
### 3. RESEARCH METHODOLOGY AND RESULTS

The research conducted covered a representative sample of wholesale and retail trade companies – repair of motor vehicles and motorcycles in the period of 2013-2018. The variables used in the research are the financial indicators calculated based on data from financial reports published by FINA, the Croatian Financial Agency. In order to answer the question how the financial structure affects the profitability of a business, multiple linear regression was used, in which the selected indicators of debt and liquidity were independent variables, whereas the selected indicators of the profitability of a business were dependent variables.

#### 3.1. Variables

The dependent variables are mostly used to gauge the success of a business: return on equity (ROE) and return on assets (ROA). An individual indicator that measures the ability of a company to obtain return on its own invested capital is called Return on Equity – ROE. It indicates a company's capacity to achieve the basic business goal – creating added value for company owners. Added value for a company is created by obtaining a positive business result, that is, a profitable business. Return on equity indicates to what extent the company was able to create a return on invested capital, in relative terms, in a single accounting period. The higher the indicator, the sooner the equity owners achieve a return on equity. A return on assets (ROA) indicates how much profit a company is able to make per a single unit of invested equity. Whereas the return on assets speaks to the ability of a company to create a satisfactory return on all sources of financing, the return on equity reflects the company's ability to achieve a return on its own sources of financing. Therefore, the return on assets on the one hand includes a return of internal sources of financing displayed as standalone through the indicator of the return of own equity, whereas on the other hand it includes returns on external sources of financing, which can also be called the average interest rate at which a company borrows funds.

*Figure 1: Graphical representation of ROAs and ROEs (2013-2018)*

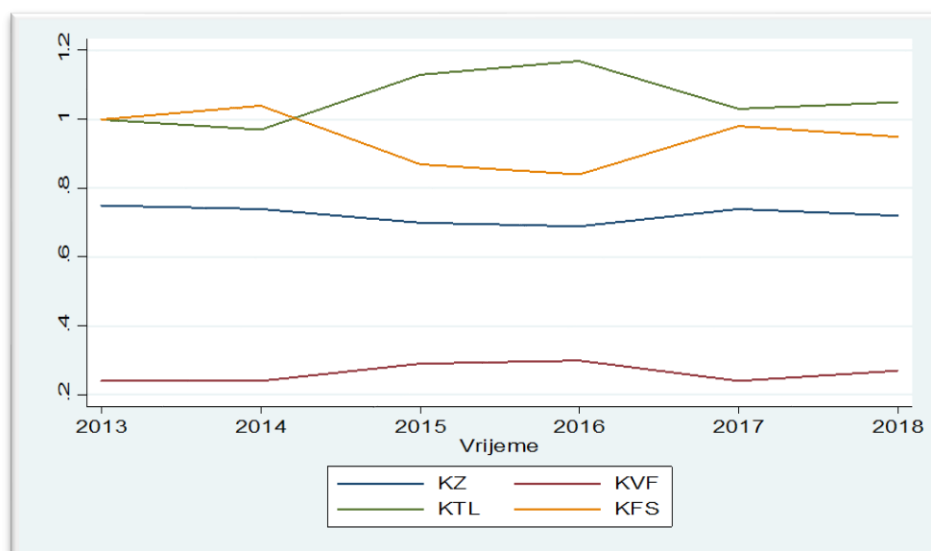


*Source: Created by the authors*

### 3.1.1. Independent variables

The basic analysis of the financial structure, that is the indebtedness of a company, starts with the comparison of internal and external sources of financing, which are shown on the liability side of the balance sheet. The debt ratio (KZ) shows to what extent a company uses debt as a form of financing assets. The higher the debt ratio, the higher the financial risk; the lower the debt ratio, the lower the financial risk. It is calculated by placing total liabilities (company debts) into relation with total assets. The internal borrowing coefficient (KVF) speaks to the extent to which the assets were financed by own equity. Total capital is placed into relation with total assets. The value of the coefficient should exceed 50 percent. In general, liquidity reflects the ability of the company to meet its current liabilities without significant loss of asset value or solvency issues. In practice, this means that companies always have to have sufficient liquidity resources at their disposal in order to tackle any unexpected events. However, the higher the liquidity of a company, the lower the share of invested funds to generate profit – and without profit, the company cannot survive. In this paper, the current liquidity coefficient (KTL) and the financial stability coefficient (KFS) were selected as independent variables.

*Figure 2: Graphical representation of financial structure indicators used in the analysis (2013 - 2018)*



*Source: Created by the author*

### 3.2. Research results

The analysis began with descriptive statistics, which, apart from the arithmetic mean and standard deviation of all variables, shows their minimum and maximum values. Table 1 gives an overview of descriptive statistical indicators for variables of interest, whereas Image 1 indicates a graphic display of timelines (first levels) used in the analysis. The average value of ROA within the observed period of six years (2013 – 2018) is 2.08% for the sample of wholesale and retail trade companies – repair of motor vehicles and motorcycles. The ROE indicator is at average value of 7.89% in the observed period, while the relatively high standard deviation of 5.74 confirms that this indicator varied from 1.61% to 16.49% in the observed period. Furthermore, the debt ratio (KZ) marks a range from 0.69 to 0.75 in the observed period, while its average value is 0.72. The current liquidity coefficient (KTL) averaged at 1.06 with a standard deviation of 0.08, while the financial stability coefficient (KFS) averaged at 0.95 in the observed period, which means that current assets were financed from long-term sources.

Table 1: Summary Statistics, using observations 2013-2018

Variable	Mean	Median	Minimum	Maximum
ROA	2.0817	2.0800	0.37000	4.1800
ROE	7.8933	7.8900	1.6100	16.490
KZ	0.72333	0.73000	0.69000	0.75000
KVF	0.26333	0.25500	0.24000	0.30000
KTL	1.0583	1.0400	0.97000	1.1700
KFS	0.94667	0.96500	0.84000	1.0400
Variable	Std. Dev.	C.V.	Skewness	Ex. Kurtosis
ROA	1.5569	0.74792	0.11332	-1.4955
ROE	5.7444	0.72775	0.27473	-1.1752
KZ	0.024221	0.033486	-0.33235	-1.4721
KVF	0.027325	0.10377	0.32692	-1.6205
KTL	0.077050	0.072803	0.40686	-1.2637
KFS	0.077374	0.081733	-0.31332	-1.3312

Source: Created by authors

### 3.3. Regression analysis

Two models of multiple linear regression will be analyzed by applying the Ordinary Least Squares Regression method. The aim of the analysis is to examine (to model) the main indicators of company financial structure, that is, their impact on the profitability of business with the common level of significance. The application of the Ordinary Least Squares Regression method yielded the following multiple linear regression model:

$$ROE_i = \beta_0 + \beta_1 lKVF_i + \beta_2 lKTL_i + \beta_3 lKFS_i + \beta_4 lKZ_i + \varepsilon_i \quad (1)$$

with ROE being the dependent variable representing return on equity, whereas the internal borrowing coefficient (*lKVF*), the financial stability coefficient (*lKFS*), and debt ratio (*lKZ*) are the independent variables. All independent variables were subjected to logarithmic calculation. The results of regression statistics are shown below:

Table 2: Model 1 - OLS, using observations 2013-2018 ( $T = 6$ )

Dependent variable: ROE

	Coefficient	Std. Error	t-ratio	p-value
Const	568.223	23.4289	24.25	0.0262
l_KVF	315.430	11.0279	28.60	0.0222
l_KTL	786.683	42.2330	18.63	0.0341
l_KFS	862.232	39.4282	21.87	0.0291
l_KZ	404.583	28.2766	14.31	0.0444

Mean dependent var	7.893333		S.D. dependent var	5.744356
Sum squared resid.	0.071208		S.E. of regression	0.266849
R-squared	0.999568		Adjusted R-squared	0.997842
F(4, 1)	578.9948		P-value(F)	0.031158
Log-likelihood	4.788085		Akaike criterion	0.423829
Schwarz criterion	-0.617374		Hannan-Quinn	-3.744190
Rho	-0.610162		Durbin-Watson	3.143848



The positive value of coefficient  $\beta$  with the internal borrowing coefficient (315,43) implies a positive, statistically significant impact (t-ratio 28.60) related to the dependent variable, with a 95% certainty. A positive correlation between the dependent variable (ROE) and the current liquidity coefficient was also established. Based on the analysis, there is a statistically significant correlation (t-ratio 18.63) between the dependent and the independent variable. Furthermore, a positive correlation was established between the dependent variable (ROA) and the financial stability coefficient; based on the analysis, the correlation has statistical significance (t-ratio 21.87), whereas the impact of the debt ratio independent variable on the dependent variable was also positive and statistically significant (t-ratio 14.31). The positive direction of this correlation is in line with economic intuition. The value of coefficient  $R^2$  implies that a significant part of the dependent variable variation is explained by the selected model, whereas the common F-test confirmed the hypothesis on the statistically significant impact of all independent variables in the model on the dependent variable (p-value equals 0.031158). The application of the Ordinary Least Squares Regression method formed the following model of multiple linear regression:

$$ROA_i = \beta_0 + \beta_1 IKVF_i + \beta_2 IKTL_i + \beta_3 IKFS_i + \varepsilon_i \quad (2)$$

with ROA being the dependent variable signifying a return on assets, whereas the internal borrowing coefficient ( $IKVF$ ), the current liquidity coefficient ( $IKFL$ ), and the financial stability coefficient ( $IKFS$ ) are the independent variables. All independent variables were subjected to logarithmic calculation. The results of regression statistics are shown below:

Table 3: Model 2 - OLS, using observations 2013-2018 ( $T = 6$ )  
Dependent variable: ROA

	Coefficient	Std. Error	t-ratio	p-value
Const	61.9330	14.8025	4.184	0.0527
l_KVF	43.3226	10.6290	4.076	0.0453
l_KTL	95.1458	74.9919	1.269	0.3322
l_KFS	122.124	71.7517	1.702	0.2309

Mean dependent var	2.081667		S.D. dependent var	1.556925
Sum squared resid.	0.786291		S.E. of regression	0.627013
R-squared	0.935125		Adjusted R-squared	0.837812
F(3, 2)	9.609495		P-value(F)	0.095717
Log-likelihood	-2.417069		Akaike criterion	12.83414
Schwarz criterion	12.00118		Hannan-Quinn	9.499722
Rho	0.045757		Durbin-Watson	1.414525

The positive value of coefficient  $\beta$  with the internal borrowing coefficient (43.3226) implies a statistically significant impact (t-ratio 4.076) related to the dependent variable, with a 95% certainty. A positive correlation between the dependent variable (ROA) and the current liquidity coefficient as the independent variable was also established, however no statistically significant correlation was established (t-ratio 1.269) between the dependent and the independent variable. Furthermore, a positive correlation was established between the dependent variable (ROA) and the financial stability coefficient.

However, based on the analysis, the correlation has no statistical significance (t-ratio 1.702). The value of coefficient  $R^2$  implies that a significant part of the dependent variable variation is explained by the selected model. Based on the results of the research, it can be concluded that the financial structure of a company has an impact on the results of a company's business as measured by the selected indicators of debt and liquidity.

#### 4. CONCLUSION

Using debt and equity as a source of financing business is called capital structure. It is also deemed a blend of debt and equity. When selecting the source of financing, the finance manager needs to consider the costs related to sources of financing and the impact of short-term and long-term financing on company profitability, and to choose the optimal combination of sources of financing from economic, solvency, and profitability aspects. Based on the findings outlined in this paper, the authors conclude that financial structure affects the profitability of business. The results suggest that profitable companies depend more on debt as the main financing option. Even though debt interest is taxable, a higher level of debt increases the risk of default, which, in turn, increases the chances of a company going bankrupt. A company has to, therefore, consider using the optimal capital structure. An optimal capital structure involves a debt, but not maximum indebtedness to finance its equity; in other words, the financial structure of a company's business must not cover 100% of debt in relation to internal sources of financing. If a company records a negative cash flow, the shortage of funds can cause insolvency and the need to accumulate additional debt, which would increase the cost of financing and reduce company profitability. A positive cash flow enables excess funds to be invested into short-term securities until their final use, thus increasing revenue, financial results, and profitability of a company. It is vital to establish the optimal range of investment into equity in order to avoid paying excess interest, which would endanger company profitability. From the aspect of profitability, it is advisable that the management establish an appropriate structure of long-term and short-term financing. A clarification of the relation between business profitability and the financial structure may help companies make more efficient financial decisions, adapt to variable macroeconomic conditions, and, finally, promote stable growth and development. Since the analysis refers to the period partly covering the aftermath of the economic crisis, and assuming that a stable macroeconomic environment is one of the factors impacting the structure of capital, future research should include macroeconomic variables and cover periods before, during, and after the economic crisis.

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## THE TREND ANALYSIS OF LESS SUGAR CHOCOLATE CONFECTIONERY MARKETS

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### ABSTRACT

*The qualitative approach in trend analysis of chocolate confectionery emphasises comparative advantages of consumption in European countries relative to the global market. Trend analysis in consumer behaviour toward less sugar confectionery extracts strengths, weakness, opportunities and threats relevant for the implementation of the RCA indicator for the consolidated period of six consecutive years, till 2017. From the United Nation Conference Trade and Development (UNCTAD) statistics, authors extract and interpret significant factors relevant for consumer demand in Western Europe. The trend analysis helps them to detect potential beneficiary outcomes as synergy toward product and price optimisation while entering eminent European markets. The factors such as quality of ingredients and product information relative to the geographical location are described without going into the details. The expanding of the RCA factor for Croatian chocolate confectionery as a link toward Western European countries accounts as a marker to the economic growth and development. Growth issues in the chocolate confectionery define conceptual strategies of individual preferences explained by historical data. They are important for determining variables such as uptrend, downtrend and sideways. In the final part, the authors are going summarise all useful findings related to the area of interest in studies and business.*

**Keywords:** *Chocolate confectionery, UNCTAD, RCA, consumer demand, Western Europe*

### 1. TRENDLINE IN CHOCOLATE CONFECTIONERY INDUSTRY

The authors' analysis shows increasing demand for cocoa products as the rise of sales and prices are following the trend in sugar reduction and reformulation of product content on a global level. The opinion and studies shown by policymakers in the World Health Organisation (WHO) support thesis that dark chocolate offers many benefits such as a beneficiary effect on cardiovascular health, cognitive abilities and blood flow. Moreover, it shows an opportunity to create an additional market niche for sugar-free or less-sugar products. This fact is helping producers and exporters to switch purchasing strategy toward the product with higher added value on the market (Pfoertsch & Chen, 2011) as the growth in the consumption of premium segment (as of dark chocolate) has a manifold effect on health benefits. On this basis, the nine European Union Countries implemented "sugar-tax" with the role of being a controlling mechanism for revenue gathering from "soda taxes". More important than ever, it is crucial to understand that boosting activities in product categories will help the industry to create a new marketplace for the consumers. The authors' conclusion follows the argument and expectations in raising the market size and standards in policies in the chocolate confectionery market for 4.3% via a compound annual growth rate (Fountain & Hütz-Adams, 2015).

Figure 1: Size of the chocolate confectionery market worldwide from 2017 to 2026 (in billion EUR), Statista; Statistics MRC; Research and Markets; 1 EUR= 1.10575 USD; 1 USD = 0.904360

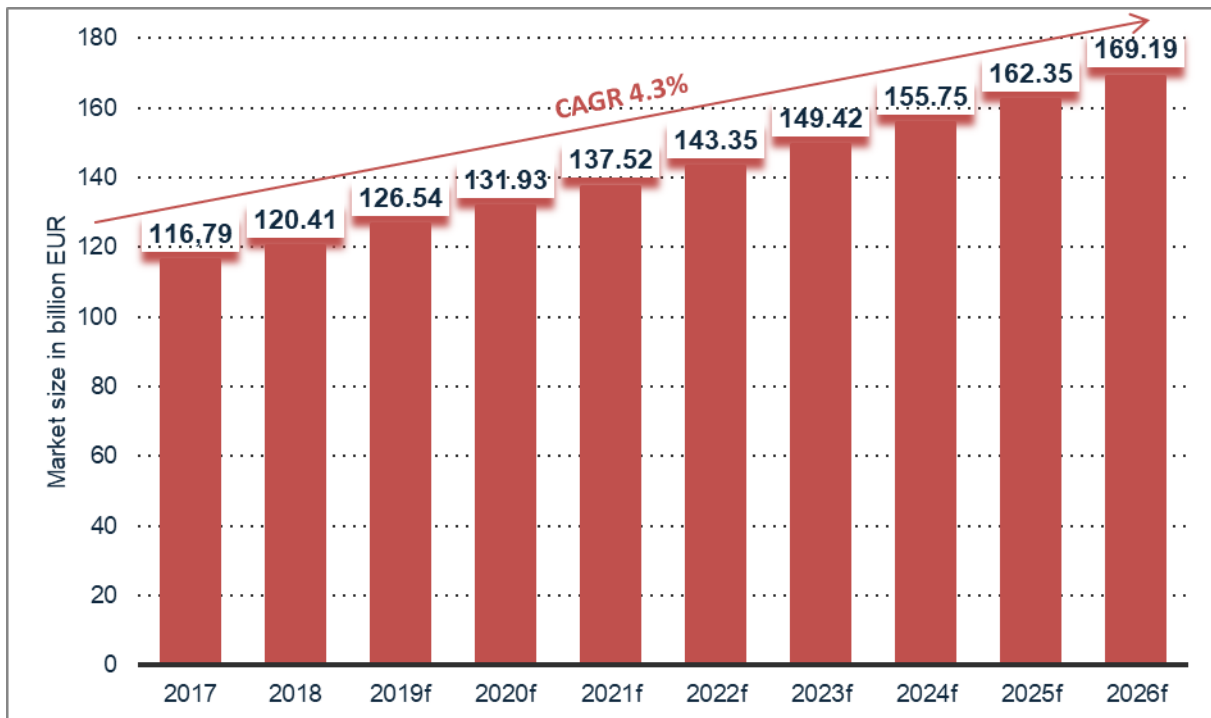
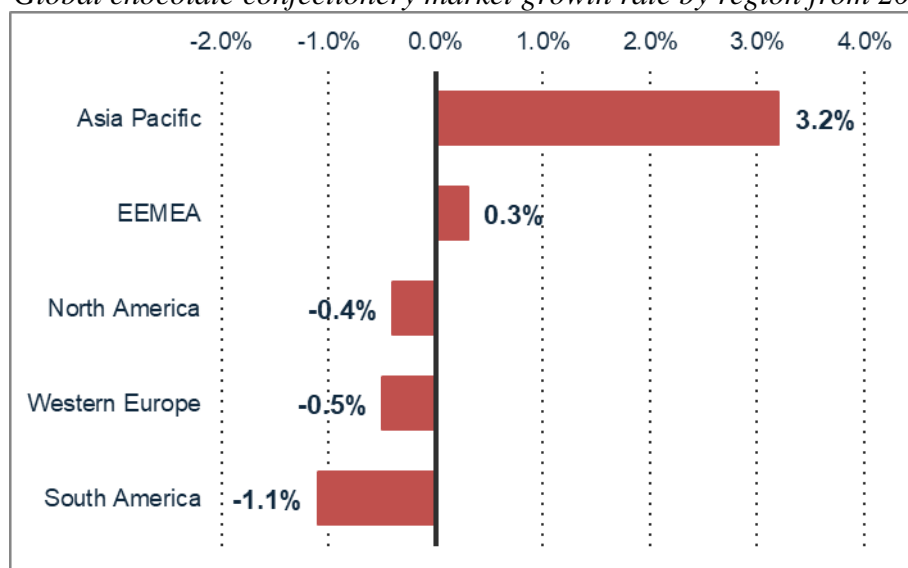


Figure 1 follows the fact that healthier confectionery or sugar-free products will stimulate the pipeline for new segment or niches on the market. The spillover effect on premium products must outreach barriers regarding preferences, age gap and personal consumption. Regardless of a festive season, the demand should be determined by expected chocolate sale, cost of packaging and transportation cost. The Asia Pacific region (China and India) is an excellent example of the case. As the region, they have tremendous growth in confectionery while stimulating and encouraging the consumption of domestic indulgence products and narrowing per capita consumption of chocolate. The reference has a standpoint in Figure 2.

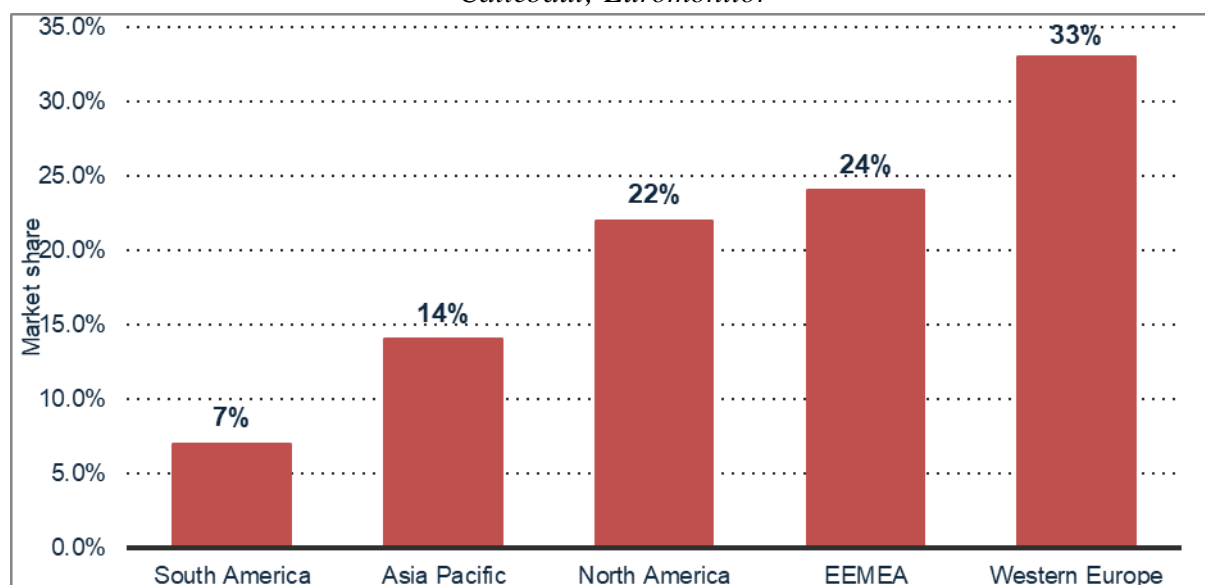
Figure 2: Global chocolate confectionery market growth rate by region from 2013 to 2018



Source: Barry Callebaut; Nielsen

Nowadays, the market size is not only attributable to the leading players in the industry (Jambor, Toth, & Koroshegyi, 2018). The increasing demand and growing popularity of dark and organic chocolates stimulate market growth. This conclusion follows from the fact that the average per capita consumption stood at 4kg per year while generating positive effect in personalising or discovering new ingredients which are known as "sensory engagement". (Technavio, 2019). These findings favourite sustainable farming practices with good water management.

*Figure 3: Market share of chocolate confectionery worldwide by region in 2019, Barry Callebaut; Euromonitor*



Moreover, the data from *Figure 3* follows the fact that the overall European Chocolate market could grow up to USD 57 billion by 2024 (Mordorintelligence, 2019). The broad implication of the high volume of output presents the great concern around climate change and unsustainable farming practices which deliver alternatives accepted by the most eminent players in the industry, known as a bean-to-bar concept. The bean-to-bar concept of production, packaging, direct shipping and selling gives the best European producers the ability to control cost relative to the small number of producers via a superior offer of cocoa quality branding (Fountain & Hütz-Adams, 2015). Looking forward, German producers are flagship producers (1.3 mn tonnes per year), along with the Italian (0.7 mn tonnes), French (0.4 mn tonnes) and Dutch (0.4 mn tonnes). The conclusion from that follows the argument that European producers can control cost relative to the small number of producers via a superior offer of cocoa quality on the commodity markets. It is significant for achieving optimal results in the process of production, packaging, direct shipping and selling. The next chapters are following the relevant framework and literature in the field of global exports of chocolate confectionery. The purpose of the paper is to identify revealed comparative advantage of 15 countries relative to the industry trends and business agenda. The most important findings in the sphere of market consolidation via segmentation are analyzed in the discussion part. Final remarks are referring to opportunities, proposal and recommendations in the conclusion part.

## **2. RCA FACTOR IN CHOCOLATE CONFECTIONERY INDUSTRY**

The chocolate confectionery industry is one of the most broadly accepted industries with the presence of numerous core players accounting for most of the market share. Key strategies adopted by chocolate producers in Europe supersedes all major external issues – growth rate, flexible labour legislative to restructure debt and relaxation in currency controls.

The market detects the new direction of the eminent players, which goes in favour of production and exports of dark chocolate confectionery. The exports competitiveness as a primary prerequisite for economics stability has a stronghold position via stable and predictable economics factors such as economic stability, trade agreements, industrial policy and production factors (Bezić, Cerović, & Galović, 2011). Therefore, the exporters have mission and strategy to stabilise and secure the economy from a drop in demand and the harmful effects of the global financial crisis (Bezić et al., 2011). This follows the conclusion that the distribution of the cocoa supply chain can be the relative infant compared to other food products. The diversification in transportation puts Western European economies at pole position while developing comparative advantage on the scale of the consumption via GDP capital growth in the sphere of market liberalisation, technology innovation, product imitation and financial optimisation (Asker, Farre-Mensa, & Ljungqvist, 2012). The industry values different indicators with the aim is to find profitable products that meet the requirements of a free market in terms of quality and price (Jambor et al., 2018). The visibly smaller share in total chocolate exports by EU member states like Belgium, Italy, Netherlands and Poland specialises its production and preferences for dark chocolate. When authors look forward, the cocoa supply chain creates the fastest-growing strategy for the most eminent producers in the EU food industry. The comprehensible expectation of international trade is an analytical approach based on the revealed comparative advantages factor (RCA) are defined and calculated according to Balassa (1964). From the standpoint of trade economics indices of the RCA can be used as a formal method of measuring the sector identity and intensity of a country's comparative advantage and disadvantage in exports and international trade. The decomposition of the RCA states:

$$RCA_{Ai} = \frac{\frac{X_{Ai}}{\sum_{j \in P} X_{Aj}}}{\frac{X_{Wi}}{\sum_{j \in P} X_{Wj}}} \geq 1$$

- $P$  is the set of full products (with  $i \in P$ )
- $X_{Ai}$  is the country  $A$ 's exports of product  $i$
- $X_{Wi}$  is the worlds' exports of product  $i$
- $\sum_{j \in P} X_{Aj}$  is the country  $A$ 's total exports (of all products  $j$  in  $P$ )
- $\sum_{j \in P} X_{Wj}$  are the worlds' total exports (of all products  $j$  in  $P$ )

Despite the limitations with most familiar traditional theories of trade patterns in recent years (Richardson and Zhang, 2001), the significance of the revealed comparative advantages factor (RCA), uses clustering as a method for sector identity and intensity of a country's comparative advantage and disadvantage. (Balassa, 1964; UNCTAD, 2019). From the historical standpoint, revealed comparative advantages factor index (RCA) measures bilateral trade, although sometimes is used as insight for the expansion of certain product that indicates market potential (UNCTAD, 2019). Considering a result greater than one, it indicates an advantage in exports while on the contrary, it presents a lack of exports of the specific goods. For this paper analysis authors' analyses branch of "Chocolate and other food preparations containing cocoa" from "Food and live animals" section Standard International Trade Classification (SITC Rev. 4). The value for discovering comparative advantages of a certain economy except for factors of manufacturing costs are covering the analysis in the results and discussion.

### 3. RESULTS

The results showed by the authors' represents the RCA index for six consecutive periods for the group of 15 countries: Belgium, Canada, Croatia, France, Germany, Italy, Mexico, Netherlands, Poland, Russian Federation, Spain, Turkey, United Arab Emirates, United Kingdom and United States of America.

*Table 1: The Biggest Chocolate Exporters by Country in 2017, retrieved from P.Mišević/ Trade Perspectives 2019, Business Model Innovations in domestic and international trade / Revealed comparative advantages of global chocolate industry, 295-296 page*

Country	Exports in USD	Share in total chocolate exports (%)
Germany	5 billion	17
Belgium	3.1 billion	10.5
Italy	2.1 billion	7.10
Netherlands	2 billion	6.90
Poland	1.7 billion	6.00
The United States of America	1.7 billion	5.70
Canada	1.4 billion	4.90
France	1.4 billion	4.90
United Kingdom	964 million	3.30
Switzerland	864 million	3.00
Russia	632 million	2.20
Mexico	612 million	2.10
Spain	510 million	1.70
Turkey	504 million	1.70
United Arab Emirates	433 million	1.50

By the result can be concluded that the above-listed the biggest chocolate exporters cover almost 79% of the overall chocolate exports. EU Member states like Belgium, Italy, Netherlands, Poland are following with visibly smaller share in total chocolate exports while specialising in the production toward high demand for bean-to-bar chocolate known as a bean-to-bar concept. Others adapt to the chocolate eaters like millennials, by adding grains and cereals. For example, Germany, which represents 17% of the share, is more than ever connected to consumers habits like impulse buying and online orders. Taking mentioned into consideration, for the last six years, the top three fastest-growing chocolate producers like Poland, Italy and Canada, on average grow by 21.5%. Conversely, countries like Turkey, France and Russia Federation, on average, declined by 9.2%. The ongoing process of vertical integration of the cocoa supply chain challenges smaller companies to specializes in the production process of fewer segments to be easily absorbed by large operating companies in producing countries. Many multinational companies developed an expanding strategy for its cocoa supply chain and implemented the bean-to-bar concept of production for bulk markets. For instance, some producers develop private initiatives through investments in local infrastructure to attach 100% of its cocoa in confectionery traceable by 2025 (Laven, Pelders, & Koninklijk Instituut vor de Tropen., 2011). The author's can explains booth (growth and decline in exports) by the trend analysis in the industry. Following Table 2 indicate revealed comparative advantages (RCA index) of 15 significant chocolate exporters (includes Croatia, without Switzerland). Six observed periods are from 2012 until 2017.

*Table following on the next page*



*Table 2: UNCTAD stat; Retrieved from P.Mišević/ Trade Perspectives 2019, Business Model Innovations in domestic and international trade / Revealed comparative advantages of global chocolate industry, 295-296 page*

<b>Year</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Belgium	4,18	4,03	4,17	4,25	4,30	4,42
Canada	1,69	1,66	1,68	2,08	2,22	2,20
Croatia	2,93	3,22	4,09	4,89	4,76	5,15
France	2,05	1,93	1,90	1,75	1,72	1,72
Germany	2,14	2,17	2,21	2,07	1,97	2,08
Italy	2,41	2,20	2,16	2,18	2,10	2,46
Mexico	1,23	1,12	0,95	0,99	0,99	0,99
Netherlands	2,20	2,18	2,22	2,21	2,31	2,33
Poland	4,60	4,91	4,37	4,72	4,64	4,26
Russian Federation	0,80	0,90	0,87	0,80	0,98	0,96
Spain	0,95	0,91	0,98	1,01	0,91	0,87
Turkey	2,36	2,53	2,44	2,07	1,66	1,83
United Arab Emirates	0,96	0,89	0,86	1,29	1,26	0,86
United Kingdom	1,28	1,16	1,22	1,16	1,24	1,27
United States of America	0,67	0,69	0,68	0,68	0,65	0,67

For the case of Belgium, Croatia and Poland, the upward trend shows traditionally high RCA factor with the flat volatility. Moreover, traditional habits in these countries are relevant for sales dynamics of non-generic brands, which is contrary to the general markets trend. Moving to the past perspective when the economic downturn was in full force, chocolate confectionery advanced better than the rest of the market (Euromonitor, 2019). The lack of comparative advantage which results in the indicator less than one present a pledge for the future. Possible development in the sphere of confectionery intermediation for international bulks could be an option. It is obvious to conclude that EU countries have a higher level of comparative advantages and export competitiveness than their competitors on a global scale. In the next chapter in the discussion part authors' are going to refer to relevant facts for domestic confectionery and its possible adaption to the current trends in the industry.

#### 4. DISCUSSION

The innovation in the implementation of new product lines refers to a promising aspect of growth in revenues and rising popularity toward its premiumization. For the last few years, there have been growing imbalances and bargaining power among manufacturers and retailers. Moreover, primal ingredients needed for preparing final products in the confectionery industry depend on categories of adhesives, foam stabilisers, glazing, moulding agents, sweeteners and texture stabilisers. The accessible volume of the categories mentioned above could eliminate price anomalies (i.e. price fluctuation of cocoa beans between USD 2000/ton and USD 3000/ton) if market sentiment spurs the growth of CPI Index and disposable income (i.e. GDP per capita growth) (Fountain & Hütz-Adams, 2015). From the authors' opinion segmentation via SWOT table (Table 3) is one way how to be active, rather than be reactive.

*Table following on the next page*

*Table 3: SWOT analysis of the top 15 promising markets from the authors' opinion*

<b>Country/Region</b>	<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
Belgium	Localized production	Transportation cost, labour legislative	EU regulation on cadmium in effect	Other international bulks
Canada	Cross-border shopping	Unique preferences, currency risk	Fairtrade chocolate as a set of measures for other countries	Insourcing costs
Croatia	Tradition in production	Small market with non-diversified products	Becoming an international hub or bulk for global players	Currency cost, Generic products in the Region
France	Sustainability which generates public-private initiatives	To much focus on premium products, production costs	Fairtrade Chocolate as a set of measures for other countries	Strong dependence on European trade hubs
Germany	Takes all initiative on the market	Cost of premiumization	EU regulation on cadmium in effect	Insourcing costs
Italy	Tradition and competitive landscape in quality and tradition	Cost of premiumization	Focus on organics vegan offerings and sugar-free products	Insourcing costs
Mexico	Strong base in production and labour force	Unique preferences, currency risk	Fairtrade chocolate and Free trade agreements as a set of measures for other countries	International representativeness
Netherlands	Client-oriented with sugar-free offering	Unique preferences and cost of premiumization	Focus on innovative offerings and sugar-free products	Cost of the labour force and insourcing costs
Poland	Strong base in production and labour force	Unique preferences, currency risk	EU regulation on cadmium in effect	Currency cost, Generic products in the surrounding
Russian Federation	Exposure to many smaller markets and tradition in the production	Cost of premiumization	Focus on an innovative way of manufacturing and offerings of sugar-free products	Currency cost, Generic products in the surrounding
Spain	Exposure to many big markets	Cost of premiumization	EU regulation on cadmium in effect	Insourcing costs
Turkey	Strong base in production and labour force	Cost of premiumization	Focus on an innovative way of production and offerings of sugar-free products	International representativeness
United Arab Emirates	Distribution channels and market position	Unique preferences, currency risk	Focus on an innovative way of production and offerings of sugar-free products	Too many active vendors on the market
United Kingdom	Client-oriented with sugar-free offering	Cost of premiumization	EU regulation on cadmium in effect	Insourcing costs
United States of America	The trendsetters in the industry	Cost of premiumization	Fairtrade chocolate and Free trade agreements as a set of measures for other countries	Insourcing costs

The results of the analysis provide evidence for an extremely competitive European chocolate market while providing opportunities for the higher cocoa quality seekers and content products for the markets like the United Kingdom, United States of America, Mexico and Russian

Federation. Top tier production hubs in most Western European countries allocated additional resources to lower its insourcing cost at the same as targeting its agenda of CAGR for 5%. The new pipelines as a product type (chocolate confectionery, gum products and sugar confectionery) are seeking for products which will provide health benefits at minimum cost. This has evolved significantly by EU regulation on cadmium in food Regulation (EC, No 2006/1881). It should find a way how to hamper the volatile movement of raw materials and currencies while lacklustre growth owing to the side effects of sugar. The increasing health awareness could be a result of increasing size and value of the global chocolate market by EUR 34 billion in six years period. The leading players in the industry could maintain a leading presence worldwide if they focused more on online than offline distribution channels. The European chocolate market is fused, with the important presence of the top ten global players, namely Mars, Ferrero Group, Mondelez International, Meiji Co, Nestle SA, Hershey Co., Chocoladenfabriken Lindt & Sprungli AG., Ezaki Glico Co., Haribo GmbH and Perfection Melle (Mordorintelligence, 2019). Overall, the worldwide fitness determined consumers should shift preferences from traditional towards beneficial natural products. In that way, small markets with tradition could help multinational companies to spread their business activities to new segments, territories and brands. Croatia, with Kraš Inc., as a market leader in the section of biscuits and wafers, candy and cocoa products could be a reason for expanding activities towards less sugar products (Lazarevski, Kardaza, & Anastovska, 2013). The adaption to the new trends could be a promising mechanism in cost optimization and process digitalization in the case of Kraš Inc. In conclusion, the authors are going to summarize all-important findings for the topic of interest.

## 5. CONCLUSION

The chocolate confectionery market is characterized by the presence of well-established manufacturers who are focused on launching premium value-added products at a lower price range. Expansion of scope (Ramli, 2017), scale (Laven et al., 2011) and capabilities (Laven et al., 2011) is important for financial stability in the confectionery industry. At the same time, the increase of the long-term sources of cocoa contracts should be prioritized from the position of suppliers. Revenue focus in a cross-selling of less sugar products could enhance the vertical integration of international confectionery bulks. The efficiency of the growth in the market share and the market overall is reflected in creating an additional market niche for sugar-free or less-sugar products. More than ever before, it is a product of the technological innovation and adoption to consumer wish and willingness how they want to treat themselves. Kraš Inc., as a Croatian market leader in chocolate confectionery, should be an innovator of newly adapted concepts and success stories on the market.

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