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Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics
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Economic and Social Development

38th International Scientific Conference on Economic and Social Development

Book of Proceedings

Editors:

Khalid Hammes, Mustapha Machrafi, Ante Samodol



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CONFLICT, GROWTH AND HUMAN DEVELOPMENT - AN EMPIRICAL ANALYSIS OF PAKISTAN

Syed Muhammad All-e-Raza Rizvi

*Université Clermont Auvergne (UCA), Ecole d'Economie
Clermont-Ferrand, France
allerazarizvi@gmail.com*

Marie-Ange Veganzones-Varoudakis

*Université Clermont Auvergne (UCA), CNRS, IRD, CERDI
Clermont-Ferrand, France
veganzones@aol.com*

ABSTRACT

In this paper, we use the Autoregressive Distributed Lag (ARDL) Bound Testing cointegration approach to study the long-term relationship between internal conflict, economic growth, and human development in Pakistan. We show that, by offering better opportunities and reducing radicalization, education could help reduce conflict in Pakistan. The government's spending on its defense budget, however, is high, and results in low social spending. We also show a positive contribution to conflict reduction by public order which justifies the government's anti-terrorist policy. It also appears that economic reforms and wealth do not help to reduce internal conflicts in Pakistan. This result is an illustration of a situation in which globalization is perceived as a threat, and economic growth fuels political and social unrest. Political rights and civil liberties do not seem to reduce conflict either, because periods of democracy have experienced a resurgence of violence. This finding suggests that, in a fragile country like Pakistan, respect for public order is a priority before restoring democracy. Pakistan seems to be caught in a low development trap in which conflict is the main variable to consider before seeing the benefits of reforming the economy.

Keywords: *Conflict, Economic Growth, Human Development, Pakistan*

1. INTRODUCTION

In the first decades after independence, Pakistan's economy grew rapidly, and had good economic prospects (World Bank, 2002). However, due to complex geopolitical and socio-economic conditions, Pakistan has been confronted with several distinct but interrelated conflict situations. The history of conflict in Pakistan is as old as the country's existence. The legacy of the partition of India and the two wars in 1947 and 1965 is seen in unresolved conflict situations, such as in Kashmir, but also in the Pashtun and Baluchi territories. Other regional developments, such as the 1971 secession of Bangladesh from Pakistan, the wars in Afghanistan in 1979-89 and 1996-2001, and the US-led war on terror after 2001, have also affected the political, economic, and social situation of the country (Waseem, 2011). Pakistan's internal situation has increasingly suffered from sectarian and ethnic violence between its diverse populations (Ahmar, 2007). The increase in sectarian division was observed in the late 1970s and early 1980s, due to internal political changes and fears that the Islamic revolution in Iran would lead to Shiite control of the country (Abbas, 2010). The military regime that came to power in 1977 pursued a policy of Islamization that resulted in a separation between Sunnis and Shiites on the one hand and between different Sunni groups on the other hand. Tensions between Sunnis and Shiites further worsened because of Pakistan's support for Iraq in its war against Iran. The relationship continued to deteriorate with Pakistan's support for Taliban in Afghanistan in the 1990s, and despite the withdrawal of support for the Taliban in 2001 after joining the North Atlantic Treaty Organization's (NATO) intervention in the country.

More recently, the growing conflict in the Middle East has fueled sectarian groups on both sides, and intensified violence in the country. As a result, violence between different religious groups has increased since 2012, with perpetrators including the Taliban and the Islamic State affiliated groups in Iraq and Sham (ISIS) (Rafiq, 2014). Due to religious differences, nearly 1,000,000 people were killed after the division of the subcontinent in 1947. In the civil war between Pakistan and Bangladesh, about 500,000 more people died. More recently, lives have been lost due to sectarian conflict between Sunnis and Shiites. At the same time, the Pakistani Taliban insurgency created new problems after the 2001 war with Afghanistan. Since then, terrorism and the war against terrorism have been increasingly costly for Pakistan, both in terms of casualties and economic costs, with the number of conflict-based incidents increasing from 109 in 2000 to 1,177 in 2016.¹ In total, more than 50,000 people died of terrorism during this period and the economic cost is estimated at about US\$ 120 billion². In recent times, many countries have faced violent conflict and many researchers have tried to understand what triggers these conflicts (World Bank, 2011). Collier (2007) states: “Seventy-three percent of people of the bottom billion have recently been through a civil war or are still in one”. Stewart (2002) notes that most economies in the bottom percentile of human development have been confronted with civil wars over the last three decades. The author further states that countries with low GNP per capita are more likely to experience conflict. Ostby (2008) confirms that poverty, inequalities and dependence on natural resources account for much of the world's conflicts. Caruso and Schneider (2011) add that a lack of economic opportunities can lead to distress, hatred, and grievances in certain sections of the population that result in violence. Collier and Hoeffler (2004) state that bad government policies, by increasing greed and/or grievance among the population, can result in conflicts. They show that a higher level of GDP per capita and education, as well as other factors of human development, lead to fewer conflicts³. The authors also define 4 common sources of grievance: (i) Religious and ethnic hatred (ii) Economic inequality (iii) Political exclusion (iv) Political repression. Another explanation of the causes of conflict lies in Caruso and Schneider's (2011) theory of “immiserizing modernization”. Olson (1963) developed the theoretical foundation of this argument. Economic growth can change the distribution of wealth in a country, with some groups losing out. This can lead to grievances which can be used by terrorist organizations. This implies that conflicts can arise even in the presence of economic growth. In addition, even though the increase in income affects the entire population without increasing inequalities, unchanged relative poverty can still fuel grievances. Bernholz (2004) describes the ideological content of certain conflicts through the concept of “supreme values”. These values refer to one or more objectives that are preferred to all others, and whose realization comes before any other value (Wilkins, 2011). If the grievance concerns problems other than poverty, such as injustice or unequal treatment of certain regions, ethnic groups, religions or population groups - as in Pakistan (Abbas, 2010; Ahmar, 2007; Rafiq, 2014) - the increase of wealth can raise the resources of the terrorist organizations, and therefore their conflict-based activities. In Pakistan, the conflicts have caused enormous damage to the economy. Problems such as unemployment, poverty, inequality, corruption, uncertainty, illiteracy, poor health and living conditions, internal displacement, extremism, and radicalism are related to the situation of conflict in the country (Easterly, 2001; Ali, 2010). In monetary terms, the government spends much of its budget on defense and other dispute resolution mechanisms, leaving little room for development spending (Gupta et al, 2004). As a result, infrastructure is severely degraded and social spending, especially on education and health, is very low (Akram and Khan, 2007; Benz,

¹ See Global Terrorism Database (GTD, 2016) for Pakistan

² <https://www.peaceinsight.org/conflicts/pakistan/>

³ On all these issues, see also Stewart (2002), Berrebi (2007) and Vincent (2009). On Pakistan more specifically, see Malik (2009) and (2011). On Nepal, see Murshed and Gates (2005).

2012)⁴. During the Soviet-Afghan War, and after September 2001, the international community (especially the United States) provided considerable financial assistance. This aid provided short-term help to manage the budget deficit. However, it did not offer a real solution to the problems of the economy.⁵ This study explores the link between internal conflict, economic growth, and human development in Pakistan over the period 1978 - 2016. In addition to the direct costs of conflict on growth, we consider the opportunity costs. Because of its involvement in conflict resolution, the government of Pakistan does not have much room to invest in social issues. Although police and defense spending is designed to combat violence, investments in human development may lower the risk of conflict by reducing grievances among populations. Educated people are also less likely to fight because they can use their own reasoning to form their own opinions. They can also use their knowledge to improve their economic and social condition (Berrebi, 2007). In the empirical part of this study, we show that education could help to reduce long-term conflicts in Pakistan. We find that defense spending also contribute to this. These findings are important in the context of the limited resources of the Pakistan government. It is also the first time to our knowledge that these costs have been validated by data for Pakistan. Another contribution of our research is to expand the explanatory factors of internal conflicts. The roles of wealth and economic reform, in particular, have not yet been examined for Pakistan. The same applies to political freedom and civil liberties. Our research in these areas gives new perspectives for the country. Finally, the question of the long-term cost of conflict in terms of development and growth is another issue that has not been studied before for this country. The article is organized as follows: in Section 2, based on the literature, we introduce our model of internal conflicts, human development, and growth. We also define the variables used in the analysis and the sources of data. Section 3 highlights the methodological aspects related to short- and long-term dynamic estimates. Section 4 presents the results of the empirical analysis. The last section concludes with our main findings and policy recommendations.

2. PRESENTATION OF THE MODEL AND OF THE VARIABLES

2.1. The Model

The equations used to investigate the relationship between internal conflict, economic growth, and human development are as follows:

$$Conf_t = \alpha + \alpha_1 GDPc_t + \alpha_2 Edu_t + \alpha_3 Open_t + \alpha_4 Military_t + \alpha_5 PolFree_t + \mathcal{E}_t \quad \text{Eq (1)}$$

$$GDPc_t = \beta + \beta_1 Conf_t + \beta_2 Edu_t + \beta_3 Open_t + \beta_4 Military_t + \beta_5 PolFree_t + \mathcal{E}_t \quad \text{Eq (2)}$$

where *Conf* is the proxy for internal conflict, *GDPc* the logarithm of GDP per capita, *Edu* the primary gross enrollment ratio, *Open* the trade openness indicator, *Military* the military expenditure as a percentage of GDP, and *PolFree* the political freedom variable. \mathcal{E} is the error term, t the time dimension, α, α_1 to α_5 and β, β_1 to $\beta_6 \beta_5$ the parameters to be estimated.

2.2. The Variables

2.2.1. Annual Conflict-Based Incidents as Proxy for Internal Conflict

In previous studies, different conflict variables have been used, e.g. likelihood of a civil war, frequency of conflict, conflict-related deaths and injuries, damage to physical capital, property and infrastructure, cost of doing business. This study uses the log of the number of conflict-based incidents per year from the Global Terrorism Database (GTD, 2016) designated by *Conf*

⁴ See also “Public Financing of Education in Pakistan and Agenda for Education Budget 2016-17”, Institute of Social and Policy Sciences (I-SAPS), Islamabad, for expenses in education.

⁵<https://tribune.com.pk/story/135156/myth-vs-reality-us-aid-to-pakistan-dwarfed-by-economic-cost-of-war-business/>

(see descriptive statistics in Table 7 in the Appendix). The GTD codebook defines an incident as “the threatened or actual use of illegal force and violence by a non-state actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation”⁶. Findley and Young (2011) also use this variable as an indicator of terrorism.

2.2.2. *GDP per Capita as Proxy for Revenues and Wealth*

GDP per capita is our measure of economic wealth. Data are from the State Bank of Pakistan (SBP, 2016). The study uses the log of the variable in real terms, denoted *GDPc* (see descriptive statistics in Table 7 of the Appendix). Empirical evidence on the impact of wealth on internal conflict is mixed. Humphreys (2003) indicates that low resources increase the probability of civil wars. Collier and Hoeffler (2004) also show that the impact of low resources may be to increase conflict. Caruso and Schneider (2011), however, find a positive relationship between increase in income and the number of people killed in conflict-based incidents. Freytag et al (2010) and Shahbaz (2012) confirm that GDP per capita is positively related to the increase in conflict. In the case of Pakistan, where conflicts are mainly based on the concept of "supreme values", a positive impact on internal conflicts can also be found.

2.2.3. *Primary Enrolment Ratio as Proxy for Human Capital*

Freytag et al (2010) use the average number of years of schooling of the population over 15 as an indicator of human capital. Collier and Hoeffler (2004) select the gross secondary schooling rate as an explanatory variable for their conflict variable. Because long-term education data are not available for Pakistan, in this study we calculate the gross primary enrollment rate from the Pakistan Economic Survey data (PES, 2016)⁷. The variable is designated *Edu* (see Table 7 in the Appendix). A negative coefficient of *Edu* in the conflict equation would mean that the more the government educates people, the less conflict there will be. Human capital is also an essential explanatory variable for economic development. Ramirez (1998) and Barro (2001) reveal the positive impact of education on growth. The impact of education should be negative on conflict and positive on growth.

2.2.4. *Military Expenditures as Proxy for Law and Order*

This study examines the impact of military spending, a non-development expense, on the dynamics of internal conflict and growth in Pakistan. Collier and Hoeffler (2006) argue that, according to the "signaling model", a surge in military spending in post-conflict situations increases the chances of further conflict, because high military expenditure signals to the rebels that government is not seriously interested in peace. Feridun and Shahbaz (2010) and Asongu and Amankwah-Amoah (2016) believe, however, that increased military spending reduces conflict-based activities, thus confirming the effectiveness of military spending. Knight et al (1996) show a negative impact of military expenditure on economic growth. Gupta et al (2004) point out that this negative relationship is due to low spending on development. Increased military spending is therefore expected to reduce conflict, and long-term growth due to the crowding out effect on development spending. A negative sign for both variables is thus expected. The study uses WDI (2016) data in real terms and as a percentage of GDP. The variable is designated as *Military* (see Table 7 of the Appendix).

2.2.5. *Trade Openness as proxy for Economic Reforms*

We use trade openness as an indicator of economic reform and integration into the global economy. Trade openness is considered as a factor of growth. Empirical evidence confirms the

⁶ Global Terrorism Database (GTD, 2017) Codebook: Inclusion Criteria and Variables.

⁷ <http://uis.unesco.org/country/PK>

⁸ Various editions of the Pakistan Economic Survey

positive impact of trade openness on various indicators of economic activity (Sachs et al, 1995; Frankel and Romer, 1999; Dollar and Kraay, 2003). Trade openness can also be a factor in modernizing the economy. In both cases, it might be thought that the new opportunities created by trade openness discourage internal conflict (Blomberg and Hess, 2008). Freytag et al (2010), however, find a positive impact which shows that globalization can increase conflict if perceived as a threat. Wintrobe (2006) confirms the positive relationship between economic integration and terrorism. This scenario is similar to that developed by Caruso and Schneider (2011) in their theory of “immiserizing modernization”. If some groups lose out because of the reforms, new grievances may arise. Trade openness should therefore increase growth, but its impact on conflict is uncertain. Our study attempts to verify its effect for Pakistan. We use the ratio of exports plus imports to GDP (in real terms), designated *Open*. Data are from WDI (2016) (see Table 7 of the Appendix).

2.2.6. Political Freedom as Proxy for Democracy

We use the variable Political Freedom, from Freedom House (2016), as an indicator of democracy to explain both growth and internal conflict in Pakistan (see Table 7 in the Appendix). Li and Schaub (2004) argue that in democratic countries, because of political rights and civil liberties, it is easy for terrorists to engage in conflict-based activities. Eubank and Winberg (1998) confirm that terrorism occurs more often in democracies than in more authoritarian regimes. In the case of Pakistan, internal conflicts have been much more frequent during democratic periods than periods of military rule⁹. Eyerman (1998), however, finds a positive relationship between democracy and the absence of violence. With regard to economic activity, Acemoglu et al (2014) find higher growth in democratic countries than in less democratic ones. They use a combination of various indicators such as political freedom and polity IV, as a proxy for democracy. The variable Political Freedom is a combination of political rights and civil liberty, designated PolFree¹⁰. A high value indicates a low freedom and vice versa. PolFree should therefore have a negative relationship with the conflict variable and the growth variable for Pakistan.

3. ESTIMATION OF THE MODEL: METHODOLOGICAL ASPECTS

3.1. The Autoregressive Distributed Lag (ARDL) Bound Testing Approach

This study uses the Autoregressive Distributed Lag (ARDL) Bound Testing cointegration technique developed by Pesaran et al (2001) to investigate the long- and short-term dynamics between internal conflict, growth, and human development in Pakistan. The ARDL methodology can be applied regardless of whether the variables are stationary at level $I(0)$, at first difference $I(1)$, or a combination of both. This approach is effective for small samples¹¹. It also allows the capture of short-term adjustments without losing the long-term information. Before testing the existence of a long-term relationship, it is necessary to determine the order of integration of the variables. Although the ARDL method can be applied even if the variables are not integrated in the same order, the computed F-statistics are not valid in the presence of $I(2)$ variables (Ouattara, 2004). We use both Augmented Dickey–Fuller (ADF) and Phillip–Perron (PP) tests to check the stationary assumption of the data. For both approaches, the null hypothesis states that the series is non-stationary, that is to say the data have a unit root.

⁹ Data from Global Terrorism Database. (GDT, 2017) state that during two military rules (1978-1988 and 2000-2008), 107 conflict-based incidents in average occurred per year. However, during democratic rule (1989-1999 and 2009-2016) this number was 639 on average.

¹⁰ The variable ranges from 1 to 7, with 1 for the highest degree of freedom and 7 for the lowest degree. We constructed the variable by adding the indices of political rights and civil liberty and dividing by 2. Online data is available at <https://freedomhouse.org/report-types/freedom-world>

¹¹ The Johansen and Juselius (1990) approach for cointegration analysis requires that the variables must be cointegrated in the same order, and that there must be a big sample.

3.1.1. The Short-Run Dynamics

The ARDL representation of Equations (1) and (2) is as follows:

$$\Delta Conf_t = \alpha + \sum_{i=1}^{p_0} \alpha_0 \Delta Conf_{t-i} + \sum_{i=0}^{p_1} \alpha_1 \Delta Gdpc_{t-i} + \sum_{i=0}^{p_2} \alpha_2 \Delta Edu_{t-i} + \sum_{i=0}^{p_3} \alpha_3 \Delta Open_{t-i} + \sum_{i=0}^{p_4} \alpha_4 \Delta Military_{t-i} + \sum_{i=0}^{p_5} \alpha_5 \Delta PolFree_{t-i} + \gamma_1 Gdpc_{t-1} + \gamma_2 Edu_{t-1} + \gamma_3 Open_{t-1} + \gamma_4 Military_{t-1} + \gamma_5 PolFree_{t-1} + \varepsilon_t$$

Eq (1a)

$$\Delta Gdpc_t = \beta + \sum_{i=1}^{p_0} \beta_0 \Delta Gdpc_{t-i} + \sum_{i=0}^{p_1} \beta_1 \Delta Conf_{t-i} + \sum_{i=0}^{p_2} \beta_2 \Delta Edu_{t-i} + \sum_{i=0}^{p_3} \beta_3 \Delta Open_{t-i} + \sum_{i=0}^{p_4} \beta_4 \Delta Military_{t-i} + \sum_{i=0}^{p_5} \beta_5 \Delta PolFree_{t-i} + \delta_1 Conf_{t-1} + \delta_2 Edu_{t-1} + \delta_3 Open_{t-1} + \delta_4 Military_{t-1} + \delta_5 PolFree_{t-1} + \epsilon_t$$

Eq (2a)

where Δ is the first difference operator, pi , the number of lags, t , the time dimension, and ε_t , the error term. *Conf*, *GDPc*, *Edu*, *Open*, *Military* and *PolFree* are as defined in section 2.2. The αi and βi explain the short-run dynamics and the δi and γi describe the long-run relationship.

3.1.2. The Long-Term Relationship

To check the presence of a long-term relationship, we use the bound testing procedure based on the Wald-test (F-statistic) of the hypothesis of no cointegration (H0), against the hypothesis of cointegration (H1) between the variables, denoted as:

- H0: $\gamma i = 0$ there is no cointegration (no long-term relationship) between the variables
- H1: $\gamma i \neq 0$ the variables are cointegrated

Two critical values are given by Pesaran et al (2001) for this test. Cointegration between the variables exists if the value of the calculated F-statistics is higher than the upper bound value of the test. In that case, H0 can be rejected. If the F-statistics value is lower than the lower bound value, H0 cannot be rejected. In that case there is no long-term relationship between the variables. However, if the value lies between the upper and the lower bound value, the result is inconclusive and the presence of a long-term relationship is decided by the value of the error correction term.

3.1.3. Error Correction

When the long-term relationship is validated by the data, an error correction version of the model can be applied. The error correction model (*ECM*) can be written as follows:

$$\Delta Conf_t = \alpha + \sum_{i=1}^{p_0} \alpha_0 \Delta Conf_{t-i} + \sum_{i=0}^{p_1} \alpha_1 \Delta Gdpc_{t-i} + \sum_{i=0}^{p_2} \alpha_2 \Delta Edu_{t-i} + \sum_{i=0}^{p_3} \alpha_3 \Delta Open_{t-i} + \sum_{i=0}^{p_4} \alpha_4 \Delta Military_{t-i} + \sum_{i=0}^{p_5} \alpha_5 \Delta PolFree_{t-i} + \rho_1 ECT_{t-1} + \epsilon_t$$

Eq (1b)

$$\Delta Gdpc_t = \beta + \sum_{i=1}^{p_0} \beta_0 \Delta Gdpc_{t-i} + \sum_{i=0}^{p_1} \beta_1 \Delta Conf_{t-i} + \sum_{i=0}^{p_2} \beta_2 \Delta Edu_{t-i} + \sum_{i=0}^{p_3} \beta_3 \Delta Open_{t-i} + \sum_{i=0}^{p_4} \beta_4 \Delta Military_{t-i} + \sum_{i=0}^{p_5} \beta_5 \Delta PolFree_{t-i} + \rho_2 ECT_{t-1} + \epsilon_t$$

Eq (2b)

where the variables and parameters to be estimated are as defined in previous sections, ECT_{t-1} , the error correction term, is the residual of the estimated cointegration model (Eq 1 and Eq2), and $\rho_{1,2}$, the coefficients of *ECT*, the speed of adjustment back to the long-term equilibrium after a short-term shock.

These coefficients should be negative and significant for the model to converge in the long term. This is the case in particular when the bound test concludes to cointegration and the presence of a long-term relationship.

3.1.4. The Relation between Growth and Conflict

The direction of the relation between conflict and GDP per capita can be tested through the error correction terms of the ARDL version of the *Conflict* and *GDPc* equations (Eq 1b and Eq 2b). If this term is not significant or positive, then there is no long-term relationship between the two variables: conflict does not explain growth and/or growth does not explain conflict in the long run.

3.2. Diagnostic Tests

Several diagnostic and stability tests can be performed to ensure proper fit of the model. Pesaran and Pesaran (1997) recommend using Cumulative sum (CUSUM) and Cumulative sum of squares (CUSUMSQ) to test the stability of the long- and short-term coefficients. These tests require that the statistical result falls between the significance level of 5% critical bounds. We also use several diagnostic tests: the Breusch-Godfrey and the Breusch-Pagan-Godfrey tests to examine respectively the serial correlation and the heteroskedasticity associated with the estimated model. In order to select the optimal lag length for each variable, the ARDL approach estimates $(p + 1)k$ number of regressions, where p is the maximum number of lags and k is the number of variables in the model. The number of lags is selected on the basis of the Akaike Information Criteria (AIC). The time period for analysis is 1978 to 2016.

4. THE RESULTS OF THE ESTIMATIONS

4.1. Testing for Unit Roots

This study uses the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests, as suggested by Enders (1995), to check the stationarity of the variables¹². For both tests, all variables are non-stationary at level, but stationary at first difference level, except Open which is stationary at level (see Tables 1 and 2). As none of the variables is integrated at order 2 or above, we can use the ARDL Bound Testing procedure for long-term prediction.

Table following on the next page

¹² The optimal lags (k) for conducting the ADF test were determined by AIC (Akaike Information Criteria).

Table 1: ADF Unit Root Tests

Variable	Level		First Difference	
	t-Statistic	Prob.	t-Statistic	Prob.
Conf	-1.56	0.49	-6.68	0.00
GDPc	-0.61	0.86	-6.58	0.00
Edu	-0.29	0.92	-6.21	0.00
Open	-2.69	0.09	-7.30	0.00
Military	-0.36	0.91	4.71	0.00
FreePol	-2.37	0.16	-6.18	0.00

Table 2: PP Unit Root Tests

Variable	Level		First Difference:	
	t-Statistic	Prob.	t-Statistic	Prob.
Conf	-1.31	0.61	-15.0	0.00
GDPc	-0.64	0.85	-7.54	0.00
Edu	-0.10	0.96	-6.54	0.00
Open	-2.71	0.08	-7.30	0.00
Military	-0.58	0.86	4.71	0.00
FreePol	-2.59	0.10	-6.19	0.00

4.2. The ARDL Bound Test Estimations of the Equation of Conflict

Table 3 presents the results of the bound testing procedure when conflict is the dependent variable. It shows that the F-statistics calculated value is higher than the upper bound value at the 1% significance level. Therefore, we can reject the null hypothesis of no cointegration and infer that there is a long-term relationship between the variables.

Table 3: Bound Testing Results

Null Hypothesis: No long-term relationships

Test Statistic Value

F-statistic 6.19

Critical Value Bounds

Critical values		1 %	2.5 %	5 %	10 %
Lower	bounds			2.39	2.08
I(0)		3.06	2.7		
Upper	bounds			3.38	3
I(1)		4.15	3.73		

4.2.1. The Short-Run Dynamics of the Equation of Conflict

Table 4 presents the results of the estimation of the short-term dynamics of the ARDL model where Conflict is the explained variable (Eq 1b). The coefficient of the error-correction term (ECT) is negative and statistically significant at the 1% level. This suggests that the error-correction model (ECM) is valid and that the model returns to equilibrium in the long term after

a short-term shock. The value of the error–correction term is less than -1, which means that the model converges in less than a year (Narayan and Smyth, 2006).

Table 4: Error Correction Model (ECM) Estimates
Dependent Variable: Conf

Regressors	Coefficien t	Std. Error	t-Statistic	Prob.
Δ (Military)	0.49	0.53	0.92	0.37
Δ (Military (-1))	2.12***	0.63	3.35	0.00
Δ (Military (-2))	-1.08**	0.42	-2.61	0.02
Δ (Open)	0.08	0.05	1.6	0.13
Δ (Open (-1))	-0.19***	0.05	-3.81	0.00
Δ (Open (-2))	-0.11**	0.05	-2.35	0.03
Δ (GDPc)	13.15***	3.06	4.3	0.00
Δ (GDPc (-1))	9.82**	3.28	2.99	0.01
Δ (Edu)	-10.19**	3.66	-2.79	0.01
Δ (Edu (-1))	16.01***	3.57	4.49	0.00
Δ (PolFree)	-0.59**	0.23	-2.52	0.02
Δ (PolFree (-1))	0.52*	0.29	1.77	0.09
Δ (PolFree (-2))	0.83**	0.26	3.18	0.01
ECT (-1)	-1.09***	0.16	-7.55	0.00

*Note: ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively*

Table 4 also presents the short-term explanatory factors of the conflicts in Pakistan. Military expenditure (Military) has a negative significant coefficient for the second lag of the variable, which means that the fight against conflict shows a certain efficiency in the short term. Trade openness (Open) also has a negative significant sign for the first and second lags of the variable. This result could mean that economic reforms, by opening up new opportunities, reduce frustration among people, leading to fewer reasons for conflict. Short-term estimates also indicate that an increase in per capita income tends to fuel conflict, with the GDPc coefficient being positive and significant. This result is in line with the conclusions of Caruso and Schneider (2011) based on the theory of “immiserizing modernization”. It may also be linked to the large amount of foreign funds received by the country to fight (or support) terrorism. Education (Edu) and political freedom (PolFree) both have a negative significant coefficient in level form and a positive significant one for the lagged values. The reason for this positive short-term coefficient for education (Edu) may be that investment in human capital takes time to show its effects. For political freedom (PolFree), the results indicate that democracy could reduce conflicts in the short term.

4.2.2. The Long-Term Relationship of Conflict

Table 5 presents the long-term estimates of the ARDL procedure. All the coefficients are statistically significant at the 1% or 5% level. The table shows the long-term factors of internal conflict in Pakistan. The results show that a 1% increase in military expenditure (Military) would reduce the number of conflict-based incidents by 1%. This finding confirms that military activities can reduce conflicts and maintain order in the long run. In contrast to the short-term dynamics, the results also highlight a positive relationship between trade openness (Open) and internal conflict. The long-term coefficient suggests that a 1% increase in trade openness would result in a 0.28% increase in the number of conflict-based incidents, which confirms the findings of Freytag et al (2010) and Wintrobe (2006).

A reason for this positive impact may also be that, with increased economic integration, high cost industries (relative to international competitors) may suffer. This may lead to grievances, which may, in turn, fuel internal conflicts.

Table 5: ARDL Long-Term Estimates
Dependent Variable: Conf

Regressor	Coefficient	Std. Error	t-Statistic	Prob.
	t			
Military	-1.01**	0.29	-3.42	0.00
Open	0.28**	0.08	3.66	0.00
GDPc	5.88**	2.4	2.45	0.02
Edu	-10.96**	5.13	-2.14	0.04
PolFree	-1.96***	0.29	-6.66	0.00
Constant	-41.4*	21.2	-1.95	0.07

*Note: ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively*

The long-term relationship between GDP per capita and internal conflicts is also found to be positive. The results indicate that a 1% increase in GDP per capita would lead to a 5.8% increase in the number of conflict-based incidents. Our finding, which is consistent with Shahbaz (2012), confirms the result of the short-term dynamics. As Caruso and Schneider (2011) explain, an increase in wealth will not automatically translate into a reduction of conflict, especially if the motivation to fight is not poverty, as is the case in Pakistan. In contrast to the short-term dynamics, the education variable (Edu) shows a significant long-term negative relationship with the conflict variable. The value of the estimated coefficient indicates that a 1% increase in gross primary enrollment would reduce the number of conflict-based incidents by 0.10%. This result, which is consistent with Collier and Hoeffler (2004), confirms that the benefit of education may take time to be seen. Freytag et al (2010) explain that, for terrorists, the mental reward (life in paradise, becoming a martyr) is more important than the material reward. Wilkens (2011) finds that in Pakistan and Afghanistan, suicide attacks are mostly committed by very young people. Our results suggest that investing in education would help children not to become involved in terrorist activities. More generally, education would give people the tools they need to make their own judgment, as well as to get better jobs. The results also indicate that, unlike the short-term dynamics, political freedom (PolFree) is, in the long term, negatively associated with conflict. This would mean that weak political rights lead to less conflict in the case of Pakistan. This finding is similar to that of Eubank and Winberg (1998) and of Li and Schaub (2004). In fact, Pakistan has experienced more internal conflicts in democratic periods than in autocratic periods¹³. It can be argued that when democracy prevails in a fragile and conflict-ridden country like Pakistan, it gives the extremists more freedom of press, movement, and expression, thus reducing their organizational costs. Conflicts and terrorism can be controlled in a democracy through a mechanism of strict application of law and order. Unfortunately, this is not the case in Pakistan.

4.3. Diagnostic Tests

The Breusch-Godfrey series correlation test and the Breusch-Pagan-Godfrey test for heteroscedasticity were used for the validity and reliability of the estimates. The results for both tests are given in Table 6.

¹³ See Global Terrorism Database. (GDT, 2017).

Table 6: Diagnostic tests

Breusch-Godfrey Serial Correlation LM Test

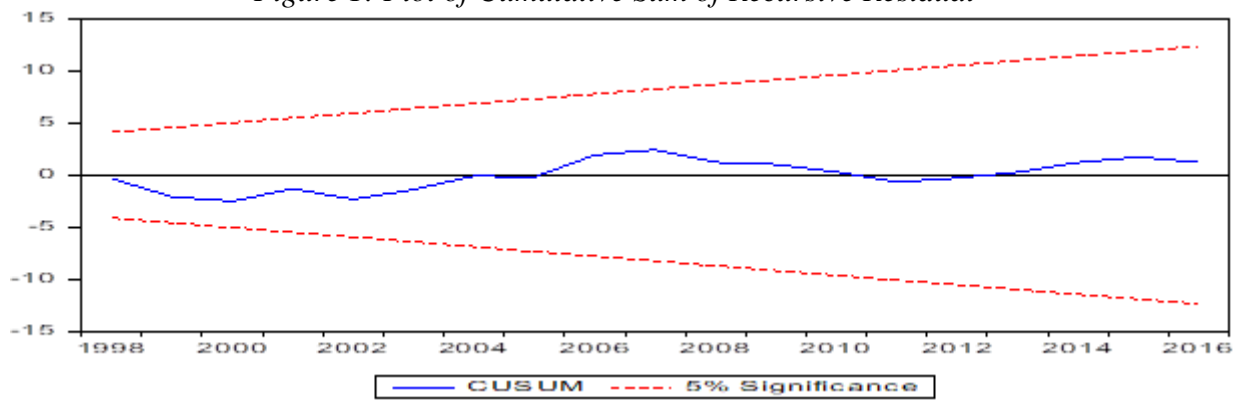
Observations	*	R-	
squared		5.42	Prob. Chi-Square (3) 0.14

Heteroskedasticity Test: Breusch-Pagan-Godfrey

Observations	*	R-	
squared		18.88	Prob. Chi-Square (19) 0.46

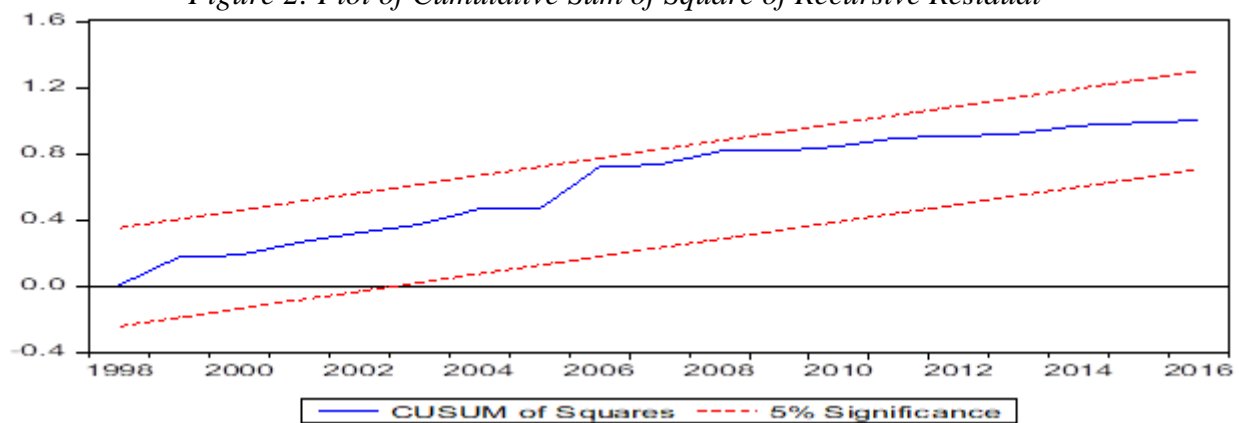
Table 6 shows that the probability of serial correlation and heteroskedasticity tests is greater than 0.05. This indicates that the null hypothesis is accepted and that the residuals in the estimates are homoscedastic and do not undergo serial correlation.

Figure 1: Plot of Cumulative Sum of Recursive Residual



To verify the long-term stability of the model coefficients, this study applied the CUSUM and CUSUMSQ tests. The results imply that the plots (blue line) are within the critical bound of 5% significance level. This shows that all the coefficients of the estimated error correction model are stable and can be used for policy recommendations.

Figure 2: Plot of Cumulative Sum of Square of Recursive Residual



4.4. The Relation between Growth and Conflict

The direction of the relation between GDP per capita and the conflict variable can be deduced from the estimation of the growth equation (Eq 2b). The results show that, in the long term, the model does not converge to an equilibrium determined by Conflict. As shown in Table 8 of the Appendix, the ECT coefficient in the error correction representation is positive. This finding indicates that conflict is not part of the long-term equilibrium of GDP per capita and that it is

GDP per capita that explains conflict in the long-run in Pakistan (Eq 1b and Table 4), and not conflict that contributes to the long-term growth of the country. In other words, although conflicts seem to stimulate growth in the short term (see Table 8), perhaps because of the importance of external funds made available to stakeholders to fight (or support) terrorism, this impact does not seem to last and does not seem to affect (neither positively nor negatively) the country's long-term growth performance. This finding is confirmed when estimating the long-term coefficients of the GDP equation (Eq 2a), which is not significant for the conflict variable (see Table 9 of the Appendix). The results also indicate that no other variable seems to contribute to the country's long-term growth, because all the long-term coefficients are insignificant. This result may mean that Pakistan's long-term dynamics are due to a long period of conflict and political instability, highlighting the need for a stable environment to see the results of economic, political and social reforms. Pakistan may be caught in a low-growth trap, where conflict is the key variable to address before embarking on better policies. This conclusion can be extended to short-term dynamics, since almost none of the explanatory variables of the GDP equation seem to show a stable relationship with the country's performance (see Table 8).

5. CONCLUSION

In this article, we study the long-term relationship between internal conflict, economic growth, and human development in Pakistan. We explore different reasons for conflict in the country, as well as different theories and empirical determinants. In addition to explaining internal conflicts, we investigate their cost in terms of economic growth and human development. By studying the long-term relationship between internal conflict, economic growth, and human development we show that human capital is an important factor for mitigating conflicts in the country. This finding underscores that investing in education, by providing better opportunities and reducing radicalization, would contribute to a more stable and prosperous economy. This result contrasts with the high defense spending of the Pakistani government, whose spending on education has been very low (Benz, 2016). Our findings also show a long-term contribution of law and order (as measured by military expenditure) to the reduction of internal conflicts. This result justifies the government's counter-terrorism policy, as shown by Feridun and Shahbaz (2010). On the contrary, it appears that wealth and economic reforms do not contribute to reducing internal conflicts in Pakistan, because long-term GDP per capita and trade openness show a positive impact on the number of conflict incidents. These findings are similar to those of Freitag et al (2010) who showed that globalization contributes to conflicts when it is perceived as a threat by part of the population. Ismail and Amjad (2014) also justify the positive impact of per capita GDP on conflict through the “immiserizing modernization theory”, which argues that economic growth can fuel political and social unrest. Political rights and civil liberties do not seem to reduce conflict in Pakistan either, because democratic periods have seen a resurgence of violence in the country. This result could mean that, in a fragile and unstable country like Pakistan, respect for public order is a priority before restoring democracy. With regard to the direction of the link, it would seem that the relationship moves from GDP per capita to internal conflict, which means that conflicts do not contribute (positively or negatively) to the long-term growth of the economy. Per capita GDP also does not appear to be sensitive to economic reforms, education, military spending, or political rights and civil liberties, since none of these variables appears to be significant in the long term. This could mean that, because of a long-lasting conflict situation, Pakistan is caught in a low development trap in which internal conflict is the key variable to address before seeing the benefits of reforming the economy.

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APPENDIX

Table 7: Descriptive Statistics

Variables	Conf (log)	Edu (%)	Open (%)	PolFree (%)	Military (%)	Gdpc (log)
Mean	3.94	72.7	29.7	4.8	5.5	10.09
Median	3.97	71.4	29.7	4.5	6.0	10.09
Maximum	7.70	98.8	39.1	6.0	7.6	10.63
Minimum	0.00	49.1	22.9	3.0	3.3	9.51
Std. Dev.	2.28	16.5	3.3	0.8	1.5	0.36
Skewness	-0.10	0.1	0.2	-0.1	-0.2	-0.04
Kurtosis	1.95	1.6	3.5	2.4	1.4	1.71
Jarque-Bera	2.05	3.8	0.9	0.7	4.6	2.99
Probability	0.36	0.2	0.6	0.7	0.1	0.22

Table 7 shows the descriptive statistics of all variables. Our data set consists of 43 annual observations from 1974 to 2016. For a normal distribution, skewness is zero and the expected value for kurtosis is 3. All variables are negatively skewed except *Edu* and *Open* as they are right skewed. Kurtosis analysis shows that only *Open* is leptokurtic, while all other variables are platykurtic. Jarque-Bera test (JB) states that the residuals are normal as the probability of JB test for all variables is higher than 0.05.

Table 8: Error Correction Model (ECM) Estimates
Dependent Variable: Gdpc

Regressors	Coefficient t	Std. Error	t-Statistic	Prob.
Δ (Gdpc (-1))	-0.37***	0.12	-2.99	0.00
Δ (Conf)	0.01**	0.0	2.47	0.02
Δ (Conf (-1))	0.02***	0.004	4.27	0.00
Δ (Military)	-0.08***	0.01	-6.12	0.00
Δ (Military (-1))	-0.01	0.02	-0.73	0.47
Δ (Military (-2))	0.07***	0.01	4.77	0.00
Δ (Open)	-0.01***	0.00	-3.89	0.00
Δ (Open(-1))	0.00*	0.00	1.85	0.08
Δ (Edu)	-0.15	0.12	-1.32	0.20
Δ (Edu(-1))	-0.28**	0.01	-2.86	0.01
Δ (Edu(-2))	0.30***	0.09	3.25	0.00
Δ (PolFree)	0.04***	0.01	4.75	0.00
Δ (PolFree (-1))	0.03***	0.01	3.25	0.00
ECT (-1)	0.13***	0.02	8.92	0.00

Note: ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively

Table following on the next page

Table 9: ARDL Long Run Estimates
Dependent Variable: Gdpc

Regressors	Coefficient	Std. Error	t-Statistic	Prob.
Conf	0.03	0.06	0.55	0.59
Military	-0.08	0.17	-0.65	0.52
Open	0.07	0.05	1.19	0.25
Edu	1.1	1.19	0.93	0.37
PolFree	-0.14	0.18	-0.77	0.45
Constant	7.97*	1.16	6.89	0.00

*Note: ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively*

A EUROPEAN PERSPECTIVE OF THE WESTERN BALKANS: DRAWING ON THE EXPERIENCE OF BULGARIA, CROATIA, AND ROMANIA

Petar Kurecic

*University North, Koprivnica, Trg Žarka Dolinara 1, Croatia
petar.kurecic@unin.hr*

Marin Milkovic

*University North, Koprivnica, Trg Žarka Dolinara 1, Croatia
marin.milkovic@unin.hr*

Igor Klopota

*University North, Koprivnica, Trg Žarka Dolinara 1, Croatia
igor.klopota@unin.hr*

ABSTRACT

The former communist countries of Central and South-Eastern Europe are now mostly NATO and EU members. The exceptions are the countries of the Western Balkans, which, at least declaratively, have a European perspective, with NATO as the probable entry check point (except for Serbia). The economic situation in the region is however less optimistic. The GDP per capita of the “most developed” Western Balkans state is still lower than the GDP of Bulgaria. Demographic challenges in some of the Western Balkans states are staggering (as well as in the Baltic States, Romania, Bulgaria, Hungary, and Croatia), with Albania, Bosnia-Herzegovina, Kosovo, and Serbia losing 12.4, 22.2, 13.0, and 9.1 percent of their population from the peak population year until the year 2018, respectively. With the possible accession to the EU, the emigration from all Western Balkans states would most likely increase; hence gradual or instant opening of the EU labour market has been the most significant factor influencing the demographic characteristics of post-communist EU members. The EU Strategy for the Western Balkans was revealed in February 2018. The Bulgarian presidency of the EU (the first half of 2018) has put the Western Balkans high on the priority list, and so has the Austrian presidency (the second half of 2018). How will the forthcoming enlargement envisioned by the European Commission improve regional development? How realistic is that the Western Balkans will be integrated into the EU by 2025 and what could be the major implications for these states? By studying statistical data and social processes, we compare the results of the EU membership for Croatia, Romania, and Bulgaria, the three most recent EU member states, and try to predict the most important developments in the Western Balkans states, that would likely occur after the accession to the EU.

Keywords: *The Western Balkans, the European Union (the EU), enlargement, outmigration, foreign direct investment (FDI)*

1. INTRODUCTION

The emergence of anti-enlargement sentiments amongst EU member states has occurred notwithstanding the generally positive and promising development trends among both the old and new EU members from 2004 until the eruption of the world economic crisis in 2008 (Petrovic and Ross Smith, 2013: 555). Nevertheless, after the accession of Croatia that occurred in 2013, the EU seems ready for the future steps, although the economic and institutional crisis of the EU has severely increased the enlargement fatigue. Petrovic and Ross Smith (2013: 558-559) argue that “it has been confirmed that the tool of enlargement is the best, if not (as the experience of those less successful transitional states shows) the only effective way of receiving

the necessary financial assistance and technical advice for governments of the European post-communist states who pursued economic and socio-political reform.” Secondly, the authors point out “enlargement has undoubtedly represented the EU’s most successful ‘external relations tool’ (Phinnemore, 2006: 7), ‘foreign policy’ (Schimmelfennig 2008: 918) and ‘policy instrument and ... conflict prevention mechanism’ (Tzifakis, 2007: 59), which has brought significant benefits to the ‘old’ member states and their citizens’ well-being.” If we accept these arguments as condition sine qua non of any future development, is it “normal” and “natural” that the states that have accessed the EU continue to lose population, which is concurrently ageing, and thereby severely reducing their chance for a sustainable long-term development? If the enlargement and the accession to the EU are much better than the alternative – are there mechanisms to make these processes more beneficial for the states that want to join the EU (as all the Western Balkans states do)? The EU Strategy for the Western Balkans (Credible Engagement) was revealed in February 2018. The Bulgarian presidency of the EU (the first half of 2018) has put the Western Balkans high on the priority list. This dedication to the Western Balkans enlargement was reaffirmed at the EU-Western Balkans Summit, held in Sofia, May 17th, 2018. Nevertheless, from the Declaration of the Summit, which generally repeats values, priorities and goals expressed in the EU Strategy for the Western Balkans, not many concrete programs and measures can be noticed – although it has to be recognized that declarations and resolutions that are not intended to express concrete plans, measures and time-frames. By studying statistical data and social processes, we compare the results of the EU membership for Croatia, Romania, and Bulgaria as the three most recent EU member states and try to predict future developments in the pre-accession period and after the accession to the EU in the Western Balkans states. The former communist countries of Central and South-Eastern Europe are now mostly NATO and EU members. The exceptions are the countries of the Western Balkans, which, at least declaratively, have a European perspective, with NATO as the probable entry check point (except for Serbia). The economic situation in the region is however less optimistic. The GDP and GNI per capita of the “most developed” Western Balkans state (Montenegro) are still slightly lower than those of Bulgaria, the least developed EU member state. Demographic challenges in some of the Western Balkans states are staggering (as well as in the Baltic States, Romania, Bulgaria, Hungary, and Croatia), with Albania, Bosnia-Herzegovina, Kosovo, and Serbia losing 12.5, 22.0, 12.9, and 8.8 percent of their population from the peak year until 2017, respectively. With the possible accession to the EU, the emigration from all Western Balkans states would most likely increase; hence gradual or instant opening of the EU labour market has been the most significant factor influencing the demographic characteristics of post-communist EU members. In studying the challenges of the possible EU enlargement to the Western Balkans region, we need to pose a couple of research goals and key questions. Key research question posed is the following: How should the negativities caused by the accession to the EU that has hit a significant number (about a half) of the post-socialist EU countries be reduced (the Baltic States, Hungary, Croatia, Romania and Bulgaria in particular)?

2. THE EU STRATEGY FOR THE WESTERN BALKANS AND ITS IMMEDIATE AFTERMATH: FOCAL POINTS

On February 6th, 2018, the European Commission (hereafter: the Commission) revealed the Strategy for the Western Balkans, offering a viable European perspective to the countries of the Western Balkans by 2025: “By that date, the EU could become larger than 27 Members. Accession negotiations are already well underway with Montenegro and Serbia” (EU Strategy, 2018: 2), and confirming its dedication and engagement in the region: “The EU has long been strongly engaged in the region. From the Thessaloniki European Council in 2003, it has supported the future of the region as an integral part of the EU” (EU Strategy, 2018: 1). The Commission also emphasized the value of the EU trade with the region, and its growth in the

last decade: “In 2016, the region's total trade with the EU was over EUR 43 billion, up 80% since 2008 and with significant further growth potential. EU companies are also the biggest investors in the Western Balkans, with over EUR 10 billion of Foreign Direct Investment in the region in the past five years alone” (EU Strategy, 2018: 1). Encouragements have been given to other Western Balkans states, besides Montenegro and Serbia: “The Commission is ready to prepare recommendations to open accession negotiations with Albania and the Former Yugoslav Republic of Macedonia, on the basis of fulfilled conditions. With sustained effort and engagement, Bosnia and Herzegovina could become a candidate for accession” (EU Strategy, 2018: 2), however a very realistic message has been sent: “The Western Balkan countries will be able to join the European Union once the criteria of Article 49 of the Treaty on European Union, including the Copenhagen criteria, are met. While none meets these criteria today (put into italics by the authors), the region has come a long way since the end of the 1990s” (EU Strategy, 2018: 3). The key demands are comprised in the following fields: the rule of law (must be increased significantly), the state of the economies (competitiveness must be increased, interference of politics is too high, private sector is underdeveloped, and therefore none of the states has a functioning market economy and cannot compete on the EU market), dispute solving (bilateral disputes need to be resolved, the EU will not accept these), unequivocal support to the membership in the EU must be expressed by the people (hearts and minds) (more in EU Strategy, 2018: 3).

Regarding the support for socio-economic development of the Western Balkans, the Commission has pointed out the following goals (EU Strategy, 2018: 12):

- Regional economic area, strengthening the EU-region trade, stimulating private sector, start-ups and economic links with diaspora. The biggest hope for reducing the demographic exodus lies in the following statement (EU Strategy, 2018: 13): “The European Pillar of Social Rights reflects principles and rights that are essential for fair and well-functioning labour markets and welfare systems. Through a new reinforced social dimension for the Western Balkans, the Commission will work to support employment and social policy in the region, encouraging appropriate engagement from all levels of government, social partners and civil society. This will include an increased focus on employment and social reforms through greater monitoring of relevant policies, including in the context of the economic reform programmes.”

It is clear that the EU Strategy puts a lot of work in front of the Western Balkans, recognizing what Petrović (2013: 112) has identified: “The Western Balkans are an ideal replacement for the former Balkan Other (the Balkans as a whole, Southeastern Europe), essential for maintaining this kind of otherness: geographically speaking, the Balkan countries, candidates for EU membership, are undoubtedly part of Europe and it is where they belong historically and in terms of civilization (these are constant ideological features emphasized by both European and local politicians), but they have a lot of work ahead of them before they can become “European” or part of Europe.” Although it seems that the EU has similar views about the prospects of its enlargement towards the Western Balkans, the Strategy has to be perceived only as the document that reflects the views of the Commission. It seems that the member states of the EU are far from having the unanimous view about the prospects of enlargement. Already at the first meeting of the EU foreign minister after the Strategy was revealed, held on February 15th, the difference in stances towards the dynamics of the enlargement, which also means the difference in the stance towards the compliance with the criteria and benchmarks that future EU member states would have to fulfil, were clear. The states are geographically closest to Serbia and led by right-wing or centre-right governments, and also hold a very firm opposition to immigration, such as Austria and especially Hungary, want the Western Balkans enlargement

to commence in 2022, with acceptance of Serbia and Montenegro. Faster enlargement would also move the “pressure” arising from the Balkan migrant route far from Hungary’s borders, making Hungary a state completely surrounded by EU member states. Bulgaria, which is also on the “Balkan route” and would profit from the membership of Serbia by having a direct territorial contact through an EU member state then with Hungary, Croatia, and hence with the rest of the EU (connection through Romania is longer, and the Danube River is a geographical barrier for new road and rail corridors, which already exist through Serbia), also supports faster enlargement, with the acceptance of first Western Balkans states in 2022. On the other hand, due to several border disputes between western Balkans, Slovenia considers the 2025 goal as unrealistic, despite some recent progress registered in the Serb-Croatian, or Kosovo-Montenegro relations (agreement to for joint border commission). Furthermore, France and Germany remain reserved for the EC design, and (then) German Minister Sigmar Gabriel reiterated that Serbia first must recognize Kosovo's independence” (Jandova, 2018).

3. THE WESTERN BALKANS STATES’ ECONOMIC CHALLENGES: THE EXPERIENCE OF CROATIA, BULGARIA, AND ROMANIA

In general, when it comes to economic situation and issues, the post-socialist EU member states show significant differences. However, it has to be noted that “EU enlargement also accelerated polarization within countries, and between regions from different countries. As it proceeded, so did territorial unevenness” (Serfati, 2016: 267). The states of the Western Balkans are more alike, in a negative sense. Although in these states, territorial unevenness at the state level has increased, leaving the capital cities in extremely favourable position to periphery, especially considering the fact that the breakup of Yugoslavia created seven more or less small states. Redo (2015: 84): “In the years 2003-2013, the highest GDP per capita in relation to the EU average was recorded in Romania and Lithuania, respectively 77% and 52%. In Latvia, Poland, Estonia, Slovakia and Bulgaria, GDP increased by around 40%. The lowest recorded increase was noted in Hungary, the Czech Republic (for 6%) and Croatia (for 9%); Slovenia recorded a small decrease of 1.2%”. “However, convergence processes for the EU states must be based on the strong economic growth of GDP per capita” (Dubra, 2016: 43). By the early 1990s wage levels had risen and Iberian Peninsula was superseded by Central Eastern Europe in its function of low-wage periphery with wages there some 10% of those in Germany (Krzywdzinski, 2014: 3). Fierce competitions between ECE countries for inward investment in the 2000s drove wages even lower (Serfati, 2016: 277).

Table following on the next page

Table 1: GDP per capita (PPS), the minimum wage, and at-risk-of poverty rate or social exclusion in the post-socialist EU member states, 2015

EU Member State	GDP per capita (PPS EU28=100, %)	Minimum wage (Euros)	At-risk-of poverty rate (%)
Bulgaria	45	194.2	40.1
Croatia	59	398.9	29.9
Czech Republic	84	337.5	14.6**
Estonia	73	390	23.5
Hungary	68	333.4	33.5
Latvia	64	360	35.1
Lithuania	74	325	30.8
Poland	68	417.5	25.8
Romania	54	234.7	40.4
Slovakia	76	380	19.8
Slovenia	83	790.9*	20.4

Source of data: Eurostat and European Commission, 2015.

**The minimum wage in Slovenia in 2015 was higher than minimum wage in Portugal (589.1), Greece (683.7), Malta (720.4), and Spain (756.7 Euros).*

***The at-risk-of-poverty rate in Czech Republic was the lowest in the whole EU28.*

As for unemployment, the numbers were the following: “In 2008, the rate in Estonia, Slovenia, Czech Republic, Bulgaria, Romania and Lithuania decreased to only 4-5%, in Poland and Latvia up to 6%, in Croatia, Hungary and Slovakia – 7.5-9%, whereas the average in the EU amounted to 7% (Eurostat, 2015, in Redo, 2015: 84). The unemployment in these countries was actually lower than in the EU as a whole (thanks mainly to the very high rates in most of the Mediterranean member states, due to the Great Recession, authors’ remark). When FDI is studied (recognized by the Commission as one of the necessary drivers of economic growth, especially important for the Western Balkans) it has to be emphasized: “The South East European Countries (SEECs)¹ have attracted a considerable amount of FDI so far: the average annual growth of inward FDI in the SEECs reached 26% over the 2001 to 2008 period” (Bellak et al., 2010: 38). The year 2008 is important, hence it is the last year before the Great Recession hit the region hard, with Albania as the only state that did not experience negative GDP growth in 2009 or at all, at a yearly level. The authors have also determined the factors that can increase the level of FDI significantly and the ones that are not so important: “The potential for SEECs to attract FDI upon changes in these policy areas varies not only substantially among the three policy areas but also within the group of SEECs. Yet, as a general picture, most SEECs have a substantial scope to attract FDI by improving their institutional environment as well as their infrastructure endowment. The tax instrument, in contrast, is largely exhausted as a means to attract FDI” (Bellak et al., 2010: 39). Gorynia et al. (2010) have shown that already in 2008, that half of the new post-socialist EU member states from Central and Eastern Europe (ten states) have already reached Stage 3 of the IDP, while the other half are either firmly in Stage 2 or are approaching Stage 3, according to investment development path concept, introduced by Dunning².

¹ Defined in this particular paper as: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Moldova, Macedonia, Montenegro, Romania and Serbia.

² The inward and outward foreign investment position of a country is tied with its economic development. Changes in the volume and structure of FDI lead to different values in the country’s net outward investment (NOI) position, defined as the difference between gross outward direct investment stock and gross inward direct investment stock. The changing NOI position passes through 5 stages intrinsically related to the country’s economic development (Dunning and Narula, 2002).

Romania can be used as an example of variations in the level of FDI, caused by external and internal factors. Tanascovici and Hagi (2013: 215) point out: “FDIs started to grow since 2003 from 1946 million euros reaching to a maximum of 9,496 million euros in 2008, and in 2011 decreased to 1,815 million euros. In 2004 FDIs increased due to the Romania’s accession to NATO, thus increasing investors’ confidence level on the country. Investments in fields such as processing, trade and services increased”, whilst Simionescu (2017: 69), states: “After it reached the maximum stock of FDI in 2008, this indicator decreased in 2009 with 60% in the context of economic crisis” (see also Tanascovici and Hagi, 2013: 215). However, many economists, like Georgescu (2013), discussed this problem not only in the context of economic crisis: “After considerable growth, FDI reach a level of saturation that might explain the decrease acceleration. The uncertainty in the prospects of growth and the failure of policies’ implementation are factors that still discourage the potential foreign investors in Romania. A considerable gap was observed between Romania and the other emergent countries like Poland, Hungary, Czech Republic, and Slovakia when the transition process started in these countries.” (Simionescu, 2017: 69). Judging by the experience of other Central and Southeast European EU member states, we should expect a significant increase in the level of FDI as the Western Balkans states would be approaching the accession to the EU. However, FDI is dependent on so many factors, especially after the crisis. The divide between the Central European and Southeast European EU members regarding FDI is visible (see Estrin and Uvalic, 2013) – however, the real question for the future remains: How to boost FDI in the Western Balkans and therefore close the gap in the level of GDP per capita for some portion, concurrently raising the wages to keep more people from emigrating from the region? Considering the GDP per head, it grew faster in the Southern European (SE) countries between integration and 2007 than in the core countries, a reverse trend set in thereafter and by 2012, their GDP per capita had fallen to 76.7% of the EU-15 average: the gap was now the same level as 40 years before (1974) after having been reduced in the 1990s and until 2008, with the SE’s GDP/capita reaching 82.5% of EU GDP/capita in 2008 (Aiginger, 2013). Regarding the income convergence between the EU 15, the New Member States (NMS) and the Western Balkans states (WBS), Stanisić (2016: 3) points out: “a quarter century after the beginning of transition, many of the former socialist countries joined the EU and significantly increased their GDP per capita. On the other hand, transition in the countries of the so-called Western Balkans has disappointed in that sense”. These differences coincide with the disparities in FDI, shown by Estrin and Uvalic (2013), as well as income level. Addressing the income convergence based on the differences in the economic growth, Stanisić (2016: 6) points out: “Throughout the observed period (1993-2015), the average growth rate of the real GDP in the EU-15 group was 2%, in the New Member States group 3.1%, and in the Western Balkans States group 2.9%. These growth rates enabled an increase in the average GDP per capita (measured by the purchasing power parity), from \$ 21,328 to \$ 45,467 in the EU-15 group; from \$ 7,806 to \$ 25,942 in the NMS group, and from \$ 4,874 to \$ 14,441 in the WBS group.” After almost a quarter century, the differences are still about 2:1 between the EU-15 and NMS, and 3:1 between EU-15 and WBS. If the Southern member states, the so-called PIGS states would be excluded (due to the Great Recession and its aftermath, the differences between the most developed economies of the EU and PIGS have significantly increased) the gap the EU Core and the NMS (semi-periphery) and especially the WBS (periphery) is much bigger, the position of the Southern member states notwithstanding.

3.1. Case-study: The experience of Croatia

Before analysing the current data, an even longer historical perspective must be introduced. In 1990, the last year before the Homeland War and the start of the privatization process, Croatia was (then still a federal unit of the former Yugoslavia, as Slovenia), the second most developed

socialist state in the world (GDP: 5 185 US\$ per capita), immediately after Slovenia (GDP: 8 699 US\$ per capita)³.

Table 2: Total GNI per capita of the post-socialist EU member states and the Western Balkans states

State	GNI per capita, 1997, Atlas method (current US\$)	GNI per capita, 2008, Atlas method (current US\$)	GNI per capita, 2016, Atlas method (current US\$)
Bulgaria	1 330	6 400	7 580
Croatia	5 470	13 970	12 130
Czech Republic	6 120	18 300	17 530
Estonia	n/a	15 070	17 760
Hungary	4 460	13 210	12 570
Latvia	2 720	13 420	14 570
Lithuania	2 600	12 660	14 770
Poland	4 190	11 970	12 680
Romania	1 600	8 630	9 480
Slovak Republic	5 400	17 200	16 800
Slovenia	11 300	24 710	21 620

Albania	830	3 950	4 180
Bosnia and Herzegovina	1 010	4 720	4 940
Kosovo	n/a	3 100	3 850
Macedonia, FYR	2 100	4 330	4 980
Montenegro	n/a	6 360	7 120
Serbia	2 850	5 650	5 310

Source of data: World Bank Country Indicators.

The Homeland War and the difficulties in its aftermath, the loss of traditional markets, and a very badly managed transition (especially the privatization of state-owned property) caused the Croatian GDP per capita to decrease significantly in the 1990s. In 1999, Croatia suffered a recession, as the only European state that was affected by this economic phenomenon, so common in Europe after 2008. The year 1999 exposed poorly managed economy, already, even only a couple of years after the end of the War, which has crippled Croatian tourism, strongly dependent on tourism. The Croatian tourism was heavily negatively affected by the NATO's bombing action against then Yugoslavia (Serbia and Montenegro).

³ Most analyses of the effect of EU integration on Eastern European countries rely on income statistics on incomes that begin in 1995. The choice of this year as a starting point is unfortunate, as it occludes the devastation of the 1989/1995 period. It is as though the working people of the ECE countries had themselves put their lives (living standards, wages, working conditions, etc.) into parenthesis. These statistics omit the effects of 'shock therapy'. When 1995, the lowest point (the worst year since 1989), becomes the starting point, it enables a rosier and misleading presentation of the post-1995 economic performance (Serfati, 2016: 266).

Note: This is the reason why the statistics on GDP per capita includes the year 1990, and it does not begin with 1995 or later.

In 2000, GDP per capita still did not reach its 1990 level. Nevertheless, from 2000 to 2008, Croatia succeeded in raising its GDP (measured in current US\$) per capita 3.2 times. Since 2009, Croatia has suffered the longest period of recession, lasting six years, of all EU member states (except Greece), and its GDP has fallen over 13 percent. Croatia has not been able to pursue with the necessary reforms and make its economy more competitive. Differences in the levels of economic development are increasing. Besides the capital city, which is disproportionately large and attracts the more educated and skilled workforce, comprising better-paid jobs and state administration (this trend is especially accentuated in small, low and middle developed states), only some parts of Croatia are showing the economic trends that can be described as positive: Northern or North-western Croatia (adjacent to the borders with Slovenia and Hungary, respectively) and Western Croatia (Istra and Hrvatsko primorje regions). Eastern Croatia (Slavonia) is especially faced with rapid depopulation and economic depression. The capital city Zagreb is no more faced with high levels of immigrants, hence the people from backward and depressed regions of Croatia, as well as Croatian citizens from Bosnia-Herzegovina have begun to move directly to other, more developed EU member states (particularly Germany and Ireland). The areas closer to the borders with Bosnia-Herzegovina and Serbia, respectively, are becoming even more sparsely populated. We can conclude that the demographic basin, producing immigration to the more prosperous parts of Croatia has dried out, exposing the real scale of demographic disaster.

Table 3: Doing Business Report – Ease of doing business ranking for the post-communist EU/NATO member states and the Western Balkans states

State	Ranking 2017	Change in ranking 2017/2013	Ranking 2013	Change in ranking 2013/2009	Ranking 2009
Macedonia	10	+13	23	+48	71
Estonia	12	+9	21	+1	22
Latvia	14	+11	25	+4	29
Lithuania	21	+6	27	+1	28
Poland	24	+31	55	+21	76
Czech Republic	27	+38	65	+10	75
Slovenia	30	+5	35	+19	54
Slovak Republic	33	+13	46	-10	36
Romania	36	+36	72	-25	47
Bulgaria	39	+27	66	-21	45
Hungary	41	+13	54	-13	41
Croatia	43	+41	84	+22	106
Serbia	47	+39	86	+8	94
Montenegro	51	0	51	+39	90
Albania	58	+27	85	+1	86
Kosovo	60	+38	98	n/a	n/a
Bosnia-Herzegovina	81	+45	126	-7	119

Source of data: Doing Business 2009, 2013, and 2017 Reports.

The cost of public administration (state and local) and servicing of public debt in Croatia is the second highest in the EU (13.1%): Cyprus 25%, Croatia 19.5%, Latvia 14%, Slovenia 13.6%, Romania 13.5%, Lithuania 12.5%, Poland 11.8%, Czech Republic 10.3%, and Bulgaria 7.8%.

High income EU member states show the results that are close to the EU average: Finland 14.9%, Sweden 14.1%, Ireland 13.9%, Denmark 13.5%, Germany 13.5%, and Austria 13.3%⁴. It seems that the EU may have recognised the problem in its Strategy for the Western Balkans (“The region's economies face many structural weaknesses, with inefficient and rigid markets, low productivity, limited access to finance, unclear property rights and a cumbersome regulatory environment, leading to low competitiveness and high unemployment (EU Strategy, 2018: 5)), which points out the unsatisfactory level of competitiveness of the economies, which are functioning market economies at the moment, with a high influence of politics, that does not let the private sector to flourish. A compensatory mechanism which could protect, up to a point the Western Balkans states’ economies from the shock that will very likely be caused by the opening to the EU market might be the Regional Economic Area, as “an essential step for furthering economic integration between the EU and the Western Balkans and boosting the attractiveness of the regional market” (EU Strategy, 2018: 12).

4. THE DEMOGRAPHIC EXODUS FROM CROATIA, BULGARIA, AND ROMANIA

Almost five years have passed since Croatia accessed the EU (July 1st, 2013). High expectations that have arisen long before the accession have given way to reality, especially after the outbreak of the economic crisis. Croatia has experienced six years of recession (2009-2014), the longest of all EU member states. Croatia is currently experiencing high levels of workforce emigration towards the EU countries (Germany, Ireland, Austria etc.).

Table 4: The population, total population change, and net migration of the post-socialist EU member states

Post-socialist EU member state	Population, thousands, 2017	Population, thousands (peak year)	Total demographic loss from peak year - end of 2017, thousands (percentage)	Net migration, 1988-end of 2017
Bulgaria	7 075	8 981 (1988)	-1 906 (21.2)	-708 033
Croatia	4 155	4 780 (1990)	-625 (13.1)	-417 559
Czech Republic	10 571	/	/	494 286
Estonia	1 313	1 569 (1990)	-256 (16.3)	-162 145
Hungary	9 785	10 712 (1981)	-927 (8.7)	325 279
Latvia	1 950	2 667 (1989)	-717 (26.9)	-455 484
Lithuania	2 856	3 704 (1991)	-848 (22.9)	-615 477
Poland	37 908	38 660 (1999)	-752 (1.9)	-731 124
Romania	19 586	23 202 (1990)	-3 616 (15.6)	-2 822 853
Slovak Republic	5 431	/	/	9 383
Slovenia	2 066	/	/	60 945

⁴ http://ec.europa.eu/eurostat/statistics-explained/index.php/Government_expenditure_by_function_%E2%80%93_COFOG.

Table 5: The population, total population change, and net migration of the Western Balkans states

Post-socialist EU member state	Population, thousands, 2017	Population, thousands (peak year)	Total demographic loss from peak year - end of 2017, thousands (percentage)	Net migration, 1988-end of 2017
Albania	2 879	3 287 (1990)	-408 (12.4)	-1 150 375
Bosnia and Herzegovina	3 507	4 508 (1988)	-1 001 (22.2)	-1 112 384
Kosovo	1 814	2 086 (1997)	-272 (13.0)	n/a
Macedonia, FYR	2 083	/	/	-140 929
Montenegro	623	/	/	-56 031
Serbia	7 031	7 735 (1994)	-704 (9.1)	-860 269

Source of data: World Bank Country Indicators.

From Tables 4 and 5, it is visible that more than half of the post-communist EU members are facing serious demographic challenges, with the Western Balkans states facing similar challenges, with Macedonia and Montenegro as the hitherto exceptions. In the Baltic States, the influence of de facto decolonization (the break-up of the Soviet Union and the renewed independence of the Baltic States was in fact decolonisation process), resulting in the beginning of the return of significant portions of Russian populations back to Russia. Besides these processes that are a product of historical events and had nothing to do with the accession to the EU, gradual or instant opening of the EU labour market (depending on the decisions of the particular EU member states after the EU enlargements of 2004, 2007, and 2013, respectively) has been the most significant factor that influences the demographic characteristics. With the possible future accession to the EU, the emigration from all Western Balkans states will probably increase, if these states will follow the path of the post-communist EU members, hence gradual or instant opening of the EU labour market has been the most significant factor that influences the demographic characteristics of the post-communist EU members. The second factor with primarily economic implications (besides the EU accession) that has negatively influenced the demographics of the analysed countries was the Great Recession that hit the Baltic States the worst (in the most challenging year, 2009) and Croatia the longest (six years of continuous recession). The seriousness of the demographic challenges is especially visible in the South-east European and Baltic states, while the three (Hungary is the exception) of the four countries of the Visegrad Four plus Slovenia, due to more favourable economic trends since the fall of communism and introduction of market economy, have managed to avoid the “demographic disaster”. A higher level of social cohesion as well as timely implemented and profoundly rationalized demographic policies have contributed to the fact that although they have experienced serious levels of immigration, population change ratio in three Visegrad Four countries (Poland, the Czech Republic, and the Slovak Republic) plus Slovenia has shown only stagnation, and not increasing demographic loss. Despite the fact that Poland has lost almost two percent of its population since the peak year 1999, this loss is almost negligible compared to other affected countries that have suffered a net demographic loss from their population peak year, ranging from 8.7 percent (Hungary) to a staggering 22.9 percent (Lithuania) and 26.9

percent (Latvia). Hence the demographic situation in the Western Balkans states is already very concerning, the demographic exodus from Bulgaria, Croatia, Romania, and the Baltic States should be used as a precursor and a warning what the EU should try to reduce with compensatory mechanisms – prolonging the process of freedom of employment, and investing in the Western Balkans states' economies through FDI. The demographic exodus from the Western Balkans, present and future, is a reality, which will only be more serious, considering the region's economic stagnation and backwardness, compared to the EU and the lower level of wages, higher level of corruption, and social insecurity (all these parameters have to be compared with the EU in general and especially its most developed member states). Compensatory mechanisms for avoiding a total demographic disaster and thereby giving a region at least some economic and in general social perspective, provided by the EU in pre-accession and post-accession period, should be comprehensive, rationalized and rational, targeting the most vulnerable groups in the societies and giving them incentives to stay in their home countries. The Western Balkans states are still not capable, nor will they likely be, to perform these measures alone, and it can be fairly said that the experience of the Baltic States, as well as Croatia, Bulgaria, and Romania, shows that these countries, most of which are small or medium-sized (except Romania) and vulnerable, were and still are unable to cope with the demographic exodus. The role of compensatory mechanisms, in the economic sphere, should be exploited, however, the FDI and trade will not help, hence these do not create better living conditions for the majority of the population, although these significantly improve overall economic indicators.

Table 6: The number of Bulgarian, Croatian, and Romanian citizens that have migrated to Germany, 2010-2016

Year	2010	2011	2012	2013	2014	2015	2016	2010-2016
Number of immigrants from Bulgaria	24 491	34 507	41 694	45 177	63 140	71 709	66 790	347 508
Number of immigrants from Croatia	4 836	8 089	9 019	18 633	37 060	50 646	51 163	179 446
Number of immigrants from Romania	44 603	64 668	82 557	102 753	156 440	174 779	171 380	797 180

Source of data: Freizügigkeitsmonitoring: Migration von EU-Bürgern nach Deutschland, 2017: 6.

Table 6 shows that in the 2010-2016 period, from the three most recent and least developed EU member states, Bulgaria, Croatia, and Romania, between four and five percent of the current population emigrated only to Germany. Out of total 634 thousand EU citizens that have immigrated to Germany in 2016, 77 percent have originated from post-communist members, with Romania (171 380, 0.87% of the total population in 2016), Poland (123 134, 0.32%), Bulgaria (66 790, 0.94%), Croatia (51 163, 1.23%) and Hungary (42 302, 0.43%) as the main originating countries. However, if we compare these numbers to the overall population of the afore-mentioned countries, it is visible that Croatia is the EU member state most affected by immigration to Germany, the total number of emigrants doubling in 2014 compared to 2013 (Croatia has been EU member since July 1, 2013). The statistics show that Germany attracts the migrants from the eastern, post-communist members of the EU, whose number has since 2010 tripled. Considering the total population of Poland compared to other post-communist EU members, it is not surprising that the immigrants originating from Poland still make up for the largest total number of EU-originating immigrants to Germany. The number of immigrants from Croatia is rapidly increasing since 2013 and the invocation of the freedom of movement.

The second important moment that influenced the increase of Croatian immigration to Germany, besides poor economic situation in Croatia, is the fact that Germany abolished all restrictions for Croatian citizens after only two years of transitional period (July 2015).

5. CONCLUSION

Instead of forming “definite” conclusions on all issues, hence this is impossible; some questions need to be raised as encouragement for further thinking about the Western Balkans possible European future:

- Is the EU ready to accept, in seven (in 2025), ten (in 2028) or twelve (in 2030) year period, either at the same time or on a case by case basis, the Western Balkans states?
- Is the EU, its political elite, and its citizens as well, ready to accept, in approximately 10 years’ time, between 17.5 and 18 million new citizens from the states that will most likely, still be the poorest part of the EU at the time of their possible accession?

The experience of the three least developed member states (at the time of the accession, and now as well – Bulgaria, Croatia, and Romania) shows that the accession does not bring only positive things, it also brings many negativities, such as demographic exodus of the young and more educated portions of the population. At the moment, a case by case approach seems more realistic, as stated in the Strategy, with Montenegro and Serbia as forerunners. However, accepting Serbia, with more than times larger population than Montenegro, and numerous international, regional disputes (the “Kosovo issue” is the most important and serious by far, but it is far from being the only one, without a clear picture whether the political elite and the people of Serbia want to join, cannot be put into the same category. The EU can accept and absorb Montenegro as a new member (as NATO did in 2017) without any serious problems – it is like accepting one European city of middle to large size (approximately 620 thousand people). It is a country without serious disputes with its neighbours, however at the moment; it critically fails to satisfy other important criteria (support for the rule of law, fight against corruption, organised crime, functioning market economy etc.). The future and credibility of the EU regarding the Western Balkans enlargement will be tested in the following years. It is by all means positive that after more than fifteen years that have passed from the 2003 Thessaloniki Summit; the enlargement towards the Western Balkans has again been put so high on the list of priorities. However, it really remains to be seen whether it will stay so high on this list and what concrete measures will be taken, at what scope and in which time-frame.

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THE GROWTH OF THE AFRICAN MIDDLE CLASS AS A DETERMINING FACTOR IN ATTRACTING FOREIGN DIRECT INVESTMENTS

Ahmed Iraqi

*Faculty of juridical, economic and social sciences of Tangier, Morocco
a.iraqi@uae.ac.ma*

ABSTRACT

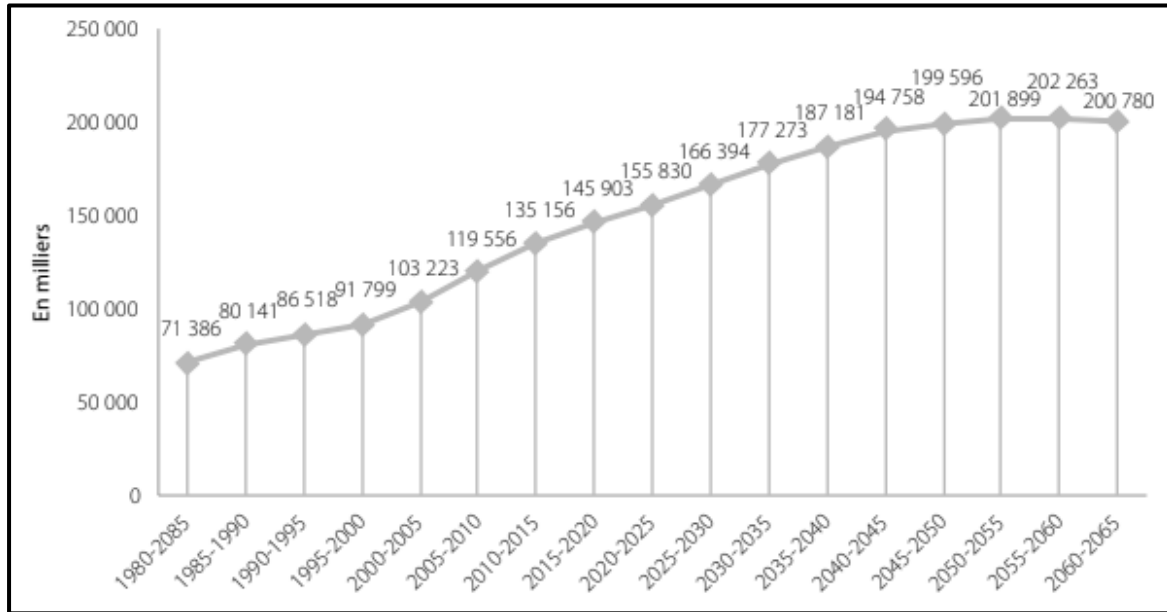
Given the fierce competition and saturation experienced by the consumer markets of developed countries, Africa has become the main source of growth and prosperity for foreign investors, this is generally explained by factors that can be compressed in improving the business climate that positions the continent on the path to prosperity, such as the financial stability of countries, infrastructure development, technological catch-up and public policies of restructuring initiated by international institutions. Nevertheless, the keystone that deeply explains the attractiveness of the continent is imbued with population growth and especially with the development of the middle classes above all else. Today, the development opportunities of the consumer market in Africa are so important that almost all studies focusing on Africa's development are devoting a significant part of their content. In parallel with the profound economic transformation of the African market, the trend of growth has been concomitantly observed in relation to new African consumption and savings habits, as well as to the perception of Africa by multinational firms. The latter have understood that African consumers, and especially those from the middle class, imitate the habits of Western consumers. Factual finding, the adaptation of Western products and services to the African context will be a more or less easy task and will just have to adopt settings linked to pricing strategies adapted to African purchasing power. Thus, this article aims to look carefully at the distribution and composition of the African middle class in light of the potential it offers to foreign investors.

Keywords: *Africa, Demography, Foreign direct investments, Market, Middle class*

1. INTRODUCTION

It is clear that foreign investment opportunities in Africa are more promising than elsewhere. One of the reasons for this notorious potential lies in the exponential development of its consumer market as elucidated by all the surveys that have looked into this. In parallel with the profound economic change in the African market, the growth trend has also been observed with regard to new African consumption and savings habits, as well as the perception of Africa by the MNCs. Today, many African economies are in a transition phase from commodity exporters to consumer markets (Deloitte, 2015). We also note naturally that the incoming foreign direct investments (FDI) in Africa type consumer industry have been growing steadily for a decade. One of the signs supporting this finding is the significant increase in the number of households and their expenditures. Also, the continent is experiencing the largest population growth in the world with a population that will grow from 1.2 billion in 2017 to more than 2 billion in 2050 while knowing that in 2100, 4 out of 10 people in the world will live in Africa. As a result, it makes the continent the region of the world with the greatest potential for population growth, thanks in particular to the very high fertility rate and the very low average age.

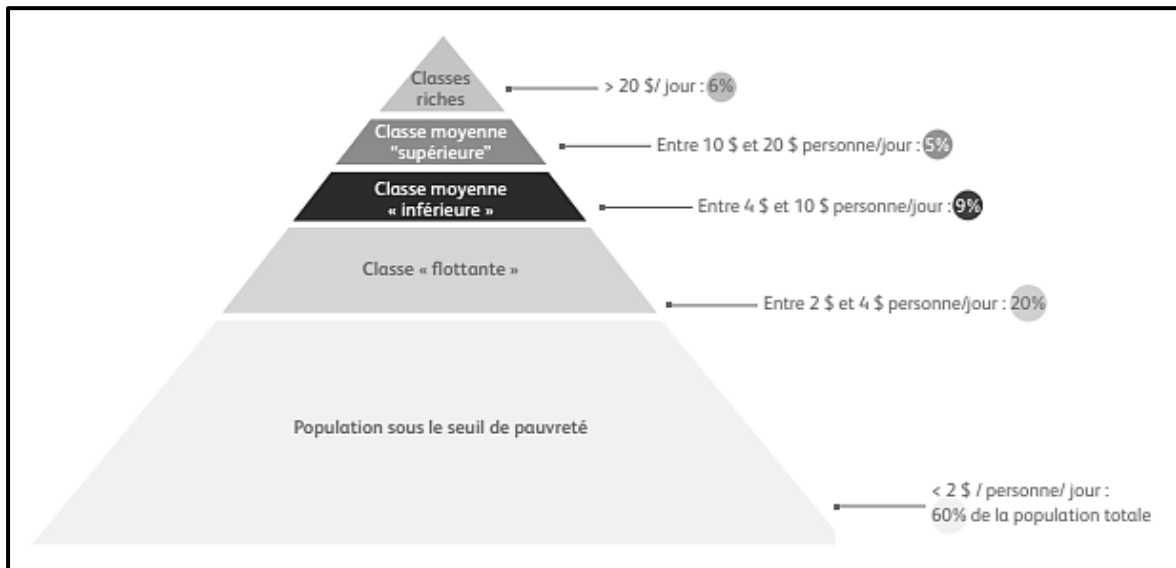
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*Figure 1: African population growth 1980-2065
(United Nations Population Fund, 2016)*

2. THE AFRICAN MIDDLE CLASS: A NUANCED ACCEPTION

Despite its strong potential, the African market remains difficult and complex in a highly competitive environment. However, MNCs ready to adapt their business models and their circuits to the African consumer can quickly prosper and forge a place in this very fertile market that has led to the expansion of new business sectors that have recently been exploited on the continent such as telecommunications, the automobile industry, the banking sector or even distribution. Before delving deeper into this subsection, it is necessary to dwell on the concept of the middle class, which remains far from a consensus in the literature on its definition, particularly in the African context. Clearly, there are social definitions of the professional status and lifestyle of individuals and others of an economic nature who presume to establish two income thresholds that delimit this class and distinguish it from rich classes. and poor. The African Development Bank (AfDB) defines it (African Development Bank, 2011) as being composed of individuals spending between 2 USD and 20 USD per day thus joining the acceptance of the World Bank which estimates that beyond 2 USD per day, individuals are considered out of poverty. However, this definition of the AfDB has been criticized since in fact about 60% of the middle class in the sense of the AfDB actually spend between 2 USD and 4 USD per day to live in the most basic conditions. They belong to what the ADB calls the floating or fluctuating middle class "floating middle class", a social category vulnerable to economic vagaries and likely to fall back into poverty in contrast to a non-floating middle class "No floating middle class". The McKinsey & Company firm defines middle-class households as those with an annual income of more than \$ 5,000 and the resources to make discretionary expenditures through which they will spend about half of their income in consumer goods and services excluding staple foods (BSI Economics, 2016). Standard Bank, meanwhile, argues that the middle class must have an estimated annual income between \$ 8500 and \$ 42000 with proportions delineating the lower middle class as well as households earning between \$ 5500 and \$ 8500 annually. the upper middle class as households with an annual income of more than 42,000 USD (Standard Bank, 2014). The OECD estimates that in order to be categorized in the middle class, it is necessary to have a Purchasing Power Parity (PPP) of between US \$ 10 and US \$ 100 per day while the poverty limit is set at US \$ 1.25 PPP per capita per day.



*Figure 2: Pyramid of social classes in Africa by daily income
(BSI Economics, 2016)*

According to this figure, the AfDB has fragmented Africa's middle class into three sub-categories, namely the upper middle class, the lower middle class, and the floating middle class, which is likely to fall back into poverty due to the fragility of its income. It thus appears that the African middle class corresponds to individuals with a daily income of 4 to 20 USD, which represents more than 14% of the African population, it also questions us on the geographical distribution of this class at the level of since it studies it in a generalized way despite large disparities between the different subregions as illustrated in the following figure. We conclude by the different approaches and definitions above that there are nuances and gradations of threshold on an explanatory meaning of the notion of middle class that is universal, especially that concerning Africa. In addition, each African country has its own socio-economic characteristics and a specific standard of living that makes it difficult to reach consensus around a definitional approach delineated around a standard and fixed income threshold and which gives rise to more divergence around this notion. In short, it is not easy to give a general definition that can be replicated on the entire middle class of the 54 countries of Africa, despite the fact that it must be generally between the poor category living with less than \$ 2 a day and the elite category of the rich. It is therefore important to note that Africa is a five-speed continent with that of North Africa, West Africa, East Africa, Central Africa and Southern Africa as shown in figure 3.

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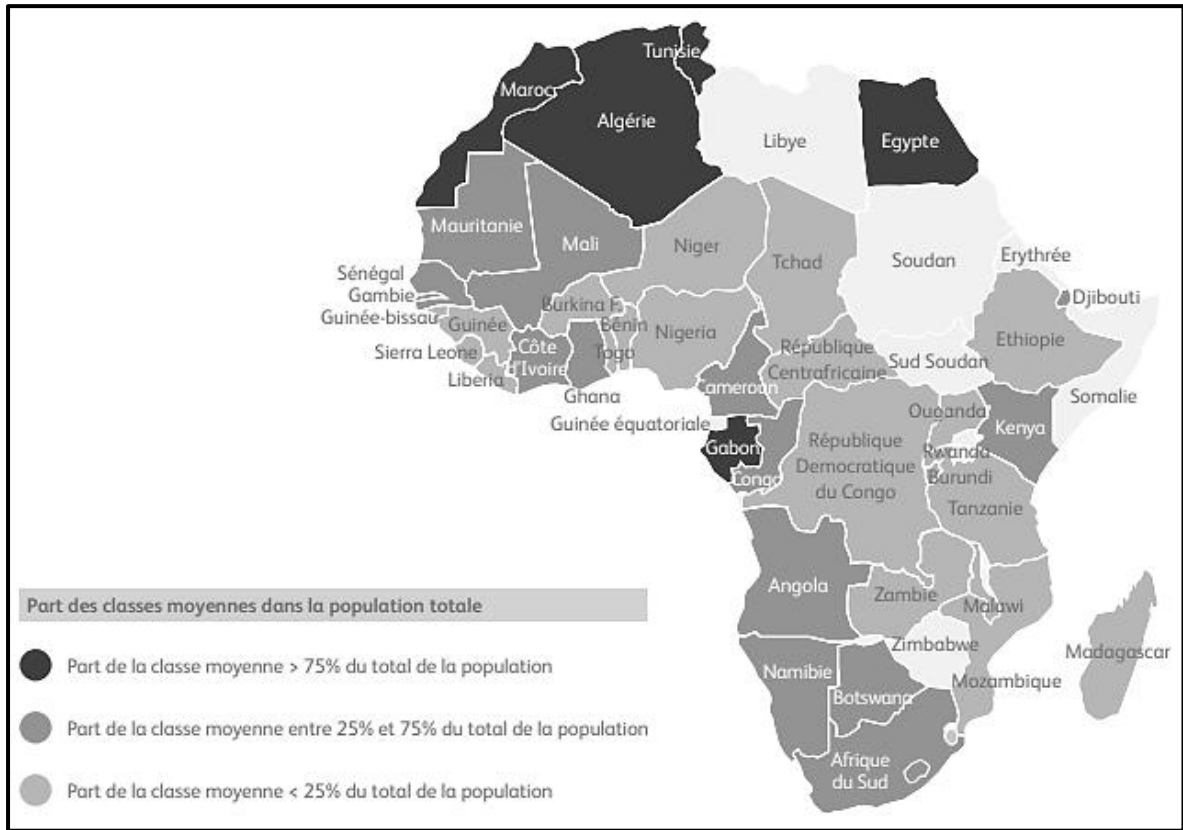


Figure 3: Share of the middle class in the total population of Africa in 2015 (CFAO, 2015)

These four areas as illustrated above have significant disparities in terms of economic, political and security stability, as the following Comparative Figure shows in terms of real Gross domestic product (GDP) growth. Consequently, there is not a single African middle class but several middle classes with more or less sensitive differences.

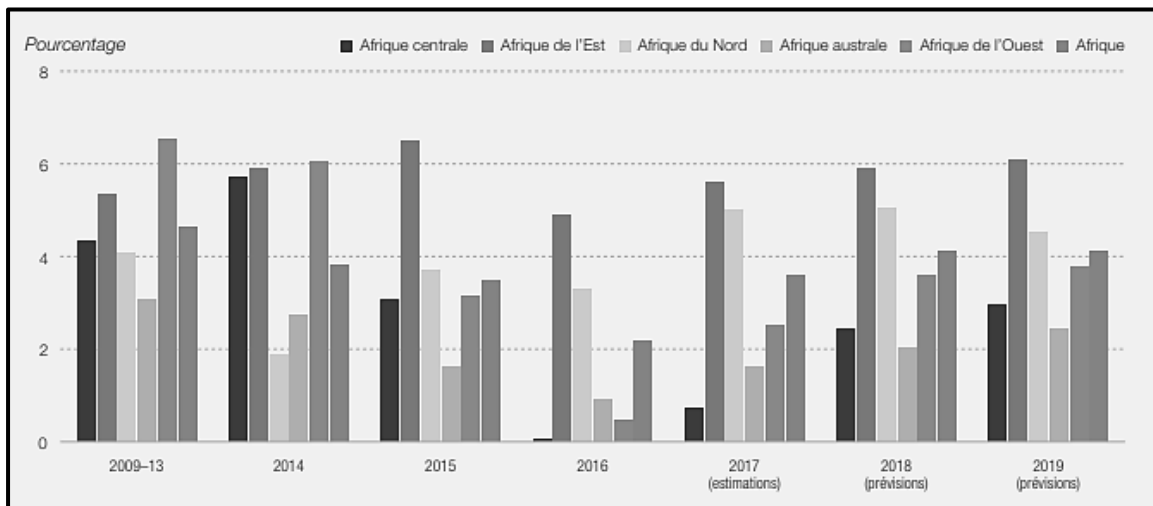


Figure 4: Real GDP growth in subregions in Africa 2009-2019 (African development Bank, 2018)

3. FOREIGN DIRECT INVESTMENTS AND SIZE OF AFRICAN MIDDLE CLASS

Nowadays, there are 350 million middle-class people in the whole continent, by 2030 more than half a billion Africans will be in this category, and long-term estimates leave provide for

an increase of this class to 1.1 billion or 42% of the total continental population by 2060 which is tremendously significant.

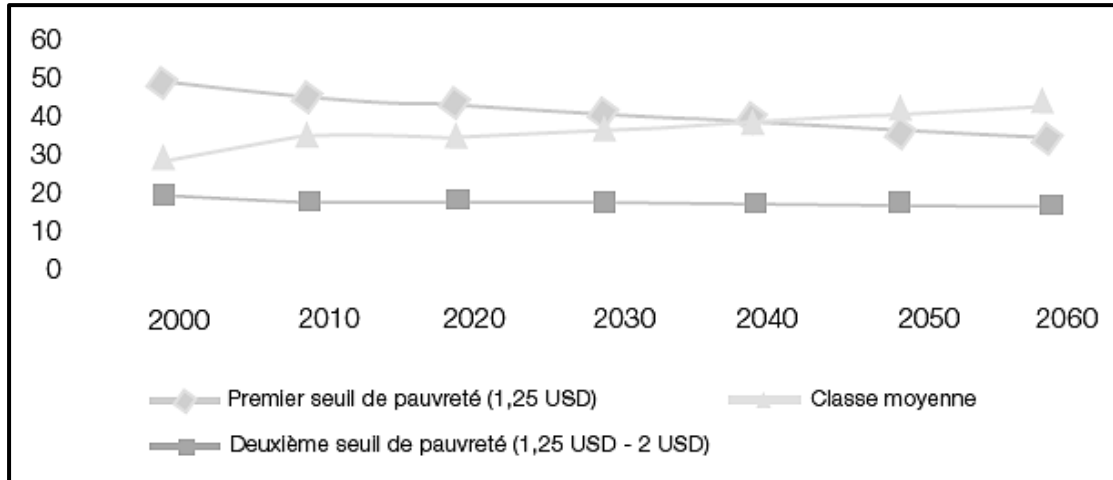


Figure 5: Distribution of the African population by selected breaks
(African development Bank, 2011)

The conjunction so much estimated by investors is that linking the middle class and consumption knowing that Africa is very favorably positioned as the second largest market in the world for consumer goods companies given its significant potential in this direction as shown in Figure 6. The rate of growth also predicts that African consumption will reach 1400 billion by 2020, while in 2030, highly populated African countries like South Africa, Ethiopia and Nigeria alone will spend 2200 billion per year in consumption which is the equivalent of 3% of world consumption.

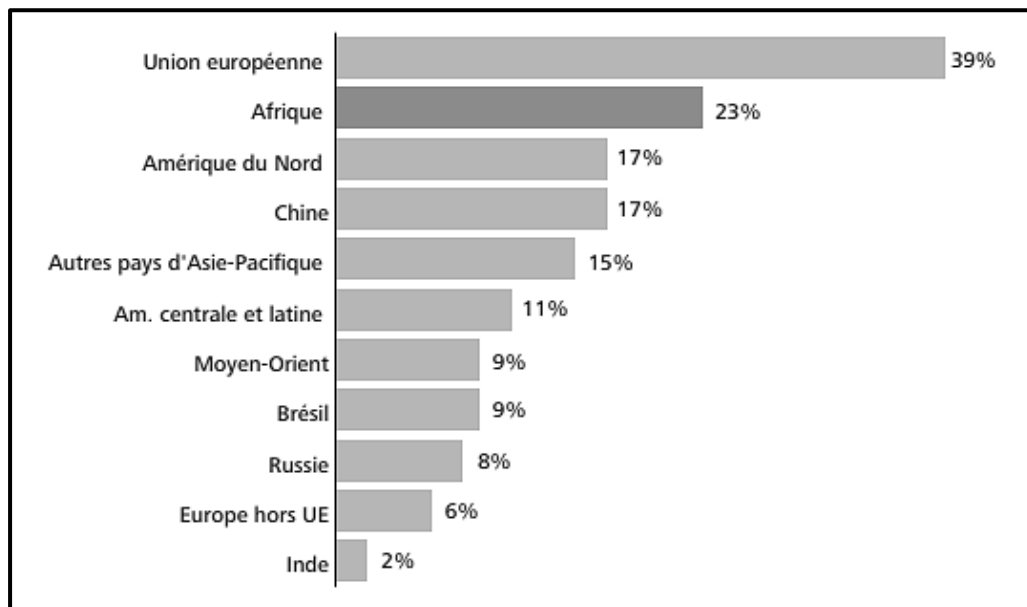


Figure 6: Priority markets for consumer goods companies in 2017 (Deloitte, 2015)

In addition, one of the most recent studies shows (IPSOS, 2018) that the middle class is the most prevalent social category in the most urbanized areas in Africa with an average exceeding 60% as shown in the table below.

Cities	Population (in millions)	Middle class (in %)	Middle class (in millions)
Accra (Ghana)	2.3	61%	1.4
Addis Ababa (Éthiopie)	4.6	59%	2.7
Douala (Cameroun)	2.4	58%	1.4
Dar Essalam (Tanzania)	4.4	69%	3.0
Abidjan (Ivory cost)	4.7	56%	2.6
Kano (Nigeria)	3.3	57%	2.0
Lagos (Nigeria)	21.0	67%	14.2
Luanda (Angola)	6.5	67%	4.4
Lusaka (Zambia)	2.5	66%	1.6
Nairobi (Kenya)	3.3	49%	1.6

Table 1: Middle class level in 10 of the most urbanized cities in Africa in 2017 (IPSOS, 2018)

In the end, Africa is a very promising market for foreign investors, particularly because of the saturation of the markets of the developed countries and especially for the unrivaled densification of its middle class as previously analyzed. This potential is dependent on a strong demand for ever-growing consumption that would be very beneficial to foreign investors, especially if they are able to target the best markets with the least amount of competition. The following table compares the African countries that attracted the most foreign direct investment in 2017 and their demographic ranking on the continent.

Countries	Rank of African countries with most FDI inflows in 2017	Continental rank by population
Morocco	1	11
Egypt	2	3
Algeria	3	10
Botswana	4	42
Ivory cost	5	17
South Africa	6	6
Ethiopia	7	2
Zambia	8	22
Kenya	9	7
Senegal	10	24

Table 2: Comparison of the countries that received the most FDI in 2017 and their demographic ranking on the continent (Author, 2018)

In addition to the previous table, this time we compare the African countries that received the least foreign investment in 2017 and their demographic ranking on the continent. This will allow us to draw synthetic conclusions based on two variables taking into consideration a comparative study of the two extremes.

Countries	Rank of African countries with less FDI inflows in 2017 Bottom 10 - Worst to best	Continental rank by population
Central Africa Republic	1	37
Liberia	2	39
Somalia	3	32
Eritrea	4	36
Equatorial Guinea	5	50
Gambia	6	44
Sierra Leone	7	35
Guinea	8	26
Sao Tome and Principe	9	53
Zimbabwe	10	23

Table 3: Comparison of the countries that received the least FDI in 2017 and their demographic ranking on the continent (Author, 2018)

The two previous tables show that six of the top 10 African economies hosting FDI in Africa in 2017 are ranked among the 11 most populous African countries. 7 countries in this ranking have a population exceeding 20 million inhabitants. Similarly, 7 of the 10 economies with the least foreign direct investments in Africa in 2017 are among the 20 least populated African countries with less than 6.5 million inhabitants. In the same vein, when we compare the data from the 2 previous tables with the mapping that elucidates the composition of the middle class in Africa (see Figure 3), we find that 3 of the 10 countries receiving the most FDI in 2017 have a middle class exceeding 75% of the total population and 5 countries in the same list have a middle class estimated between 25% and 75% of their total population. On the other hand, 9 out of 10 countries in the list of the 10 least FDI African economies in 2017 have a middle class estimated at less than 25% of their total population. Finally, from the obvious fact that the size and growth of the middle class is concomitant with the size and total growth of the population and according to the findings in the previous tables, it is clear that foreign investors are targeting the most populous African countries to implement their investments.

4. CONCLUSION

According to the results of this paper, despite the existence of certain definitional nuances as to the exact meaning of the notion of the middle class in general and more particularly in Africa, it is clearly observed that there is a clear increase in the demographic composition of the African markets. Many factors explain this demographic boom that the continent will experience, like the very high fertility rate and the often early marriages, all these indicators reveal a situation specific to this region of the world, which will result in growth rates remaining high longer and thus a considerable increase in the total population. Consequently, regardless of the unanimous multidimensional definition of the African middle class and its economic boundaries, it will grow significantly and exponentially and participate as a determining vector in the more or less massive attraction of foreign direct investments into the continent. Moreover, our analogue study clearly shows that demographically dense African countries are generally more targeted by foreign investors compared with the least populated African countries. This shows that demographically rich countries need to capitalize on this demographic gain, while the less populated countries need to improve other business pull factors to address this attractive deficiency.

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ATTITUDES OF FARMERS ON KEY INFORMATION IN THE BUSINESS DECISION-MAKING PROCESSES OF AGRICULTURAL ENTITIES IN THE REPUBLIC OF CROATIA

Branka Stipanovic

Veleučilište "Marko Marulić" u Kninu

brankastipanovic@gmail.com

ABSTRACT

The development of information and communication technology brings significant opportunities for improvement of gathering and processing information and transforming information into the knowledge necessary in the decision-making process of managing the agricultural enterprises. Agricultural activity requires the collection of various types of information from which knowledge is generated, especially administrative, agro-technical, economic and climatic information. The aim of the paper is to investigate what information farmers in the Republic of Croatia consider as necessary elements of agricultural public institutions information systems, which enable fact-based decision making in agricultural business.

Keywords: *agriculture, farmers' attitudes, fact-based decision-making, information systems*

1. INTRODUCTION

The paper deals with farmers' attitudes towards information needed for efficient decision-making in agricultural sector. The subject of the research relates specifically to the types of information that farmers consider crucial in the process of fact-based decision-making. The research goal is to determine which information the farmers in the Republic of Croatia consider important in decision-making and to what extent. The specific aim of the research is to determine whether there is a statistically significant difference between attitudes of respondents depending on the criterion of the size of the agricultural subject. The paper provides the theoretical research framework, which outlines the basic knowledge of the information systems in agriculture and the empirical research part, in which the methodology, results and interpretation of the obtained results are presented. Based on the results of the research, conclusions about the crucial features of information systems are made according to the attitudes of the end-users of the information systems in the agricultural sector.

2. INFORMATION SYSTEMS IN AGRICULTURE

Agriculture is considered to be particularly important for economic activity at the level of individual countries and internationally. Numerous private and public institutions strive to provide information support in the process of decision making in order to align the agricultural management process with the basic features of the knowledge economy in which knowledge is generated from accurate, relevant, and timely data and information (Just and Zilberman, 2018). In order to encourage fact-based decision-making in agriculture, it is crucial to know the types of information are needed, who are the key information users, and the time when information needs to be provided to reduce uncertainty in the decision-making process for farmers. The purpose of the information in the agricultural sector is ensured also by answering the question of why particular information is crucial to farmers' decision-making. It is possible to approach the process of planning the development of agricultural information systems based on answers to the above-mentioned questions. The general definition of the system is that "a system is a set of individual elements or subsystems that are connected to a functional entity" (<http://www.enciklopedija.hr/natuknica.aspx?id=58904>). The definition of the information system can be derived from the general definition of the system.

Information systems represent a set of elements or subsystems linked to a functional entity with the purpose of implementing the process of collecting, processing, archiving data and information and performing knowledge from existing data and information. Drljača defines the information system as a "relatively isolated complex structure of activity, the primary purpose of which is to collect, transfer, process, apply and archive all possible information that are essential for a highly organized structure" (Drljača, 2003). It can be concluded that the basic aim of information systems using is automation and facilitating access to key and relevant data and information from which basic knowledge is acquired. At the same time, usage of information systems reduces the level of uncertainty in decision-making. Managing uncertainty is a key component of successful business operating of agricultural entities. The necessary elements that ensure the functioning of information systems are the content, model and interaction between individual parts of the information system (Drljača, 2003). Content elements of the information system relate to the collection, transfer, processing and shaping of information and their effective application in the management of an agricultural entity. In order to ensure the optimal performance of the content component of the information system, it is important to meet the requirement of understanding the information needs and requirements of end-users of the system. The model of the information system describes the way of its functioning and the relationship between individual system elements. Hierarchy, communication and interaction between individual components of the information system are ensured by a control and protocol system and by interaction between the content elements of the system. Fundamental mechanisms to ensure the functionality of the information system are hardware, software, and peopleware (Noordin, Othman and Zakaria, 2011). The fact that human resources are the fundamental mechanism for the successful functioning of information systems is evidence that information systems support human decision-making and as such represent complex socio-technical systems of the modern business world and are the basic precondition for successful business operations in the knowledge economy (Cooke, 2001). Based on the theoretical framework of research, it can be concluded that the information system model is composed of content system components (input sizes, content and output sizes), protocols and controls that ensure interaction between individual system elements and system mechanisms, namely hardware, software, and peopleware. The empirical research refers to the content components of information systems in agriculture, i.e. an analysis of information that is necessary to provide farmers with the goal of providing support in business decision making.

3. METHODOLOGY OF RESEARCH

A questionnaire is an instrument used to collect primary data on the attitudes of respondents on the characteristics of key information in agriculture that ensure fact based decision-making. A structured questionnaire consists of seven closed-type questions. The questions concern the attitudes of respondents about the usefulness of administrative, agro-technical, economic and climatic information in the process of decision-making in agricultural entities. Respondents expressed attitudes based on the Likert scale from 1 (not important at all) to 5 (it is absolutely important). Target population in research consists owners of agricultural entities of different sizes, from micro entities to medium-sized agricultural enterprises. Large corporations are not part of the analysis due to the economic structure of agricultural activity in Croatia, which is based on the micro, small and medium business entities. In the year 2017, a total of 2,828 legal persons and 2,814 crafts and family farms were operating in the Republic of Croatia (Croatian Bureau of Statistics, 2017). Out of the total target population, 30 micro-sized agricultural entities, 30 small-sized enterprises and 30 medium-sized agricultural enterprises were allocated. The total sample size is $N = 90$. It is a deliberately selected quota sample of subjects, who are a part of the target population. The research was conducted online, using the google.docs service that allows collecting and analysing data on attitudes of respondents.

Taking into account that the target population is limited to the territory of the Republic of Croatia, the results obtained are not suitable for generalization at the international level. The collected data were processed using descriptive statistics, and inferential statistics (t-test) was used to examine whether there are statistically significant differences in terms of key information on business decision-making in agricultural production, based on the size criterion.

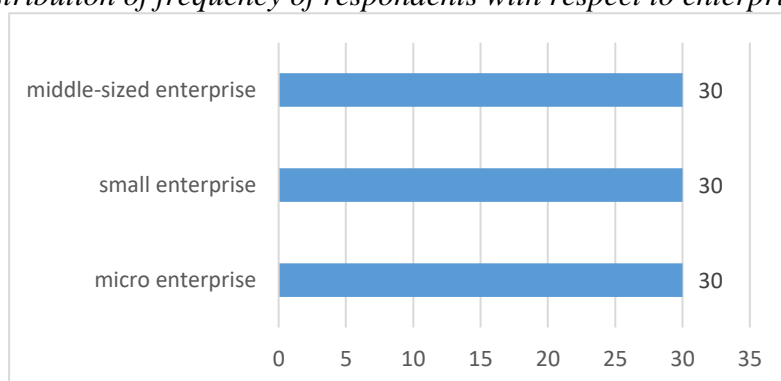
4. RESEARCH RESULTS

The research results are divided in two parts. The first part shows the profile of the respondents in terms of size, legal form and duration of business. In the second part, the attitudes of the respondents are presented on administrative, agro-technical, economic and climatic information, i.e. their usefulness in the decision-making process.

4.1. Respondents profile

Micro, small and medium sized agricultural enterprises participated in the research. Distribution of frequency of respondents by size criterion is shown in Figure 1.

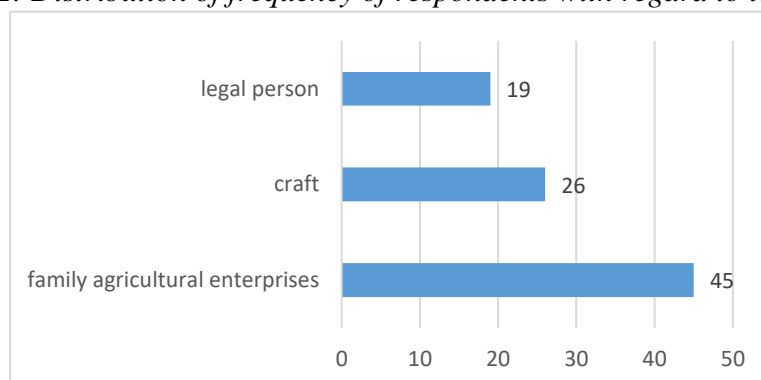
Figure 1: Distribution of frequency of respondents with respect to enterprise size criteria



Source: research results

The equal distribution of frequencies between micro, small and medium-sized enterprises is the result of quota sampling. There are 30 respondents in each group. The legal form of business is divided into family farms, crafts and legal entities. Distribution of frequency of respondents with regard to the legal form of business is presented in Figure 2.

Figure 2: Distribution of frequency of respondents with regard to legal form

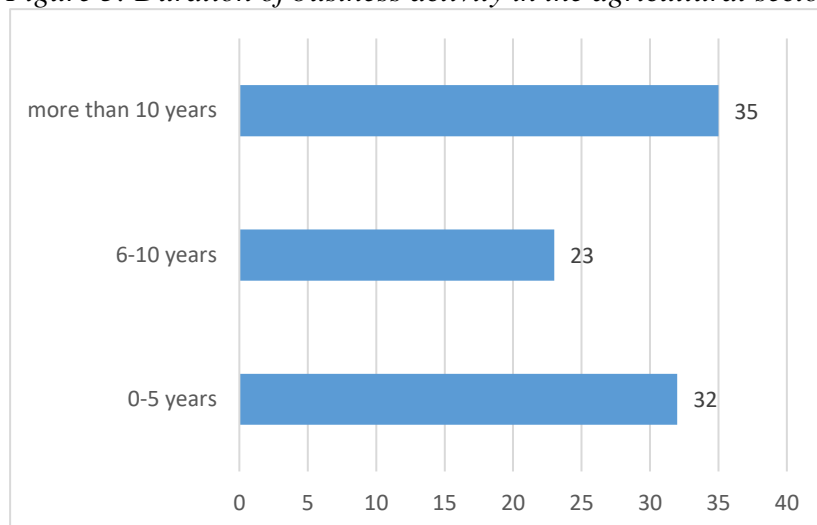


Source: Research results

Research results show that the largest share in the structure of respondents (50%) or $N = 45$ have family farms. Agricultural activity is registered as craft in case of 26 respondents or 29%, while the total number of respondents registered as legal entities is 19 or 21%.

The third criterion for gaining insight into the profile of respondents is the duration of an agricultural business entity. Frequency distribution of respondents according to the duration of agricultural activity is presented in Figure 3.

Figure 3: Duration of business activity in the agricultural sector



Source: Research results

32 respondents or 36% of respondents do not have a long tradition in business, i.e. their agricultural tradition ranges from 0 to 5 years. A total of 23 or 26% of respondents have a tradition of business lasting 6-10 years, while 35 (38%) respondents are engaged in agriculture for more than 10 years.

4.2. Research results

Attitudes of respondents regarding the importance of administrative information when making business decisions are presented in Table 1.

Table 1: Attitudes of respondents on the importance of administrative information in agricultural business

Type of information/Rate	1	2	3	4	5	N	Average rate
firm registration information	6	12	23	25	24	90	3,54
sectoral industry analysis information	11	13	21	29	16	90	3,29
agricultural incentives information	5	7	15	17	46	90	4,02
cluster opportunities information	6	9	16	29	30	90	3,76
Overall Average Rate	28	41	75	100	116	360	3,65

Source: Research results

The research results show that farmers in the Republic of Croatia consider information about agricultural incentives as the most useful administrative information provided by publicly available information systems, and consider information about networking opportunities through clusters as very important. Other administrative information about company registration and sectoral analysis are given an average rating in terms of the importance in decision-making process. The significance of administrative information as a whole was rated with an average score of 3.65. The attitudes of the respondents regarding the importance of the agro-technical information when making business decisions are presented in Table 2.

Table 2: Attitudes of respondents on the importance of agro-technical information in agricultural business

Type of information	1	2	3	4	5	N	Average rate
Agrotechnical measures information	5	7	21	23	34	90	3,82

Source: Research results

Respondents evaluated information on the agronomic measures as very important in the business decision-making process and gave it an average rating of 3.82. The views of the respondents on the importance of economic information are presented in Table 3.

Table 3: Attitudes of the respondents on the importance of economic information in agricultural business

Type of information/Rate	1	2	3	4	5	N	Average Rate
Product calculations	5	5	7	32	41	90	4,10
Cost to Yield Ratio	6	5	12	35	32	90	3,91
Available credit lines	2	3	8	32	45	90	4,28
Overall Average Rate	13	13	27	99	118	270	4,10

Source: Research results

Respondents rated economic information as very important in making business decisions. The most important information is the availability of credit lines for farmers, then the availability of information about cost and yield information and information on production calculation. The attitudes of the respondents on the importance of climate information are presented in Table 4.

Table 4: Attitudes of respondents on the importance of climatic information in agricultural business

Type of information	1	2	3	4	5	N	Average rate
Climate information	5	7	17	28	33	90	3,86

Source: Research results

The obtained results show that respondents evaluate climate information relevant to decision making. Table 5 shows a t-test based on the results of the research. It is used to ascertain whether there are statistically significant differences between micro and small, and medium-sized agricultural enterprises regarding the need for information in business decision making.

Table 5: T-test

Type of information	1	2	3	4	5	N	Average rate
Climate information	5	7	17	28	33	90	3,86

Source: Research results

Based on the difference between the average for two groups (micro and small vs. medium enterprises), a p-value of less than 0.05 was obtained. It can be concluded that there is a statistically significant difference in the information needs given the size of the agricultural enterprises in Croatia. Differences in mean of two groups show that medium-sized companies have a much greater need for information than small and medium-sized enterprises.

5. CONCLUSION

Information becomes the cornerstone of effective business decision-making process. The results of the researches' attitudes towards information that are crucial to business decision-making in the agricultural sector in the Republic of Croatia show that all information groups (administrative, agro-technical, economic and climate information) are considered important in the decision-making process of agricultural entities. The t-test results show that there is a statistically significant difference in understanding of the importance of information in micro and small vs. medium-sized agricultural enterprises. Medium large agricultural enterprises place greater emphasis on fact-based decision making, because of the higher degree of complexity of the environment in which they operate.

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THE IMPORTANCE OF INFORMAL KNOWLEDGE SHARING (WORKPLACE GOSSIP) IN ORGANIZATIONS

Andrea Bencsik

*J. Selye University, Slovakia
bencsika@ujss.sk*

Timea Juhasz

*Freelancer, Hungary
juhasz.timi@hotmail.com*

Zoltan Seben

*J. Selye University, Slovakia
sebenz@ujss.sk*

ABSTRACT

One of the most frequently mentioned topic that comes up in some kind of connection in the majority of publications is the significance, exploitation and management of knowledge. The most critical phase in the operation of corporate knowledge management systems is knowledge sharing and gathering new knowledge. The exploitation possibilities may be grouped in two broad categories such as formal and informal solutions. This paper is endeavoured to discuss a rarely appreciated form within the informal group, namely, company gossip. Even though the recent years show significant growth in the number of research and publications concerning the importance of gossip, its positive and/or negative economic consequences valuable to corporate operation have seldom been researched. The quantitative research and its results below intend to make up for the occurring gap. It was the aim of the research to survey whether organizations deal with the consequences of gossip at work, and, if so, to what extent. The survey compares properties of two neighbouring countries (Hungary and Slovakia), and this paper presents the results of the Hungarian sample. Results show that workplace gossip is significant and it has impact upon everyday work, yet the effects of its consequences are not dealt with either in theory or in daily practice.

Keywords: *Consequences of gossip at workplaces, Gossip, Informal knowledge, Knowledge management, Knowledge sharing*

1. INTRODUCTION

The operation of knowledge management systems, the appreciation of the possession and sharing of knowledge – in terms of corporate operation – has become more and more emphasized not only in the everyday life of organizations, or in managers' ways of thinking and value judgement, but literature provides readers with new theoretical models, practical solutions, case studies and best practices every day. Both in theory and in organizational practice, the most critical issue is the gathering and sharing of adequate knowledge within the organization. Several means are available for implementation, but organizational culture, as a prerequisite, influences the choice and application of means. Properties of learning organizations represent preconditions for the establishment and operation of knowledge management systems, which are characterized by trust-based behaviour, constant willingness to learn, openness, team work, and the alignment of organizational and individual objectives. Within the framework of such an organizational culture, knowledge sharing prevails more effectively, and informal solutions also play an essential role besides the formal ones, what is more, they often prove to be faster and more efficient means in achieving objectives. This study does not aim to discuss knowledge management systems and the possible solutions of

knowledge sharing; they are mentioned only to locate the topic. In the focus of the following research there is an everyday form of informal knowledge sharing practiced by everyone, namely, gossip, primarily its emergence in an organization. Based on theoretical fundamentals, the research observed the everyday practices of organizations in order to find an answer to the question whether they deal with the consequences of workplace gossip, principally from economic aspects, and if so, to what extent. The results of this quantitative research showed that gossip within organizations is important and it has impact upon everyday work, yet the effects of its consequences are not dealt with either in theory or in practice.

2. OVERVIEW OF LITERATURE

2.1. Workplace gossip

In spite of the fact that gossip is present in everyone's life in some form, it rarely gets into the focus of research. Even if it is so, it is a preferred field of study of behaviour analysts, communication experts, psychologists and sociologists. There are only very few papers discussing the effects of gossiping on organizational operation and it is rarely mentioned as a part of management activities. Some of the studies focus on what is in connection with organizational interests in terms of market presence, namely, market gossip about organizations (Scholtes, 2006). Some multinational companies regularly check out such news and react immediately if their results and reputation are in threat (Sommerfeld, Krambeck, & Milinski, 2008; Cuervo-Cazurra, & Ramamurti, 2014). This fact underpins the view that this form of informal knowledge sharing has economic consequences, pro et contra. At the same time, there is no such research in literature that would investigate the (even economic) consequences of workplace gossip occurring in organizational operation, whereas it is justified according to the above discussion. We can only read about the – mainly negative – consequences of gossip in such extreme cases (chiefly in popular news, and not specifically based on professional value judgement) if there is a case of crucial organizational conflict or economic problem. However, these cases cannot be squarely connected to the consequences of gossiping, they are rather the consequences of multifactorial problems, within which gossip also plays a role (Wilkie, 2019). According to the dictionary, gossip is an indiscreet, irresponsible or malevolent news that discusses and reveals some kind of personal or private matter, or fake and distorted issue in a confidential or insidious way, and which can damage reputation or incriminate someone in moral or social respect. As it seems, gossip is defined by particularly negative characteristics, although, as it will be highlighted in the followings, its meaning must not be simplified in such a way (Pusztai, 2006). Scientists define gossip as a piece of social information about someone who is not present (Sommerfeld, Krambeck, Semmann, & Milinski, 2007; Bertolotti & Magnanai, 2014). It may be an important tool for people to gain information about others or to get on in social networks at work and in their everyday life. In gossip, we talk about others, making judgements, behind them. (However, our judgement is not necessarily, and in each case, negative.) This form of communication makes up for a notable proportion of personal interaction. In everyday life, we tend to talk about it in a pejorative sense, but, according to research findings in social sciences, gossiping plays a role in securing the social order and co-operation, and in the maintenance of social and organizational norms ("A pletyka hatásosabb az igazságnál", 2007; Feinberg, Willer, Stellar, & Keltner, 2012). For centuries, gossip has been dismissed as salacious, idle chatter that can damage good reputation. According to some observations – with researchers at the University of California among others – gossiping has been proved to have advantages as well (Feinberg, Willer, Schultz, (2014). According to Willer's study,gossip, in fact, plays an important role in maintaining social order (Feinberg, et al., 2012). It is worth evaluating positive effects not only from the point of society, but also from the point of personal health, namely, our heartbeat usually quickens up on hearing bad news, which may be relieved if we can share the bad news with someone.

Thus the negative effect of gossip on health may be reduced. This fact underpins the positive consequences of gossip. The above research was primarily based on socially important gossip, and its final conclusion was that the transmission of the negative phenomenon has both individual and social merits ("A pletyka jótékony hatásai", 2018, Feinberg, et al., 2014). Gossip is good for health in other ways as well. It improves humour, reduces frustration levels, develops self-esteem, and strengthens social relationships. As for health issues, the gathering and sharing of information stimulates the production of the antidepressant serotonin in the brain. From this point of view, the effects of gossip on workplace behaviour, the balance is unequivocally tipped in favour of the positive range ("A pletyka jótékony hatásai", 2018). At the same time, it must be highlighted that if it becomes malevolent, effects may be of opposite charges. Gossiping has benevolent effects as long as it is not pathological, malevolent, and spying on others does not become a goal of life. We hope that such behaviour at work is not really typical. It is worth mentioning some further research results about the power of gossip and its nature that influences human behaviour, thinking and value judgement (Xu, Adolphs, Uszkoreit, Cheng, & Li, 2009). Ralf Sommerfeld, an evolutionary biologist, a scientist at the Max Planck Institute in Germany, led a research work for observing the behaviour of students playing computer games (Tierny, 2007; Sommerfeld, et al., 2007). It was established that gossip has more power than truth. The young people believed what was informally whispered to them even when they had evidence of the opposite (Sommerfeld, et al., 2008). Gossip has a great manipulating skill – English experts claimed in their paper published in the periodical of the British Academy of Science ("A pletyka hatásosabb az igazságnál", 2007). In experiments done among students, the students were given money, and, during a game, could give the amount to whomever they wanted. Then various characteristics were expressed to the players. The young people tended to give less money to players labelled negative characteristics, and more to those labelled with positive ones. In the next phase of the research, students were made familiar with the actual decisions. Then they were told the untrue gossips that were opposite the facts. Even in this case, students again gave money based on the gossip, not on the basis of solid facts. These experiments prove how great power such a form of information transfer, namely, gossip has. Gossips created by human fantasy provide further examples of the negative consequences of fictive news. There was news about an earlier public dignitary of Italy who was expelled from home by his wife. It was suggested by the absence of guard in front of their house. However, the real cause was that this privilege of the Presidents of the Parliament had been abolished ("A gonosz pletyka a terjesztőjét is tönkreteszi", 2008). In another case, an artist was said to be a cocaine addict. The artist undergoes the hair analysis every half a year, and takes good care of the results so that the news can be proven fake ("Pletykálni jó?", 2008). The above facts show the possible effects of gossip upon community behaviour, interpersonal relationships or individual health. Why do we really gossip? Gossip would not exist if it was not needed. It provides information about our environment. Gossiping is an activity, that is, a deed. Those who hear gossip may not pass it along, but if so, it will change them. The conditions of alteration: someone to pass gossip along, some place and time when passing can occur. Further necessary condition is that it must be made up of probable elements, it must be acceptable to the community, its objective is to interpret the outside world, and then the part of it that is valid to the gossip's recipient. Furthermore, trust is of importance as gossip is passed on to someone trusted. At this point, significant similarity can be seen with the results of researched about knowledge sharing, since knowledge sharing only works as long as there is trust between the participants of the conversation. An important characteristic of gossip is that it contains distorted or completely fake pieces of information, be it either positive or negative (Ellwardt, Steglich, & Wittek, 2012). No one questions the existence of workplace gossip. Whether it causes damage or does good to collegial relationships and work performance, in this case in the phase of gathering and sharing of knowledge, is arguable (Dunbar, 2004).

It is difficult to decide whether it is harmless chatting or harmful gossiping, or the transmission of positive news. Whereas chat is neutral, gossip is mainly negative and unpleasant to the person it is about. As for human communication, 90% of conversations may be regarded as gossiping. It means that most probably we start and/or listen to gossips. It is important to point out that not only hallway whispers may be considered gossip, but about 15% of work correspondence, where negative gossips emerge 2.7 times more often than positive ones (Szvetelszky, 2017).

2.2. Informal knowledge sharing

In workplace environment the establishment and operation of appropriate communicative channels is of enormous importance, which have effects upon not only work and workplace performance but also upon the feel and behaviour of colleagues. The establishment of formal channels are paid sufficient attention by organizations, but their operation is often ignored or, at least, it fades into the background. In this way, information necessary for work are delivered late or incomplete, thus hindering achieving quality performance or meeting deadlines. The establishment of informal channels is not listed among organizational objectives. Most means applied this way are not considered official information source or an accepted form of knowledge transfer. That is, knowledge transferred in informal ways, knowledge sharing and knowledge transfer via informal channels rarely mentioned among preferred operational conditions. However, it is known that these channels constantly operate, as networks or in self-organizing ways, they support faster and more direct knowledge and information transfer among colleagues. In most cases, knowledge gathering and transmission occurs unconsciously, which can be more easily accepted due to its spontaneity, it causes less resistance and infiltrates everyday practice even faster (Eraut, 2000). Where internal official communication is inappropriate, the importance of informal channels is appreciated because they fill the gap created by the lack of official ways. News and, of course, gossip travels faster via these informal channels. One of the most frequent cases is when gossips start in an organization at the time of great changes. The insufficiency or omission of facts, combined with leaked information, undoubtedly start a flood of gossips, guessing and false news. Since the uncertainty caused by changes results in an appetite for information, it is the task of managers to fill the gap with real facts before the speculations among colleagues become factual news. If a manager acts in time and shares information with subordinates – even when it is negative or unpleasant, colleagues may not fall prey to rumours. In such cases, it is not only speed that matters but also regularity, consistency, and authenticity. If a manager regularly provides information, the occurrence and negative effects of gossip may be reduced to a minimum. With all this in mind, it is worth paying attention to the use and supervision of informal channels, to the selection and application of the means of informal knowledge sharing, and perhaps, to their combination with formal solutions (Bencsik, 2015). The effects of gossip in connection are perceptible not only in connection with workplace problems, but it can have impact as a consequence of personal relationships. Open managerial communication, behavioural example can reduce the creation and spreading of gossip to a minimum, with reference to its being undesirable under working conditions. At the same time it is worth paying attention to the appropriately operable means of informal knowledge sharing, within the framework of which the positive returns of gossip may play a role (Yi, 2015). The question is whether gossip must really be stopped? As mentioned before, gossips do have positive consequences, which is true under working conditions as well. It may inspire co-operation, put light on good workforce, and eliminate workplace abuse – as it was found in the researches of Stanford University (Parker, 2014). It is true that gossip leaves space for misuse, but research findings show that gossiping may have really important functions in community life. As for its roles in privacy, the power of gossip has been confirmed *pro et contra* by many researches, but its consequences at the workplace has not frequently been researched (Yi, 2015).

The growing appreciation of knowledge management systems puts emphasis on the importance of knowledge gathering and knowledge sharing, and, by this, formal and informal methods gain a pivotal role in the organizational operation (Azudin, Ismail, Taherali, 2009). Thus, workplace gossip, regarded as a means of informal knowledge sharing, also plays a more important role than earlier. This fact triggered the research, within the framework of which the role and workplace occurrence of gossip as a means of informal knowledge sharing have been investigated. Research results will be accounted for in the next chapter.

3. RESEARCH METHODOLOGY

‘The importance of informal knowledge sharing in organizations’ survey was carried out in 2018. The quantitative research was based on a web-based questionnaire. The respondents included Hungarian and Slovak employees. The present study is endeavoured to present some of the results of the Hungarian survey. The exploratory research was aimed at exploring whether workplace gossip is of importance for organizational operation, whether gossip has impact upon work, work atmosphere, and performance, and whether company managers handle the effects. Based on the research results further, more detailed investigations have been done so as to get a clearer picture and to make observations based on representative samples. The questionnaire basically consisted of closed questions that were nominal and metric. This latter type was based on a five-point Likert scale. Table 1 presents the questionnaire structure.

Table 1: Questionnaire structure (own construction)

1 st group of questions	2 nd group of questions	3 rd group of questions
Sample specification: respondents’ gender, age, residence, educational background, size of workplace, type of work	Formal and informal modes of information sharing, addressees	Gossip, its characteristics, definitions, modes, effects

The method of sample collection was the snowball sampling; that is why the survey may not be regarded as representative. The methods of evaluation were single and multivariable analyses, that is, frequency, standard deviation and mean analysis, cross-table, factor and cluster-analysis. The survey was completed by 257 in Hungary, and all the data were usable. Now, the authors endeavour to assess the questionnaires with the following hypothesis:

- Hypothesis: Gossip, as a mode of informal knowledge sharing, is of importance during work in organizations.

4. RESEARCH RESULTS

The analysed number of Hungarian samples was 257 persons. The characteristics of the sample are summarized by Table 2.

Table following on the next page

Table 2: Characteristics of the sample (own construction)

Distribution by residence (%)				
Northern Hungary	Central Hungary	Northern Great Plain	Central Transdanubia	Western Transdanubia, Southern Transdanubia, Southern Great Plain
15,6	66,1	8,2	5,1	5
Distribution by working position (%)				
Subordinate	Lower manager	Middle manager	Upper manager	Proprietor
74,3	6,2	14,4	3,5	1,6
Education (%)				
tertiary	secondary	tertiary adult	lower secondary, vocational	
77	13,2	7,4	2,3	
Company size (persons)				
≥ 250	50-249	10-49	≤ 10	
57,2%	17,1%	13,2%	12,5%	
Ownership (%)				
Wholly domestic	Joint ventures		Wholly foreign-owned	
58,8	11,7		29,6	
Type of work (%)				
White collar	Blue collar		Retired workers	
88,7	3,5		7,8	

Branches of industry included in the research: industrial production, commerce, catering, financial services, public administration, transportation, warehousing, telecommunication. The survey investigated in what ways respondents could define workplace gossip in a simple sentence. There were lots of different definitions, some of which are listed in Table 3:

Table 3: Definitions of gossip coined by colleagues (own construction)

‘Talk about colleagues, processes with absolutely no justification.’
‘Information transfer without a particular source and the information is not veritable.’
‘Information, news with real or fictional content, chiefly in connection with co-workers and superiors.’
‘Malicious information transfer.’
‘Frequently distorted information transfer, primarily hallway chat, provoked by inadequate communication from the management.’
‘Unregulated exchange of information, the factuality of which is unknown.’
‘Malicious babble.’
‘Telling of someone behind their backs, which may ruin team atmosphere.’

From the above definitions, and from the other definitions given by survey participants, the following can be concluded. According to the majority of respondents, gossip is a form of informal information transfer, the reality content of which is often questionable, which seldom contains information of positive impact, and which does not always have a constructive impact on organizations or individual or the relationship between organizations and their environment.

Naturally, the question 'What compels people to gossip at work?' must also have been included in the investigation. 23,6% of the respondents believed that the most typical cause is curiosity, according to 21,2% information collection motivates gossiping people, and about 19% held the view that gossip is fuelled by professional jealousy. This latter also shows that gossip may not have reality content and it also means that gossiping can have destructive, negative impressions. The following table 4 summarizes the possible effects of this form of informal knowledge sharing within an organization:

Table 4: The effects of workplace gossip on the organization (own construction)

Organization characteristics	%			
	Negative	Positive	Neutral	Total
On organizational culture	70,0	7,4	22,6	100,0
On team work	75,5	15,2	9,3	100,0
On worker career	64,2	8,6	27,2	100,0
On organizational confidence	83,3	5,4	11,3	100,0
On other knowledge sharing methods	42,0	20,6	37,4	100,0
On employee work	64,6	11,7	23,7	100,0
On the efficiency of organizational performance	61,9	8,2	30,0	100,0

The data in the table clearly show that, in the case of the listed characteristics, except for one, gossip essentially has a negative impact upon all the variables. This phenomenon can be defined in the case of confidence, team work and organizational culture, but, on the whole, gossip has harmful effects upon organizational performance as well. This latter one is probably the consequence of damages caused in confidence, culture or team work. The authors observed how big influence company size has on the way respondents adjudge the effects of gossip. The chi-square tests did not show significant differences in case of any of the company characteristics on the basis of company size. The picture was not this clear in the diversity analyses based on ownership. In the analysis of the impact upon team work significant difference in opinions could be justified in the case of companies with different ownership: Pearson's chi-square: 9,812,df:4, sign.:.044, $p < 0,05$. 79,5% of the workers at exclusively Hungarian-owned companies talked of negative effects in this case, while 66,7% of those employed by joint ventures and 71,1% of those working for wholly foreign-owned enterprises thought the same way. In the case of the effects on the other characteristics, worker opinions were very similar in various ownership structures. In the rest of the analysis, the authors made statements in connection with workplace gossip, and the respondents were asked to rate on a five-point Likert scale how much they agree with the statements. One meant not at all, and five meant total agreement. Table 5 presents the mean and standard deviation of answers.

Table following on the next page

Table 5: Characteristics of workplace gossip (own construction)

Definitions	N	Mean	Standard deviation
Workplace gossip is present at my workplace.	257	3,71	1,040
Colleagues in identical positions usually gossip at my workplace.	257	3,59	,923
Colleagues in different positions usually gossip at my workplace.	257	3,13	1,005
Gossip at my workplace is normally about management.	257	3,36	1,052
Gossip at my workplace is normally about subordinates.	257	3,34	,992
At my workplace, the content of gossip is private.	257	3,10	,823
At my workplace, the content of gossip is professional.	257	3,23	,812
There are more gossips in our organization at the same time.	257	3,39	1,102
There is only one gossip in our organization at a time.	257	2,09	,942
We observe the content of workplace gossip at my workplace.	257	2,10	1,039
At my workplace, the management punishes gossiping.	257	1,54	,861
My organization deals with the consequences of gossiping.	257	1,63	,889

The results justify that gossiping as a form of informal knowledge sharing exists at the respondents' organizations. Typically, workers in identical positions tend to gossip, but gossiping is not far from colleagues on different levels. In characteristics, it is not really different who the gossip is about, that is, it can be about managers as well as employees. The content of gossip is rather professional than private information. It is interesting, however, that companies do not deal with the consequences of gossiping, and so it is not punished either. On behalf of further analyses, definitions by the authors are condensed into factors. Based on the Bartlett's test, the variables were suitable for factor analysis: approximate: chi-square: 865,762 df: 55 sign.:,000 KMO value:0,834. The communality of variables were higher than 0,25, so all the statements were included in the analysis. The rotation of factors was done with orthogonal rotation method, more specifically with the Varimax method, which superbly separates the factors. Two factors were established. The explained variance rate was 53,608%. Based on the factor weights, the following two factors were established:

- Factor 1: The content and practical implementation of gossip
- Factor 2: Consideration and punishment of gossip

It was also observed what homogenous groups could be made on the basis of the given factors. Cluster analysis was applied by the authors to this analysis, within which three clusters were established with the K-mean method. Table 6 presents the cluster centres:

Table 6: Final cluster centres (own construction)

Factors	Cluster		
	1		1
Factor 1	-1,10606	Factor 1	-1,10606
Factor 2	-,59387	Factor 2	-,59387

Based on the final cluster centres, the following clusters can be identified:

- Cluster 1: The group of respondents whose company does not pay much attention to gossip as an activity, and its consequences are also ignored.
- Cluster 2: This form of knowledge sharing is typical at these companies, yet it does not have punishment as a consequence.
- Cluster 3: At these companies gossip is not really typical, but if it occurs, close attention is paid to it.

Among those in the analysis, 61 took place in the first cluster, 110 in the second one, and 86 in the last one. The effects of company size and ownership structure on cluster grouping have also been observed. On the basis of company size, the authors did not find significant difference (Pearson's chi-square: 6,427, df: 6, sign.: ,377, $p < 0,05$). Microenterprises (40,6% of them) could typically be found in the first cluster, small companies (44,1% of them), in the second cluster, medium-sized companies (40,9% of them), in the second cluster, and large companies (42,8% of them) in the first cluster. On the basis of ownership relationships, significant difference could not be identified (Pearson's chi-square: 3,172, df: 4, sign.: ,529, $p < 0,05$). The wholly Hungarian-owned organizations (44,4% of them) were grouped primarily in the second cluster, joint ventures (46,7% of them) in the first cluster, and wholly foreign-owned companies (42,8% of them) in the second cluster. The questionnaire asked how respondents were affected by gossiping. In informal way 11,3% shares only professional information, 3,9% only private information, 83% both, and 1,2% none. In this aspect, women and men do not differ significantly (Pearson's chi-square: ,628 df: 3, sign.: ,890, $p < 0,05$). Accordingly, respondents shared professional information mainly with colleagues on an identical level (20,7%), and gossips of private content were discussed with the family (23,6%). Respondents typically only listen to gossip at work (mean: 3,17), rarely spread it (mean: 2,02), and even more rarely transfer it (mean: 1,48). From these three aspects, as regards the given sample, significant difference between genders could not be identified on the basis of ANOVA analyses. Finally the respondents were asked to evaluate gossiping as an activity. 48,6% of the respondents felt that gossip does not have any effect on the evaluation or quality of their work, while 21% thought just the opposite. 81,7% had never felt the positive effects of gossip, while 42,8% reported negative consequences. Without aiming to give an exhausting list, let us see some negative consequences in Table 7.

Table 7: The negative effects of workplace gossip (own construction)

'Gossip about the management (ungrounded and rather offensive) got back to those involved and they knew who spread it and finally the employee was fired.'
'Work promotion leaked out.'
'One of the colleagues was disadvantaged owing to some gossip.'
'I felt unpleasant and had to apologize for something that had not happened that way.'
'I had a colleague who quit because of this.'
'Team spirit weakened.'
'There were offenses, arguments and conflicts when the person learnt what had been said behind his back.'

5. DISCUSSION AND CONSLUSION

The study investigated an informal knowledge sharing mode, namely, workplace gossip, and its effects upon individuals and organizations. The results show that the authors' hypothesis was accepted according to the present sample; although the effects of the phenomenon point to the negative direction rather than to the positive one. Nevertheless, most of the observed organizations do not deal with this issue and its consequences. In theory, there seems to be an overlap between the concepts of informal knowledge sharing, informal communication and informal networks, which indicates that further research approaches must be outlined. Although in all the cases gossip's impact upon workplace operation emerges, researchers do not go beyond the declaration of the existence and effects of the phenomenon. Werr et al underpin the *raison d'être* of informal knowledge sharing by their research findings, and emphasize the necessity of gaining practical experience. In literature, there is evidence for the correlations between informal knowledge sharing and the operation of informal networks, which implies the naturalness of the existence of workplace gossip. This research finding was proven in the authors' own observations as well. Further research works justified *raison d'être* of informal knowledge sharing and its presence in the form of gossip in everyday enterprise practices. This is typical in our observations as well. Evily et al write about their research results saying that business relationships among colleagues and companionships wide the horizon for knowledge sharing, especially under the conditions of trust-based organizational culture. The present research pointed out that colleagues share their knowledge and information in informal ways with those they trust. In Krogh's opinion open organization culture is a precondition for knowledge sharing, which statement was later proven by a number of research works, including some of the authors' previous works. Decades ago, Truran claimed that knowledge sharing via informal channels was undergoing radical changes, and open space was provided for communication via telephone and email was gaining. These channels include the form of gossip as well, and these channels are gaining more and more space in institutionalized form within organizations. This phenomenon has also been justified in our research. Werr et al, based on their experiences, stated the fact that one of the most important sources of knowledge gathering is the emergence of creative ideas via informal relationships. They point out that experience sharing more often occurs through informal channels such as spontaneous conversations in a hallway, at lunch or during having a cup of coffee. The majority of these are shared as stories about particular events. Most of these experiences account for tacit knowledge that becomes tangible (explicit) for colleagues in communication. This also underpins the weight of informal knowledge sharing which makes difficult knowledge sharing processes relatable. Information and knowledge sharing in this way inevitably implies the chance of gossiping, which does not primarily mean the possibility of negative communication, but promotes fast access to knowledge and easier knowledge sharing. Undoubtedly, today's organizational managers do not appreciate the importance of this natural human behaviour properly, and deem it as a harmful organizational characteristic rather than a chance to be exploited. According to the findings of the present study, in this form of knowledge transfer all kinds of information may be involved, both professional and private, subsequently the issue of workplace gossip should be handled with care. Observations also proved that this activity is not influenced by company size or the company's ownership. Gossip is part of every culture worldwide even if its forms may be different. It is futile to ban or punish it because the managerial regulations frequently result in an opposite effect. The aim is rather to explore and exploit its benefits, which become visible if the positive economic effects of gossip can be proven. Based on the results of the exploratory research further investigations began to find deeper correlations. An extended questionnaire survey is designed to find correlations between the applied methods of formal and informal knowledge sharing in order to quantify the positive and negative effects of gossip,

managerial value judgement, and the economic impact of gossip. The results will be presented in another study.

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STRESS IN LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Elmountasser Meriem

*Laboratoire de recherche: Modélisation appliquée à l'économie et la gestion (MAEGE)
Université Hassan II, FSJES-AIN SEBAA, Casablanca, Morocco
elmountassermeriem@gmail.com*

ABSTRACT

BSCM is an emerging research branch in the field of logistics and supply chain management. We approve the position of behavioural research and demonstrate that the psycho-social and cognitive dimensions must be explicitly a central theme of any SCM research. Here, a special attention is conferred to psychosocial risks, particularly stress at work, as a psychological limitation at workplace.

Keywords: *Behavioural Supply chain management, Logistics, Stress an work, Supply chain management*

1. INTRODUCTION

The body of knowledge in supply chain management (SCM) has been formed in confluence with several areas such as logistics, industrial operations management, information technology and marketing. This has given rise to specific principles and strategies, such as demand management, supply management, reverse logistics, e-logistics, sustainable logistics, etc. (Abreu & Alcântara, 2015). Once struggling to get the attention of business executives, SCM is now at the upper echelons of most organizations. In this context, logistics managers and supply chain managers play a vital role in ensuring the competitiveness and success of companies. Yet, human resource management in logistics delayed being interested in the questions of psychical health in workplaces. As pointed out by Large and Paché (2016) , this is not a singular case in the relative indifference towards mental and physical problems such as stress, fatigue and health in the workplace. They revealed how much these assumptions are also ignored in other contexts. Taking stress and the other psychosocial risks studies into consideration was late in the context of the logistics and SCM. In supply chain risk management (SCRM), intangible elements, referring to the psychological component, are as much important as tangible elements, but are often underestimated. They don't only interact with tangible sources of risks , modifying their impact in case of disruption for example , but they may also constitute a separate source of risk and can increase the supply chain vulnerability (Ancarani, Mauro, and Urso, 2013). Focusing on the actual work is essential, both for research and for decision-making. Since the work may have negative effects, especially with regard to the physical and mental health of the employees, it will have an impact on the work performance of a supply chain. The article aims to fill this literature gap by focusing on the stress of logistics employees in general (at the operational level, at the level of the middle and the top management) and proposes future research perspectives.

2. PSYCHOLOGICAL RESEARCH IN LOGISTICS AND SCM

A possible underlying cause of poor SCM practices, including failure to design an effective supply chain system, poor system's implementation, and lack of top-level managerial support are psychological factors. For instance, modest stress levels can be motivating, but excessive stress undermines employees' ability to succeed with complex tasks. Especially, practices that are required by today's emphasis on strategic supply chain management. In Figure 1 , Schorsch and al (2017) showed , in a BSCM perspective , how different psychological factors manifest within a specific context and from where individual and group behaviour derives (psychological factors as behavioral antecedents).

Researchers and academics are developing BSCM theory in order to recognize how different psychological factors on different levels are related. They provided examples of how psychological factors, such as ‘‘perceptions and beliefs, are the root cause of every behavioural phenomenon in forms that are static and cannot be changed via managerial action, their ultimate effect, the behavioural outcomes, are impacted by moderators. (Schorsch and al ,2017)’’. During the conference ‘‘Health and Safety in the work within the congresses of the community Association of Human resources management’’, Chakor, de Chatillon and Bachelard (2015) conducted another meta-analyze. Their communications underlined how much this scientific community was discreet for a long time on these essential questions. In his analysis about the human component, Măzăreanu (2012) talks about an example of temperament as ‘‘a form of manifestation of personality under the aspect of energy, quickness, regularity and intensity of the psychic processes and qualify it as a dynamic side of personality with the influence on the character’’ (Măzăreanu, 2012). It is only since 2000 when work intensification and the limits of the technical approaches of human resource management contributed to the development of new strategies regarding safety and health in workplace. We attended the emergence of specific concepts such as the professional harassment (Poilpot-Rocaboy, G., 2006), stress and answer to the stress (Mansour and Commeiras, 2013) and burn out (Edey-Gamassou, C., 2005).

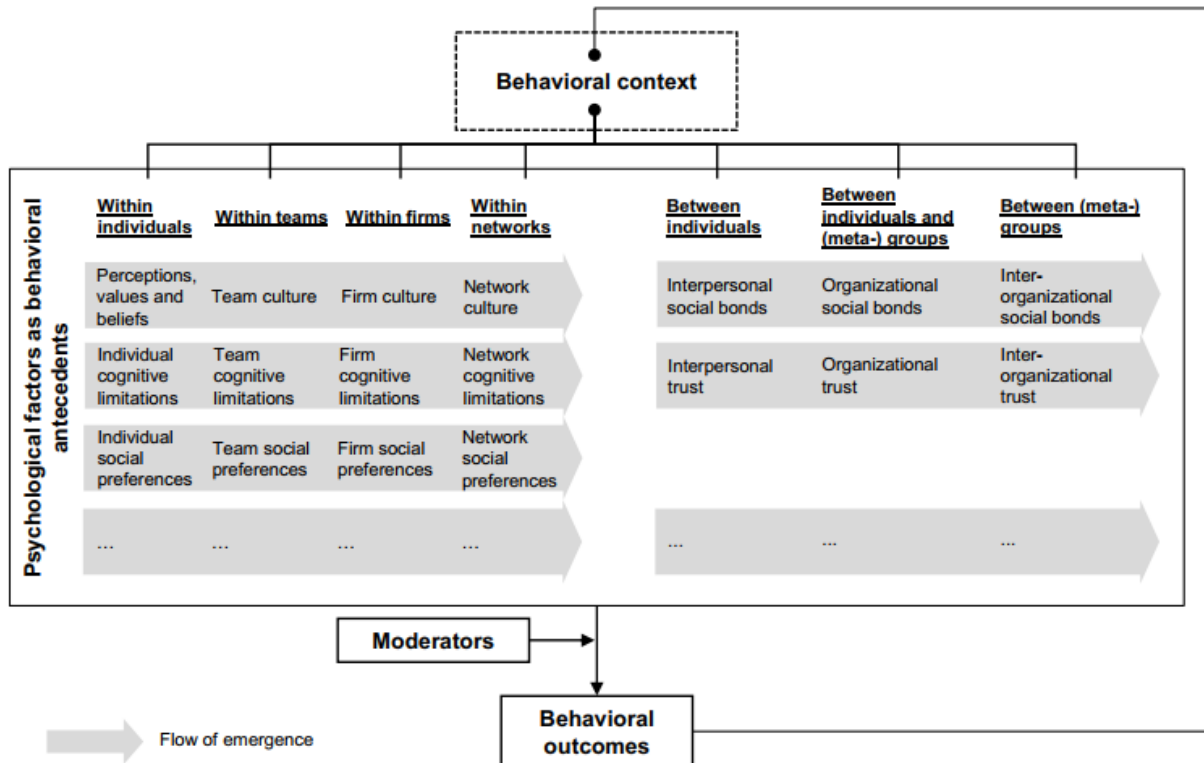


Figure 1: BSCM Meta-Theory (Schorsch and al., 2017)

3. STRESS IN LOGISTICS AND SCM

Executors as well as logistics managers are involved in the work process as individuals. They are engaged in the work process in a direct and personal way. It is more than evident that the environment of SCM becomes more globalized. More specifically, the working conditions and the social environment precarious a vulnerable workforce (Struna, 2015). Hence, we are dealing today with stress and stress response, physical and mental fatigue, and potential health problems for logistics employees (Large and Paché, 2016).

Stress is recognized today as an indicator of malaise, the persistence of which may lead to mental health (burn-out) and physical problems, even suicides (Dejours and Bègue, 2009) Gintrac (2011) identified four main stress sources :

- The organization of work : arrangements of working hours , autonomy granted to the employee ;
- The conditions and the working environment
- Communication : clarity of objectives, relationship quality with others ;
- purely subjective factors : employee's psychological characteristics

This consideration of stress and other psychosocial risks was late in the logistics and SCM. The results of Conti and al (2006) demonstrate a direct relationship between lean practices and the level of stress perceived on both employees and logistics managers performances. Publications have been devoted to the negative effects of work in the field of logistics operations, especially for truck drivers and employees of warehouses and delivery platforms ((Johnson and al , 2011 ; Kluth and al , 2008; Large, Breitling, & Kramer, 2014; Boyce, 2016). An illustrative example is the impact of stress in logistics and supply chain management context. Since flow optimization strategies weigh as much on the executors as on the logistics managers , the research of Large and Paché (2016) about the human side of logistics employees illustrates how manager's stress (strategic & tactical levels) is related to executer's stress (operational level) and vice-versa. They focused on the impact of stress and fatigue generated by logistics operations on physical and psychological health of the employees and the managers in the Supply Chain. They stated that, without underestimating the other aspects related to the work environment, mental and physical fatigue caused by an excessive mental response to stress (in particular) has an important dimension in the logistic context. The identification of potential sources of stress for logistics employees has been identified by Upson, Ketchen and Ireland (2007) , in figure 2, as a key element in increasing the performance of the supply chain management approach.

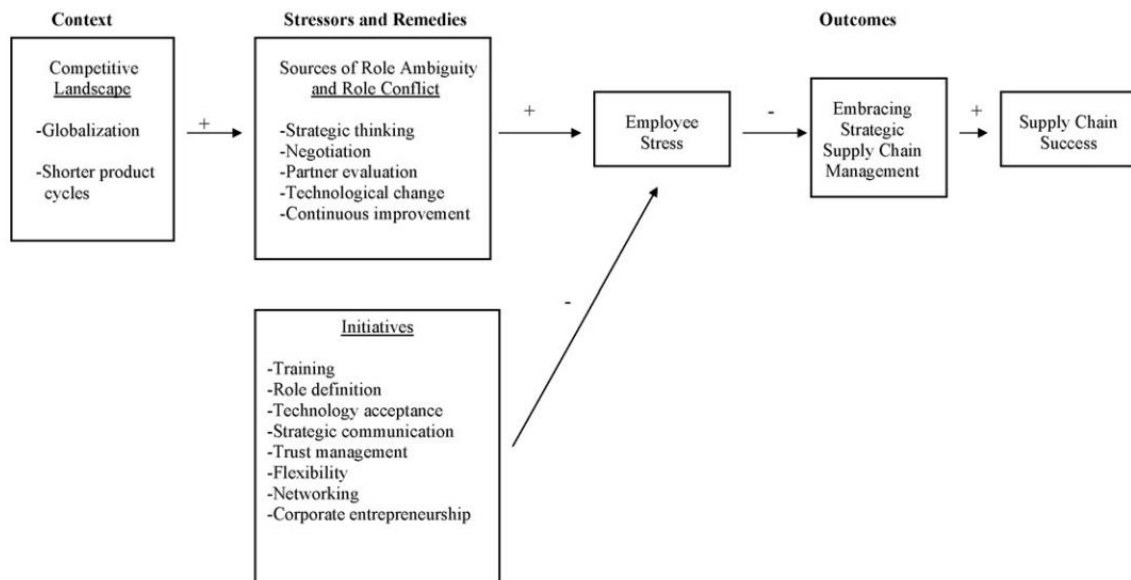


Figure 2: Potential sources of stress for logistics employees (Upson, Ketchen and Ireland, 2007)

Several studies have identified negative impacts generated by Lean practices such as increased stress of employees. The study of Conti and al (2006) demonstrate a direct link between lean practices and the perceived level of stress of both employees and logistics managers (Conti et

al., 2006; Lorino, 2014). The results indicate that Lean approach is not inherently stressful and worker well-being is not deterministic. The stress observed in companies engaged in a Lean approach is more a reflection of the impact of managerial choices than of the application of Lean itself. With perpetual evolution of the environment and the emergence of global markets a set of different new competencies are required to successfully manage global supply chains. Thus, supply chain managers occupy a strategic position in linking global operations. In fact, strategic supply chain management (SSCM) creates stress in several ways. In the main, it is necessary to encourage the members of the supply think and to act in a different way compared to the past and to develop new skills in diverse aspects (Upson and al, 2007). Additionally, instead of thinking tactically, employees have to think in a strategical way. Consequently, this role mutation often leads employees to adapt to change and increases the level of stress.

4. CONSLUSION

We provided a brief basic overview about the human component in logistics, supply chain management, and noticed that researches in this concern remain insufficient to meet the challenges of the dynamic nature of risks and the complexity of supply chains.

Literature is not very prolix on the effects of stress at work in logistics and SCM context on employees. More researches remain to be done to take into account the situation of employees and managers in the organization who are really concerned by occupational health problems. This line of research consists also of considering possible relationship between work-related psychosocial risks in SCM context and the outcome (or performance) of the employees.

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THE IMPACT OF BEHAVIORS AND SKILLS OF THE TOUR GUIDE IN GUIDING THE TOURIST GROUPS

Hakam Salem Shatnawi

Yarmouk University

Jordan, Irbid

hakamss@yu.edu.jo

ABSTRACT

The aim of this study was to reveal the impact of the tour guide's behaviors and skills in guiding tourists groups, to achieve the aim of the study, a random sample of (117) tour guides was selected and the descriptive approach was applied for the purposes of this study, where the researcher prepared a questionnaire consisting of (25) paragraph divided into two fields: (the behaviors and the skills of the tour guide). And after confirming the reliability and stability of the tool it was applied to the sample where the results showed that the behaviors of the tour guide have an impact on guiding tourist groups, as that the skills of the guide also have an impact on guiding tourist groups. The results indicated that there were statistically significant differences due to the impact of experience and training in the behaviors of the tour guide, while no statistically significant differences were found due to experience and training in the skills of the tour guide in guiding tourist groups. In light of these results, the researcher recommended the necessity to prepare evidences which improve/ enhance the skills of tour guides and to hold training courses to increase the efficiencies of tour guide's knowledge and skills.

Keywords: *Jordan, Tour Guide, Tourism, Tourist groups*

1. THE THEORETICAL BACKGROUND OF THE STUDY

1.1. Introduction

Tourism has developed from a simple phenomenon to a major industry and has its foundations, elements and its various devices. Specialized educational institutions have been established, hotels have spread everywhere and the interest in tourist attractions has begun. And due to this development, countries have competed in providing tourism facilities and appropriate infrastructure to attract a larger number of tourists, as countries competed to show their tourism potential as this represents a new attraction for tourists (Al-Zaher, 2001). The tour guide is one of the concepts that have deeply become more rooted in the tourism industry; due to the interest of tourist destinations in this field, and consider it essential to deepen the tourist's knowledge of the places he visits. In addition to that, the tourist's mental picture of the places that are being visited is related to the nature of tour guidance (Ape & Wong, 2001). The tour guides represent the front-face of tour guidance. This requires the preparation of tour guides properly to develop their personal and behavioral skills, taking into consideration the tourist market, the requirements and needs of tourists, so that eventually the tourism sector can be strengthen and increases polarization rate (Arslanturk & Altunoz, 2012). On the other hand, the tour guide is the person who manages and organizes the tourist trip and has enough necessary information about the tourist places to give tourists a sufficient picture about the destination that the tour guide is leading them to Cruz, 2008: 2). According to the importance of tour guide the regulations and instructions issued by tourist organizations in various countries were keen for organizing the career of tour guidance so it is not allowed to pursuit this profession unless if there is a license given by the Ministry of Tourism, in addition the World Association of Tour Guides has stipulated that the guide must have a language efficiency, through the mastery of tourists group's language led by him so that he can introduce the culture heritage and tourism natural elements for the tourists, in the same context, (Baldigara, & Mamula, 2012) point out that development the cognitive and behavioral skills of tour guides contributes in increasing

competitiveness of tourism sector, where the skills of tour guides contribute in achieving a high degree of satisfaction among tourists, which encourages attracting more tourists, which reflected positively on tourism sector. The importance of tour guidance is the nature of the relationship between tour guides and tourists, as the tour guide guides the tourists within the period of tourism, and the leader throughout this period is the tour guide who takes control, which means that tourists trust the tour guide and this trust creates the personal relation that the tour guide is trying to create it throughout the period of tourism program. It is the responsibility of tour guide to provide tourists with information about the tourist places, which requires the guide to have a good knowledge of historical, archaeological and cultural aspects of tourist places, in addition the tour guide needs to know the general culture, customs and traditions for different peoples, which are things in general necessary to tourists wishes that are coming to know and see tourism places they visit (Al – Ta’ee, 2001). On the other hand, to maintain the security, safety and property of the tourist are the most important duties for the tour guide, as the tourist may be unable to understand some of the social aspects in tourist places, most tourists are unaware of customs and traditions in countries they visit, which may expose tourists to risks of misunderstanding some of the actions by the members of the community, so the tour guide was the person who was able to make the tourist trip successful, so that tourists can return to their hometown and have acquired the journey components of pleasure and knowledge (Al – Rawadia). In the light of the previous presentation of the great role played by the tour guide, this study emphasizes the impact of the behavior and skills of the tour guide in leadership of tour guidance.

1.2. The Study Problem

Tour guidance profession is one of the most important professions because of its repercussions on the path on tourist trip and the consequences of this result may be positive and may be negative and this is related to the tour guide performance and the resulting behavior or the behavior that affects tourists, according to the tour guide becomes the link between the tourist and the local community, accordingly the problem of this study was determined by answering the following questions:

- The first question: what is the impact of the tour guide’s behavior on leading the tourist groups?
- The second question: what is the impact of the tour guide’s skills on leading the tourist groups?
- The third question: is the impact of tour guide’s behavior on leading tourist groups differs depending on both variables: Experience and training courses?
- The fourth question: is the impact of tour guide’s skills on leading tourist groups differs depending on the changes in both variables: Experience and training courses?

1.3. Hypotheses

This study sought to test the following hypotheses:

1. There is a positive impact on the behavior of tour guide on leading tourist groups.
2. There is a positive impact on the skills of tour guide to lead the tourist groups.

1.4. Aims of the study

This study aims at:

1. Disclosure the concept of tour guidance and its importance and sufficiency
2. Identify the role of the tour guide skills and behaviors in the tourist trip success
3. Identify the differences between family members within the framework of the behavior and skills of the tour guide in leading tourist groups.

1.5. The importance of the study

The importance of this study stems from the disclosure the behavior and skills of tour guide in leading the tourist groups, the importance of this study can be limited to the following elements:

1. This study contributes in awareness of the importance of the behaviors issued by the tour guide in dealing with tourists.
2. Provide scientific information about the relationship between the tour guide's behaviors and skills, and achieve a high level of satisfaction among tourists and thus reaching a high competitive level in this vital sector.

1.6. Study limits and determinants

The current study was restricted to the following limits:

- A sample of tour guides for the year 2017
- The publishing of the results of this study is limited to the tool used and the sincerity and stability of that tool.

1.7. Previous studies

The researcher did not find a study of the subject on the current study, but there are some relevant studies and those studies:

1. An interview study (2001) aimed at evaluating the tour guides in Jordan for their educational programs and their ability to provide knowledge and skill necessary for the tour guide, the sample included 51 of the total 680 tour guides in the Kingdom, the evaluation questionnaire was applied on them, the study found that the religious dimension, the political dimension, the environmental dimension, and the women's dimension are not a central factor in the frequent questions of tourists about their roles. She also noted that the tour guide feels the lack of information about environmental issues and international organizations.
2. A study of Qadoumi (2002), which aimed at identifying the reality of tour guides in Palestine where the personal characteristics of tour guides by the managers of tourist offices and tour guides' point of view, a sample of 52 managers of tourist offices and 112 tour guides were selected. The results indicate that the tour guides have qualifications in tour guidance in a high degree, the results also indicated that there are statistically significant differences in competencies of guides due to more than one language after obtaining training.
3. (Tsai Wang & Tseng, 2015) study, which aims at revealing the relationship between the tour guide's efficiency and his experience in increasing tourism marketing by applying a sample of (65) guides of males and females in China. the results indicated that personal qualities, enough tourism knowledge and practical experience of the tour guide have positive effects on tourism marketing and increase tourism attraction.
4. Çetinkaya (2015) study, which sought to reveal the role of tour guides to achieve tourists' satisfaction in Istanbul and determine the level of impact by tour guides on the possibility of attract tourists to visit again, a sample of (530) tour guides was selected, the results revealed a significant relationship between the skills of the tour guide and the satisfaction of tourists with their tour.
5. (Lovrentjev, 2015) study, which aimed at identifying qualification level of tour guides by analyzing the educational curricula system for tour guides in Croatia, the results indicated that the curriculum adopted in Croatia covers two theoretical aspects, where the course included topics related to the knowledge of tourist laws , and sufficient knowledge about tourist sites in Croatia, and the way to deal with tourists, as for the scientific aspect which includes practical training for the guides about how to deal with tourists, in order to ensure the training program's efficiency, a sample of tour guides (43) were interviewed, the results showed the dissatisfaction of tour guides on the theoretical and practical part of the tour

guide course related to communication with tourists, the results also showed that tour guides develop their knowledge and skills through literature and communicate with their more experienced colleagues.

1.7.1. Commenting on previous studies

The previous presentation shows the rarity of studies that dealt with the behavior and skills of the tour guide, as shown in the previous presentation of some studies that there is a direct relationship between the behavior and skills of the tour guide and in achieving the satisfaction of tourists and thus attract more new tourists, which increases the competitiveness of tourism sector, Previous studies have varied in the methodologies used to reach the results, although most of these studies used the questionnaire as a tool for collecting information, the current study is complementary to previous studies, especially in the Arab environment in general and the Jordanian environment in particular where studies are still on the behavior and skills of the tour guide and the implications for tourists.

2. METHOD AND PROCEDURES

2.1. Study curriculum

The present study followed the analytical descriptive approach. The analytical descriptive approach is the method that studies a phenomenon, event or issue that currently exists, from which information can be obtained that answers the study questions without the intervention of the researcher.

2.2. The community and sample of the study

The study population of all the tourist guides in Jordan for the year 2016/2017, where the researcher chose a random sample consisted of (117) of them on the following table (1).

Table 1: The study population of all the tourist guides in Jordan for the year 2016/2017

	Category	Frq.	%
Years of experience	Below 5	63	0.53
	Over 5	54	0.47
Training courses	Have not attended	44	0.38
	Attended	73	0.62
	Total	117	%100

2.3. Study tools

To achieve the aim of the study, the researcher used to the theoretical literature and previous studies related to the study, and then developed a questionnaire directed to the sample members of the study of tour guides and the questionnaire consisted in its final form of two aspects:

- The first aspect: the behavior of the tour guide and its impact on leading tourist groups and it has (10) paragraphs.
- The second aspect: the skills of the tour guide and its impact on leading tourist groups and it has (8) paragraphs.

2.3.1. Validity of the study tools

The study was verified by presenting 60 jurists with a PhD in measurement, evaluation and public administration, marketing, from faculty members in Jordanian public universities, the researcher asked them to write their observations and opinions on the validity of these paragraphs and their representation for the purpose prepared for it, and the extent of appropriateness of each paragraph in the field in which it was placed, and the addition or

deletion of any paragraph they deem appropriate. After the questionnaires were restored, the arbitrators' observations were amended.

2.3.2. Stability of study tools

To verify the stability of the study tool, the test-retest was verified by applying the questionnaire and re-applied it two weeks later on an outsider group, consisted of (15) tour guides, Pearson correlation coefficient was calculated between the estimates of exploratory sample in both periods on the tool of the study as a whole and on the fields, ranging between (0.87 - 0.92). The stability coefficient was calculated in the internal consistency method according to the Kronbach alpha formula for the fields and for the tool as a whole, ranging from 0.80 to 0.86. These ratios were considered suitable for the purposes of this study, the following table shows these transactions.

Table 2: Ratios considered suitable for the purposes of study

Field	Internal consistency	Reliability (Test. Retest)
Tour guide's behaviors and their impact on the leadership of tourist groups.	0.80	0.87
Tour guide's skills and its impact on the leadership of tourist groups.	0.86	0.93

2.4. Study Variables

The present study includes the following variables:

1. First: main independent variable:
 - Experience: less than 5 years, more than 5 years.
 - Training courses: no trained, untrained.
2. Second: dependent variable:
 - The leadership of tourist groups.

2.5. Study Procedures

To conclude the results of the study, the researcher did the following procedures:

1. Defined the aim of the study, which is to reveal the behavior and skills of the tour guide and its impact on leading tourist groups.
2. Build the study tool in the light of the theoretical literature and previous studies related to it and then verify its validity and stability in accordance with the scientific procedures followed in building tools and verifying the indicators of validity and stability.
3. Selecting the sample members and then explain the study aim for them.
4. Distributing the study tool to the study sample members.
5. Filling the necessary data by the study members and then answering the paragraphs of the tool as they see expressing from their point of view with all sincerity and objectivity, after being informed that their answers are confidential and will only be used for scientific research purposes.
6. Collect data and then enter them into the computer memory, then using the statistical program (SPSS) to analyze and extract the results, and then they discuss and interpret it and to present recommend and suggest.

2.6. Statistical Processing

To answer the study questions, appropriate statistical methods such as means and standard deviations were applied. In addition, the independent sample t-test was used to detect the differences due to the study participants' variables.

3. RESULTS OF THE STUDY

The aim of this study was to reveal the effect of the behavior and skills of tour guide in guiding tourist groups. The results of the study were as follows:

3.1. Question One: What is the impact of the tour guide's behavior on guiding tourist groups?

To answer this question, the means and the standard deviations of the effect of the tour guide's behavior were extracted on guiding tourist groups as shown in the table below.

Table 3: the arithmetic average and the standard deviations of the items

Rank	No	Item	Mean	St.d	Degree
1	9	The tour guide has a strong personality, which helps him be able to face problems and solve them.	3.91	.820	High
2	10	The tour guide has the general good-looking, the satisfied form, the elegance and simplicity.	3.88	.820	High
3	8	The tour guide is keen to take into account the tone of his voice so that it will be an appropriate one to ensure the success of the tourism program.	3.87	.757	High
4	6	The tour guide avoids exploiting tourist groups, reflecting the image of a tourist civilization.	3.83	.758	High
5	3	The tour guide is committed to the time-tables specified in the tourism program enhances the confidence of tourists.	3.77	.588	High
6	2	The tour guide respects the customs and traditions of tourists and contributes to encourage more tourists to repeat tourist visits.	3.75	.578	High
7	7	The tour guide is keen to respect tourists equally to earn their trust	3.75	.724	High
8	1	The tour guide is committed to ethical standards that reflect the cultural image of the community.	3.72	.700	High
9	4	The tour guide is pliable and accepts tourist groups' critics that makes the tourist program succeed.	3.69	.600	High
10	5	The tour guide is committed to listening to tourists during tours that contributes to the satisfaction of tourists.	3.68	.712	High
Tour guide's behaviors as a whole			3.79	.497	High

Table (3) shows that the arithmetic average is (3.68-3.91) and the two paragraphs number (9) which states: "The tour guide has a strong personality, which helps him to face problems and solve them." at the top with an arithmetic average of (3.91). While paragraph number (5) states "the tour guide shall commit to listen to tourists during the tours that contributes satisfaction of tourists" was in bottom with an arithmetic average of (3.68).the arithmetic average of the field as a whole is (3.79). According to the hypothesis testing, "there is an effect on the tour guide's behavior on leading the touristic groups". The arithmetic average of the field was compared with the standard mark (3) - the acceptance standard of the hypothesis - using the One Sample *t*-test as shown in table (4).

Table 4: Means, standard deviations and one sample t-test for the first hypothesis

Tourist guide's behavior	N.	Mean	St.d	t-value	df	Sig.
	167	3.79	0.497	20.507	166	0.000

Table (4) shows statistically significant differences ($\alpha < 0.05$) between the mean and the standard mark (3) where the value of "t" is at (20.507) and statistical significance is (0.000). So, the hypothesis is accepted. In sense, there is an impact of the behavior of the tour guide on guiding tourist groups.

3.2. Question Two: What is the impact of the skills of the tourist guide on guiding tourist groups?

To answer this question, the means and the standard deviations of the effect of the guide's skills on guiding tourist groups were extracted as shown in table (5) below.

Table 5: the arithmetic average and the standard deviations of the items for the second hypothesis

Rank	No.	Item	Mean	St.d	Degree
1	4	The tour guide has full knowledge of the laws and regulations related to recreation, tourism and organized tourist travel, which increases the effectiveness of tourism programs.	3.98	.791	High
2	5	The tour guide has full knowledge of financial and banking matters, especially banks, exchange of currency and cash.	3.88	.751	High
3	1	Tour guide has knowledge about the tourist attractions in the town to be able to answer tourists' questions.	3.86	.778	High
4	2	The tour guide has the capacity of culture to help him deal with others, especially foreigners.	3.82	.779	High
5	7	The tour guide has the skill to convey the correct information with absolute objectivity to the tourist looking for the facts away from distortion or adding personal thoughts and opinions which earns the confidence of tourists.	3.73	.681	High
6	6	The tour guide has mastered the basics of dealing, and protocol ceremonies.	3.71	.614	High
7	8	The tour guide has an integrated knowledge of the country, especially the main and distinctive attractions and details of the types of tourism product available in it.	3.71	.721	High
8	3	The tour guide has a personality that makes him able to guide others and motivate them towards execution and commitment.	3.65	.631	High
The tourist guide's skills			3.74	.469	High

Table (5) shows that the arithmetic average are (3.65-3.98) and paragraph (4) that states "The tour guide has full knowledge of the laws and regulations related to promotion, tourism and

organized tourist travel, which increases the effectiveness of tourism programs" is at the top with an arithmetic average (3.98). While paragraph (7) that states "The tour guide has the skill to convey the correct information objectivity to the tourist who are looking for the facts away from distortion or adding personal thoughts and opinions which earns the confidence of tourists." At the bottom with an arithmetic average of (3.65). Whereas, the total arithmetic average of the field as a whole is: (3.74). However, regarding hypothesis testing, "the effect of the tour guide's skills on leading the touristic groups" The arithmetic average of the field was compared with the standard mark (3) - the acceptance standard of the hypothesis - using the One Sample *t*-test as shown in table (6).

Table 6: Arithmetic average, standard deviations and one sample t-test for the second hypothesis

Tour guide's skills	N.	Mean	St.d	t-value	df	Sig.
	167	3.74	0.469	21.789	166	0.000

Table (6) shows statistically significant differences at ($\alpha < 0.05$) between the arithmetic average and the standard mark (3) where the value of "*t*" is (21.789) and statistical significance at (0.000), indicating that the hypothetical mean is less than the critical arithmetic average, therefore the second hypothesis is accepted.

3.3. Question Three: "Does tour guide's behavior has an impact on the guiding tourist groups differently depending on the experience and training courses variables?"

To answer this question, the arithmetic average and deviations were obtained for the effect the tour guide's behavior on guiding tourist groups according to the experience and the training courses variables. To illustrate the statistical differences between the arithmetic average, the independent sample *t*-test was applied for the experience and training courses as tables 7 and 8 show.

3.3.1. First: Experience

Table 7: The results of "t" test for the impact of experience

Tour guide's behaviors	Experience	N.	Mean	St.d	t-value	df	Sig.
	Less than 5	54	3.76	0.957	2.139	341	0.033
	More than 5	63	3.88	0.934			

Table (7) shows statistically significant differences at ($\alpha < 0.05$) attributed to the impact of experience to favor of (less than 5 years) by arithmetic average (3.76) but arithmetic average for (More than 5 years) was (3.88).

3.3.2. Second : Training Courses

Table 8: The results of "t" test for the impact of the training courses

Tourguide's behaviors	T.Cs	N.	Mean	St.d	t-value	df	Sig.
	Have not attended	73	3.70	0.938	3.154	341	0.002
	Have attended	44	4.02	0.937			

Table (8) shows that there are statistically significant differences at ($\alpha < 0.05$) attributed to the effect of training.

3.4. The fourth question: "Does the tour guide's skills impact on the tourist groups guiding varies according to the variables: experience and training courses?"

To answer this question, the arithmetic average and deviations for the effect of the tour guide skills on guiding the tourist groups according to the experience and training courses variables, and to show the statistical differences between the arithmetic average, the "t" test was applied for all experience, training courses, as shown in Table (9).

3.4.1. First: Experience

Table 9: The arithmetic average, the standard deviations, and the "t" test of the impact of experience on the effect of the tour guide's behavior

Tour guide's skills	Experience	N.	Mean	St.d	t-value	df	Sig.
	Less than 5	63	3.69	0.986	1.559	341	0.120
	More than 5	54	3.92	1.017			

Table (9) shows that there are no statistically significant differences at ($\alpha < 0.05$) attributed to the impact of experience.

3.4.2. Second: Training Courses

Table 10: The arithmetic average, standard deviations and the "t" test of the impact of the training courses

Tour guide's skills	T.Cs	N.	Mean	St.d	t-value	df	Sig.
	Less than 5 years	63	3.67	1.024	1.337	341	0.182
	More than 5 years	54	3.83	0.981			

Table (10) shows that there are no statistically significant differences at ($\alpha < 0.05$) attributed to the impact of training courses.

4. DISCUSSION OF FINDINGS AND RECOMMENDATIONS

The aim of this study is to reveal the effect of the skills of the tour guide in guiding the tourist groups. The following is a presentation of the main results.

4.1. Discussion of the results related to the first question: What is the impact of the tour guide's behavior on guiding tourist groups?

The results of the study showed that the tour guide's behavior has influenced guiding tourist groups. This result may be attributed to the fact that the tour guide has been entrusted with guiding the tourist tour and thus represents the honest guiding for tourists according to the ethical and professional standards governing such work. Basically, this implies that the availability of the basic conditions in the tour guide, especially guiding tourist group, follow up the problem and control the rhythm of the movements of the members of the tourist groups, in addition to the ability of the tour guide to good management and maintaining harmony among tourists and good treatment that let him gain tourists' esteem and accept what is released with joy, reducing the problems that tourists may encounter during their visit to tourist attractions. Thus, this result is consistent with previous studies such as (Tsai, Wang & Tseng (2015) and Cetinkaya & Oter (2016). These studies show that the competencies of the tour guide have a role in achieving the satisfaction of tourists and encouraging them to visit the same sites again in the future. Also, the performance of the tour guide has a significant direct impact on the satisfaction of tourists with guidance services (Huang, Hsu & Chan, 2010).

4.2. Discussion of the results of the second question: What is the impact of the tour guide's skills on guiding tourist groups?

The results indicated that his skills influenced guiding touristic groups. This result is due to the fact that the qualified and knowledgeable guide is able to deal with tourists in a precise manner and can also convey the appropriate information about the tourist sites at the same time. Additionally, Chiang & Chen (2014) indicated that the impressions of tourist guides as perceived by tourists may influence the personal interaction quality, where this can subsequently influence the knowledge and the pleasure together.

4.3. Discussion of the results of the third question: "Does tour guide's behavior impact on the guiding tourist groups differently depending on the experience and training courses variables?"

The results indicated that there are statistically significant differences at ($\alpha < 0.05$) due to the impact of experience and for those who are more experienced, as well as training for who are trained. The previous result can be attributed to the fact that the guides who are fully experienced in the field of tourism guidance as well as those who have trained are mostly able to deal with tourists in a suitable manner that takes into account the leisure and cognitive needs of tourists. This may contribute to the formation of a positive mental image of tourists from the sites they visited, thus, pushing more tourists to visit them again, which increases the efficiency of the tourism sector and raise the level of competitiveness.

4.4. Discussion of the results of the fourth question: "Does the tourist guide's skills impact on guiding the tourist groups differently according to the experience and training courses variables?"

The results showed that there are no statistically significant differences at ($\alpha < 0.05$) due to the impact of experience or training courses. This result may be attributed to the keenness of the tour guides to being positive about themselves, because the tour guide reflects the tourism image of his country, and he/she is the link between tourists and the community, so it is normal for those who practice the profession of tourism guidance to possess the skills required to do so. Unlike Sandaruwani & Gnanapala (2016), this result differs with the results of which revealed that many tourist guides who are less educated and trained; exhibit a low service quality.

4.5. Recommendations

Based on the results, the researcher recommends:

1. The necessity of preparing tour guides that enables them to deal with tourists skillfully and perfectly;
2. Holding training courses for tour guides on how to guide the tourist groups, deal with them to achieve their satisfaction; and
3. Conducting further studies on the competencies of cognitive and behavioral guides to get a suitable perception of their training needs.

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EDUCATION SERVICE QUALITY – PRIVATE VS. PUBLIC BUSINESS EDUCATION IN CROATIA

Mirna Leko Simic

*Faculty of Economics Osijek, Croatia
lekom@efos.hr*

Helena Stimac

*Faculty of Economics Osijek, Croatia
helena.stimac@efos.hr*

Zlatko Barilovic

*University of Applied Sciences Baltazar Zuprešić, Croatia
zlatko.barilovic@bak.hr*

ABSTRACT

The aim of this paper is gain more insights into dimensions used by business students' evaluation of education service quality in public and private higher education institutions and compare different education service quality components perceived by students as the major stakeholders of higher education. The research was conducted at two higher education institutions: Faculty of Economics in Osijek (EFOS) (public institution) and University of Applied Sciences Baltazar Zuprešić (BAK) (private institution). The sample included graduate students: 164 students at EFOS and 202 students at BAK. Adapted SERVQUAL model was used for evaluation of service quality. A data were analyzed using descriptive statistic and IP analysis. Research has shown that public higher education institutions in Croatia are still not much market – oriented in terms of education service quality improvement. Public higher education institutions status in Croatia is still not challenged by the emergence of private sector and market competition. Research gives an analysis of recent trend of privatization of higher education in Croatia from educational service quality perspective and provides a framework and an instrument that can be used to compare private and public higher education institutions. This research is based on only two institutions: one in public and one in private sector of higher education, which is research limitation. Therefore, the results can hardly be generalized to the whole higher education market. Further, education service quality was evaluated only from students' perspective, while there are other stakeholders who significantly contribute to education service quality. Therefore, the future research could include various other stakeholders as well as more institutions.

Keywords: *public and private higher education, education service quality, Croatia, higher education, marketing*

1. INTRODUCTION

Late 20th century was marked by a significant shift in development paradigm. Instead of previously prevailing perception of material resource based development paradigm, knowledge and science based approach became the key issue of economic and social development. Such an approach is based on the assumption that only highly educated, competent and skilled labor can provide competitive strengths of the economy that is able to ensure stable development. The major source of such labor force is higher education. Higher education institutions are, through their major role of linking research, education and innovation, expected to play an instrumental role in the broad process of development - economic, cultural and political. As the demand for higher education grows in such circumstances, the more apparent is the public sectors' inability to provide necessary resources to satisfy it.

Therefore, the result of massification of higher education was development of private higher education institutions. Since their funding is highly dependent on tuition fees, they are under great pressure to be responsive to the diverse needs of student population as well as of labor market. However, the issue of private higher education in transitional countries of Central and Eastern Europe that are new market economies in many areas of traditional business is very debatable. Some of the concerns are related to the education service quality provided by private sector higher education institutions. The aim of this paper is gain more insights into dimensions used by business students' evaluation of education service quality in public and private higher education institutions and compare different education service quality components perceived by students as the major stakeholders of higher education.

2. EDUCATION SERVICE QUALITY

Delivering service quality is one of the most important issues for most of the higher education institutions. Perceived service quality is an overall evaluation of goodness or badness of a service. It is often simply interpreted as consumer satisfaction (Athiyaman, 1977). Education service quality, i.e. students' satisfaction can influence student recommendation of the program to others, as well as their future monetary contributions in support of the higher education institution. Therefore, it is considered to be of high importance (Allen, Davies, 1991) and it is necessary to design quality of higher education services according to the students' definitions of quality. Different models are applied in measuring education service quality. SERVQUAL is one of the most often used models. It takes into account tangibles, reliability, responsiveness, assurance and empathy (Parasuraman et al., 1988). Another approach often found in the literature is the IP (Importance – Performance) analysis developed by Martilla and James (1977) which gives a different perspective in measurement of education service quality, taking into account different importance of different aspects of education service quality (Joseph, Joseph, 1997). Both of these approaches have been combined in our research in order to get quality results.

3. PRIVATE AND PUBLIC HIGHER EDUCATION

In most of the Western world, i.e. highly developed economies, public higher education is prevailing: in Western Europe it covers about 85% of students (Levy, 2016a) and in USA about 80% (Altbach, 2016). Quite opposite is the situation in Eastern world and developing countries: in countries like Indonesia, Philippines and South Korea about 80% of students attend private higher education institutions, in Latin America about 40%, and in Africa up to 20% in countries like Kenya (Levy, 2016b). Altbach (2016) states that private higher education is the fastest-growing segment of postsecondary education worldwide. Today private higher education captures a major or fast-increasing portion of enrollments in Eastern and Central Europe, the Middle East and both North and Sub Saharan Africa, East and South Asia, and Latin America (Levy, 2002). Eastern Europe, including Croatia, where the privatization process started rather late (in the 1990-ies) is also recognized by intensive growth of private sector initiatives in higher education area, mainly due to economic crisis and consequently shrinkage of budgetary financing for all sectors, including education. In the area of higher education, this has cut down the quotas of students financed by the government. The implementation of Bologna system in higher education (1995 in Croatia) has set new standards in terms of education service quality, including teacher-student ratio. Since this ratio in public higher education institutions was unfavorable (too many students per teacher), it was the reason to cut also the number of students who pay for their studies at public institutions. At the same time, demand for higher education is steadily increasing. The trend of privatization of higher education has been intensively studied in recent years (Altbach, 1999, 2016; Winston, 1999; Teixeira et al., 2013; Klemenčić, Zgaga, 2014; Geiger, 1986, Levy, 2016b, Callender 2016; Nicolescu, 2016.).

One of the most important recent contributions to these studies is provided by PROPHE (Program of research on Private Higher Education) in the USA. Most of these studies suggest three different kinds of demand for private higher education institutions: demand for “more” (demand-absorbing), demand for “better” (elite types of education) and demand for “different” i.e. satisfying different special interest groups in sense of program or adaptation to minority groups. There are different views and opinions of private higher education advantages and disadvantages. Supporters of higher education privatization emphasize the advantages that, despite relatively high prices (in Croatia it is about five times higher than of those that pay for their education at public institutions of higher education), are recognizable in the private sector of higher education:

- small study groups that enable one-to-one contacts and maximum adaptation to group or even individual requirements and preferences (Jović 2002);
- teachers are usually practitioners that provide more practical insights, especially for those that are planning their future in the business sector. Moreover, they provide a direct contact to the business sector, which results in higher rate of employability than in public sector institutions (Korda 2015);
- studying in private higher education institutions is based on numerous practical projects, thanks to the above mentioned characteristics; and
- private higher education institutions help those that did not manage to enter the public system, or those that have special requirements and preferences in terms of study programs or areas of specializations.

Additionally, on macro level governments favor privatization of higher education expecting that it will add to system efficiency by satisfying market niche requirements and by being more flexible and responsive to labor market particular and specific demand (Teixeira, 2013). Governments also see privatization of higher education as an instrument to prompt public higher education institutions to become more efficient, i.e. to promote quality in the system by enabling more competition (Tierney, 1988). As opposed to that, those who disagree with this trend often see the risk of turning education from public to private good, which can potentiate inequality in access to higher education. In addition, findings on comparable private higher education in Romania (Nicolescu, 2016) shows students preference for public higher education due to perceived better quality and stronger reputation. Teixeira et al. (2009) found that privatization of higher education has in fact negative effect in the diversity of the higher education system, since these institutions often compete for the same potential students as the public ones. Geiger (1988) has deeply analyzed three possible orientations of private higher education institutions. One is the orientation toward research and academic attainment, which carries the highest prestige, but also the highest costs. The second is the orientation toward market place, i.e. emphasizing career orientation of the students and labor market requirements, and the third one is orientation toward patronage i.e. special social group, wealthy individuals or private industry that can provide assistance. The majority of private higher education institutions in Croatia are a mixture between market orientation and patronage orientation.

3.1. Public and private business higher education in Croatia

Higher education in Croatia is traditionally organized in both public and private sector. Croatian higher education system has accepted Bologna declaration and applies it since 1995. It was implemented with a goal to provide education transparency and recognition of Croatian university degrees in Europe since Croatia has joined EU in 2013. However, the preparation period for the Bologna system was rather short, and some of the basic criteria are not reached up to now, for example faculty/student ratio, study group size, etc.

The transition to market economy as also brought changes to the higher education sector in terms of the privatization. First private higher education institutions in Croatia were licensed in 2000. Enrollments in the private sector institutions grew significantly since then. Private and public higher education institutions in Croatia are treated equally, which means that the same quality assurance mechanisms apply, which proves challenging for young institutions. Still, the number of private higher education institutions and programs has grown since their first appearance in the 2000, but primarily in the professional studies, i.e. applied sciences. Private higher education institutions enroll less than 10% of all students, but enrolment rates are increasing (EACEA, 2010). The available data from AZVO (2017) show that the number of academic programs participants (students) in private sector has increased from 98 in 2008/9 to 744 in 2013/14, while at the same time it has decreased from 128 669 to 122 882 in public sector. Both types of institutions, public and private, are allowed to offer professionally oriented higher education programs and to confer first and second-cycle (undergraduate and graduate) degrees, and both offer the same ECTS for respective programs. However, only universities have the right to offer programs in the third cycle (PhD). Higher education in area of business and management in Croatia is primarily based on programs provided by eight public universities, and two private universities as well as other types of higher education institutions (colleges, polytechnics and non-degree programs) (AZVO, 2018). In private sector of higher education, the majority of study programs are in business and economics (Šćukanec, 2013). One of the reasons for such development is the intensive governmental support and promotion of entrepreneurship, self-employment and development of small and family business sector, combined with rapidly decreasing financial support to public higher education due to present economic crisis. As Levy (2002) states, decrease in state finance as a portion of total finance means increased ability for multiple and largely uncoordinated actors (domestic and foreign) to construct roles for the higher education that they fund for themselves or others. Moreover, private higher education institutions typically concentrate in fields of study relatively inexpensive to offer.

4. RESEARCH

4.1. Sample and research design

The research was conducted at two higher education institutions: Faculty of Economics in Osijek (EFOS), which is a public institution, and University of Applied Sciences Baltazar Zuprešić (BAK), which is a private one. Both samples are comparable to a large extent since, according to the data of student offices of both institutions, both institutions enroll students from the whole country: at BAK about 80% of students come from locations other than Zuprešić, and at EFOS about 75%. There are 78 members of academic staff at BAK and 73 at EFOS. Both institutions offer two-year graduate programs in different fields of management, which carry the same ECTS. Our sample was created from these two –year graduate programs. The aim of the research was to identify students' opinions and compare their evaluations of higher education service quality that was offered at the two institutions. Research was conducted by using highly structured questionnaire. Majority of the questions were closed, using five point Likert scale, where 1 indicated the lowest and 5 the highest level of satisfaction. The sample included graduate students (1st and 2nd year of study): 164 students at EFOS and 202 students at BAK. Detailed sample description is given in Table 1.

Table following on the next page

Table 1: Sample description (own elaboration)

		EFOS		BAK	
		N	%	N	%
YEAR OF STUDY	1 (graduate studies)	85	20,9	138	68,3
	2 (graduate studies)	79	19,5	64	31,7
STUDENT STATUS	full-time students (non-paying)	133	80,6	-	-
	part-time students (paying)	15	9,1	121	59,9
	full-time students (paying)	16	9,7	81	40,1

Adapted SERVQUAL model was used for evaluation of service quality in our research. In the second part of the research IP analysis that compares students' expectations with performance, i.e. perceived education service quality was used.

4.2. Research results and discussion

Table 2 shows the comparison of students' evaluations of all variables at the two institutions. EFOS students are more satisfied only with resource availability and adequacy, opening hours, and schedule, while BAK students are more satisfied with all other variables. EFOS is clearly stronger with aspects connected with organization and resources, while BAK students are mostly satisfied with acquired knowledge. EFOS weaknesses are mainly related to human resources, i.e. non-academic staff, while BAK major weakness is the organization of studies.

Table 2: Comparison of students' evaluation of different aspects of education service quality (own elaboration)

	EFOS	BAK
Organization of studies	2,74	3,17
Delivered education service quality correspondence to expectations	2,73	3,53
Usefulness of acquired knowledge	3,24	4,01
Social need for acquired knowledge	3,39	3,98
Study program quality	2,96	3,60
Study program as source of personal development	3,26	4,01
Resources availability	3,75	3,54
Quality of service provided by academic staff	3,19	3,67
Quality of service provided by non-academic staff	2,73	3,75
Knowledge and competencies of academic staff	3,84	3,99
Knowledge and competencies of non-academic staff	3,14	3,71
Academic staff politeness	3,45	4,07
Non-academic staff politeness	2,36	3,82
Credibility of academic staff	3,46	3,94
Opening hours	3,62	3,39
Institutions' reputation in local environment	3,21	3,52
TOTAL	3,19	3,73

The other researched issue was the students' motivation, i.e. reasons for choice of institution of higher education. Motives were evaluated by five point Likert scale where 1 indicated the least important and 5 the most important motive for the choice of higher education institution. The reason to analyze the motives was the possibility to interpret them as students' expectations and use them in IP analysis.

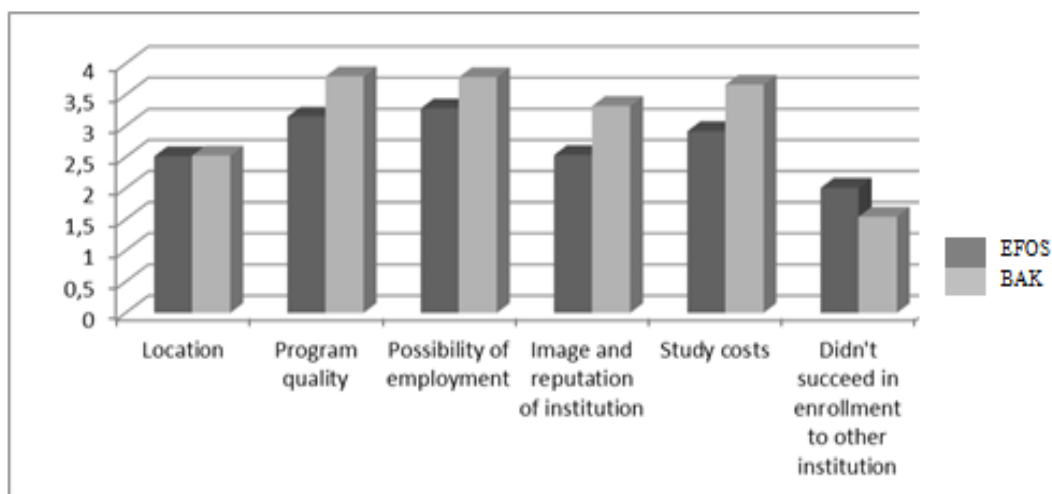


Figure 1: Comparison of motives for choice of higher education institution (own elaboration)

As it is shown in Figure 1, BAK students had ascribed significantly higher value to their motivations (expectations) in comparison to EFOS students. All the factors that in fact create education service quality were evaluated with higher grades by BAK than by EFOS students, even study costs which are significantly higher in private than in public higher education institutions. This can be interpreted as the fact that students see good value for money in case of BAK, and are ready to pay for the expected service quality. The most important motives for choice of both institutions are employability and study program quality. The least important motive for both institutions was inability to enroll in the „first choice“ institution, but in case of EFOS it is significantly stronger motive. This often results in lower interest students' motivation to participate in offered outside the curriculum programs and projects that often serve to connect to business sector and as publicity of the institution. Location of the higher education institution seems to be equally (un)important for both EFOS and BAK students. Image and reputation of the institution is significantly lower for EFOS, which is adverse. Study of LeBlanc and Nguyen (1997) indicates a significant relationship between perceived service quality and reputation of higher education institution. Analyzed motives were used for IP (importance – performance) analysis. In order to create IP matrix, motives for enrollment at EFOS and BAK were interpreted as students' expectations and related to their evaluation of different aspects of education service actually provided at EFOS and BAK, which were taken as perceptions in the following way:

1. program quality was related to perceptions of quality of study program, academic staff knowledge and credibility and quality of service provided by academic staff;
2. employability was related to perceptions of the following variables: “delivered education service corresponds to expectations”, “usefulness of acquired knowledge” and “study program as source of personal development”;
3. image and reputation as motives for choice of EFOS and BAK was related to perceptions of image of higher education institutions in the local community and credibility of academic staff;
4. study costs were related to resources availability at EFOS and BAK, since the lower level of their availability means higher additional costs for students.

The IP matrix is presented in Figure 2.

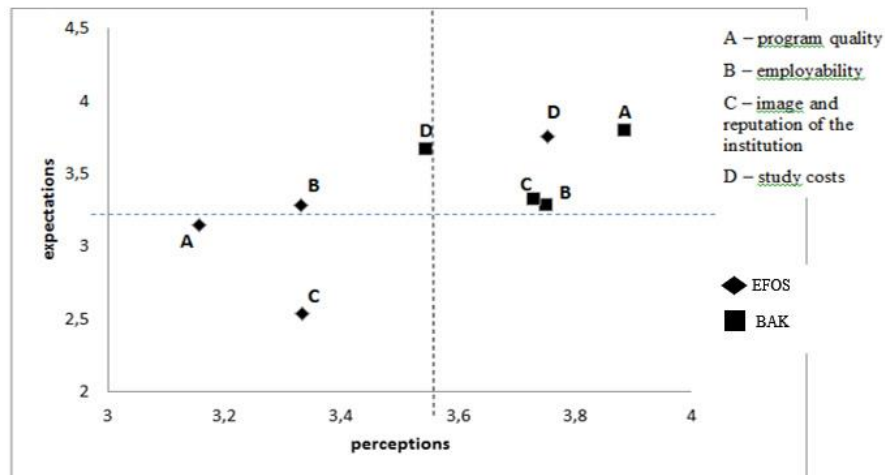


Figure 2: IP matrix (own elaboration)

IP matrix shows the following:

- Quadrant 1 (upper left position – high expectations and low performance) – this quadrant indicates the factors in which most of the efforts for education service quality improvement should be concentrated. It indicates the areas in which students feel disappointed at the most. At EFOS, the expectations about employability that was one of the major motives for choice of the institutions are followed by the perception that acquired knowledge is not useful as it should be. They feel that, beside theoretical knowledge, they miss more practical knowledge and soft skills that would make them more easily employable. We can conclude that EFOS needs more cooperation with the labor market in terms of program quality improvement and its adaptation to contemporary and future needs. In this quadrant, we also find study costs at BAK. As mentioned earlier, study costs in private higher education institutions are significantly higher than in public ones and students expect significantly higher level of service. In case of BAK, they perceive that material resources availability and their adequacy are not up to their expectations with respect to the price they have paid to study at BAK.
- Quadrant 2 (upper right position – high expectations and high performance) – factors in this quadrant are those where higher education institutions' performance totally corresponds to students' expectations and they are both at high level. Higher education institutions should strive to keep the existing level of service quality but also to constantly measure if the expectations are changing. In case of our research at EFOS we find study costs in this quadrant, meaning that students perceive that they get high value for money in terms of material resources availability and adequacy with respect to the price they pay to use it. This quadrant also contains three variables at BAK – program quality, employability and image and reputation of the institution.
- Quadrant 3 (lower right position – low expectations and high performance) – in this quadrant the institution can see which elements of education service quality were a „positive surprise“ for students, something that would make them strongly recommend the institution to others. Unfortunately neither EFOS neither BAK have variables in this quadrant.
- Quadrant 4 (lower left position – low expectations and low performance) – this quadrant indicates that the level of service quality is low, but students did not expect it to be high when they chose to study at this institution. Two variables of EFOS education service quality are in this quadrant and they are study program quality as well as image and reputation of the institution. Both variables are of crucial importance for the competitive positioning of the institution in the situation of increasing supply of similar programs (business studies) by private institutions, and both have to be significantly improved.

5. CONCLUSION

The aim of this paper was to identify and compare students' perceptions on higher education service quality in public and private institutions of higher education in Croatia. Higher education institutions are increasingly aware of the importance of education service quality as a strategic tool in an increasingly competitive market. Students as primary stakeholders of higher education have needs and expectations as well as perceptions on what constitutes an education service quality. It is of crucial importance for higher education institutions to identify and understand students' needs, expectations and perceptions in order to achieve sustainability and competitiveness in higher education market. Our research has shown that public higher education institutions in Croatia are still not much market-oriented in terms of education service quality improvement. It seems that in public higher education institutions most of the investment in education service quality is put into material aspects, while „soft“ aspects of the education service quality is to a large extent ignored, in contrast to private higher education institutions. This can be explained by the fact that market position of private higher education institutions is still worse in terms of relatively small size of population being able to finance private higher education and at the same time their high dependency on student enrolment. Given the fact that students' perception of education service quality directly influences their satisfaction, loyalty to the institution and word of mouth, it is clear that their existence is highly correlated with the level of students' satisfaction and that they are forced to continually measure and improve it. In conclusion, we agree with Zgaga et al. (2013) that public higher education institutions status in Croatia is still not challenged by the emergence of private sector and market competition. However, given the growth trend of private higher education in Croatia, it would be a high risk to continue ignoring their competitive strengths. Therefore this research can be used by public higher education institutions to determine whether they are allocating their efforts in the, from the students' perspective, most important aspects of education service quality. Research results have served as an efficient tool to diagnose current positions of both institutions.

6. LIMITATIONS AND FUTURE RESEARCH

The major limitations of this research are that it is based on only two case studies: one in public and one in private sector of higher education. Therefore, the results can hardly be generalized to the whole higher education market, but they indicate some of the major issues emphasized also by other researchers. The other limitation is that education service quality was evaluated only from students' perspective. Although students are major and primary stakeholders in higher education, they are only one group of stakeholders that determine and influence higher education service quality. Students' objectivity could also be questioned, especially in terms of acquired knowledge. Consequently, further research in this area should include more institutions on one hand, and other stakeholders' (staff, labor market, Ministry of Science and Education) evaluations and perceptions on the other. Also, some other models, like HEDPERF can be used instead of our proposed model. Such an approach will enable easier international comparisons.

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CONTINGENCIES, PERFORMANCE MEASURE DIVERSITY AND FIRM PERFORMANCE

Milos Milosavljevic

University of Belgrade, Serbia

Nemanja Milanovic

University of Belgrade, Serbia

nemanja.milanovic@fon.bg.ac.rs

Nevenka Zarkic Joksimovic

University of Belgrade, Serbia

ABSTRACT

Balanced and comprehensive approaches for measuring business performance have been attracting scholarly and practitioners' attention for more than three decades. Scholars almost equivocally advocate that performance measurement system should be designed to capture internal and external context of the organization. Using a contingency-based approach, we explored the relation between the internal and external contingency variables, performance measurement and business performance of manufacturing companies in Serbia. The results indicate that size and technology are paramount determinants of the performance measurement diversity.

Keywords: *performance measurement, performance measure diversity, contingency approach, empirical study*

1. INTRODUCTION

Ever since late 1980s pioneering ideas performance measurement systems have received an immense interest of academics and practitioners. Contemporary studies are particularly focused on internal and external factors that affect performance measurement (Lee & Yang, 2011), balanced use of financial and non-financial measures (Lau, 2011), effects of performance measurement on organizational capabilities and performance (Grafton, Lillis & Widener, 2010), and evolution and improvements of performance measurement systems (Gutierrez, Scavarda & Fiorencio, 2015). Using a contingency-based approach, we explored the relation between the contingency variables, performance measurement and business performance of manufacturing companies in Serbia. In the context of this study 'contingency variables' are a set of internal and external situational factors affecting performance measurement systems; 'performance measures' are defined as a set of performance measures used in business performance measurement systems (Bourne, Neely, Mills & Platts, 2003); and 'business performance' indicates a financial and non-financial potential for future successful implementation of actions in order to reach the objectives and targets (Lebas, 1995). To the best of authors' knowledge, the study of this kind has never been conducted before. The other contingency-based studies are either partial by nature (Gerdin, 2005), deal with different contingency variables (Pernot & Roodhooft, 2014). The study adds to better understanding of the influence of various contingencies to performance measures and business performance. The remainder of the paper is organized in the following order. Section 2 sets the theoretical framework, reviews extant literature and develops the hypotheses. Section 3 elaborates on methodology used in the study. Section 4 presents the results of the study and discusses these results. Section 5 deals with concluding remarks, limitations and main implications and recommendations driven from the study results.

2. THEORETICAL BACKGROUND

2.1. Contingency-based approach

A contingency theory holds that “the effect on organizational performance of organizational structure depends upon how far the structure fits the contingencies such as uncertainty, strategy, and size” (Donaldson, 2015). This implies that the best practice of a company will depend on the context in which the company operates. In different operating environments, corporations will require different management control and performance measurement systems. Changes in performance measurement systems include changes in performance measures, their content and structure (Folan & Browne, 2005). Therefore, the diversity of performance measures will differ based on the influence of contingencies, i.e. external, internal and inter-organizational factors. Likewise, there is a belief that appropriate setup of performance measures will have a positive impact on the performance of the organization (Pinheiro de Lima, et al., 2013). The main contingency factors of a corporate performance measurement systems are vividly debated in the extant literature. Maltz, Shenhar & Reilly (2003) indicate that the appropriate set of performance measures “...depends on the size, technology, strategy and industry”. Lee & Yang (2011) find the positive influence of the type of the organizational structure and competitiveness on the diversity of performance measures in Taiwanese companies. Finally, various authors suggest that the organizational culture plays an important role in defining the set of measures, because a control system practice tends to be different among different countries, and between developed and developing economies (Haldma & Lääts, 2002). Summing this up, the main contingency variables influencing performance measurement diversity are: 1) size of a company, 2) competitiveness of the industry, 3) technology, 4) organizational culture, and 5) business strategy.

2.2. Contingent factors and performance measure diversity

The size of a company and its influence to the diversified and balanced use of performance measures has been widely discusses in the theory. On the conceptual level, bigger companies have more responsibility towards the larger set of stakeholders (Darnall, Henriques & Sadorsky, 2010), thus driving higher pressure on a performance measure disclosure. Hudson, Smart & Bourne (2001) suggest different measures of performance for large and small companies, arguing that small and medium sized enterprises (SMEs) do not have sufficient resources for complex performance measurement systems, and that their strategies are highly volatile for the stable systems of managerial control. SME performance measurement has received special attention of scholars (Bititci, Turner & Begemann, 2000). Nonetheless, the consensus on the effects of size on the diversity of performance measures has not been reached yet. Studies vary from the beliefs that large companies will seek a more diversified portfolio of performance measures (Haldma & Lääts, 2002) – supported with the argument that it is one of the most important factors of diversification – to the findings that the size has no influence to the diversification of performance measures. Therefore, this study hypothesizes that:

- H1: Corporate size positively affects the diversity of performance measures.
Competitiveness of the manufacturing industry is an important external-based contingency factor, as it induces the agility of a company. The agility means successful adoption of the competitive basis such as speed, flexibility, innovation proactivity, quality and profitability. Manufacturing companies need to provide customer driven products in an uncertain market setting (Yusuf, et al., 2014). All these attributes of operating in a competitive environment drive the need for flexible and complex performance measurement. Chenhall (2003) finds that performance measures have to be flexible in a highly uncertain market environment. Accordingly, this study hypothesizes that:
- H2: Increased competitiveness positively affects the diversity of performance measures.

Increased use of technology in various industries is based on a premise that it will impact effectiveness and efficiency (Torkkeli & Tuominen, 2002). Nevertheless, a myriad of different factors have to be taken into account for the acceptance of aforementioned impact of technology. Garrido-Vega, Jimenez & Morita (2015) state that "...plants need to have an even more progressive and dynamic vision of the management of technologies in production by going beyond merely following the universal recommendation of simply increasing technology use". This indicates that management of technology needs to include the managerial control system and diversified use of performance measures related to the influence of technology to the financial and non-financial performances. Technology is often mentioned as one of the key drivers of the non-financial performance measures diversification (Perera, Harrison & Poole, 1997). Empirical evidence provided by Abdel-Maksoud (2004) supports the proposition that companies which apply advanced manufacturing technology use diversified portfolio of performance measures in their control systems. This leads to the following hypothesis:

- H3: Advanced technology positively affects the diversity of performance measures.
In the contingency theory, organizational culture is considered as an important element portraying the control mechanisms in corporations. The same performance measurement system will generate different effects in different organizational cultures, which was noted by Dent (1991). Regardless of this fact, the relationship between organizational culture and performance measurement systems has not been extensively exploited in scholarly publications (e.g. Gregory, 2007). Although organizational culture can be viewed differently, it is seldom described as either innovation-based or traditional (hierarchical). Academics and practitioners in the field emphasize that innovative-based organizational cultures tend to use more differentiated financial and non-financial performance measures (Franco-Santos et al, 2007). Contrary to that, traditional organizations and their managers will push for significantly lower number of performance measures. Accordingly, this study hypothesizes that:
- H4: Organizational culture focused on innovations positively affects the diversity of performance measures.
Business strategy is considered to be an important contingency factor in current performance measurement literature. Nevertheless, the studies are not consistent on the extent of the influence of business strategy to the diversity of performance measures. For instance, Bastian & Muchlish (2012) find a business strategy considerably affecting the usage of non-financial performance measures. However, these studies do not depict the theoretical presumptions of Kaplan & Norton (1992) stating that the usage of the balanced set of performance measures is important regardless of the strategic choice. Porter (1985) defines two types of industry wide business competitive strategies: lowest costs (cost reduction) and product differentiation strategies. The lowest cost strategy is based on cost reduction and price-competitive products. Therefore, the performance matrix in this case can be simple and based mostly on financial measures. On the other side, the product differentiation strategy is based on a uniqueness perceived by a customer which is related to the product flexibility, on-time delivery and other factors. This generic strategy requires more than just a simple financial matrix for tracking the business performance. Consequently, this study hypothesizes that:
- H5a: Generic cost reduction business strategy negatively affects the diversity of performance measures.
- H5b: Generic product-differentiation business strategy positively affects the diversity of performance measures.

2.3. Performance measures diversity and business performance

It has been advocated for more than two decades that narrow-scoped and highly aggregated financial measures do not provide adequate basis for control (Neely & Austin, 2002). Aggregated measures affect the decision-makers' ability to quickly detect the cause of the operational problem and to make an appropriate decision (Braz, Scavarda & Martins, 2011). Accordingly, traditional financial measures were supplemented with various non-financial measures in order to balance their use and emphasize their strategic focus. A number of performance measures were sometimes adopted without critical analysis of their cost-efficiency and cognitive abilities of managers to process the data (Großwiele, 2013), thus depicting more than what is considered to be important (Braz, Scavarda & Martins, 2011). Nevertheless, the diversification of performance measures within a performance measurement system remains to be unchanged paradigm following a managerial maxim "what gets measured, gets managed". Reflecting the discussion above, this study hypothesizes that:

- H6a: The diversity of performance measures positively affects financial performance.
- H6b: The diversity of performance measures positively affects non-financial performance.

3. METHODS

Data were collected using a questionnaire as a research tool. The study applied a computer-aided telephone interview as a technique as it tends to be more controllable, cost-efficient and adjusted to the needs of examinees (Couper, 2000). Prior to sending, the questionnaire was pre-tested in order to improve its readability. Pilot testing was done by 17 experts. The refined questionnaire was e-mailed to examinees together with a letter explaining the purpose of the study. It was emphasized to the examinees that the gathered data are highly confidential and may only be used in statistical combinations and for scholarly purposes.

3.1. Sampling procedure

The online survey was sent to 668 manufacturing companies from Serbia. The e-mail did not reach 4.04% of e-addresses due to incorrect addresses, wrong respondents, automatic absence replies or other technical omissions. A total of 90 questionnaires were returned, but 86 have been accepted as valid (with more than 80% of correctly answered questions), making the response rate of 12.87%. The response rate for similar studies varies in a range from 5 to 25% (e.g. Lee & Yang, 2011). Manufacturing companies were chosen due to the most appropriate setting for the research. They inherently require a relatively diversified portfolio of performance measures. The selection of a single industry is widely used approach in empirical studies (Lee, Rho & Yoon, 2015). The examinees were CEOs and senior managers of manufacturing companies. They were selected as the key informants in their companies, thus limiting a possibility of perceptual bias (Teo & King, 1997).

3.2. Variables and measures

The variables used for contingency factors were multi-itemed and measured on a five-point Likert-type scale for the purpose of uniformity (excluding the size of a company). The scale ranged from 'absolutely disagree' to 'absolutely agree'. Some measures were reworded from other studies, whilst the others were revised to best-fit the aims of the study. Size was measured based on the number of employees (less than 10, 11-50, 51-250, and more than 250), following the legal classification. Industry competitiveness was measured following Lee & Yang (2011). The use of advanced technology was measured through was developed following Abdel-Maksoud, Dugdale & Luther (2005). The level to which organizational culture was innovation-based was measured through was rewarded and revised from Martins & Terblanche (2003). Generic low-cost business strategy and generic product differentiation strategy was measured using five items were developed for the purpose of this study.

Following Kaplan & Atkinson (1998), the diversity of performance measures was grouped into four categories – financial, customer-based, learning-and-growth, and internal efficiency, although these categories are advocated by academics rather than practitioners (Melnik, Stewart & Swink, 2004). These categories were multi-itemed and rewarded from Milosavljevic, Milanovic & Benkovic (2016). The examinees had firstly been asked if the company measures the items from the list, and afterwards they were asked to range how frequently the company uses these measures on a five point Likert-type scale (from ‘highly infrequently’ to ‘highly frequently’). Business performance were measured as perceived success following Braam & Nijssen (2004). The operationalization of the measurement instrument was developed in accordance to Chenhall and Langfield-Smith (1998). The five point Likert-type scale ranged from ‘highly below the industry average’ to ‘highly above the industry average’ for each out of 10-items. The first five items were used as measures of financial performance (operating profit, return on capital employed, sales growth, market share, and operating cash flow), whilst the remaining items were used as the measures of non-financial performance (new product development, market development, R&D, cost reduction programs, and human resource development).

4. RESULTS

4.1. Pre-analysis

The first factor set as independent variable was size (SIZE), and it was measured using number of employees as a proxy – 34.5% of companies were very large, 27.9% were large, 22.1% were medium-sized, and 15.1% were small companies. Other contingency factors were measured as key informant perception and the results were displayed in Table 1. As shown, examinees marked industry competitiveness as relatively high, majority of them use advanced technologies in manufacturing, and they rated their organizational culture as innovation-oriented.

Table 1: Summary descriptives for contingency factors

Item	Mean	SD	CA
Industry competitiveness (COMPET)	3.83	.87	0.74
Advanced technology (TECHN)	3.02	.93	0.71
Organization culture (CULTURE)	3.51	.74	0.79
Low-cost strategy (COSTSTRAT)	2.54	1.09	0.80
Product differentiation strategy (DIFFSTRAT)	3.86	.90	0.85

Table 2 summarizes the descriptives for the diversity of performance measures frequency used in manufacturing companies. Surveyed companies are focused on measuring financial performances, particularly liquidity and profitability. Beside financials, companies carefully examine the quality performance of their products. We combined them into a single measure of performance – measurement diversity (Cronbach’s Alpha= .917).

Table following on the next page

Table 2: Summary descriptives for performance measurement usage

Performance Measure	Mean	SD	Performance Measure	Mean	SD
<i>Financial measures</i>			<i>Customer-based measures</i>		
Profitability	3.86	1.28	Cust. Satisfaction	3.77	1.30
Liquidity	4.04	1.17	Market Share	3.09	1.40
Leverage	3.04	1.48	Brand Value	2.79	1.37
Turnover	3.43	1.38	Share-in-Voice	2.36	1.34
The Value of Business	2.59	1.28	Cust. Profitability	2.90	1.37
Financial Risk	3.10	1.48	Cust. Retention	3.44	1.52
<i>Learning & growth measures</i>			<i>Internal efficiency measures</i>		
No. Patents	1.87	1.12	On time delivery	3.37	1.29
New Products	2.41	1.28	Product quality	4.01	1.19
Launching Time	2.33	1.37	Waste products	2.62	1.47
Employee Trainings	3.10	1.28	Efficiency	3.16	1.38
Employee Fluctuation	2.65	1.27			
Health-Safety-Environment	3.19	1.50			

Table 3 outlines perceived financial and non-financial performance of surveyed companies. The aggregation of specific indicators into financial/non-financial aggregators is reliable according to the high scores of Cronbach's Alpha test (.802 and .871 respectively).

Table 3: Summary descriptives for financial and non-financial performance

Financial performance			Non-financial performance		
Item	Mean	St.D.	Item	Mean	St.D.
EBIT	3.72	.91	Product Development	3.32	1.25
Return on Investment	3.51	.91	Market Development	3.25	1.30
Sales Growth	3.44	.81	Research and Development	3.10	1.26
Market Share	3.38	1.19	Cost Reduction Programs	3.02	1.06
Operating Cash Flow	3.64	.90	Employee Development	3.34	1.07
Financial performance	3.51	.71	Non-financial performance	3.20	.96
Cronbach's Alpha	.802		Cronbach's Alpha	.871	

4.2. Main analysis

In order to test the hypotheses H1-H5b, the study employed correlation analysis (Pearson moment two-tailed correlation) and multiple regression. Correlation analysis is performed as a preliminary analysis in order to assess the strength of relationships among the variables in the study.

Table 4: Correlation matrix of dependent and independent variables

	1	2	3	4	5	6	7
SIZE	1	.034	.230*	-.345**	.185	-.159	.352**
COMPET		1	-.093	.152	-.035	.397**	.234*
TECHN			1	.320**	-.172	.435**	.584**
CULTURE				1	-.300**	.492**	.230*
COSTSTRAT					1	-.419**	-.030
DIFFSTRAT						1	.396**
DIVERSITY							1

*p<.05; **p<.01

The correlation coefficients reflected low to medium values and therefore did not indicate a potential multicollinearity among variables. Insignificant relationship was shown for the low-cost business strategy, whereas all the other independent variables were positively and significantly correlated with dependent variables.

To test hypotheses H1-H5b, regression analysis was conducted, and the results are displayed in Table 5. The regression model explained 39% of model variability (adjusted $R^2 = .390$).

Table 5: Regression analysis for performance measure diversity

Model	Non-standardized coefficient		t
	B	SE	
Control variable			
DIVERSITY	-.230	.583	-.395
Independent variables			
SIZE	.204	.076	2.681*
COMPET	.115	.095	1.218
TECHN	.330	.096	3.418**
CULTURE	.129	.112	1.147
COSTSTRAT	.062	.071	.877
DIFFSTRAT	.158	.110	1.436
R square	.440	F-value	8.898
Adj. R^2	.390		

* $p \leq 0.05$, ** $p \leq 0.01$

In support of H1, the size is a statistically significant predictor of a performance measurement diversification ($\beta = .204$, $p \leq .05$). The growth of business leads to the need for more complex managerial control mechanisms. A small scale business requires less complicated models for performance measurement. In line with this conclusion, Manville (2006) reports that SMEs have obstacles in implementing performance measurement systems developed in large companies. As the company matures, the implementation of a corporate strategy requires dynamic updating of performance measures. Similar support for this thesis is provided in Ghalayini, Noble & Crow (1997). There is no statistical support for H2 – the industry competitiveness is not a statistically significant predictor of diversified performance measures. It could be speculated that performance measurement in a control mechanism require a needless waste of decision-makers' energy for real-time adjustments to the high market volatilities. The statistics confirm H3. The variability of performance measures diversity is mostly attributed to the technological advancement of the examined companies. The non-standardized coefficient was .330 with the significance $p \leq .01$. Accordingly, advanced technology was a strong predictor of a performance measure diversity and complexity of control mechanisms in a company. This finding is in line with the extant studies (Abdel-Maksoud, 2004). Companies that innovate technology tend to innovate performance measurement systems to ensure the appropriate usage of technology, customer satisfaction with products and employee efficiency. Other studies also argue that technology encourages companies to use multidimensional performance measurement systems and incorporate multiple performance measures. Regarding the H4, the study did not find statistically significant prediction of performance measurement diversification with innovation-based organizational culture. Similarly, the study did not confirm H5, which backs up Kaplan and Norton (1992) theoretical concept that companies need appropriate set of balanced performance measures for any business strategy. The second set of hypotheses relates to the effects of diversified use of performance measures on business performance, both financial and non-financial. The correlation matrix for these relationships is given in Table 6.

Table following on the next page

Table 6: Correlation matrix of dependent and independent variables

	1	2	3
DIVERSITY	1	,454**	,662**
FINANC		1	,573**
NONFINANC			1

** p<.01 level (2-tailed).

The relationship among variables is significant at .01 level. Moderate correlation coefficient excludes possible multicollinearity. Two models of regression for one predictor (performance measure diversity) and two control variables (financial and non-financial business performance) is displayed in Table 7.

Table 7: Regression analyses for financial and non-financial performance

Model 1	Nonstand. Coeff.			Model 2	Nonstand. Coeff.		
	B	SE	t		B	SE	t
Control variable				Control variable			
FINANC	2,29	,30	7,58*	NONFINANC	,75	,35	2,16*
Ind. Var.				Ind. Var.			
DIVERSITY	,40	,10	4,14*2	DIVERSITY	,79	,11	7,18*
R square	,21			R square	,44		
Adjusted R Square	,19			Adjusted R Square	,43		
F-value	17,14			F-value	51,59		

* p ≤ 0.01

Both H6a, and H6b are supported with statistics. Thus, improvements in number of performance measures and frequency of their use explain 19.4% of variability in financial performances of examined companies, and 43% of their non-financial success. The theory of performance measurement holds that measurement leads to improvements. This study adds to the current base of knowledge and supports the thesis that companies need to design and improve their performance measurement systems in order to achieve excellence in financial and non-financial performance.

5. DISCUSSION AND CONSLUSION

This paper aims to determine the main contingency factors that drive performance measurement diversity, and the effects of this diversification on the financial and non-financial success. We developed and tested our six hypotheses on 86 manufacturing companies in Serbia. The findings confirm that the diversified portfolio of performance measures has a doubtless effect on financial and non-financial parameters of success. This supports the managerial thesis that you get what you inspect, not what you expect. The other important finding is that the design of performance measurement in manufacturing companies is strongly affected by the advanced technology used in them, as well as by the size of companies. On one side, the performance measurement system in a company should grow closely with the growth of business. The dynamics of business should shape the appropriate selection of performance measures and their adequate use. On the other side, technology also drives the performance measurement diversification. Investing in sophisticated technologies and improving a technological basis in manufacturing need to be followed with a proportionate development and upgrade of performance measures and managerial control mechanisms. Following the aforementioned, the main theoretical contributions of this paper are in the increased knowledge on the main contingency factors affecting the design and usage of performance measurement in manufacturing companies. In terms of managerial contribution, the implications of the study are twofold.

Firstly, the study is useful for manufacturing company decision makers, particularly those actively involved in performance measurement. It is very important for managers to know that the performance measurement system setting, design, development and implementation depend on various internal and external contingencies. As the results suggest, company growth and technology tend to shape the management control in manufacturing companies. Secondly, the study is useful to other researchers. It is based on the fundamentals of the contingency theory and operates with quantitative data unlike the often used case study approach for the studies of this kind. The methodology is carefully developed, together with the questionnaire which was thoroughly refined. The same methodology can be used for other geographical areas and data sets. Also, the study was carried out in Serbia, a developing country. Majority of managerial control studies address the issues of manufacturing companies in developed countries, limiting their practical use outside this area. The results of this study have the maximum usability in countries with similar genesis of theory and practice of management as Serbian companies. Recommendations for further research are based on limitation of this study. As is the case for other contingency based and quantitative studies, this paper has its own limitations. Firstly, contingencies used in this study explain only a portion of the model variability. Other studies should include other contingencies in order to supplement the model. This study is cross-sectorial. Future studies may expand this to time series and capture the evolutionary features of performance measurement. Furthermore, other studies could focus on cross-country differences. Thus, an analysis of whether the same contingencies influence manufacturing companies in different regions would contribute to the existing body of knowledge in the field of performance measurement.

LITERATURE:

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WOMEN'S CHALLENGES IN MANAGERIAL POSITIONS: COMPARISON OF CROATIA AND USA

Sara Susak

ss.susak@gmail.com

Davor Filipovic

Faculty of Economics and Business Zagreb, University of Zagreb

J.F. Kennedy 6, 10000 Zagreb, Croatia

dfilipovic@efzg.hr

Najla Podrug

Faculty of Economics and Business Zagreb, University of Zagreb

J.F. Kennedy 6, 10000 Zagreb, Croatia

npodrug@efzg.hr

ABSTRACT

The purpose of this paper is to point out challenges of women in managerial positions, and to seek further research on inequalities in the business world. Theoretical part of the paper focuses on the women's motivation for pursuing a managerial career as well as challenges and barriers for women in managerial positions. The purpose of empirical research was to show the association between the national culture and business environment with the motivation to pursue a managerial position and the barriers women experience in the career development. The comparison is done among women in Croatia and USA with the intent to better understand the position of women in management and in order to improve the existing situation.

Keywords: *barriers, managerial career, motivation, national culture, women*

1. INTRODUCTION

The position of women in management is increasingly a topic of research in scientific literature. However, it is necessary to pay more attention to a national culture that greatly affects perceptions as well as the position of women in managerial positions. Women's motivation for pursuing managerial positions is different considering that USA and Croatia differ in terms of national culture as well as economic development. There are numerous barriers that women face in their career development with which men do not have to deal with. Cultural differences cause different, sometimes disparaging, perception of women in lead positions, which can be observed in the motives and challenges women face in achieving managerial careers. These insights open up space for future research to improve understanding of the issues of women's position in management and realization of equality in managerial positions. Empirical research focuses on women's experience in managerial positions in Croatia and the USA on a sample of 60 respondents.

2. WOMEN'S MOTIVATION FOR PURSUING A MANAGERIAL CAREER

Since the existence of the world and mankind, men and women had a very distinct and different role in the society (Hofstede, 1984). Despite their coexistence in a community, not every role was intended for both men and women. There were strictly male and female jobs. Since the world has united globally, some partitions have collapsed and now the field of vision is larger. There are more options and possibilities. A man does not just have to work, and a woman does not just have to take care of the family. The man also takes care of the family, and a woman also works and becomes an entrepreneur (Qiu, 2017). The effects of globalization are reflected in such changes.

It is important to note that one of the greatest consequences of globalization is the growing importance of education (Bucholz, 2008). Easier access to information and education foster women's increased ambitions. Globalization has a very positive dual impact on stimulating female entrepreneurship: from the perspective of values and the perspective of knowledge (Qiu, 2017). Viewed from the perspective of value, globalization leads to the opening of cultures to one another and in some way leads to the adoption of universal values, in addition to culturally specific. Women were sometimes only stereotyped, and today, in some countries around the world, there is almost equal opportunity for men and women in the field of entrepreneurship (Qiu, 2017). Expatriation increasingly motivates women in Croatia and in the USA to opt for an international career. Besides the organizations that send managers to the international assignments, there are more and more self-expatriates who take international assignments without support of the organization, often for longer than a year (Tharenou, 2013). In Croatia, expatriation is more frequent under the organization's initiation and what motivates women the most is the fact that their job waits for them for when they return to their country. This is linked to the uncertainty avoidance, characteristic for Croatian national culture. Adler states that the United States had a greater success with female expatriates than male, which prompted a large number of organizations to send women to international assignments (Adler, 1994). Upon returning to their native land, women were often promoted to a higher position. It has also been noted that in 1990, many US organizations with top-ranked women had far-reaching financial results (Adler, 1994). From then on, even today, the motivation of women in the United States for international care increased. The reasons were, among other things, the desire for a promotion upon returning to their country of origin (Adler, 1994). USA is a multicultural country, unlike Croatia where Croats are dominant. Similarly, the national culture of Croatia differs from the United States when it comes to the views on diversity which motivates the Croatian women to pursue an international career less than the American women (Hofstede, 2001). Croats generally live in Croatia for their entire life. On the other hand, USA is a country made out of different ethnicities and cultures. Americans from a young age live and work with people of different backgrounds, so women are more open to an international career because they are not as fearful of change and new surroundings. What attracts women in Croatia, among other things, to international career is financial stability. Croatian managers often face low wages (Pavlek, Klopota, Latin, 2015). Managers very often have a limited ability to produce. They are constantly seeking help and security in their superiors, and rigid rules govern the business. Overall, managerial power is often inadequately utilized in Croatia which stalls progress. Furthermore, limitations in the business world reflect conservative investment practices and a lack of creativity. Conservative investments slow down development and the acceptance of novelties: new products and technologies (Rajh, Anić, Budak, 2015). For Croatian management, this is a very unfortunate business climate; full of barriers and obstacles in which diversity is treated as dangerous, taking on an unclear risk, creating a mindset that makes progress slow and minimal. On the other hand, women in the United States will opt for an international career more easily if the country they intend to move to for work has a well organized health insurance, since the USA has a quite expensive and complicated health insurance (Clark, Bower, 2016). Also in the US, there is a greater inequality in salaries between men and women (Western, Rosenfeld, 2011). However, managers in the USA rely on their own experience and associates, not so much on standards and rules, and prefer a participatory, collaborative style that contributes to greater satisfaction among employees. Their role is that of a consultant and they participate in decision making (Rahimić, Podrug, 2013). Inadequate utilization of managerial power is frustrating, so the cause of the problem is sought within the system rather than in the individual (Rahimić, Podrug, 2013). A business based on collaboration instead of hierarchy increases creativity, which leads to better ideas, key to modern management.

Taking consideration that USA is, due to the many cultural dimensions by Geert Hofstede, a highly individualistic country, the reason why women choose an international career is to challenge themselves. Apart from their professional experience, they also see it as a personal experience of self-discovery and self-betterment. They want to push their own limits because they see it as an investment in self-development (Hofstede Insights, 2017). This interest in self-development also applies to women in Croatia, but it is more emphasized in the USA. What motivates both women in Croatia and women in the USA for an international career is networking (Peter, Lakshmi, 2017). Croatia and the USA have a different history, culture and mentality. This brings with it different "push and pull" factors motivating women to take on managerial positions (Roy, Manna, 2014). One study in the USA found some main reasons why women decided to become managers and entrepreneurs (Buttner, Moore, 1997). One of the first "push" factors is dissatisfaction with the previous job in performing routine tasks that over time accumulated to frustration and the desire for drastic change. These frustrations are also accompanied by an interest in management, which leads them to focus on pursuing managerial positions (Buttner, Moore, 1997). Many women in the United States are motivated by challenges, they avoid routine and uniformity. As successful leaders in their managerial position they look for better business opportunities in which to apply their expertise. Many women at one point in their life decide to start their own businesses and leave the organization they have worked in for a long time (Sharafizad, Coetzer, 2017). A consequence of an already successful managerial career, this desire to grow as an entrepreneur also becomes a motive to grow as a manager both in the USA and Croatia. In the United States, however, it is more and more popular to start up companies because entrepreneurial spirit develops from a young age, since it is a culturally highly individualistic country (Hofstede, 2001). "Pull" factors are reduced to the desire for autonomy and freedom of decision making (Buttner, Moore, 1997). In the USA women have a desire to prove themselves in the business world (Eunjin, 2015). In Croatia more prominent is a desire for changes in family dynamics and equality between spouses, as well as the need to help a husband in financial care for the family (Roy, Manna, 2014). One of the greatest success rolemodels for leadership and management comes from a variety of social figures, often celebrities, especially women who, with their work examples, are perceived as spokespeople to anyone who wants their life marked with great achievements (Van Auken, Stephens, Fry, Silva, 2006). The USA to a somewhat larger extent than Croatia nurtures the image of a nation that is seen as a model for a lot of societies. There is a rising awareness of gender equality, and the feminist movement is much stronger than in Croatia. One of the main characteristics for feminist societies (due to the division on masculine and feminine societies where masculine societies are more competitive and feminine are less competitive) is that people „work to live“, a sentiment Croatia cares about as well (Rajh, Anić, Budak, 2015). On the other hand, given the great emphasis on the importance of work and the tendency for materialism, Americans "live to work". The preference is for "more and faster", rather than "less and slower" (Rahimić, Podrug, 2013). Likewise, Americans are willing to subordinate their family to career and commitment to work. That work comes first and everything else second, maintains the appearance of being in charge, a traditionally masculine trait, which is then ironically at odds with feminism and individualism which promote individual freedom and gender equality. So, this part of the American system of values is contradictory in practice. On the one hand, equal justice for every individual is emphasized, and on the other hand it is only reserved for the winners considered to be more valuable. As much as the US philosophy emphasizes personal freedom, in reality it is quite confused. Growing inequality stifles democracy and could easily increase the chasm between men and women, winners and losers, and help individualism lose importance (Hofstede Insights, 2017). There is a great deal of pressure that everyone must be the best in the family, at school, in sports, at work, and even in appearance.

"The ideal beauty of girls is shaped by the influence of media and celebrities" (Rajh, Anić, Budak, 2015). Also, people in the US believe that working for a big company and earning a large salary is a symbol of importance and prestige.

3. CHALLENGES AND BARRIERS FOR WOMEN IN MANAGERIAL POSITIONS

Although women make more than 40% of the world's working population, there is a small percentage of those engaged in highly-ranked occupations (Schein, 2001). What causes most of the women's barriers to career development is the stereotypical belief that leadership is intended for men (Collinson, Hearn, 1996). Management has historically been considered a "male" job because traditionally a man is the one who makes important decisions in the family and at work. The process of socialization patriarchal believes and negative stereotypes about women as weak leaders cause a glass ceiling that leads to discrimination against women. A large number of women in business worldwide are exposed to some form of sexual harassment at work (Haile, Emmanuel, Dzathor, 2016). Unfortunately, this problem is very complex. To do anything about eradicating it, it is necessary for women who have been victims to report it. However, some of them do not do it because they consider it a loss of dignity. Thus, statistics are losing their relevance, and the pressure on organizations to tackle the problem is inadequate. USA is a multicultural country with a large number of Latino workers. American organizations perceive Latinos as lazy, which stereotypes the entire population as unfit to lead (Owen, Scherer, Sincoff, Cordano, 2003). Because of this, it is very difficult for them to gain respect in managerial positions, and a large number of male managers do not want to send women to international assignments due to those prejudices (Owen, Scherer, Sincoff, Cordano, 2003). A similar situation is with Afroamerican women who have a hard time progressing and acquiring an equal status (Powel, 2011). Likewise, when it comes to sending women to international assignments, the duration of such a task is much shorter than that of men being sent. It is often considered that women are not capable enough or ready for longer periods of stay and work abroad. One of the biggest challenges women in the USA and Croatia encounter in senior management positions is a daily struggle to maintain balance between private and work life (Vasquez-Carrasco, Loper-Perez, Centeno, 2011). It is difficult to juggle motherhood, marriage, and great business responsibility that their management position carries. Many women in the process of progress come to a career point where they have to choose one or the other. The United States has increased the number of divorced women in senior management positions in the organization (Chugh, 2017). Such a position requires a lot of loyalty to work, a lot of overtime work, and a huge amount of stress that makes it difficult to maintain a balance between the business and private commitments. In Croatia, women employees are often considered less valuable in organizations because it is assumed that they will spend one period on maternity leave and that they will often have to leave work due to their maternal duties (Visnjic, Begicevic Ređep, Viacek-Haines, 2018). Croatia belongs to collectivistic societies due to the division of societies on individualistic and collectivistic, so the time spent with family and friends is highly valued, while developing a professional career at high managerial positions at the expense of family time is often socially frowned upon (Hofstede, 2001). Women in managerial positions in Croatia need more options such as flexible working hours due to family obligations. As in almost all countries Croatia, too, finds it more efficient for men to deal with management and leadership (Pavlek, Klopota, Latin, 2015). The adoption of firm business decisions and authority is attributed to male characteristics, so public opinion is that the woman does not have the shrewdness needed for the managerial position and the challenges that such a position carries with it (Višnjić, Begičević Ređep, Viacek-Hainš, 2018). Women in managerial positions are under pressure to prove themselves daily to their superiors and subordinates. Likewise, it is expected of them to take responsibility and be focused on the organization's goals, while largely not implementing their own ideas but those of their male

colleagues (Višnjić, Begičević Ređep, Viaček-Hainš, 2018). Often, in hiring and advancing opportunities women often emphasize the importance of physical appearance, which points to existing sexism (Christopher, Wojda, 2008). Likewise, there are many situations in which women with a more attractive appearance have to prove that their success in a managerial position is due to their skills and competencies, not to their looks. Since men are the majority occupants of managerial positions, their perception of women as managers often shapes the organization's views on women's leadership and management skills, and affects important organizational decisions that affect, among other things, managerial career of women. Men's perception of women as weaker managers extends throughout centuries. Due to the deep-seated stereotype, they believe that managerial thinking is equivalent to male thinking, because as some claim it is a "man – agerial work", „man – agement“ (Collinson, Hearn, 1996). Men in Croatia often believe that women should not be in leading positions due to their lack of psychological strength for making difficult business decisions and resolving conflict situations. In politics it is evident that women who want to come to the higher positions are being treated as suspicious and that confirms the fact that there is only 11.1% of women in the politics (Felger, Lesinger, Tanta, 2017). The reasons for the discouragingly low participation of women in lead political roles are mainly related to the traditional understanding of the biological role of women, holding them away from the center of political power (Felger, Lesinger, Tanta, 2017). The barriers women face when developing their careers are highly interrelated. It is necessary to change and improve the global way of thinking and action before a meaningful and lasting change can take place.

4. EMPIRICAL RESEARCH

The main purpose of this research is to compare women's experience in managerial positions in the Croatia and the USA, which are conditioned by different cultures, motivations and barriers. The aim is to see the link between motivational factors, barriers and challenges, and equity in the business world, which affects women's thinking and their experiences, and explains the results that have been made. The survey sample consists of 30 women from Croatia and 30 women from the USA who are managers in various capacities and organizations.

Table following on the next page

Table 8: General information about respondents

	Characteristics of respondents	Number of respondents	Number of respondents in %
Country	Croatia	30	50%
	USA	30	50%
Age	< 25 years old	1	1.67%
	26-30 years old	15	25.00%
	31-40 years old	26	43.33%
	41-50 years old	11	18.33%
	> 50 years old	8	13.33%
Education	Associate degree	4	6.67%
	Bachelor	16	26.67%
	Masters	28	46.67%
	PhD	8	13.33%
	Other	4	6.67%
Professional experience	0-10 years	21	35.00%
	11-20 years	20	33.33%
	21-30 years	17	28.33%
	>30 years	1	1.67%
Current position	Senior manager	16	26.67%
	Mid level managers	18	30.00%
	Associate manager	13	21.67%
	Other	13	21.67%
Total		60	100%

Table 1 shows a total sample of 60 respondents with information on citizenship, age, education, years of professional experience, and the current position in the organization. Respondents from the USA are mostly high level managers, while respondents from Croatia are mainly mid level managers. In the USA, the level of income is expressed on an annual basis, in the gross amount. The average annual gross salary of all respondents who answered the question was 89 796.67 USD, with three respondents not answering this question. The highest paid salary among American respondents is USD 750,000 per year. In Croatia, salaries are expressed on a monthly basis in the net amount, and the average monthly salary among Croatian respondents is 11,603.48 HRK. Also, three respondents did not provide this information. The largest recorded salaries among Croatian respondents amounted to HRK 20,000 per month in net amount.

Table 9: Rate of satisfaction with current job

Country	Working environment	Collaboration with other managers	Workplace culture	Advancement opportunities	Safety and security at work	Total rate
Croatia	3,9	3,73	3,67	3,37	3,97	3,73
USA	4,37	4,07	4,13	3,6	4,4	4,11

Table 2 shows the average rate of satisfaction of respondents for each aspect of the workplace. We were able to rate from 1-not satisfied to 5-very satisfied each aspect, and calculate the average of the score for the particular aspect. In the end, the total assessment of the respondents from the United States and the respondents from Croatia was calculated. The median of the respondents from Croatia was "very satisfied" compared to the respondents from the USA where median was „mostly satisfied“. Both groups are very satisfied with the work environment and security and safety in the organization they work in, with respondents from Croatia skewed lower than the respondents from the USA. Croatian respondents expressed mediocrity and dissatisfaction in certain aspects of the workplace more often.

Similarly, Croatian respondents are less satisfied in all segments compared to the American respondents. Some of this can be attributed to the part of the Croatian culture prone to cynicism and pessimism. Also, the frustration of managers who feel are unable to fully utilize their position, as mentioned in the theory of this paper, contributes to reducing employee satisfaction. Also, managers' wages in the USA are considerably higher than the wages of managers from Croatia, which greatly affects (dis)satisfaction. The lowest satisfaction is expressed for "Advancement opportunities", both in American and Croatian group of respondents, which is related to the the „glass ceiling“ realities, also mentioned earlier in the theoretical part. According to this research, female managers from the USA are more satisfied with their workplace culture than female managers from Croatia.

Table 10: Motivation for pursuing a managerial career

Country	A desire for a dynamic career	A desire for higher income	A desire to prove your worth to others	A desire to make a meaningful change	A desire to lead
Croatia	4,07	3,73	3,13	4,07	3,77
USA	4,27	4,17	3,57	4,13	4,27

For the respondents from the USA, the highest regarded values are the "A desire for a dynamic career" and "A desire to lead", followed by "A desire for higher income" and "A desire to make a meaningful change". For the respondents from Croatia, the most prominent motives are "A desire for a dynamic career" and "A desire to make a meaningful change". Even though the desire for higher income is highly important for most respondents, it skews higher for the US managers. These results confirm the American cultural favoring of materialism and high importance attached to money. Croatian and American cultures differ when it comes to business culture and the development of money consciousness. Both groups of respondents have a big desire to make a meaningful change in women treatment so this is something that all women share, regardless of their nationality and the cultural place of origin. A desire to lead encourages most women who have participated in the research to take on a managerial position, though it is more pronounced in the USA. These results point to two things. The first is that a desire to lead is a reflection of American policy that is attained both nationally and globally. Another reason might be the fact that in the USA, the inequalities in the labor market are more pronounced against women, so a desire for making a change in management gender equality is more pronounced as well. There is a possibility of a combination of both these factors. The smallest incentive for getting into a managerial position for both groups is „A desire to prove your worth to others“. Special attention in this research was devoted to the thoughts and reflections of women in managerial positions. Nearly all respondents from the USA, 29 (out of 30) think women are good leaders, and only one person claims they are not. In Croatia, 26 (out of 30) respondents also believe that women are good leaders. So, all respondents are fairly certain that women are very capable of leadership and making difficult decisions, but American enthusiasm is still a bit more pronounced than the one in Croatia. In the USA, the average stereotyping rate against women is 3.8, and similar to those in Croatia where the average stereotyping value was 3.6. Hence, respondents from both countries see a greater degree of stereotyping against women in the business world and both express a desire for change.

Table 11: Deficiencies of women in the business world

	USA	Croatia
1	Lack of confidence	Lack of confidence
2	Too emotional	Too emotional
3	Risk taking	Inability to harmonize private and business life

Based on their experience, respondents were asked, „what do women lack as managers?“. The most common answer to this question across segments is that what women lack the most in the business world is confidence. The second most common response to both groups was – too emotional. This often stems from the prejudice that men have towards women in the business world and therefore feel they are not capable of managing positions that carry everyday challenges, constant stress, and demand shrewdness in conflict situations and negotiations. But it seems that this is not just the men's opinion, but that women are also partly responsible for perpetuating such stereotypes. The other answers are largely different regarding to different group of respondents, but relatively similar within individual groups. Several US respondents state that women in the business world lack a dose of fierceness and risk taking, and that it is necessary to be more assertive in everyday relationships with other managers. Several respondents from Croatia cite the inability to reconcile private and business life as the main difficulty preventing women to be fully actualized managers in the business world.

Table 12: Advantages of women in the business world

	USA	Croatia
1	Empathy	Diligence and meticulousness
2	A diverse perspective	Good intuition
3	Multitasking	Organizational skills

One of the respondents from the USA, gave an interesting statement for women and their attitude toward work: " They are detailed and do care about their work. Not to be confused with being emotional. But women naturally care more." Overall, all the respondents are very similar in thinking about women's deficiencies in the business world, but when it comes to advantages, there is a difference between US and Croatian respondents. The most frequent response to the question, „What do women contribute as managers?“ for the respondents from the United States the answer is largely - empathy. They explain how women better understand others and respect what other people think and feel. There is more emotional support and compassion for others, and the will to help their colleagues in solving business and interpersonal problems. Hence, it is noted that the emotionality of women on one hand is often referred to as a deficiency and, on the other hand, as an advantage, emotional intelligence. Several respondents from both the USA and Croatia stated that the main advantage of women in the business world is multitasking. For managers it is very important to be able to do more things at the same time, since it is a dynamic business with frequent changes. The most common answer to the issue of women's benefits in the business world from Croatian respondents is diligence and meticulousness. Some of the respondents explain how this relates to performing tasks completely, and not superficially. It is considered that the level of equality between men and women in the business world is quite low in Croatia and moderate in the United States. Since there are many prejudices against women at work by men, men are often considered the main barrier in women's careers. In order to glean more insight about this, it is necessary to consider women's thinking, so the question was asked: „Have you experienced more obstacles in achieving your career goals with your male or female colleagues?“. In the United States, the opinions are very divided. 30% of women claim to have more unpleasant experiences with men, and 30% say that women have created more disadvantageous situations than men. In Croatia, 50% of the respondents argue that problems were the same for both male and female managers, and 36.7% of respondents deem that more senior women experienced more difficulties with women than with men. After many broad questions about women's managerial experience, the last part of this research survey seeks to better understand a situation in men's and women's management: „In your opinion, do you feel that being a woman in a managerial position is more challenging than being a man in a managerial position?“ 73.3% of women in Croatia responded „yes“ to this question.

Slightly less, 66.7% of the US respondents think that being a female manager is harder than being a male manager and 30% find it equally difficult for everyone.

5. CONCLUSION

Despite the globalization that breaks the barriers and establishes more and more equal opportunities for everyone, the society we live in is still traditional and therefore affects management with a lot of stereotypes about women and their leadership capabilities. Family life and household duties should not be a barrier for women in the 21st century to achieve their desired career, so men's awareness and sharing in the family obligations is absolutely needed. Croatia needs more enthusiasm in terms of seeing the positive side, and acknowledging managers who are doing their job well. Croatian society still has tendency toward cynicism, which reflects on the experience of women in managerial positions that generally get more negative than positive critique during their career. USA promotes equality and justice for every individual in theory. Unfortunately, practice shows that equality has not yet been fully realized. There are disparities in salaries between men and women. Women in managerial positions in the US struggle with fierce competition that is somewhat more emphasized than in Croatia due to greater emphasis on work life, earning as the highest pursuit of one's time and effort, hence the subordination of private life to career. Greater understanding among managers is needed to reduce pressure and achieve more humane conditions. As empathy and collaboration, the traits that women champion, become more critical features of modern and more productive management it is necessary to harness women's exceptional potential and ability by providing gender-equal opportunities for achievement in managerial positions.

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LIVING CONDITIONS OF THE RURAL HOUSEHOLDS IN POLAND (ECONOMIC ASPECTS)

Urszula Grzega

*University of Economics in Katowice, Faculty of Management, Poland
ugrzega@ue.katowice.pl*

ABSTRACT

The current situation of the living conditions of rural households in Poland has been affected by a number of factors and conditions. Among them, those particularly important were the transformation and integration processes, and the global economic crisis in Europe and Poland. Different factors affected the situation in the Polish countryside in different directions and with different intensity. A rural household, like any other household, operates in terms of its purchasing power resulting from the income situation that determines the upper and lower limits of consumer expenditures. The aim of the study is to know and assess the income situation and consumer expenditures of rural households in Poland. The spatial scope of the research covers the area of Poland. The time scope covers the years 2005-2015. The study used secondary data obtained from the Central Statistical Office. The applied research method can be described as a descriptive analysis with elements of a quantitative analysis. Based on the analysis, it can be concluded that in the years 2005-2015 the differences between the living conditions of urban and rural households, measured by their income situation and consumer expenditures, decreased. Still, rural households have less, in relation to urban households, available income per capita. They also spend less on consumer purposes. The differences also relate to the structure of consumer expenditures. Rural households spend relatively more on goods and services that meet their basic needs, and less on those that meet the secondary needs.
Keywords: *living conditions, available income, consumer expenditures, rural households*

1. INTRODUCTION

Rural households are households located outside the borders of urban areas. They usually show concurrent involvement of material and human resources in commercial and consumption activities related to satisfying consumer needs while being characterised by a high level of self-supply and strong connection to land (Spychalski, 2005, pp. 49-50). These households should not be confused with farms because they have multifunctional nature which is related, among others, to development of their non-agricultural entrepreneurship and departure from the stereotype of rural area, representing “delay in development” or execution of basic functions associated with food production (Grzega, 2013, p.79). They may or may not perform agricultural function. In some of these rural households these functions have prevailing importance, but they are not the only ones. Departure from predominance of agriculture in the structure of activity of rural households is increasingly more frequently observed (Rosner, Stanny, 2017, p.16). On the other hand, while analysing farms, we mean their predominant source of maintenance to be associated with farming or breeding farm animals. Similarly to all other households, rural households conduct consumption activity within their own purchasing power determined by available income. Socio-economic transformations observed in Poland in 21st century, including Poland’s accession to the European Union brought changes in conditions of functioning of households located in rural areas. The aim of the study is to know and assess the income situation and consumer expenditures of rural households in Poland. The spatial scope of the research covers the area of Poland. The time scope covers the years 2005-2015. The study used secondary data obtained from the Central Statistical Office. The applied research method can be described as a descriptive analysis with elements of a quantitative analysis.

2. AVAILABLE INCOME IN RURAL HOUSEHOLDS

Available income is an essential element of living conditions in households. Available income is the sum of the current income from the individual sources, reduced by advances on direct taxes and social and health insurance contributions. Available income consists of cash and non-cash income, including own consumption and the goods and services received free of charge. It consists of income from hired work, private farm in agriculture, self-employment, professional services, ownership, social insurance benefits, social assistance benefits, other income (including gifts and alimony). Available income is spent on expenditures and savings increase (Household budget survey..., 2018, p. 279). In 2005-2015 the average monthly available income per 1 person in rural households almost doubled from PLN 593 to PLN 1106. In cities in this period the income grew from PLN 867 to PLN 1566 (Socio-economic situation..., 2017, p.23). Data in fig 1 shows that in 2005-2015 available income in villages constituted 78-80% of the national average, whereas in cities it remained on the level of around 113-114%. Available income of rural households in this period represented around 70% of incomes achieved in cities. The largest difference in the level of income was reported in 2005 when incomes in urban households were higher than rural household incomes by 46%.

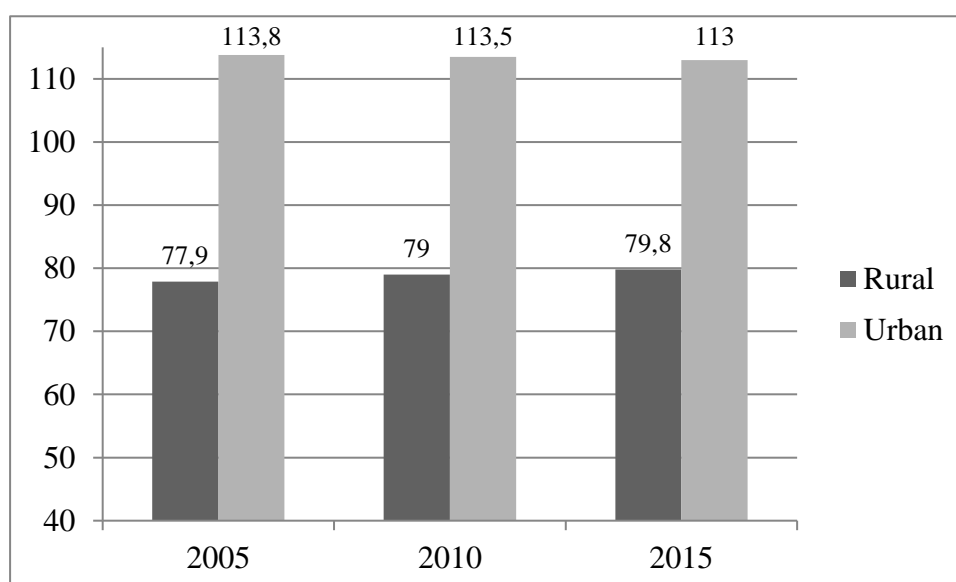


Figure 1: The average monthly per capita available income in rural and urban households (total households income = 100) in % (Socio-economic situation..., 2017, p. 23)

Similarly to urban households, income from hired work constitutes the largest share in them. Income in the form of disability and old age pension is found in the second place. Income from individual household in agriculture constitute only the third source of income in rural households. The growth of the share of income from hired work by 12.8 percentage points was the greatest change in the structure of available income of rural households that could be observed in 2005 – 2015. The share of income from self-employment outside farm also grew, but in a clearly smaller degree, i.e. by 1.9 percentage points. However, the share of income from individual household in agriculture decreased by 4.6 percentage points, and the share of income in the form of disability and old age pension declined by 4.9 percentage points. The share of incomes from other social benefits also decreased (by 3.5 percentage points), similarly to the so-called other incomes (by 1.9 percentage points). As regards urban households, in comparison with rural households, they are characterised by clearly smaller share of incomes from individual farms, higher share of income from hired work and self-employment and the so-called other incomes.

Changes in the structure of available incomes in rural households can result from several reasons. Firstly, production activity in agriculture very frequently cannot provide decent income to rural households, especially to owners of small farms. Due to this, it has been observed recently that in rural households, actions are taken towards enhancement or change in qualifications, change of the workplace, labour emigration to other regions of the country or abroad and seasonal work outside one's own farm (Leśniak-Moczuk, 2008, pp. 280-281). Another issue is the development of entrepreneurship and expansion of private initiative in rural areas which is supported by the price of rural, in comparison to urban land among others. The phenomenon defined as suburbanisation that leads to growth of housing function in rural areas is also important (Kozera, Stanisławska, Wysocki, 2014, pp. 96-97).

Table 1: The structure of the average monthly per capita available income in the years 2005, 2010 and 2015 (rural-urban diversity); in %, (Socio-economic situation..., 2013, pp. 70-73; Socio-economic situation..., 2017, pp. 62-63)

Income	Households Rural			Urban		
	2005	2010	2015	2005	2010	2015
from hired work	37.5	46.5	50.3	49.6	55.5	56.6
from self-employment	5.5	7.3	7.4	9.2	9.7	9.2
from private farm in agriculture	14.1	13.1	9.5	0.4	0.3	0.3
retirement pays and pensions	27.4	22.5	22.5	25.0	23.3	22.9
other social benefits	10.2	7.0	6.7	8.8	5.5	5.5
other income	5.2	3.4	3.3	6.6	5.2	4.8

Analysis of data concerning the structure of rural households by socio-economic groups confirms the above conclusions. Wage-earning farming households represent prevailing group of rural households (47.4% in 2015). In 2005-2015 their share in the total number of rural households grew by 10.2 percentage points. It should be added that over twice more workers from rural areas are employed as blue-collar workers, which constitutes 32.2%. 15.1% of people from rural households are employed in non-worker positions. Old age and disability pensioners' households are the second largest group (31.8% in 2015); ¼ of all households located in the country represent households of old age pensioners' whereas households of disability pensioners constitute 7%. Together with workers' households, old age and disability pensioners' households constituted almost 80% of all rural households in 2015. Farmers constituted 11.3% and the self-employed represented 6.2% (Socio-economic situation..., 2017, p.59). Generally, in 2005-2015 rural population grew by around 600 thousand people (in cities it declined by around 300 thousand) and at the end of 2015, the share of rural population in total number of people in Poland was 39.8% in comparison to 38.5% in 2005 (Statistical Yearbook..., 2018, p.43). The consequence of the level of nominal income and the changes of price indicators of goods and services were the changes in the real income of households. Data in fig. 2 show that in 2005-2015 diverse dynamics of the pace of change of real incomes was observed in rural households. In 2005-2008 high rate of increase in real incomes was observed. After this period, in 2009 a decline in the rate of real income growth was observed. In 2011 a decline by 1.9% was reported. It is highly probable that it was a result of almost 40% reduction in subsidies for farmers at minimum real growth of income from agricultural production (by 1.7%). This was because the decrease in subsidies resulted from the schedule of receipt of applications by The Agency for Restructuring and Modernisation of Agriculture (ARMA), the period of implementation of projects and the waiting time for the subsidies to be obtained (Kozera, Stanisławska, Wysocki, 2014, p. 94). The following years, i.e. 2012-2014 were characterised by moderate pace of growth. In the final years of the period in which the analysis was conducted, real income of rural households grew by 4.5%.

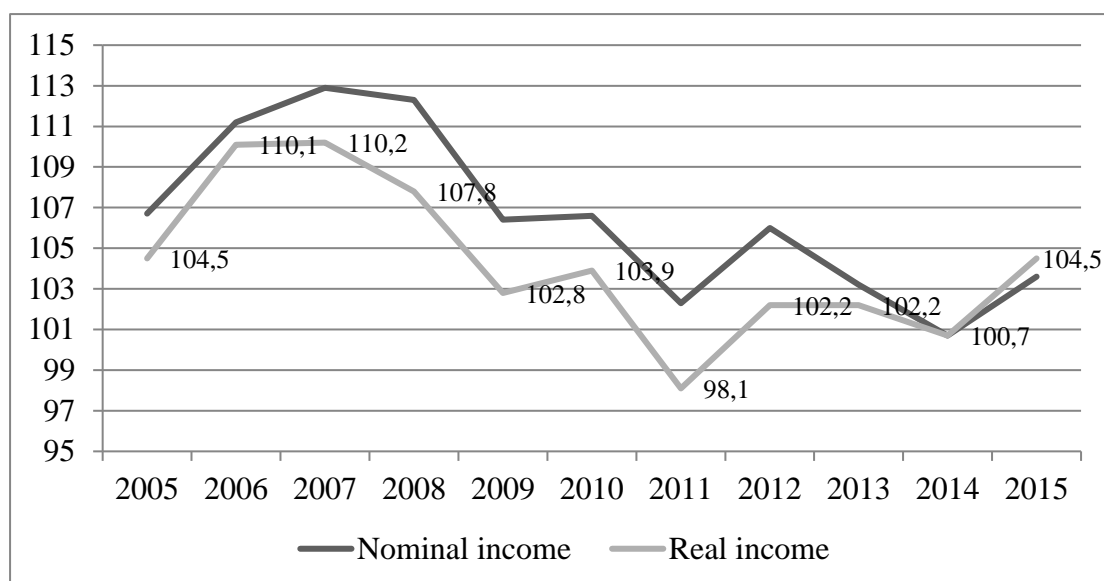


Figure 2: Dynamics of average monthly per capita nominal and real income in rural households in the years 2005-2015; in %, (Socio-economic situation..., 2013, pp. 76-77, 80-81; Socio-economic situation... 2017, p. 65,67)

Gini coefficient is the measure of income distribution in households. The higher the value of this coefficient within the range of 0 to 1, the higher the scale of inequality. Between 2005 and 2015, divergences in income inequalities between the city and the country were insignificant. In 2005, Gini coefficient by income per 1 person in the study of household budgets was 0.336 in the country and 0.333 in the city. In 2015 the coefficient decreased to 0.323 in the country and to 0,303 in the city (Household budget survey ..., 2018, p. 348). Summing up, real average available income in 2005-2015 grew in the country more than in the city, and consequently, the difference in the span between urban and rural households declined, which must be assessed as positive. However, considerable differences in the level of incomes between towns and villages, to the disadvantage of rural households are observed.

3. CONSUMER EXPENDITURES IN RURAL HOUSEHOLDS

Analysis of consumer expenditures in households enables recognition of the pace and trends of spending of available incomes on satisfying various groups of needs. Expenditures as a derivative of income, their level, the structure and change in time provide relatively real image of people's living conditions. Household expenditures include expenditures on consumer goods and services and so-called other expenses (gifts to other households, certain taxes, losses of cash and bails...). Expenditures on consumer goods and services are allocated to satisfying household's needs. They include goods and services purchased for cash, with a payment or credit card, on credit obtained free of charge, and consumption (Household budget survey in 2017, p. 281).

Table 2: The average monthly per capita expenditures in rural and urban households (total households expenditures = 100) in % (Socio-economic situation..., 2013, pp. 29-30; Socio-economic situation..., 2017, pp. 27-28)

Year	2005		2010		2015	
	zł	%	zł	%	zł	%
Total	690	100	998	100	1091	100
Rural	550	79,7	800	80,2	883	80,9
Urban	778	112,8	1121	112,3	1225	112,3

In 2005 – 2015 the value of the average monthly expenditures in rural households grew from PLN 550 to PLN 883. At the same time, the difference between expenditures in cities and in villages slightly decreased. In 2005, the average monthly expenditures in villages constituted 80% of expenditures in cities, whereas in 2015 the share of expenditures in villages constituted 81% of expenditures in cities. Data in fig. 3 show that the pace of changes in the sphere of nominal, and what is more important in real expenditures was diverse. After the initial period of high rate of growth of real expenditures in rural households in 2006 – 2008, a clear decline in growth dynamics was observed. In 2011, a decrease in real value of expenditures in rural households by 1.8% was reported. Successive years of the analysed period were characterised by stagnation. In 2015, real expenditures grew in comparison with the previous year by 1.9%.

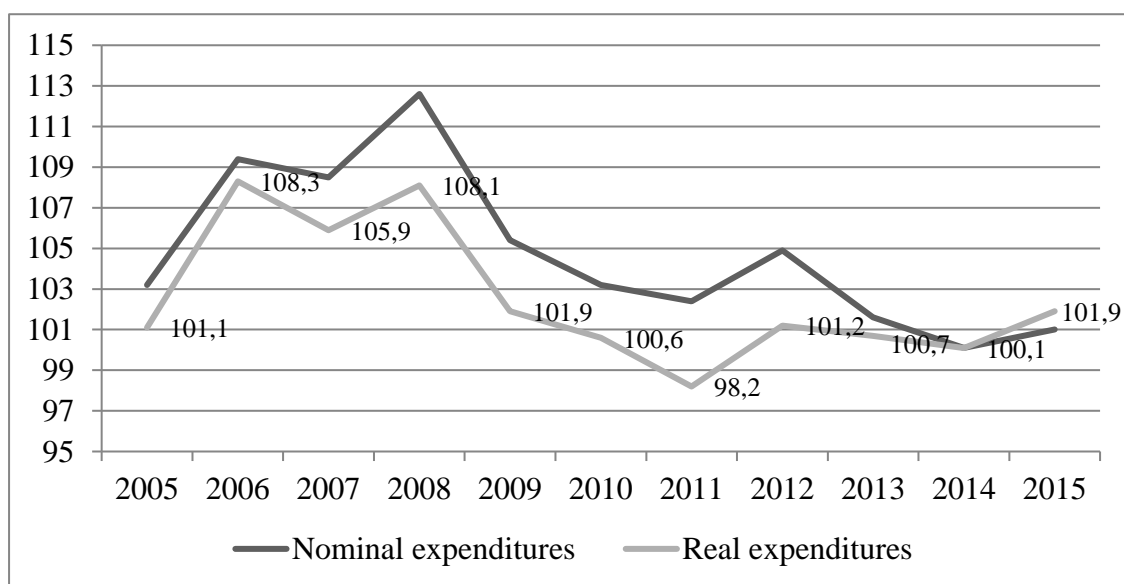


Figure 3: Dynamics of average monthly per capita nominal and real expenditures in rural households in the years 2005-2015; in %, (Socio-economic situation..., 2013, pp. 98,99,104,105; Socio-economic situation..., 2017, pp. 76,79)

In 2005 -2015 changes in the structures of expenditures in rural households were also observed. Firstly, a decline in the share of food expenditures and increase in the share of non-food expenditures were reported (fig. 4 and 5). The share of expenditures on food in total expenditures of rural households declined by 6.1 percentage points. This was a significant change that is positively assessed. This is because according to the first Engel's law, the decline in the share of food expenditures proves increase in the level of wealth and the population standard of living. It should be added that in urban households, food expenditures declined in this time by 3.3 percentage points, while reaching in 2015 the final value of 22.5%. This value means that despite progress that could be reported, rural households are still characterised by considerably higher share of food expenditures in total structure of consumer expenditures in comparison with urban households. Besides, in rural households these expenditures represent clearly prevailing group of expenditures, whereas in urban households their share is close to the share of spending on the use of flats and energy carriers. The values of food rate that are higher in comparison with urban households and national mean, generally prove a lower level of living standards in rural households.

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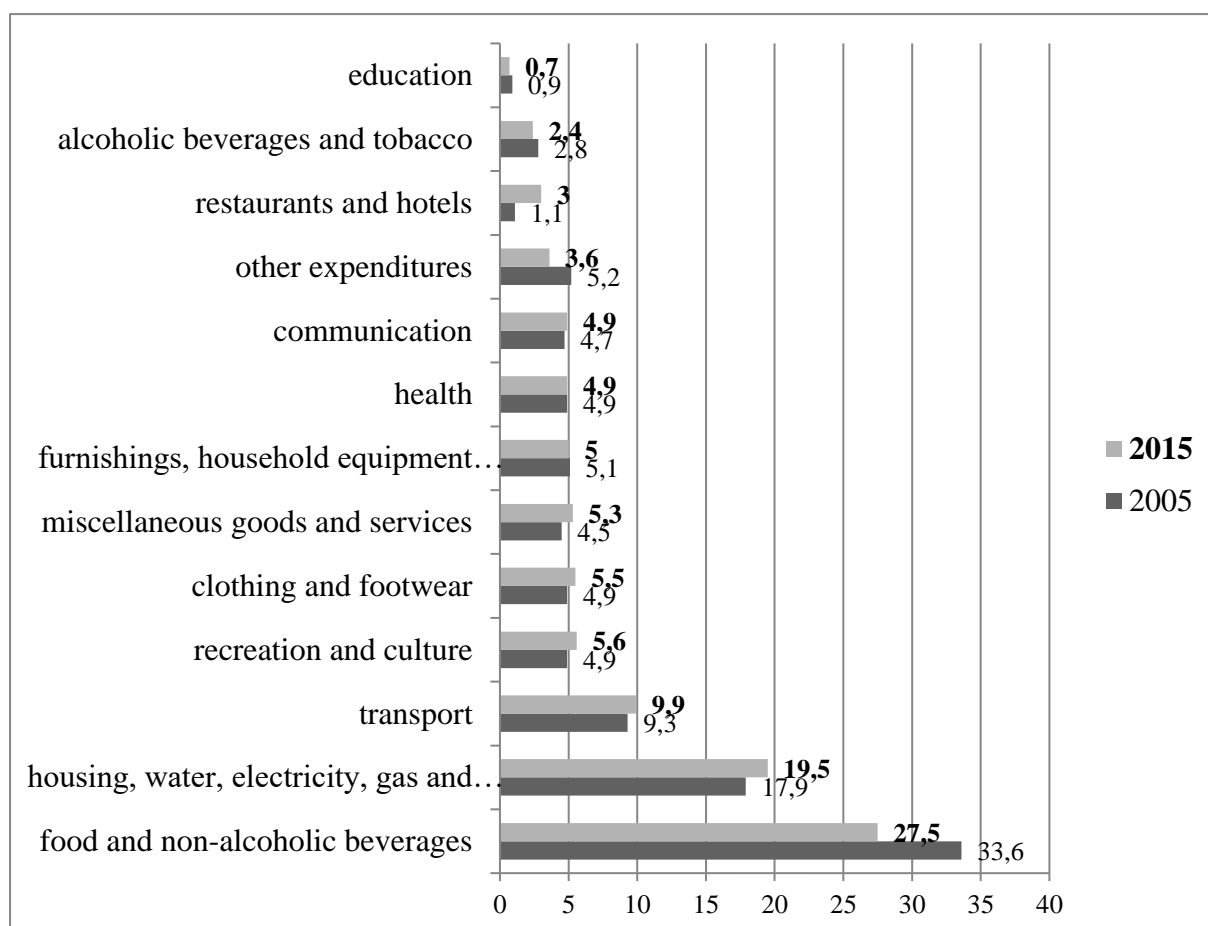


Figure 4: The structure of the average monthly per capita expenditures in rural households in 2005 and 2015; in %, (total expenditures = 100)(*Socio-economic situation...*, 2013, p. 92; *Socio-economic situation...*, 2017, p.30)

Housing expenditures, i.e. the rent, water, electricity, gas and other fuels constitute the largest part of non-food spending. In 2015, they represented almost 1/5 of the total expenditures of rural households. Furthermore, their share grew over the studied decade by 1.6 percentage points and it was only 1.1 percentage points lower than the share of housing expenditures in urban households. On the other hand, generally, the expenditures on housing, water, electricity, gas and other fuels as well as furnishings, household equipment and routine household maintenance represent $\frac{1}{4}$ of the total expenditures in rural households. Regular housing charges have the largest share in this group. Apparent growth of spending was also reported in the case of expenditures on restaurants and hotels (by 1.9 percentage points), which should also be assessed positively. Expenditures on transport that represent $\frac{1}{10}$ of total spending in rural households are ranked second in non-food expenditures. In this case a growth by 0.6 percentage points was also reported. Spending on recreation and culture increased by 0.7 percentage points and reached the level of 5.6% at the end of the studied period. Expenditures on clothing and footwear grew by 0.6 percentage points. Increase was also reported in the case of spending on other goods and consumer services (by 0.8 percentage points). Expenditures on health stabilised on the level of 4.9% of total expenditures. Considering spending on house furnishing, alcohol or tobacco products and education, a decline in their share in total structure of expenditures in rural households was reported. However, this decline was not higher than 0.4 percentage points. Analysing changes in consumer expenditures in urban and rural households it can be stated that there are significant differences in the range of expenditures between these two groups of households.

In 2015 the largest differences concerned expenditures on food and non-alcoholic beverages, recreation and culture, restaurants and hotels, as well as education (Socio-economic situation..., 2017, p. 30). However it must be added that the span between the city and the country in the studied period of time decreased.

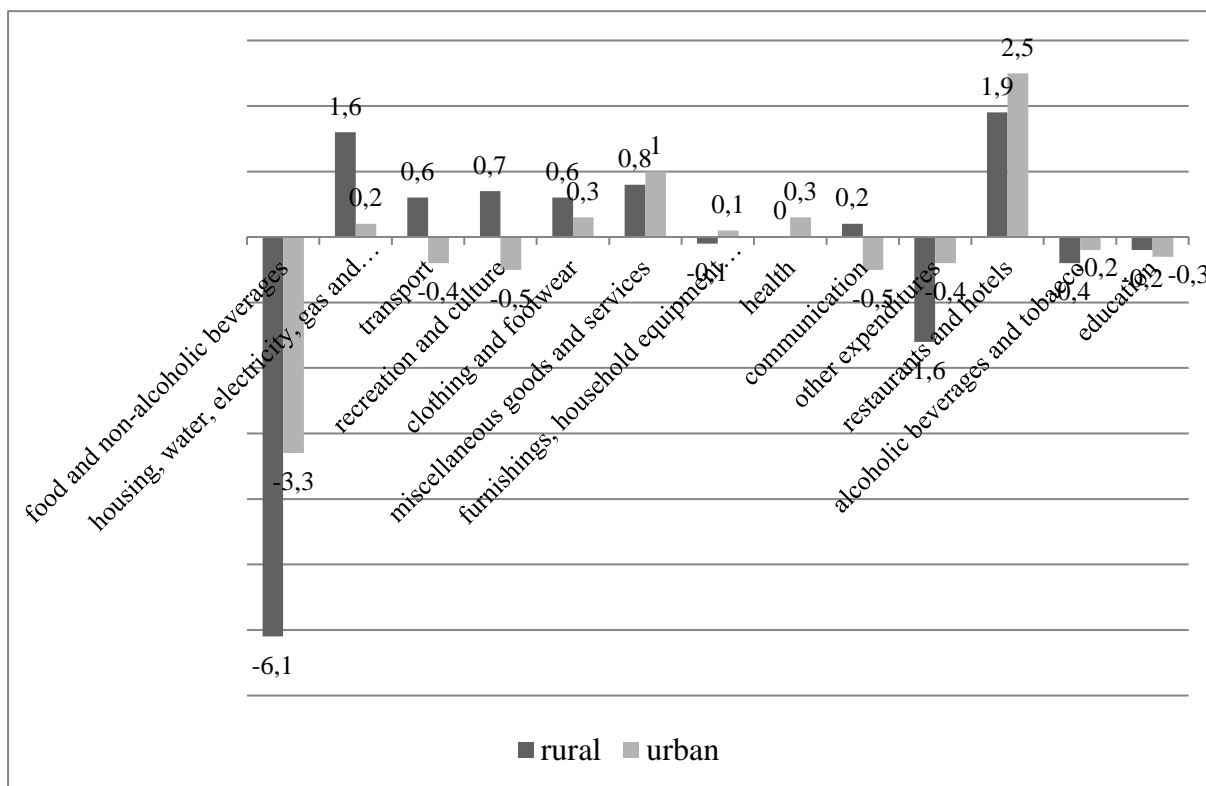


Figure 5: Changes in expenditure rural and urban households in the years 2005 and 2015; in percentage points, (Socio-economic situation..., 2013, p. 92; Socio-economic situation..., 2017, p.30)

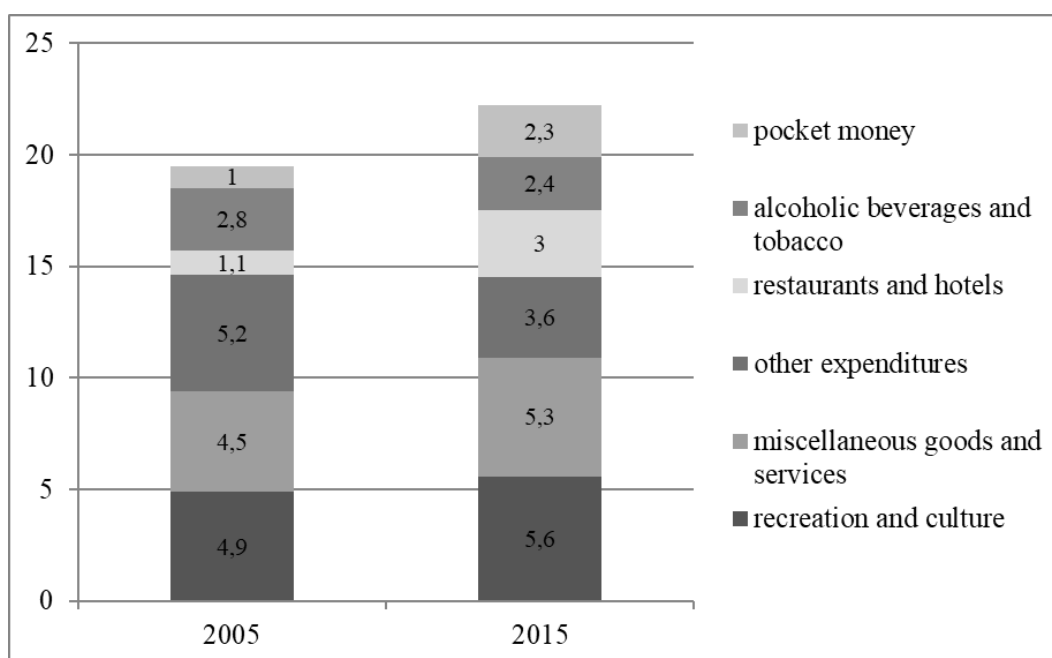


Figure 6: The structure of expenditures free choice of rural households in 2005 and 2015; in %, (Socio-economic situation..., 2013, p. 92; Socio-economic situation..., 2017, p.73)

Increase in the share of free choice expenditures, showing improvement in living conditions of rural household was a positive change that could be observed in 2005 – 2015 (fig.6). These are expenditures that satisfy higher needs of households. Free choice expenditures include spending on alcoholic beverages and tobacco, recreation, culture, restaurants and hotels, pocket money and the so-called other expenditures. In 2005 – 2015 the rate of the share in free choice expenditures in total expenditures of rural households showed a growing trend. In 2015 it reached 22% in comparison with 19.5% in 2005 (in urban households 27.9% in 2015 and 25.5% in 2005 respectively). This proves the progress that occurred in the structure of consumer expenditures of households located in rural areas. Summing up it should be added that the structure of consumer expenditures in rural households is still different from the structure of expenditures in urban household and households in total. Firstly food expenditures constitute considerably higher share. Rural households also spend more on transport. However, they spend clearly less on recreation and culture, education and health. Expenditures on housing are the closest element of the structure of consumer expenditures in urban and rural households.

4. CONCLUSION

Living conditions in rural households in Poland were determined by series of various phenomena, processes and factors of economic and non-economic nature (including demographic and socio-occupational determinants). In 2005 – 2015, transformation and integration processes as well as crisis phenomena observed in various areas of socio-economic life of consumption entities were especially important. They shaped living conditions of households in Polish villages in multidirectional way and with diverse intensity. From the point of view of the subject of these deliberations, the goal of Poland's accession to the EU was to improve the living standard of rural population through supporting socio-economic development of Polish rural areas, perceived as the process of transformation of rural areas into the environment that is people-friendly, enabling satisfaction of their needs and aspirations through appropriate working conditions, satisfying level of income and access to public services and cultural goods (Rosner, Stanny, 2017, p.13). Reinforcement of the policy in the sphere of rural areas became one of the EU priorities. Improvement in the standard of living in rural areas was the goal associated with economic and social development of rural areas (through enhancement of economic potential, restructuring and modernisation), as well as improvement of living conditions in the sphere of accessibility of social and technological infrastructure among others (Murawska, 2012, pp. 169-180). It results from conducted studies that after Poland's accession to the EU, income situation in rural households has improved. In 2005-2015, increase in average monthly available income in nominal and real terms was observed in these households. Transfer of funds targeted at agriculture, especially direct payments in various forms of subsidies had significant impact on this situation. Definitely this affected improvement of living conditions in rural households. The issues associated with modernisation of Polish rural areas, availability of loans, improvement of technological and social infrastructure, creation of conditions providing opportunities for development of private entrepreneurship and others were also vital. Poland's accession to the EU was also related to the change in the structure of available income in households of rural areas. This was because a clear decline of the share of income from agriculture and income from social benefits in total income at simultaneous increase of income from hired work and self-employment was observed. This situation contributed to the decline of the importance of agriculture in rural economy. Departing from running a family farms and change in the form and motivation of people to start business activity could be observed over the years (Kozera, Stanisławska, Wysocki, 2014, pp. 99-100). Positive changes in the structure of consumer expenditures were the consequences of the improvement in income situation in rural households. These changes were reflected, among others by the decrease of the share of food expenditures in total

expenditures, and growth of the share of free choice expenditures. Considering regularities formulated in further Engel's laws, these changes should be perceived as beneficial and proving the improvement of the living standard in rural households. Reducing disparities between living conditions of rural and urban households measured with income situation and expenditures should also be assessed positively. Nevertheless, still relatively high share of basic expenditures (i.e. food and housing) as well as relatively low share of non-basic expenditures (e.g. on recreation and culture, restaurants and hotels) show worse situation of rural households in relation to the urban ones. Disparities observed in economic living conditions of urban and rural areas concern the level and structure of available income, as well as consumer expenditures.

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SERVICES OF GENERAL ECONOMIC INTEREST AND FOREIGN INVESTMENT: RISKS, OPPORTUNITIES AND PROTECTION OF HUMAN RIGHTS

Maria do Rosario Anjos

*University Institute of Maia, ULP – Faculty of Law,
Portugalense Institute for Legal Research, Portugal
rosario.anjos@socadvog.com*

Maria Joao Mimoso

*Portugalense University, Portugalense Institute for Legal Research, Portugal
mjmarbitragem@gmail.com*

ABSTRACT

The concept of services of general economic interest (SGEI) was enshrined in the Treaty of Rome in Article 90 (2) of its original version. It remained unchanged until the current version introduced by the Treaty of Lisbon. The services that public authorities of the EU member countries classify as being of general interest are, therefore, subject to specific public service obligations. They can be provided either by the state or by the private sector. The article 106 (2) TUE shows the importance of SGEI's by preserving the possibility of subtracting them from the principle of free competition which underlies the entire economic law of the EU. These are very profitable, monopolistic or oligopolistic economic activities, with all the resulting risks. We are talking about electricity, gas, water, telecommunications, transport, postal services, among others. Their importance led to the concept of universal service, it means that the goods and services they produce are essential to citizens life and social welfare (general interest), and, therefore, they are very important to the accomplishment of human rights and safeguard the dignified survival of citizens. These are activities that attract a great deal of interest from foreign investors, both in the EU economies and outside the EU. This study intends to reflect on the comparative principles in the analysis of the best model of market organization in the perspective of better serving the general interest of citizens and companies that operate in these markets. The research question, in summary, is: What are the risks of the global liberalization of the markets that supply goods and services of general interest?

Keywords: *SGEI, universal service, competition, foreign investment, human rights*

1. INTRODUCTION

The chosen theme for this research topic analyzes the potential of foreign investment in sectors designated by services of general economic interest, the resulting opportunities for the investor and the host state, also considering the risks that result for both. The concept of a service of general economic interest (SGEI) originates from European Union law and applies to sectors such as energy, telecommunications, water, gas, postal services and transport (Anjos&Mimoso,2018). These are sectors with high economic and profit potential, subject to rapid and demanding technological progress, which require a high capital investment and know-how, and which some states cannot obtain without accepting and negotiating with foreign investors (Anjos, 2016). These sectors that we call SGEI play a key role for the whole economy and social life. That is why those who control SGEI control a large part of the markets, either directly or indirectly. Foreign investment contracts or partnerships provide a unique opportunity for social progress for host States (Pérez, 2016), but also pose risks of capturing their people and governments by powerful economic agents operating in cartelized multinational markets. In a globalization context of the economy, this issue is even more important (Pego,2007). This research has its main focus in the major objective of foreign investment of providing a balanced

sharing of knowledge and natural resources (Soria, 2015), in order to provide greater progress in the social welfare of populations and protection of their human rights (Jacob, 2010). The development of the now carried out study is intended to highlight the issue of citizens' rights and guarantees face to liberalized and competitive markets but, general rule, organized in the form of an oligopoly. In this context, the defense of the public service obligations' fulfillments, to which these services are subject, is assumed as essential and is widely recognized by the European institutions (Meilán-Gil, 2010). From the European experience, we can foresee what public service obligations are borne by the companies that are responsible for the SGEI, Member States in guaranteeing rights to their citizens (Laguna de Paz, 2009). Therefore, our research issue is about knowing the risks of the global liberalization of markets associated to the supply of services of general economic interest. What are the risks of the global liberalization of the markets that supply goods and services of general interest? The research carried out focuses on the most relevant consequences for citizens' rights and guarantees, since we consider that access to SGEI's is a fundamental right of the human person. We seek to define the essential lines of the legal status of the citizen as a SGEI consumer. This is the contribution of this work. In the concretion and development of our investigation, we concentrate the analysis on the existing doctrinal and jurisprudential production, trying to demonstrate the care to go through the main European authors of reference in the matter.

2. THE SGEI CONCEPT

Firstly, we can say that these are economic activities essential to the well-being of the population, both from the point of view of meeting individual needs as well as collective (ANJOS, 2016), such as energy, gas, water, postal services, telecommunications or transport. Using the concept resulting from the European Parliament, these are "activities considered vital for citizens and for society as a whole" (Miguéz, 2005). Within a community of countries as broad as the one we are part of, it's necessary to circumvent differences of conceptions and to find the "minimum common denominator" that can unite all around common goals. It's precisely in this context that we have included this important concept of service of general economic interest, which was enshrined in Article 90 (2), now Article 106 (2) of the Treaty of Lisbon (TFEU) in a careful, minimalist yet efficient reading that, perhaps because of it, has resisted intact in the successive revisions of the Treaty (Anjos, 2016). However, we can say that this concept is very close to the concept of public service, well known to the French, Italians, Portuguese and Spanish, or the public utilities of the Anglo Saxons (Anjos, 2016). The traditional concept of public service has always undergone great doctrinal complexity, giving rise, over time, to important and enriching legal constructions, with particular emphasis on the French school, where it was actually considered by GASTON JÉZE as a "cornerstone of Administrative Law" or, still, as the "true essence and foundation of the public power" (cit.by Anjos, 2016). The origin of the concept is commonly associated with LÉON DUGUIT and, strongly boosted since then, it was the source of many and very rich studies on Administrative Law (Meilán-Gil, 2006). The evolution of modern society depends, largely, on the technological evolution of these services, and its indispensability for the economic and social cohesion of the European peoples is now recognized. On them depends the progress of the peoples (Arenhart, 2013) and their social welfare. These SGEI's are characterized by:

- a) assuming a markedly economic nature, awakening interest in the business market, having been subject to a strong liberalizing impulse;
- b) they are essential to the life of citizens, to their well-being and to their proper subsistence, which determines the presence, more or less visible, of the State to ensure that their provision is ensured under the adequate conditions;
- c) being strongly influenced by the technological evolution, and this should be put at the service of developing better conditions of access to the goods and services in presence;

- d) being sectors where the companies that provide services have a large dimension and economic power, highlighting the need to ensure an efficient safeguard of the rights of citizens who use them (Costa, 2005-a).

This last feature highlights the importance of defending the legitimate rights and guarantees of citizens as users or consumers of SGEI, in the face of all the powers that are strongly established in these sectors of activity. In fact, in all these sectors we have verified that the natural market form is, mainly, that of a state or private monopoly under an administrative concession (Anjos, 2016). When exposed to market liberalization, by legal means or, in the case of the EU, by economic policy decision for these sectors, we find that the market evolves to an oligopoly, and there it crystallizes. Conscious of this risk, the Green Paper on SGEI expressly refers to the crucial importance of these services to the quality of life of European citizens and to the competitiveness of European companies and has defended the liberalization of these markets with caution, which means "the definition of universal service objectives pursued by the general interest." The numerous sectoral directives applicable to SGEI also frequently and recurrently refer to the universal service obligations inherent in these services, which are, after all, their greatest distinguishing feature. On the other hand, the ECJ case-law, in its numerous judgments in this matter, is quite regular in its assessment of the possibility of applying the exception regime provided for in Article 106 (2) TFEU: the exception to competition may be acceptable if its application renders the fulfillment of the universal service or general interest obligations in question too expensive, difficult or inefficient. (Anjos, 2016) This explains why, in the EU, these sectors were named 'excluded sectors', that is, sectors where the principle of free competition can be estranged or excluded (Laguna de Paz, 2009). It is true that, since the beginning of the 21st century, the EU has taken the political decision to liberalize the SGEI sectors. Several 2000, 2001 and 2003 Directives have imposed liberalization of the electricity, gas, telecommunications and other SGEIs. Even so, there is a clear link between the concept of SGEI and the traditional concept of public service to citizens, which the doctrine of southern Europe has elevated to a place of great importance in its legal system. It is impossible to resist the charms of the strongest doctrines that have been formulated around this traditional and deeply structuring in the conception of a democratic state of law in a great part of the European Union countries. However, its designation has always been, and still is, the subject of some doctrinal controversy in the European Union, so it seems useless to fuel controversy when the key is to find what unites the European peoples. In short, the idea of general economic interest, whether externalized by the concept of "public service" or by close concepts, or "idées voisines", "public utilities" or "service of general interest", is always present and this is where the conceptual heritage common to all Member States of the European Union resides. We can say that the concept of SGEI corresponds to a meeting point, a common denominator, between two slightly different perspectives on the subject (French and Anglo Saxon) that allowed overcoming the conceptual differences around the theme.

3. OPPORTUNITIES AND RISKS OF FREE COMPETITION IN SGEI

The liberalization of these sectors and their subjection to the competition rules implied a strong regulatory intervention, fulfilling the idea that "more market, more rules". It is undeniable that the conquest of international markets for these sectors is of fundamental importance and it increases the access to important resources for these activities, it increases the number of consumers and the final profit of these companies (Shreuer, 2010). Because we are facing sectors that require a large continuous investment in modernization and technological progress, the size of the market is of the utmost importance for the profitability of these activities (Lopez-Muniz, 2000). On the consumers' side, their lives are greatly improved by access to these goods, enabling effective progress to be made to those who have access for the first time to electricity,

gas, quality drinking water, affordable telecommunications, etc (Anjos & Mimoso, 2018). On the one hand, it was intended to take advantage of the opportunity of the free initiative to explore these sectors, leveraging its modernization, a greater investment in the technological progress of these services and making everyone much more accessible to a greater number of citizens (Dony, 2006). Yet, on the other hand, the risk of market cartelization and the imposition of high prices and exclusion for a large number of people, led the Member States to strengthen the regulation of these markets (Nunes, 2015). This regulatory intervention, in the EU, takes place through the application of the Treaty rules but, above all, of the many Directives which have been issued on the various sectors in question and of the respective national diplomas regarding the different Member States which implement them. In the case of bilateral treaties or foreign investment contracts, Host States should also be concerned to regulate the operation of these sectors by strengthening the public service obligations to be imposed on investment firms in their countries (Chossudovsky, 2003). The more important aspects to be ensured by regulators in this area are:

- a) Ensure the competitive behavior of enterprises, equal opportunities for economic operators and favor small and medium-sized enterprises;
- b) Defend the interests of SGEI citizens by liberalizing markets;
- c) Ensure universal access to these SGEIs, by all its population, since we are talking about fundamental social rights;
- d) Avoid the partitioning of markets and their possible "cartelization";
- e) Prevent market enlargement from strengthening the domain of those who are strong enough to control and define the essential elements of the market, to the detriment of its users (Costa, 2005-b).

The idea of general interest, whether expressed by the concept of "public service", or through close concepts, or "idées voisines", "public utilities" or "service of general interest", is always present. As we see it, this was the simple and pragmatic reason that led to the establishment of the concept of services of general economic interest, which are at the heart of the European model of society and which is a source of inspiration for all other continents (Bohoslavsky, 2015). In this context, a ubiquitous guarantee in all sectors stands out, which is the guarantee the fulfillment of universal service obligations in the provision or supply of these goods and services (Anjos, 2016). It is understood that there are social rights that must be considered as irreversible achievements of the social state of democratic law, including the right to services of general economic interest (Nunes, 2015). The universal service guarantee includes a set of obligations that service providers are obliged to comply with, such as: the right of access to goods and services under conditions of equality and universal coverage (total coverage of the territory), the prohibition of any discrimination based on social, personal and territorial status (CE, 2011). We can say that the concept of universal service means a set of principles and obligations that certain services must fulfill in order to make them accessible to all citizens at appropriate prices and conditions (Anjos & Mimoso, 2018). However, the implementation of these principles requires that, by internal legislation, they effectively guarantee the legitimate rights of the user citizens regarding access to services of general economic interest, under conditions of universality (Feeny, 2009; Jacob, 2010). In our opinion, these are real fundamental rights of a social nature, rights of citizenship, which must be defended and protected.

4. THE RELEVANT MARKET: OLIGOPOLY AND CARTELIZATION OF THE MARKET

In this regard, we must not forget that these markets take on an enormous dimension, without natural or geographical borders, and have a clear international profile, which far exceeds the

borders of each country (Costa, 2005-b). Therefore, market liberalization requires some intervention by the State to ensure the effective fulfillment of the public service obligations that these SGEI perform. The oligopolistic trend, typical of SGEI markets, compromises the great advantage of liberalization: better price and better quality of goods and services accessible to all citizens (Kaushal, 2009). Added to all that has been exposed, there's the problem generated by globalization, which has generated in these sectors oligopolies of global dimension, true economic giants (Soria, 2015). Their economic power and influence facilitate the capture of governments and sector regulators. Economic theory itself tends to point to the theory of natural monopoly, the idea of destructive competition, and public-interest missions as grounds for exempting these services of general economic interest from the competition regime (Anjos, 2016). This benchmark raises some very important issues with regard to liberalization and the introduction of competition in these sectors with the possible entry of foreign investors. The scale of the problem in developing countries is very promising, as there is no doubt that the governments of these countries that need foreign investment to make progress in the living conditions of their citizens and the support structures of their economy, are in a position of need, of some discomfort, have little bargaining power to demand fair compensations and are able to guarantee progress at the best price (Pérez, 2016). Many of these governments are virtually captured by the scarcity of resources and the economic power of investors (Anjos, 2016). The role of regulators is fundamental, but it is not easy, for the same reasons. The question that has been posed is: who does effectively regulate? The regulator or the regulated?

We believe that without fair and honest politics, the risk of capturing the governments of these host countries by the large investment firms is very real. So, the risk of the regulated impose the rules (regulation) it wants is enormous.

5. SGEI REGULATION: RISKS AND OPPORTUNITIES

As mentioned in section 3, in these sectors foreign investment poses some risks but also potentiates some opportunities. The role of regulating entities should be decisive in order for this investor-recipient relationship to be fair and balanced. First of all, imposing rules which reduce the risk of market cartelization and imposing appropriate penalties for non-compliance. On the other hand, they can and should establish rules of transparency and publicity of procedures that avoid or reduce the risks of the regulator by those regulated. They can also establish clear rules to avoid the risk of transferring the social costs imposed by universal service to the middle class, impoverishing the country. The middle class ends up being the big funder of the universal service, since the oligopoly turns what should be a cost of the business into income for its own benefit (Feeny, 2009; Jacob, 2010). The risk of impoverishment of the middle classes has been evident in the EU countries (CE, 2011), with the exception of the Nordic countries, and a little around the world, especially after the crisis of 2008 and 2011.

6. CONCLUSION: THE NEED TO PROTECT THE FUNDAMENTAL RIGHTS OF THE SGEI'S CITIZENS USERS

It's possible to conclude that the basis for the concept of general economic interest is to defend the fundamental rights of European citizens in access to the essential goods and services that characterize these activities. In this sense, we understand that the spectrum of the sectors of activity that some of the member countries classified as economic public services has not been reduced, but that this reality has been adapted to the objectives of European construction, achieving a fair balance between the market and the general interest of citizens of the European countries. Liberalization, in theoretical and purely abstract terms, can potentiate an advantage for the consumer... In the case of the SGEI, the relevant market tends to be monopolistic. As follows, liberalization results in the end of a monopoly and the creation of an oligopoly.

Oligopoly, by its very nature, is a catching market: the capture of consumers, the capture of governments and regulators, resulting in widespread capture of the market, definition of a general framework of rights and guarantees for SGEI citizens, systematized in part from the collection of the sectoral Directives applicable to SGEI. Thus, we conclude that this general framework, which we could designate as a statute or a code of rights and guarantees for the citizen users, should integrate and concentrate, in a systematized and clear way, a fundamental core of rights and guarantees, namely:

- a) Guarantee of the universal service, concretized in the prediction of specific rights and duties;
- b) Guarantee of legal protection of the citizen users, materialized in the prediction of a set of procedural instruments adequate to safeguard the rights of citizens;
- c) Right of access and provision to these services;
- d) Right to be informed of market conditions and the transparency of the rules in force;
- e) Right to quality of the service;
- f) Right to change service providers without penalties for minimum contracting periods;
- g) Right to regularity and continuity of supplies;
- h) The right to transparency and fairness in the fixing of prices and tariffs and a detailed and enlightening billing;
- i) Ensuring the adaptation to technological progress;
- j) Protection of fundamental rights of privacy, freedom and other rights of personality, when they might be jeopardized by the use of these services, including the automatic barring of value-added services;
- k) Introduction of guarantees regarding the definition of the type of draft contracts proposed for the provision of services, namely through the figure of an Ombudsman of the Citizen-User;
- l) Establishment of special guarantees for the provision of these services to vulnerable users, person with disabilities or inhabitants of disadvantaged areas;
- m) Consecration of reinforced guarantees in the case of verification of some condition justifying the suspension of service provision, introducing alternatives that may avoid the interruption or suspension of the supply;
- n) Establishment of a set of procedural safeguards for users, namely, the introduction of mechanisms for complaints and appeals as well as rules of fair burden of proof, which affect, as a rule, the service provider;
- o) Introduction of simple mechanisms, using new technologies, for the presentation of complaints and resources, in a simple and accessible way to the user, in drafts or pre-defined forms, promoting informal but effective access to the exercise of the rights in person;
- p) Creation of alternative dispute resolution bodies in a swift, specialized and affordable manner, favoring the use of arbitration;
- q) Attribution of real competences and powers to these bodies to adjudicate disputes, to condemn in practice acts necessary for the effective recognition of users' rights, to impose fines or other penalties in case of repeated non-compliance, and also to cancel or withdraw authorizations and operating licenses from non-compliant enterprises;
- r) Consecration of short and imposing time limits for the decision of complaints and appeals presented by citizens.

The guarantee of the right of access to SGEI often imposes universal service obligations, as designated by the sectoral Directives, to clarify that their implementation, although costly, must be provided by the service providers. If the burden of complying with these obligations is excessive in relation to the financial resources generated by certain market segments, then the exception in Article 106 (2) TFEU can be triggered, granting exclusive rights to the provider as

a way of ensuring that the principle of universal service is followed. Their decisions or acts should be publicized to avoid lack of transparency; on the other hand this "media coverage" guarantees a suffrage by the public opinion that seems very important to us. It isn't enough to regulate. It isn't enough to consecrate rights and guarantees to citizens-users. One and other are worthy initiatives but may not be more than an illusion. In order to them to become really effective, they must be accompanied by a conflict resolution system, both affordable and prompt. Thus, in order to the access to justice to be an effective reality, it's necessary to create arbitration bodies that can function in a timely manner and that are truly accessible to the citizen. The great future challenge in SGEI is, therefore, the strengthening of the fundamental rights and guarantees of user citizens, which are increasingly necessary to safeguard of citizenship rights within the European Union.

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Z GENERATION IN THE INTERNATIONAL TOURISM MARKET

Agata Niemczyk

Cracow University of Economics, Faculty of Management, Poland

Researcher ID: C-8756-2019

agata.niemczyk@uek.krakow.pl

Renata Seweryn

Cracow University of Economics, Faculty of Management, Poland

Researcher ID: W-8204-2018

renata.seweryn@uek.krakow.pl

Agnieszka Smalec

University of Szczecin, Faculty of Management and Economics of Services, Poland

Researcher ID: L-3863-2018

agnieszka.smalec@wzieu.pl

ABSTRACT

In the last decades, different generations of people have developed. Currently, the youngest of them is the Z generation. This is a community permanently connected to the Internet, functioning more often in the virtual world than in the real world. World online is a space where young people are looking for solutions to their problems, including the area of satisfying tourist needs. The aim of the paper was to identify selected patterns of tourist behavior of the Z generation members. The theoretical part was a query of the literature on the specificity of the Z generation. The empirical database was based on direct research conducted in 2018 among e-generation representatives from Poland and other countries. Using nonparametric tests, similarities and differences were identified between the two Z groups in selected areas of conduct in the field of satisfying tourist needs. Obtained results allowed proving that in the majority of areas of tourist behaviour, generation Z members from Poland are not different from generation Z members from other countries.

Keywords: *consumer behaviour, generations, other counties, Poland, survey, Z generation*

1. INTRODUCTION

There are several generations that live simultaneously in the contemporary world. These are Traditionalists, Baby Boomers, X Generation, Y Generation, Z Generation. The youngest of them is generation Z represented by people born after 1994 and growing up in the years of IT boom. The consequence of which is their constant contact with the Internet, mainly due to mobile devices such as smartphones and tablets. The actual reality is perceived by the representatives of generation Z through the prism of the online world. It helps them meet their needs, especially in the field of entertainment, communication and also tourism. In the light of the above content the following question was asked: are the representatives of e-generation from different countries different or similar in the behavior on tourism market? The reply to this question became the premise to formulate the objective of the work, which is to recognize the tourist behavior patterns of the Z generation represented by people born in 1994-2000 from Poland and other countries, and establish similarities and differences between them in the field of tourist behavior. The main objective allowed formulation of the following main hypothesis: generation Z members from Poland are rather different from than similar in tourist behaviour to generation Z members from other countries.

Additionally, the following sub-hypotheses have been formulated:

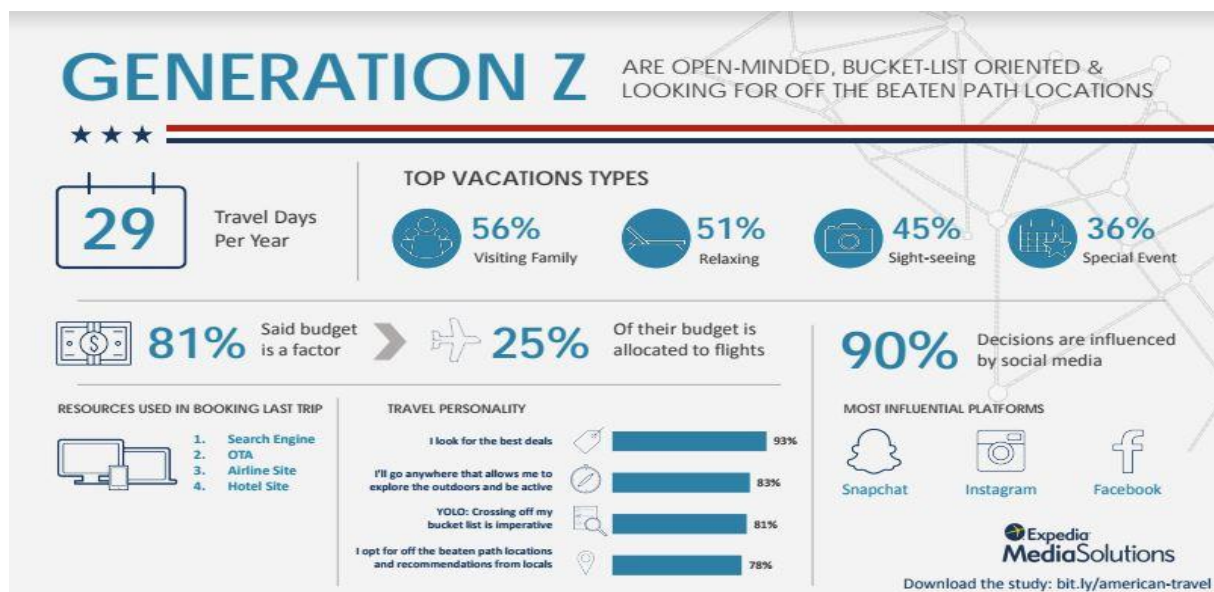
- H1: The most differences between the representatives of Z generation from Poland and other countries are revealed with regard to the means of transport used in connection with tourist trip.
- H2: Polish Zs and Zs from other countries travel with similar frequency.
- H3: Polish Zs and Zs from other countries differ in terms of searching for tourism offers.

The objective of the article was achieved by means of subject literature review on the specificity of the youth as the consumers on tourism market. The empirical part consisted of the result of primary study carried out in 2018 among the youth from Poland and other countries. Pertinent statistical analyses on primary data were taken on the basis of non-parametric tests such as chi-square test and U Mann-Whitney test.

2. GENERATION AS CONSUMERS ON TOURISM MARKET

According to the estimates of the WYSE Travel Conederation and UNWTO the travels of the young generation in 2017 accounted for 23% of all tourist travels in the world (WYSE, 2018). the reasons for the situation are multiple. Firstly, they are the people who do not know the world without modern technologies – computer, mobile phone and Internet access have been present in their lives for nearly all their lives. For many of them the boundary between the real life and online reality is blurry (Seweryn 2018, p. 177). In this light, tourism means for them an alternative which allows them to break away from the virtual world and open to new experiences and social values which are only available in real life. Secondly, in the global world the barrier of geographical isolation is disappearing, as you can connect with Internet users from other countries at any time (Haddouche and Salomone, 2018). Therefore, the Z generation is one of the most open generations in terms of tourist travel. Recent data published by Skift shows that those in Generation Z travel an average of 29 days per year (figure 1); it is nearly one entire month.

Figure 1: Generation Z: An In-depth Look into the Travel Segment
(<https://www.rezdy.com/blog/generation-z-depth-look-travel-segment-infographic/>)



Thirdly, the youth usually know foreign languages and easily find themselves in a multicultural environment, which renders it easy to establish global relations (Töröcsik, Szűcs and Kehl, 2014; Wood, 2013). These, in turn, lead to trips which aim at visiting friends.

Fourthly, their motto is YOLO (You Only Live Once), so they like to travel and do not feel the fear of leaving home. Fifth, the representatives of the Z generation do not fear the distance. Therefore, if only they have the opportunity, many of them decide to pursue a journey, to learn about the world (Zajadacz and Kugiejko, 2016). The number one destination for Gen Z travellers is Italy, with USA and Japan following in second and third (figure 2).

*Figure 2: Generation Z Travel Index: The best destinations for student travellers
(<https://holidayplace.co.uk/blogs/posts/119666/generation-z-travel-index-the-best-destinations-for-student-travellers>)*



*1. Italy; 2. USA; 3. Japan; 4. Spain; 5. Canada; 6. Germany; 7. Poland; 8. Romania;
9. Mexico; 10. New Zeland.*

3. RESEARCH METHODOLOGY

In order to achieve the research objective data obtained from a survey conducted in 2018 were used. One of them, conducted in PAPI and CAWI technique, was of nationwide character. The research tool was the author's modified questionnaire which consisted of 26 substantive questions – closed and open – and six questions identifying socio-economic status of respondent. The questionnaire was filled in by 610 respondents aged 18-24 years old – the representatives of the Z generation. After formal verification of data in terms of completeness and correctness of responses, 607 were qualified for further analysis (Nowak, 2007, p. 307). The second group of respondents consisted of 278 generation Z representatives aged 18-24 from other countries than Poland, and a significant percentage of them, i.e. 92% were the inhabitants of Europe, including the largest number of Hungarians. Analogical author's questionnaire survey was used as a research tool, however limited to 18 substantive questions – closed and open – and six questions identifying socio-economic status of respondent. The study was conducted in CAWI technique. Both studies used snowball effect in the distribution of questionnaires. The representatives of Z generation in Poland were mainly women (67.78%), whilst in other countries men dominated (51.95%). Vast majority of both populations were the inhabitants of big cities (Chart 1). Yet, it is stressed that the country as the place of residence was characteristic of the majority of Polish Zs.

Chart following on the next page

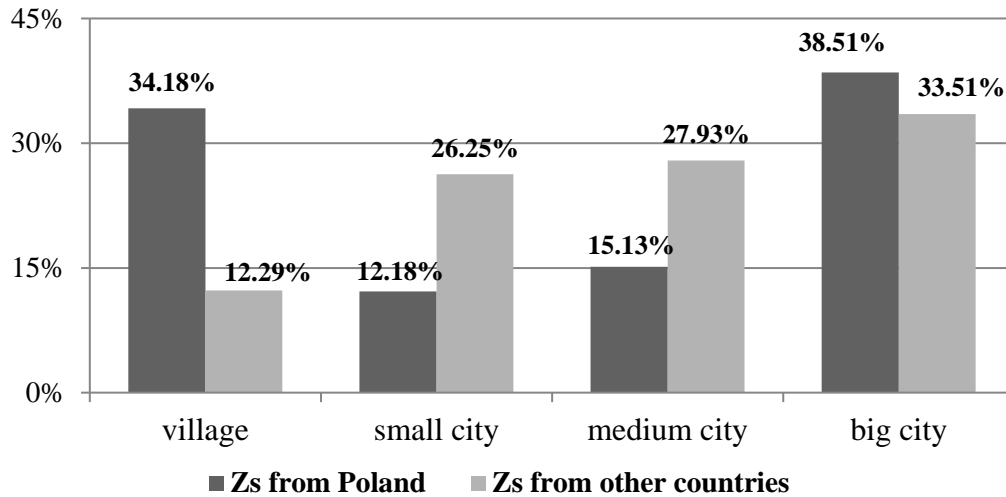


Chart 1: The structure of studied population according to the size of place of residence (own compilation based on the research findings)

Zs have high school education (nearly 56% among the Poles and 50% among other nationalities); only mere 3% and 7% (respectively) declared education different than high school or university education (chart 2).

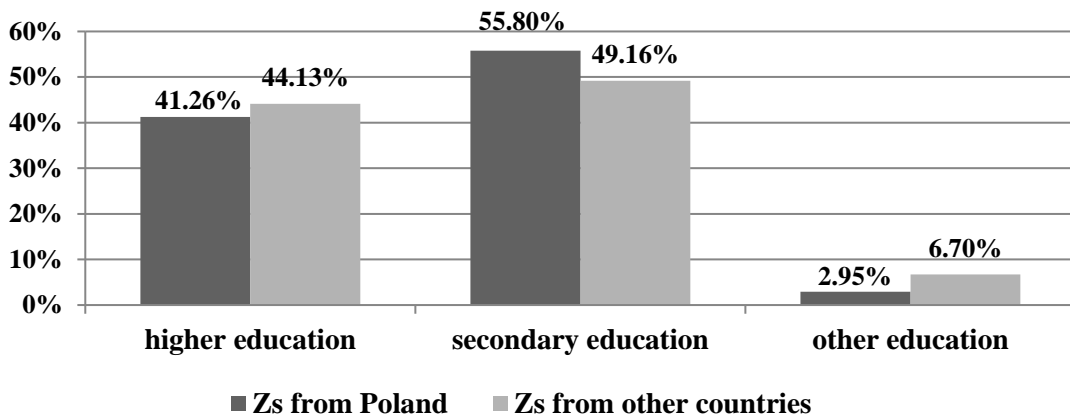


Chart 2: The structure of studied population according to education (own compilation based on the research findings)

E-generation representatives mainly come from four-person households (nearly $\frac{1}{4}$ of Polish Zs and $\frac{1}{3}$ of the Zs from other countries) (chart 3), where the number of adults equalled two (over $\frac{1}{3}$) (chart 4).

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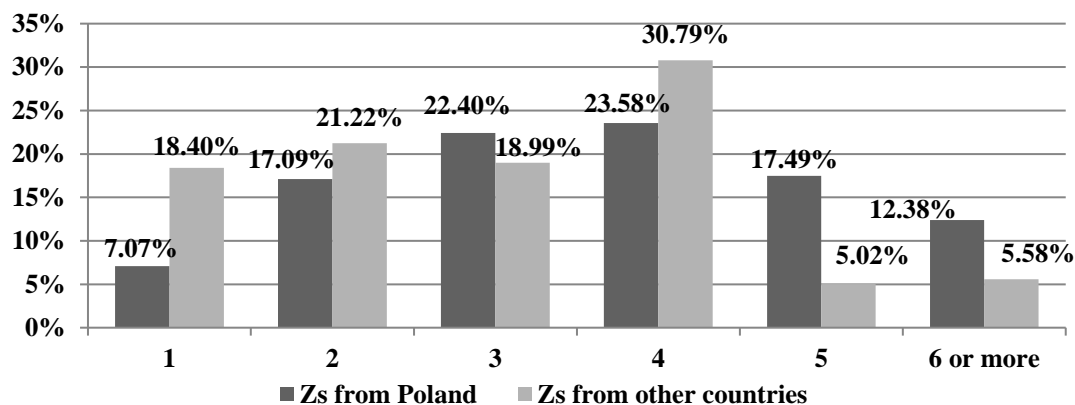


Chart 3: The structure of studied population according to the number of people in the household (own compilation based on the research findings)

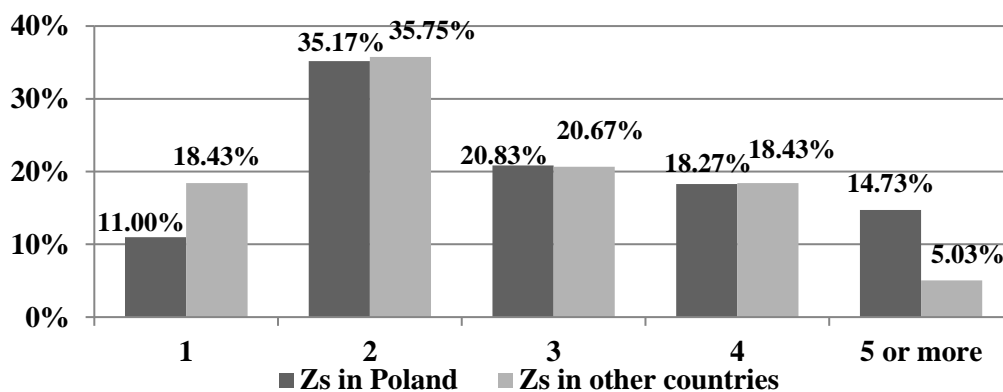


Chart 4: The structure of studied population according to the number of adults in the household (own compilation based on the research findings)

The studied populations differed in the assessment of their financial situation. Polish respondents were mostly negative in their assessment, the foreigners assessed their situation as average (chart 5).

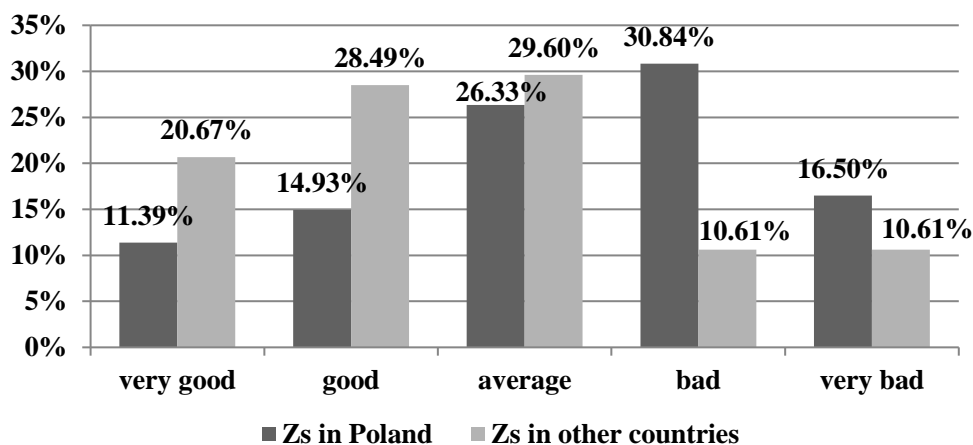


Chart 5: The structure of studied population according to the average net income per capita in the household (own compilation based on the research findings)

4. RESEARCH RESULTS

In order to achieve the purpose of the article and verify the hypotheses, the question was asked whether and to what extent the tourist behaviors of the Z generation representatives from Poland (S1, the so-called experimental group) differed from the tourist behaviors of the Z generation representatives from other countries (S2, the so-called control group). The study used a questionnaire which in the context of the needs of this article concerned the following issues (Yj):

- Y_1 Frequency of travelling,
- Y_2 Length of travel,
- Y_3 Financing the trip,
- Y_4 – Y_5 Organization of a trip,
- Y_6 – Y_{15} Searching for offers,
- Y_{16} The purpose of travel,
- Y_{17} – Y_{32} Means of transport,
- Y_{33} – Y_{50} Accommodation,
- Y_{52} – Y_{63} Place of eating meals.

All analyzed variables Yj were of qualitative character, in addition, groups S1 (from Poland) and S2 (from other countries) were different in number (607 and 278 respectively). Non-parametric methods were used to determine the significance of differences between them, i.e. U Mann-Whitney test referring to Yj variables expressed in ordinal scale and χ^2 Pearson test in relation to Yj variables expressed in the nominal scale (Frenchman and Mackiewicz 2007, p. 407). Two research hypotheses were formulated: H_0 – tourist behaviors of the Z generation representatives from Poland (S1) are the same as tourist behaviors of the Z generation representatives from other countries (S2) and H_1 – the behavior of both groups of tourists (S1 and S2) differ significantly. If test probability p (H_0 rejection error) was less than $\alpha = 0.05$, H_1 should have been accepted. Otherwise ($p > 0.05$) there were no grounds to reject H_0 . Obtained results are presented in Table 1.

Table following on the next page

Table 1: The results of the test of significance of differences in tourist behavior of Z generation representatives from Poland (S_1) and from abroad (S_2) (own compilation based on the research findings)

Variable (Y_i)		p
Frequency of travelling		$p=0.021$
Length of travel		$p=0.497$
Finansowanie wyjazdu		$p=0.053$
Organization of domestic trip		$p=0.011$
Organization of trip abroad		$p=0.035$
Searching for offers	in travel agencies	$p=0.000$
	in branch magazines	$p=0.001$
	in newspapers	$p=0.002$
	on television	$p=0.193$
	on the Internet portals	$p=0.921$
	asking family, friends advice	$p=0.025$
	in social media	$p=0.343$
	on travel portals	$p=0.000$
	on travel blogs	$p=0.004$
	other	$p=0.366$
Purpose of travel		$p=0.018$
Means of transport – domestic trip	own car	$p=0.316$
	car pooling e.g. Babla car	$p=0.934$
	camper/camping truck	$p=0.509$
	tourist coach	$p=0.212$
	line coach	$p=0.663$
	train	$p=0.160$
	plane	$p=0.049$
	other	$p=0.006$
Means of transport – trip abroad	own car	$p=0.407$
	car pooling e.g. Babla car	$p=0.643$
	camper/camping truck	$p=0.672$
	tourist coach	$p=0.312$
	line coach	$p=0.105$
	train	$p=0.000$
	plane	$p=0.003$
	other	$p=0.001$
Accommodation – domestic trip	hotel	$p=0.173$
	motel	$p=0.496$
	guest house	$p=0.269$
	youth shelter	$p=0.029$
	hostel	$p=0.952$
	private lodging, apartment	$p=0.080$
	friends or family	$p=0.002$
	couchsurfing	$p=0.099$
	other	$p=0.028$
Accommodation – trip abroad	hotel	$p=0.191$
	motel	$p=0.570$
	guest house	$p=0.101$
	youth shelter	$p=0.303$
	hostel	$p=0.013$
	private lodging, apartment	$p=0.020$
	friends or family	$p=0.145$
	couchsurfing	$p=0.065$
	other	$p=0.013$
Place of eating meals – domestic trip	in the place of accommodation	$p=0.792$
	in restaurants	$p=0.035$
	in diners	$p=0.373$
	in fast food restaurants	$p=0.010$
	I prepare myself	$p=0.081$
	other	$p=0.242$
Place of eating meals – trip abroad	in the place of accommodation	$p=0.080$
	in restaurants	$p=0.473$
	in diners	$p=0.023$
	in fast food restaurants	$p=0.001$
	I prepare myself	$p=0.149$
	other	$p=0.368$

Data compared in table 1 allow recognition of significant differences between the Zs in terms of selected areas of tourist behavior. Analysing e.g. accommodation preferences¹, it is clear that there are significant differences in the choice of hostels, private lodgings/apartments and other accommodation facilities in the case of abroad travels, and youth shelters, staying at relatives' or friends' and other accommodation facilities in the case of domestic travels.

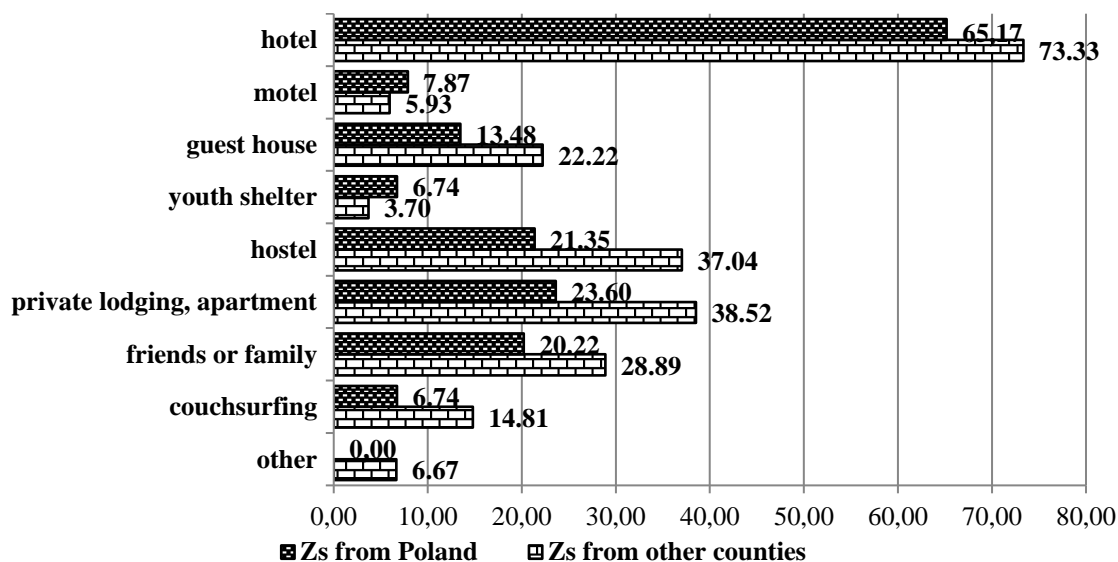


Chart 6: The choice of accommodation of the generation Z representatives from Poland and other countries when travelling abroad (own compilation based on the research findings)

The most common accommodation for foreign travels indicated by Zs from Poland and other countries were the hotels (chart 6). They were more frequently declared by those from other countries. They would also more often declare those accommodation facilities for which significant differences between the studied groups were revealed.

Chart following on the next page

¹ Volume limit of the article does not allow graphical presentation of particular aspects of tourist behavior for which significant differences between the Zs from Poland and other countries were revealed.

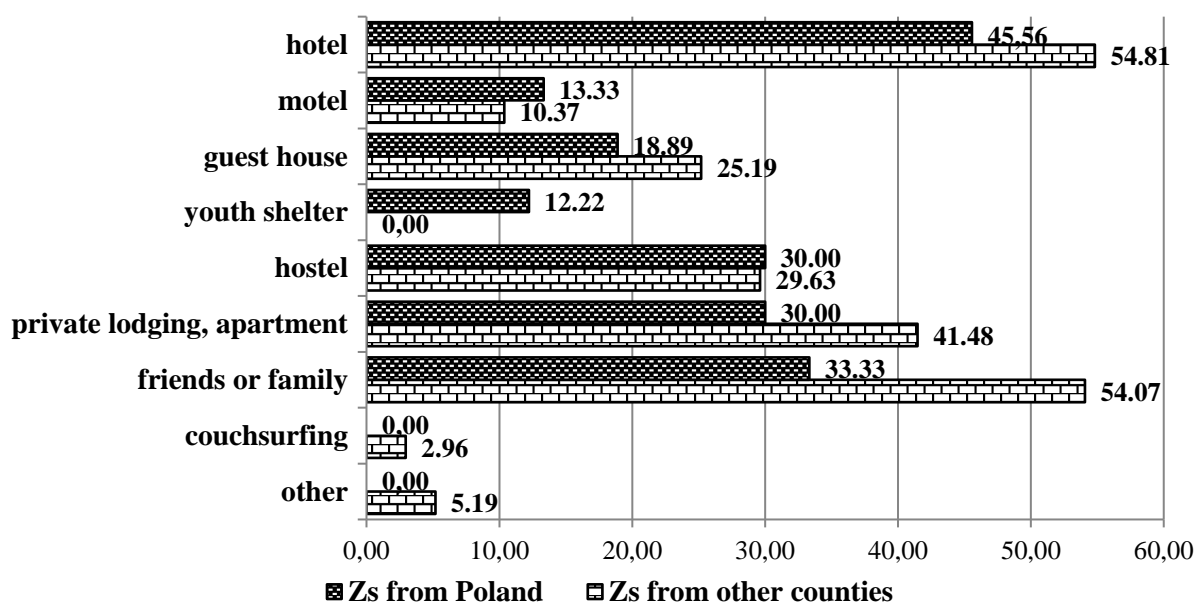


Chart 7: The choice of accommodation of the generation Z representatives from Poland and other countries during domestic travels (own compilation based on the research findings)

A similar tendency, i.e. much more indications regarding accommodation, which significantly differentiated the segments in question, also appeared in domestic travels (chart 7).

5. CONSLUTION

In the light of the presented considerations, it is concluded that members of the Z generation from different countries do not show similarity in the frequency of travel (H2 hypothesis was rejected). They are also different in the area of searching for tourist offers, especially traditional channels are considered, but they are similar in relation to searching in modern channels. Taking into account the entire set of tourist search channels adopted in the study, it is stated that Polish Zs and Zs from other countries differ significantly in this respect – six of ten significant differences are revealed, which gives the authorization to state that the hypothesis H3 has been confirmed. Only two (in the case of domestic travels) and three (in the case of foreign travels) out of the eight means of transport significantly differentiate analyzed segments of tourists. This is not the largest area of differences in the behavior of the analyzed group of people on the tourism market, e.g. there is much more differences regarding the search for offers. Therefore, H1 hypothesis is rejected. Considering the above and the conducted research it should be stated that it is not true that the members o Z generation from Poland and from other countries rather differ than are similar in their tourist behavior. The similarity of values, motivations, ways of communication, and other translate into making them similar to one another. Out of over sixty variables describing tourist behavior (table 1) less than a half differentiated the segments of tourists in question. In this context the authors support the hypothesis adopted in this article to verify it in the subsequent years, taking into account the passage of time and new life situations of e-generation members.

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ARTIFICIAL INTELLIGENCE IN MANAGEMNET: CHALLENGES AND OPPORTUNITIES

Alexey Chernov

*RUDN University, Russia
chernov-av@rudn.ru*

Victoria Chernova

*RUDN University, Russia
chernova-va@rudn.ru*

ABSTRACT

Technological development of society, and in particular the universal digitization of the economy, will have a significant impact on the labor market and on the managers job functions. The use of Artificial Intelligence systems and robotics carries with it both tremendous opportunities and threats of changes and even disappearance of certain professions. The ability to re-design the management system in accordance with new opportunities and challenges will be a key factor in adapting organizations to the new conditions in the interests of workers, employers and society. This study includes the analysis of the Artificial Intelligence usage trends and its influence on the labor market and manager's job roles. It also highlights the opportunities which AI provides to business and employees and main challenges of its implementation in the organization's management system.

Keywords: *Artificial Intelligence, AI, digital economy, digital management, smart decisions*

1. INTRODUCTION

In the continuously changing uncertain and complex business environment new digital technologies are reconstructing the landscape of the economy, organizations characteristics and the ways we interact with organizations (Snow et al., 2017, p.1, 5). The digital transformation of business has major implications for our society, business life, management and labor market (Brynjolfsson & McAfee, 2014, p. 9). Artificial Intelligence (AI) will bring a strong challenge to organization's management systems as it could be considered as a 4th industrial revolution accelerator (Brynjolfsson & McAfee, 2014, p. 92). The ability to ensure correct and timely assessment of this challenge as well as ability to adjust management systems in accordance with new conditions and opportunities could be considered as a key success factors for modern organizations. All technological innovations have two types of influence on the labor market:

- Direct replacement of employees from their previously performed job tasks;
- Demand increasing for those job roles which arise due technology progress.

Today's deep machine learning technology development leads to global automation in different fields and intelligent machines can perform more and more non-standard tasks like increasing efficiency of e-Commerce projects or managing production lines in heavy industries. This trend leads to the emergence of reasonable concerns about complete replacement of human beings by intelligent machine systems in various industry verticals and job roles. After all, artificial intelligence not only provides great opportunity to create added value, but also poses quite complex tasks to managers. They will have to review their fundamental principles of work, which they have adhered to so far focusing on full cooperation between human and artificial intelligence. Organizations will have to adapt their training system and strategy to attract talent, focusing on those tasks that require evaluative judgment skills, such as collaboration, creativity, the ability to experiment.

2. ARTIFICIAL INTELLIGENCE – DEFINITION AND FUNCTIONS

Artificial Intelligence is considered as a machine being able to emulate cognitive human tasks (Jarrahi, 2018, p. 1), it is used in a different fields, such as finance, healthcare, transport, art etc. (Dejoux & Léon, 2018, p. 190). Figure 1 shows the broad range of functions AI can perform.

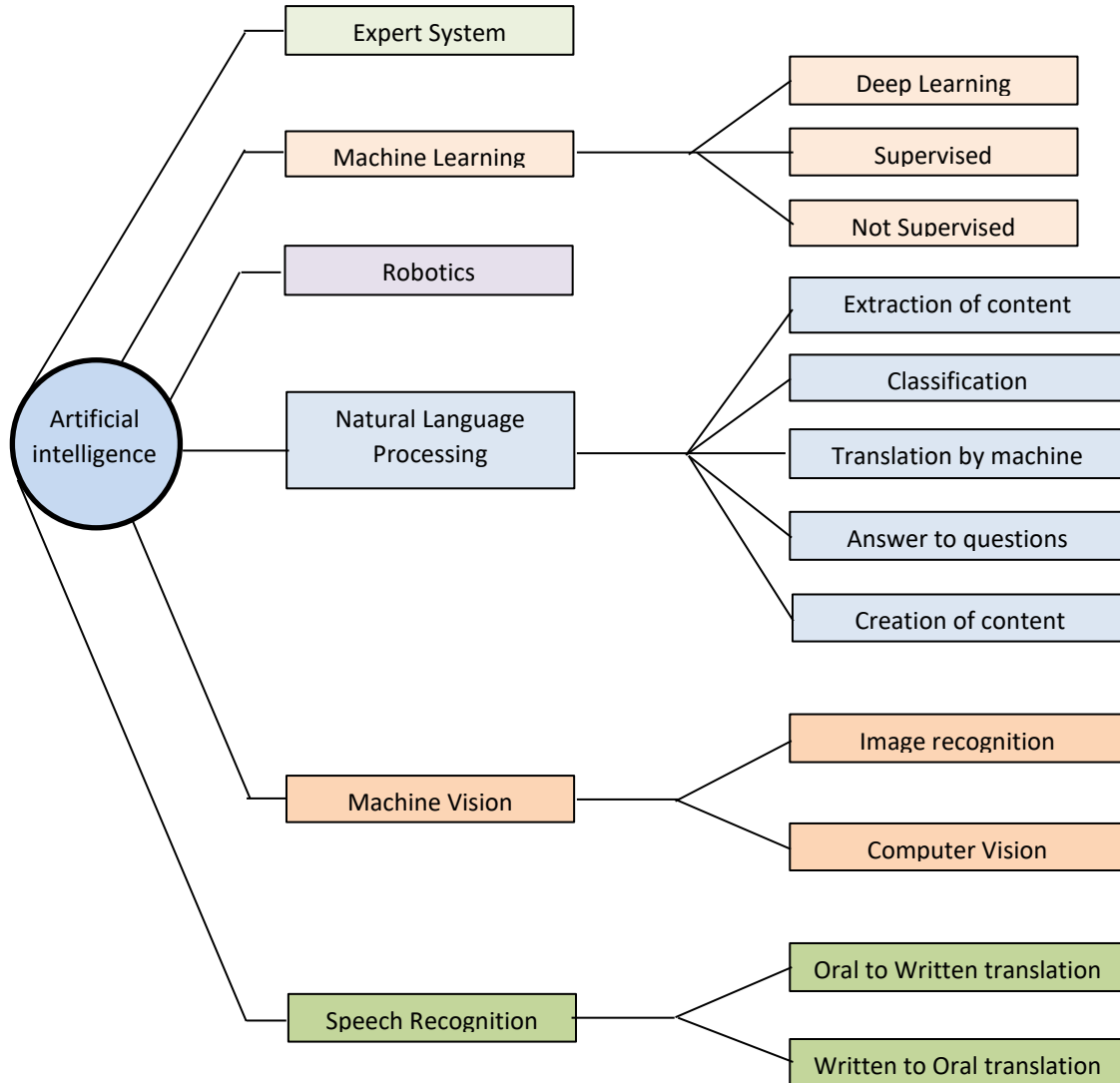


Figure 1: AI Functions (Dejoux, Léon, 2018, p. 188)

The AI which is performing today includes the following types: Expert Systems, designed to simulate the problem-solving behavior of a human, Machine Learning, which is “the ability of a computer to automatically refine its methods and improve its results as it gets more data” (Brynjolfsson & McAfee, 2014, p. 91), Natural Language Processing, designed to understand and analyze language as used by humans and at the same time considered to be the base for the Sepach Recognition AI, and finally Machine Vision which is “algorithmic inspection and analysis of image” (Jarrahi, 2018, p. 2). Coming to the AI which can emulate the main functions of human intelligence – we are still far from it. This type of AI is quite polemical issue which divides specialists’ opinion into three school of thoughts. The first one considers AI as a useful technology being helpful in decision making (Dejoux & Léon, 2018, p. 191) and managers should treat it as a colleague. The second group expect the merge between AI and human in order to improve humanity (Dejoux & Léon, 2018, p. 191). The third school of thoughts considers strong AI as a threat for humanity because it can take human jobs by automation of

their working tasks (Jarrahi, 2018, p. 2). This group insists that AI developers should keep in mind ethical and social issues while creating intelligent machines.

3. RESEARCH METHODOLOGY

For our study we used a mix of primary and secondary research. In the initial stage of the study we collected data regarding main trends of modern management, managers job roles and AI application in management through the primary research using Delphi method using 3 iterations with Key Industry Participants (KIPs) which are the representatives of system integrators and market leading companies in different industry verticals. During the second stage we used secondary research collecting the big massive of data from different competent data sources such as technical journals, trade magazines, independent studies and paid data sources. In order to reveal the impact of AI on management we have assigned weight to the following factors:

- Managers job roles trends
- AI application industry trends
- AI market drivers

Weighted average formula is the following:

$$\text{Weighted Avg}_x = w_1x_1 + w_2x_2 \dots w_nx_n$$

w = relative weight

x = value

4. FINDINGS

For the AI application in modern management study it is important to discover how managers see their main job tasks and how much time in percent they spent on performing each of them (Table 1)

Table 1: Time spent by managers for their job tasks performance (prepared by authors)

Nº	Job task	Time spent (%)
1	Coordination & control	21
2	Decision making	19
3	Reporting	14
4	Scheduling & planning	11
5	Problem solving	9
6	Strategy development	9
7	Data analysis	8
8	Allocating resources	5
9	People development & coaching	4

Managers spent 47% of their working time on such routine job tasks as coordination and control, scheduling, planning and reporting. Figure 2 reflects the percentage of managers who are ready to transfer some of their job functions to AI.

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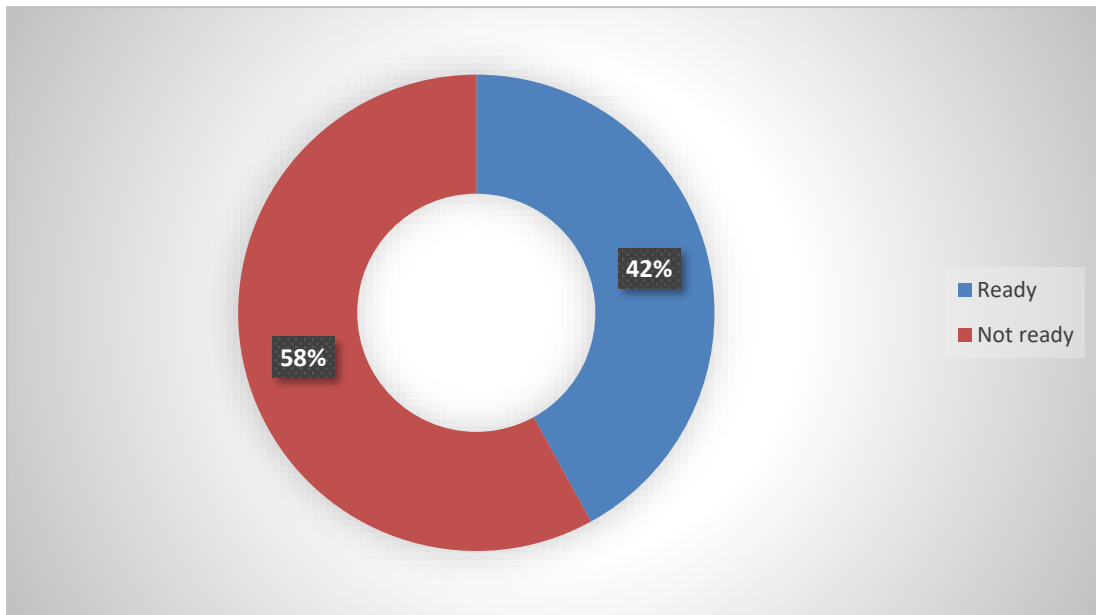


Figure 2: Share of managers who are ready to transfer some of their job functions to AI (prepared by authors)

The share of managers who are ready to transfer some of their job functions to AI in terms of their specific job tasks is shown on Figure 3.

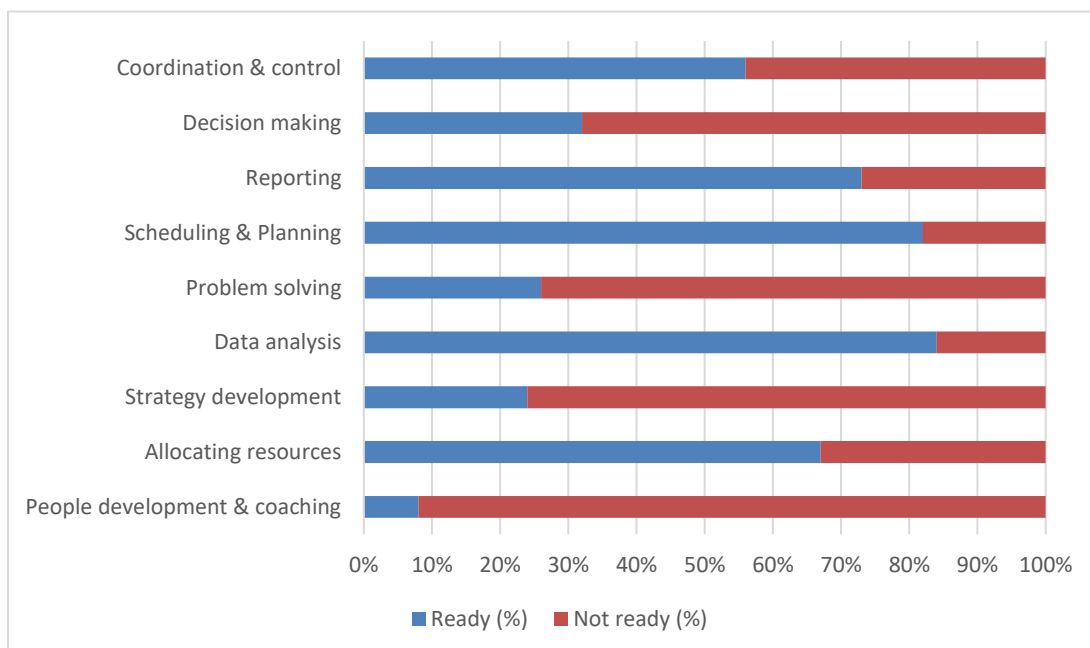


Figure 3: Share of managers who are ready to transfer some of their job functions to AI in terms of their job tasks (prepared by authors)

Only 8% of managers are ready to delegate people development and coaching to AI. 67% are ready to transfer to AI allocating resources, 24% - strategy development, 84% - data analysis, 26% - problem solving, 82% - scheduling and planning, 73% - reporting, 32% - decision making and 56% - coordination and control. Figure 4 shows the ratio of conditions under which managers are ready to transfer some of their job functions to AI.

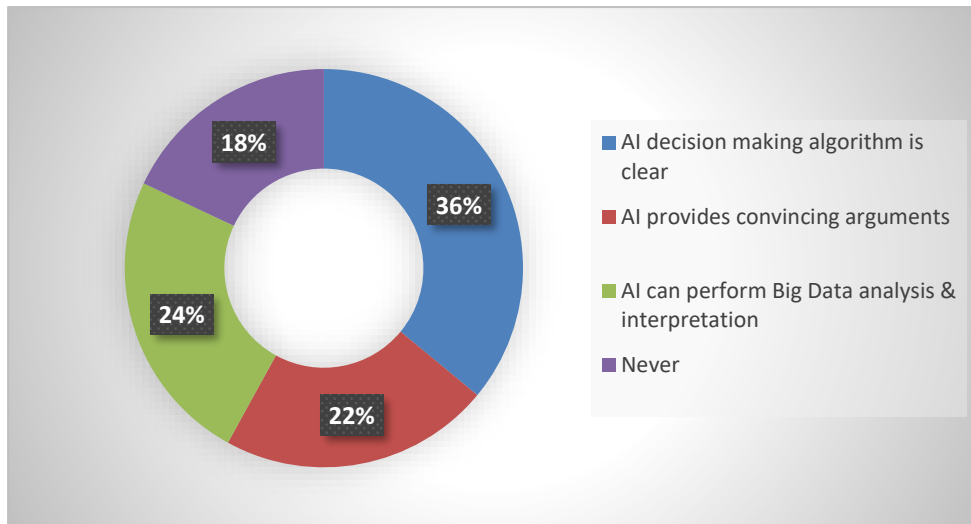


Figure 4: Conditions under which managers are ready to transfer some of their job functions to AI (prepared by authors)

Percentage of managers that selected the given skills as the top 3 skills they will need in the next 10 years is shown in Figure 5.

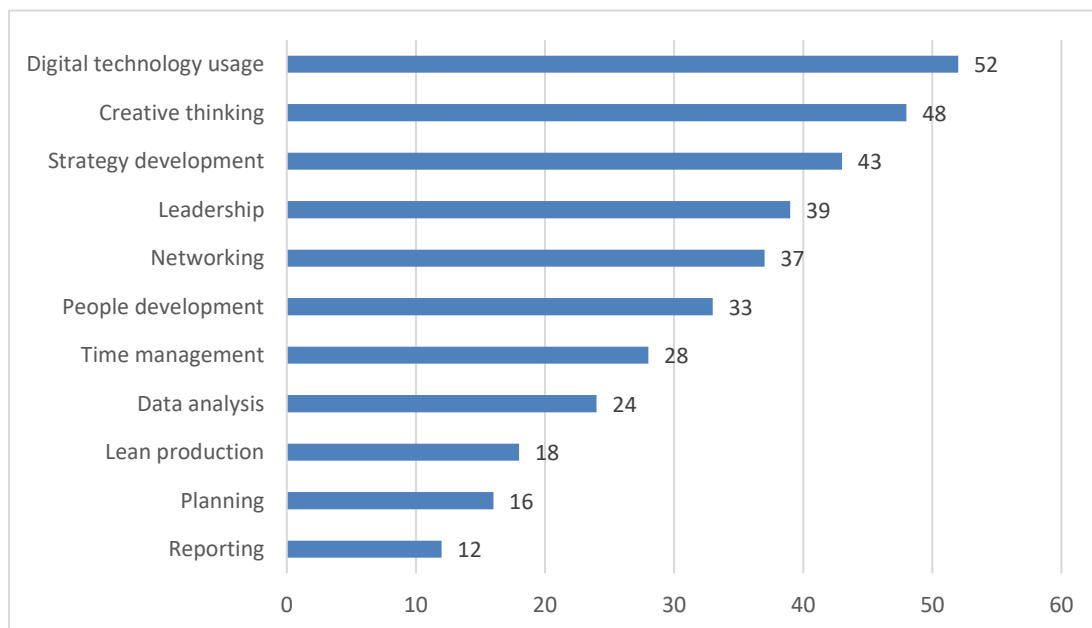


Figure 5: Most requested managerial skills in next 10 years (prepared by authors)

Main ways of making decision are highlighted on the Figure 6. 52% of managers use their own previous experience for making managerial decisions, 26% use their intuition and 22% use decision making techniques.

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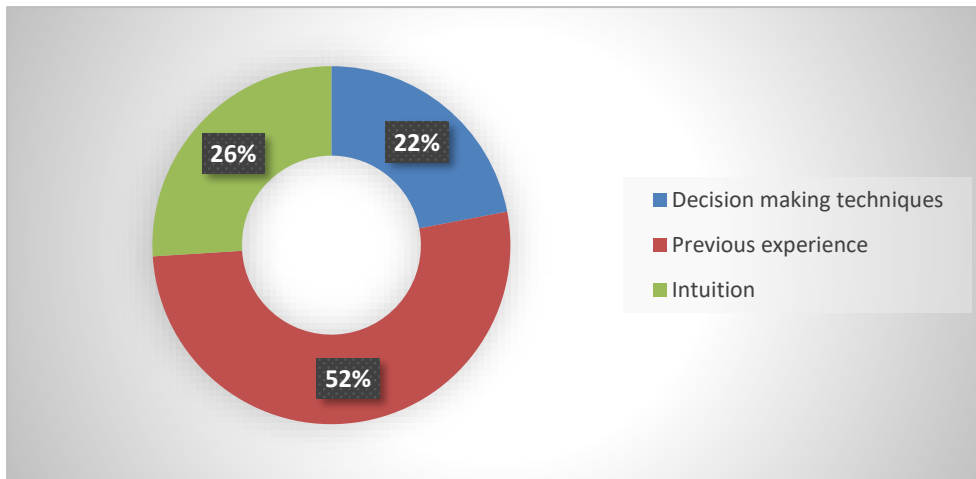


Figure 6: Main ways of managerial decision making (prepared by authors)

Main challenges of business environment which affect the decision making process from the managers' point of view are highlighted on Figure 7.

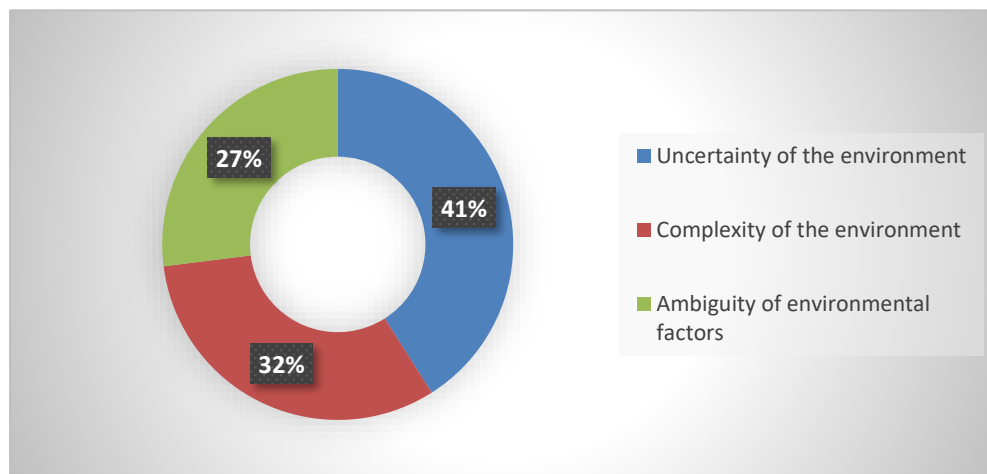


Figure 7: Main challenges of business environment for decision making process (prepared by authors)

5. DISCUSSION AND CONCLUSION

According to Table 1 managers spent 47% of their working time on routine administrative job tasks. Most of these tasks like scheduling, reporting, allocating resources, data analysis could be transferred to AI in the nearest future. And according to Figure 3 managers in general support this transfer. In particular, 73% of managers are ready to transfer their reporting functions to AI, 82% are ready to transfer scheduling and planning and 67% are ready to transfer allocating resources. 84 % of managers are ready to transfer data analysis job function to AI which seems very logical due to the fact that AI can analyze big amount of data in a relatively short time. Such job functions as people development and coaching, strategy development and problem solving managers are not ready to transfer to AI – 92, 76 and 74 percent respectively even though technically it can perform them. The reason is that those functions need not only ability to analyze Big Data, find correlations and choose decision options but also such skill as human judgment which is combination of intelligence, experience and certain level of expertise in business decision making. There are three types of human judgment:

- Abstract thinking which could be considered as an ability to operate with concepts beyond the usual reality. AI can perfectly function in terms of existing rules but can't go beyond

the existing frame in planning, decision making or generating ideas. AI is not able to create carsharing service in the society where almost everyone has a personal car.

- Context analysis. In case human does not have enough information for decision making or this information is ambiguous he is able to take into account historical, cultural or interpersonal context. AI can make an accurate assessment of a candidate for the job position in terms of his competence and psychological characteristics but the results of such assessment can not take into account the potential interpersonal incompatibility with other employees or his incompatibility with the organizational culture. But at least AI could be trained in terms of context analysis.
- Intuition which could be considered as an ability to make decisions without using logic or rational thinking. This is type of judgment that AI can't perform.

As for the decision making job function which 32% of managers are ready to transfer to AI it should be mentioned that there are 2 ways of business decision making – rational way and intuitive way. Rational way is based on data analysis by means of logical algorithms and choosing alternatives by means of rule-based methods. That means that AI can make business decisions based on this way. Intuitive way could be considered as an emotional judgment based on previous experience, implicit learning, creative thinking and imagination. According to Figure 6 managers mainly use their experience and intuition in business decision making rather than decision making techniques and methods because of the fact that rational way of business decision making process is quite complex and time consuming for a manager the help of an AI is a good solution. According to Figure 7 main challenges of business environment for decision making process are:

- Uncertainty which is based on the fact that it is impossible to predict future with 100% accuracy there is always a lack of information about the environment (Jarrahi, 2018, p. 4).
- Complexity which is based on an abundance of elements or variables of the environment (Jarrahi, 2018, p. 5). Decision making in complex situation needs Big Data analysis in a short time.
- Ambiguity is related to the presence of several simultaneous but divergent interpretations of a decision domain (Jarrahi, 2018, p. 5).

In terms of uncertainty and ambiguity AI can't make correct and accurate business decision based on a rational way, but in terms of complexity it can perform well. So in terms of business decision making the most effective method is a collaboration between managers and AI. Intelligent machine by means of rational way of decision making can offer several alternatives to manager who has 2 options – make a decision based on his experience and intuition or let AI to make a decision. Regarding manager's trust to AI it has to be mentioned that in general 58% of managers are not ready to pass some of their job functions to AI (see Figure 2). This is mainly due to the lack of understanding of the algorithms of the AI – Figure 4. The most requested in the next 10 years managerial skills could be divided into the following groups:

- Individual judgment skills: creative thinking, strategy development, data analysis
- Social skills: leadership, networking, people development
- Routine skills: time management, lean production, planning, reporting

Digital technology usage skill is not included into this classification – it is a basic skill which is necessary to work with AI. Routine skills in general are necessary to perform routine job tasks which could be transferred to AI in the nearest future. Summing up, we can say that the rapid development of AI will seriously change the labor market structure, but it will not be able to completely replace a manager because it is impossible to AI to acquire individual judgment skills and social skills. It will not be able to make decisions based on intuitive way.

But it will take over routine job functions from managers and will help them to make right decisions in time by means of Big Data analysis. This means that the requirements for managers will not remain unchanged - they will have to reconsider their approach to work, thinking and making decisions. Taking into the account the fact that AI will take over routine job tasks which 47% of managers' working time they will need to focus on other job tasks which will require for example such skills like creativity - managers will work more like ideas creators. Also they need to train their personal judgment skills in order to perform their business tasks and make right decisions in right time. Ability to collaborate with other people, create professional social networks in order to engage collective judgment for solving their business tasks will be necessary to perform as a manager. Managers should also be able to use various digital technologies to accumulate knowledge and judgments of partners, customers, external stakeholders, as well as to search for "best practices" in other industries. And finally manager should be able to collaborate with AI and even to treat it as a colleague because it can make almost ideal rational business decisions which can help manager in case when exactly rational decision is needed.

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THE IMPACT OF EXCHANGE RATE FLEXIBILITY IN MOROCCO: AN INPUT OUTPUT ANALYSIS

Anas Mossadak

*Mohammed V University, Faculty of law economics and social sciences, Salé
anas.mossadak@gmail.com*

ABSTRACT

The exchange regime plays an important role in the orientations of the choice of economic policies. In 2018, Morocco started a reform aiming to move gradually from the current fixed exchange regime to a more flexible regime to increase the competitiveness of the economy and its resilience to the external shocks. This paper investigates the potential impact of such a reform by using the input output model to estimate the imported content of final demand and simulating the impact of exchange variations on the prices of these components i.e. final consumption, investment and export. The main finding is that a 10% depreciation will increase significantly the prices of final demand component. Thus, a depreciation of the Moroccan dirham will have a harmful effect on the economy by increasing by causing a decrease of the competitiveness in the international market of the Moroccan products and generating inflationary pressure in the local economy.

Keywords: Exchange rate, Flexibility, Input output analysis, Morocco

1. INTRODUCTION

The optimality of the exchange rate regime is a major concern in the management of a country's macroeconomic framework as the nature of the regime affects the choice of both structural and cyclical economic policies. In January 2018, Morocco initiated an exchange rate regime flexibility process. The monetary authorities increased the dirham's fluctuation band from $\pm 0.3\%$ to $\pm 2.5\%$ compared to the reference value fixed according to a basket of currencies (60% Euro and 40% US dollar). The announced objectives are mainly to strengthen the competitiveness of the economy, improve its resilience to external shocks and support the development of financial markets of the country. Nevertheless, the transition from a fixed exchange rate regime to a more flexible regime can have strong consequences and implies changes that are likely to be brutal, causing macroeconomic turbulences and possibly social unrest. In addition, the process of moving from a fixed exchange rate regime to a flexible regime is long and could last more than a decade. The purpose of this paper is to evaluate the anticipated impact of the exchange rate flexibility on the Moroccan economy using an input output model. The first section highlights the main theoretical advantages and disadvantages of both fixed and flexible exchange regime. After that, we will present the macroeconomic performances of the Moroccan economy under the current fixed exchange regime. Finally, the last section presents the adopted methodology and the empirical finding of our study.

2. FIXED VERSUS FLEXIBLE EXCHANGE REGIME

The fixed exchange rate regime offers several advantages to small open economies seeking to enhance the credibility of their economic policies. Under this regime, monetary policy must be subordinated to the requirements of maintaining parity with the nominal anchor (foreign currency) and inflation is thus mainly imported from the reference country that generally adopts an inflation targeting policy. The fixed regime implies also that fiscal policy must be conducted in accordance with the nominal anchor. Thus, a country seeking to maintain the parity of its currency cannot increase dramatically its indebtedness because it will affect interest rates and, consequently, put pressure on the exchange rate. As a result, a fixed exchange rate regime is beneficial for countries in search of credibility in the conduct of monetary and fiscal policies.

Regarding the international trade, transaction costs are lower in the fixed exchange rate regime. In fact, when the exchange rate is constant and investors are convinced that it will remain so, they will have no reason to protect themselves against currency fluctuations through hedging operations. It is also easier for investors, companies and decision-makers to make economic calculations and forecasts about the profitability of future projects. Concerning the disadvantages of the fixed exchange regime, the sustainability of such a regime requires the accumulation of a significant level of foreign reserves to defend the parity of the currency and protect the economy against external shocks and speculative attacks. These huge amounts of foreign currencies are unused resources that could eventually be employed in financing productive projects that can improve the social welfare. On the other hand, the benefits of the fixed exchange rate regime can become a constraint as the country is focused solely on maintaining parity and almost dispossessed of its monetary and fiscal policy. Thus, it is impossible to increase borrowing through the bond market excessively, even when needed, as it can affect interest rates and therefore put pressures on the exchange rate. In such a regime, the risk is that parity becomes impossible to maintain if confidence in the willingness or the ability of the authorities to maintain it is lost, especially in periods of high budget and current account deficits (twin deficits). With regard to the flexible exchange rate regime, the major advantage is that it helps to reduce considerably the effects of external shocks on the national economy by adapting the exchange rate to the surrounding economic situation. As a result, it makes it possible to automatically correct the deficit of the balance of payments by depreciating the currency and thus stimulating, all other things being equal, exports and reduce the current account deficit. Also, the floating regime does not impose any constraint on the conduct of monetary and fiscal policies, which are conducted according to the objectives of the domestic authorities without any restriction coming from the external sector (Mundell, R. 1962). In terms of disadvantages, a floating exchange rate can expose the country to significant economic instability in the presence of high exchange rate fluctuations. This could undermine the attractiveness of the country for the foreign investors and lead to significant coverage costs for companies. In addition, removing the discipline constraints imposed by the fixed exchange rate regime on the economic authorities could incite them to conduct excessive expansionary policies that could possibly increase the instability of the macroeconomic framework, particularly with regard to inflation and fiscal deficit. The Mundell's impossible trinity summarizes all these elements.



Figure 1: The impossible Trinity (Mundell, R. 1962)

Indeed, the nature of the exchange regime imposes the monetary framework of the country. If the country chooses independent monetary policy and free movement of capital, it loses the fixity of exchange rate. In the opposite, if the country opts for a fixed exchange rate with free movement of capital it loses the independence of monetary policy with all the implication described above. In fact there is a variety of exchange rate arrangements varying from the monetary zone to the clean (pure) floating regime and each country chooses its regime according to its domestic and foreign constraints.

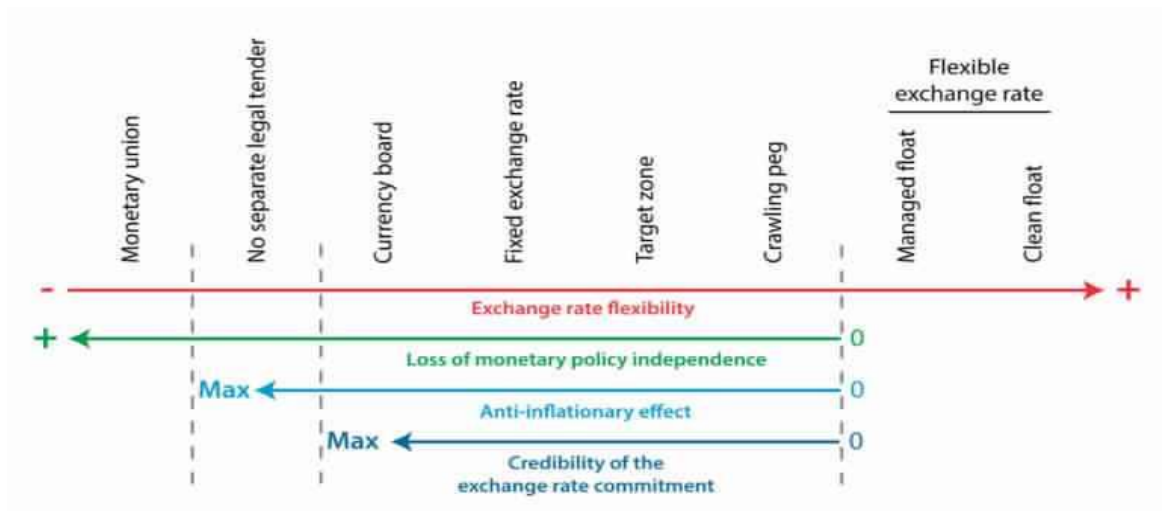


Figure 2: classification of exchange regimes (IMF)

3. MACROECONOMIC PERFORMANCE UNDER THE CURRENT FIXED EXCHANGE REGIME

Moroccan economic growth has a very erratic profile caused mainly by the impact of climate conditions on GDP. On average, the growth rate of real GDP is less than 3% between 1980 and 2017. This rate remains very modest to allow sustained economic development.

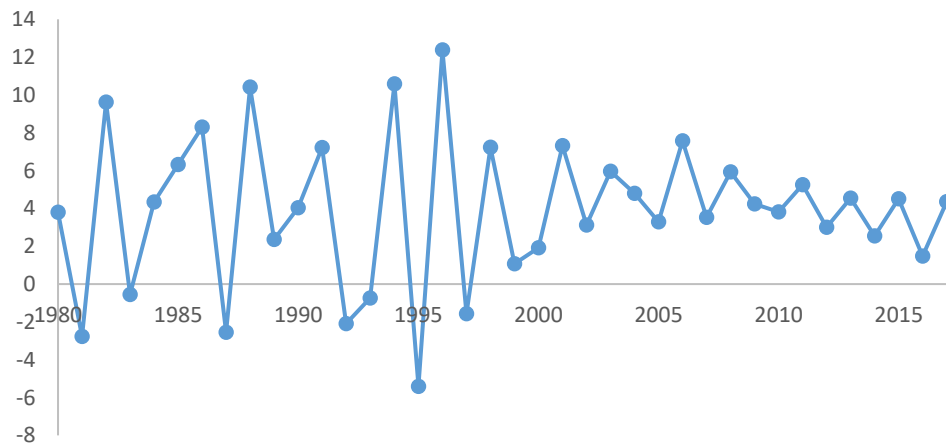
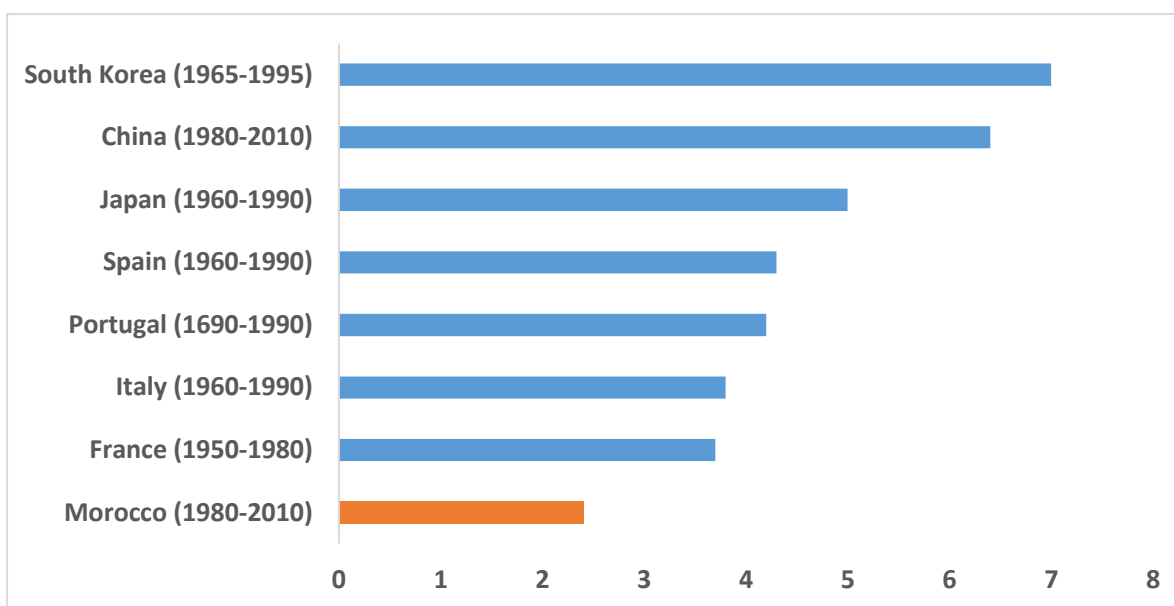


Chart 1: Real GDP growth rate 1980-2017
(Haut-Commissariat au Plan (HCP))

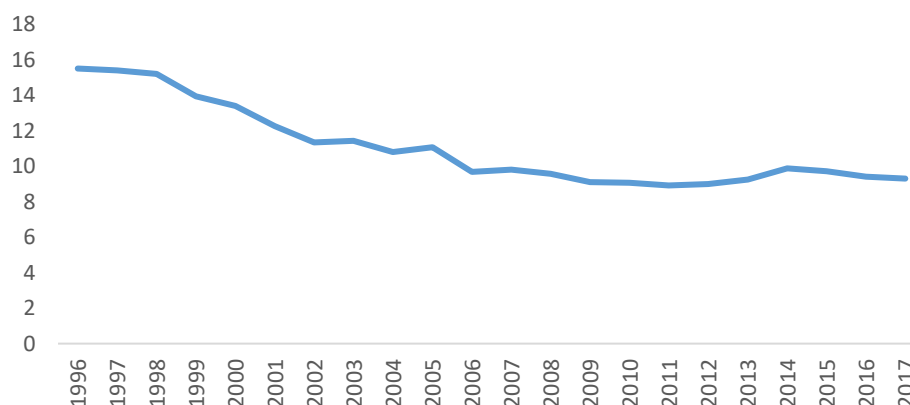
Indeed, international experiences show that a growth rate of at least 6% on average over a period of 15 to 20 years is necessary for a country to reach a higher level of economic development.

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*Chart 2: Economic take-off and the Moroccan economy (GDP/cap growth rate)
Chauffour Jean-Pierre, le Maroc à l'horizon 2040 World Bank, 2016*

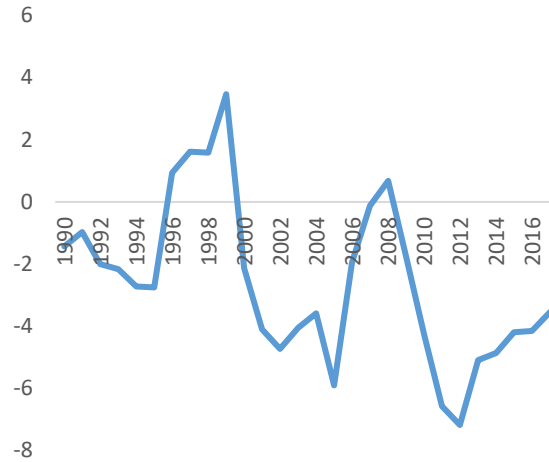
This weakness of wealth creation is reflected in the unemployment rate. Despite a significant decline between the beginning of the 1990s and 2005, it is experiencing a worrying stagnation of around 10% on average over the past ten years.



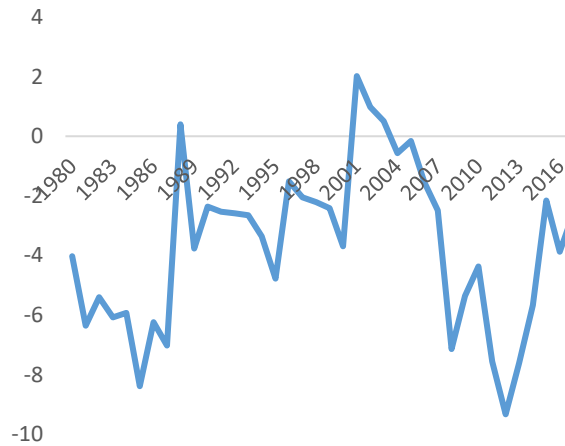
*Chart 3: Unemployment rate in Morocco (1980-2017)
(HCP)*

Regarding the fiscal sector, the budget deficit remains relatively under control as it remain around 3% on average over the period 1990-2017 even if it peaked at -7.2% of GDP in 2012 due to the economic crisis. It must be emphasized that a notable budgetary effort has been observed since 2010 reflected by the ending of subsidies on petroleum products and the control of the wage bill around 11% of GDP.

Chart following on the next page



*Chart 4: fiscal deficit in Morocco (1990-2017) %GDP
(Ministry of finance)*



*Chart 5: Current account balance (1980-2017) %GDP
(Office des changes)*

Concerning the external sector, the current account balance shows a structural deficit of around -4% of GDP between 1980 and 2016 on average, peaking at -9.3% in 2012. The inflation remains under control around 2% over the last 20 years. This rate is largely related to the fixity of the exchange rate regime as the Moroccan dirham is anchored at 60% to the euro and 40% to the dollar. The central banks of these countries adopt a monetary policy framework focused on targeting inflation (especially the ECB), the low inflation of the Euro Zone is automatically imported by the Moroccan economy. Also, the compensation fund played a key role especially over the period (2006-2012) when energy and commodities prices reached historical levels. Since then, and despite the decompensation of a large part of energy products, inflation has remained low in connection with the moderation of prices in the international markets (Mossadak, 2017).

Chart following on the next page

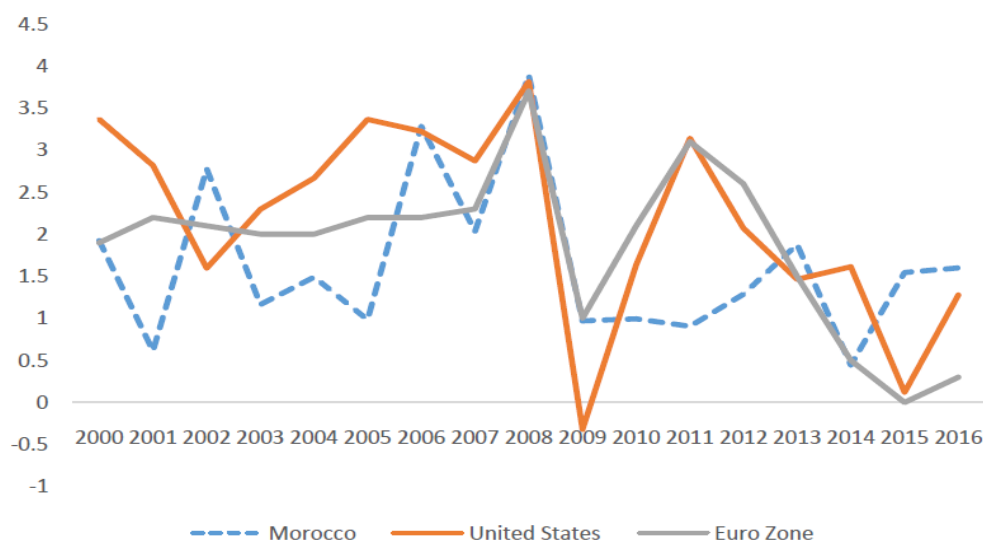


Chart 6: inflation rate in Morocco, Euro Zone and United States (1980-2017)
(IMF, WEO)

Finally, if we look at the components of GDP growth it is obvious that the major contribution comes from domestic demand and the impact of external demand is mostly negative or very small. This could be the important reason that pushes the authorities to start an exchange rate flexibility process in order to make the Moroccan economy more competitive and improve the overall growth by stimulation exportations.



Chart 7: Contribution of demand components to economic growth rate
(Bank Al-Maghrib report, 2017)

In summary, it is clear that current macroeconomic performance is insufficient to aspire to sustained economic growth that would provide a solid basis to initiate an economic development process allowing the Moroccan economy to catch up with emerging countries. The idea that emerges from this brief analysis is that the exchange rate, although a very important variable in the economic environment, is not solely responsible for the overall economic framework. Structural factors such as education, good governance, the effectiveness of public and private investment ..etc should focus more the attention of policy makers.

4. WHAT WOULD BE THE IMPACT OF THE DIRHAM'S FLEXIBILITY? ANALYSIS THROUGH THE IMPORT CONTENT OF THE FINAL DEMAND

Import content refers to imported inputs integrated into the components of final demand (final consumption, investment and net exports). The higher the level of imported intermediate inputs, the more abrupt will be the repercussions of the variations in the exchange rate. It implies also that the value added actually created by the domestic branches of activity is low and the dependence on foreign inputs is high. Measuring the import content necessarily involves the input-output table (IOT), which is a representation of the equilibrium between resources (national production and imports) and uses (final consumption, exports and investments) of an economy by type of product (Cardoso & Estevez, 2013).

Symmetric industry-by-industry I-O table				Intermediate demand			Final expenditure			Direct purchases abroad	Output (bp)
				Industry 1	...	Industry 36	Domestic demand	Cross-border exports	Direct purchases by non-residents		
1	Industry 1 (domestic, bp)										
...	...										
36	Industry 36 (domestic, bp)										
37	Product 1 (imports, bp)										
...	...										
72	Product 36 (imports, bp)										
73	Taxes /less subsidies in intermediate and final imported products										
74	Taxes /less subsidies on intermediate and final products paid in the domestic territory										
75	Total intermediate / final expenditure (pu)										
76	Value-added (bp)										
77	Output (bp)										

GDP (expenditure approach)	
GDP (output approach)	
pu: purchasers' prices	
bp: basic prices	

A: Imports of intermediate products
 B: Imports of final products
 C: Re-imports and re-exports
 D: Imported products for non-residents expenditures
 E: Direct purchases abroad of foreign products by residents

Figure 2: A simple representation of IOT (OECD)

The IOT makes it possible to trace the links between the different branches of activity, as well as the way in which imports are integrated into the national production (E. Berger, V.Vladimir Passeron, 2002). To estimate the import content of each item of the final demand directly or indirectly through the production process (imported intermediate goods), we start from the fundamental economic equilibrium (resources = expenditures) we have:

$$P + M = CI + CF + FBC + X \quad (1)$$

With:

- P the domestic production vector of all the goods (including taxes on production and trade margins);
- M: imports of goods (including taxes on imports).
- CI: vector of the intermediate consumption for each product.
- CF: Final consumption of all institutional sectors (households, public administrations, enterprises).
- FBC: Investment (including changes in inventories) of all branches sectors.
- X: exports.

Let A be the matrix of technical coefficients defined as:

$$CI = A.P \quad (2)$$

Let D be the diagonal matrix of penetration rate, defined as the ratio of imports to the internal market:

$$M = D (CI + CF + FBC) = D (P + M-X) \quad (3)$$

Thus, by solving the system of equations (1), (2) and (3) it is possible to express the imports of each branch as a linear combination of the different final demand items:

$$M = D [I-A (I-D)]^{-1} [A.X + CF + FBC]$$

- The term " $D [I-A (I-D)]^{-1}.AX$ " is a column vector tracing by branch of activity imports intended directly or indirectly for export.
- $D [I-A (I-D)]^{-1}.CF$ traces the imported component of final demand.
- Finally $D [I-A (I-D)]^{-1}.FBC$ will be the imported part included in investment.

In what follow we will to evaluate the impact of a 10% depreciation of the Moroccan dirham on final consumption, investment and exportations. As shown by the graphic below, the most impacted products are mainly fuels and manufactured goods and mining. In average, the final consumption content of imported goods is around 12%. If we suppose a depreciation of 10%, the impact will be an increase of about 1.2% of the final consumption price (the CPI index).

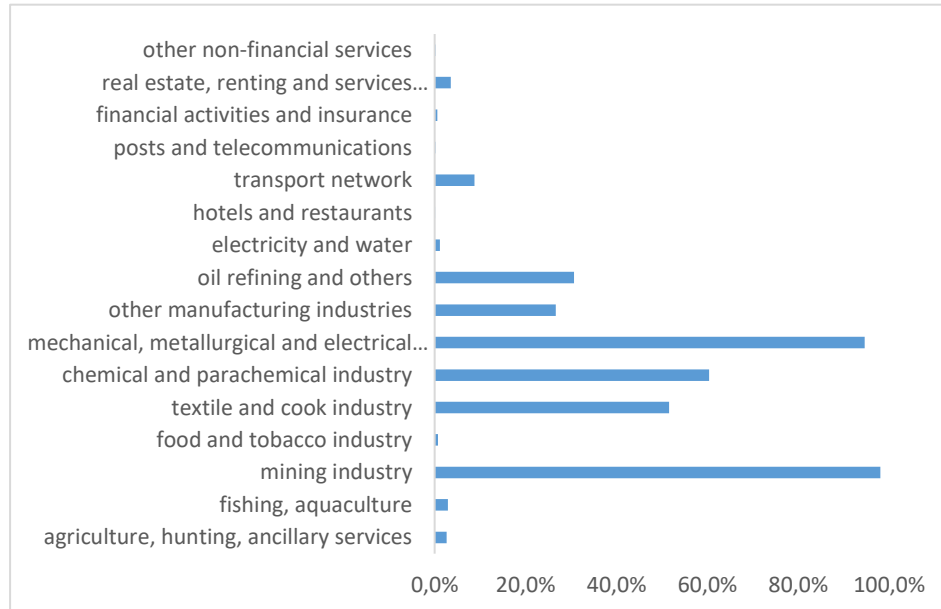
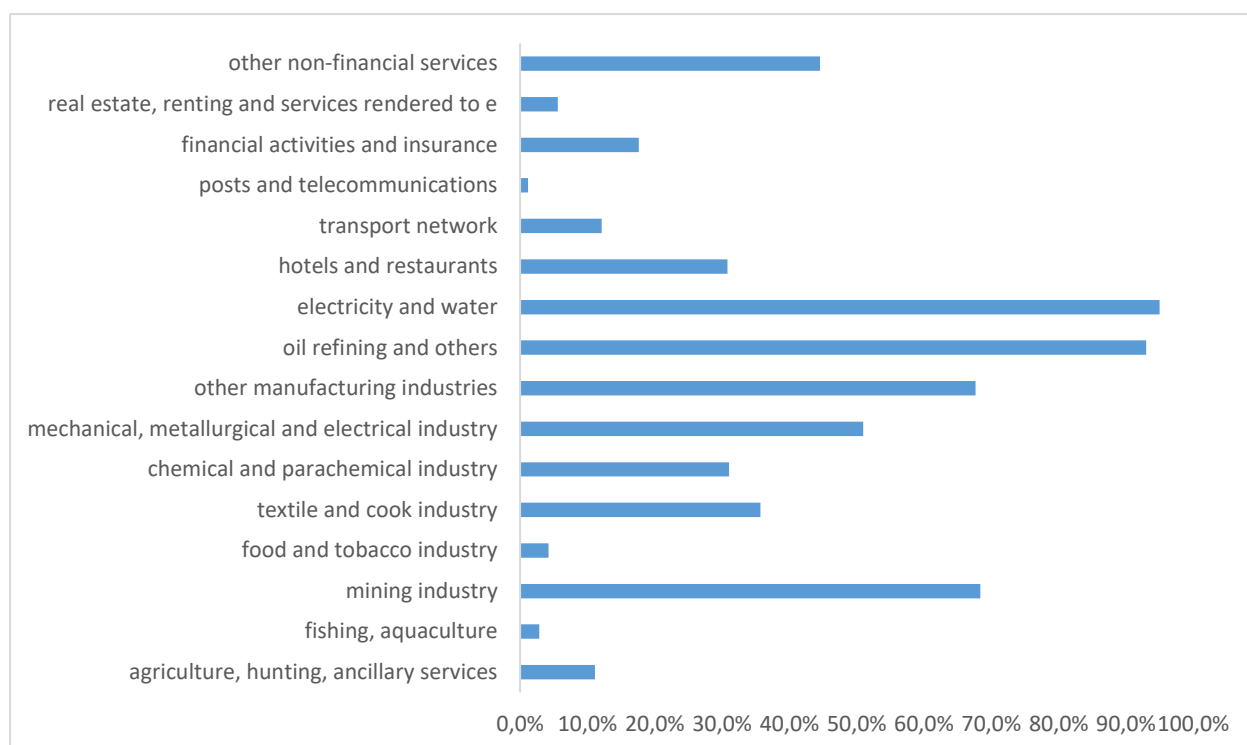


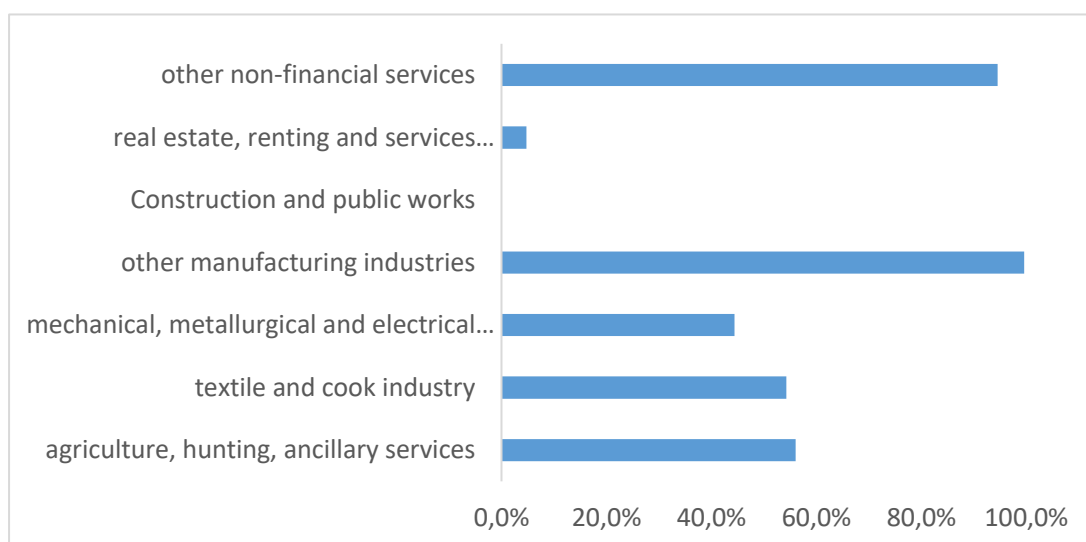
Chart 8: The imported content % of final consumption by branches of activity
(Author's calculation)

Concerning the exportation, the imported content is approximately 32% and mostly all the branches are concerned with different intensity. In the case of a 10% depreciation, the exportations will observe an increase of their price 3.2%, which will impacts negatively the competitiveness of Moroccan products in the international market.



*Chart 9: The imported content % of exportations by branches of activity
(Author's calculation)*

Finally, as shown in chart 10, almost all the investment of all the branches contain imported goods. However, the sectors that have the most impact are industry, agriculture and textile as their contribution to GDP is high. In sum, 22% is the imported part of investment meaning that a depreciation of 10% will lead to an increase of 2.2% in investment goods prices.



*Chart 9: Imported content % of exportations (by branches of activity)
(Author's calculation)*

Finally, between 2005 and 2017 the imported content of exports rose from 23% to 33% meaning that the dependence of the Moroccan economy on imported input is growing over time and any high fluctuations in the exchange rate could have a very strong effect if there is no change in economic policy.

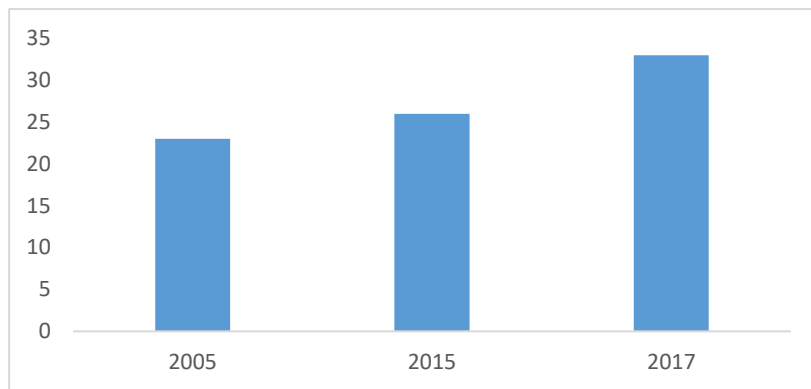


Chart 11: evolution of imported content of export in morocco
(OECD and author's calculation)

5. CONCLUSION

The main aim of this paper was to estimate the impact of exchange rate flexibility in morocco. For this purpose, we used the input output model to estimate the effect of a 10% depreciation of exchange rate on the final demand components; final consumption, investment and exports. The major finding is a 10% depreciation will higher the prices of final demand component by 1.2%, 3.4% and 2.1% respectively for final consumption, exports and investment. These results indicate that a depreciation of the Moroccan dirham will have a harmful effect on the economy by increasing the prices of all the components of final demand causing a decrease of the competitiveness in the international market and inflationary pressure in the local economy.

This work uses only a computational method to evaluate the impact of exchange rate variations. It is a starting point and will be completed by further papers using others macro econometric methodologies to simulate the potential impact of dirham's flexibility in order to strengthen the accuracy of our conclusions.

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FORECAST OF GREENHOUSE GAS EMISSIONS VS. EU ENERGY AND CLIMATE POLICY ASSUMPTIONS FOR 2030

Andrzej Wojcik

*University of Economics in Katowice, Poland
andrzej.wojcik@ue.katowice.pl*

ABSTRACT

The paper studies the assumptions of the European Commission in the sphere of greenhouse gas emissions under the energy and climate policy for 2020 and 2030. The European Commission assumes that by 2020 greenhouse gas emission will have decreased by 20% compared to 1990, and by 2030 it will have been reduced by 40%. This objective is to be achieved by reducing the energy intensity of EU economies and by increasing the share of energy from renewable sources in the total gross energy consumption. The research covered both the emission of greenhouse gas in the entire EU as well as in individual EU countries. The assumption of the European Commission was analysed through the estimated econometric models. The least squares method and the ridge regression method were used to estimate the model parameters in the case of collinearity of the explanatory variables. Thanks to the estimated models, the forecasts of greenhouse gas emissions for 2020 and 2030 were calculated, and then they were confronted with the target assumed by the European Commission, as well as the objectives set out in the paper. The forecasts of greenhouse gas emission were calculated in optimistic and pessimistic variant. The optimistic variant predicted the values of explanatory variables in 2020 and 2030, determined according to the linear trend, and the pessimistic variant according to the logarithmic trend.

Keywords: *econometric model, greenhouse gas emissions, ridge regression method*

1. INTRODUCTION

Counteracting negative changes on Earth has become a key problem not only for the European Union, but for the whole world. Starting from 1972, when the first UN conference on the environment took place, through the report of the G.H. Brundtland World Commission for Environment and Development entitled *Our Common Future* (1987), thanks to which the notion of sustainable development was disseminated, the UN Millennium Declaration (2000), the Rio+20 Conference (2012), Agenda 2030 - *Transforming our world* (2015) and up to the COP 24 conference (Katowice 2018), the United Nations strives to counteract the threats from man to the natural environment. The UN indicates the path that countries should follow to stop the degradation of the environment. The European Union has gone one step further than the UN. The first steps towards including the concept of sustainable development in the EU strategy were made in 1997. In 2000, the Lisbon Strategy adopted the concept thanks to which the EU economy was to become the most competitive economy in the world in the economic and social sectors. In 2001 in Goteborg, ecological targets were added to the Lisbon strategy, including the fight against climate change. On 17 June 2010, the Europe 2020 Strategy was adopted. Specific targets as well as the year in which they were to be achieved were presented in the strategy. In the field of combating the climate change, the EU has set itself the goal of reducing CO₂ emissions by 2020 by at least 20% (compared to 1990). This target is supposed to be achieved by increasing the share of energy from renewable energy sources to 20% of its total consumption and reducing the energy intensity of the EU economy by 20% in comparison to 1990. Following the introduction of the *Transforming our world* agenda by the UN in 2015, the European Commission presented its plans of the implementation of the 2030 agenda for sustainable development. In the sphere of climate and energy, the EU wants to reduce greenhouse gas emissions by at least 40% compared to 1990.

To achieve this, the EU predicts that in the years 2011-2030 additional investments per year in the entire EU will reach 38 billion euros. The purpose of the paper is to verify the plans assumed by the European Commission in the sphere of greenhouse gas emissions for 2020 and 2030 both in the entire EU and in individual member states. The target related to reduction of greenhouse gas emissions concerns the entire EU, therefore it is obvious that not all countries have to meet this goal. Conducted analysis is aimed to show which countries will, and which will not reduce greenhouse gas emissions by 20 and 40% respectively compared to 1990. Data regarding greenhouse gas emission, the share of energy from renewable sources, energy intensity of economies and gross domestic product by purchasing power parity per capita come from 2004-2015.

2. LITERATURE REVIEW

There are virtually no studies in which the assumptions of the European Commission regarding greenhouse gas emissions especially for 2030 are verified. Determining the objectives by the EC was certainly preceded by in-depth analysis, however, they should be verified by independent experts. In their paper, Warzecha and Wójcik (2017) examined the goals set in the Europe 2020 strategy, while in this paper the author studies the assumptions regarding the energy and climate policy for both 2020 and 2030. Studies on environmental protection both on a smaller scale (M. Gliniak et al. (2015), Wong et al. (1999)) and in the scale of the entire planet (Wiedinmyer et al. (2014), Simkhovich et al. 2008)) can be found in the literature. WHO deals with pollution (2016) on a global scale by publishing its reports. Apart from WHO, also the European Commission (1994, 2004) and Eurostat (2001) issue publications on environmental protection and related costs. The climate of our planet and its protection was the subject of many case studies also conducted by such institutions as NASA (<https://climate.nasa.gov/>). Therefore, it is a very important problem for the whole world, and all analyses can be helpful for controlling and striving to achieve the established goals.

3. METHODOLOGY

The paper evaluates the econometric model that explains shaping of greenhouse gas emission in the EU depending on the share of renewable energy in final gross energy consumption and energy intensity in economies of the EU states. To evaluate the model parameters, the method of Ordinary Least Squares (OLS) was applied (Biolik, 2013; Maddala, 2006).

The criterion of the least squares in the form of matrix can be presented as follows:

$$\Psi = (y - Xa)^T (y - Xa) \rightarrow \min \quad (1)$$

Which, if the condition of $\det|X^T X| \neq 0$ is met, leads to the following solution:

$$a = (X^T X)^{-1} X^T y \quad (2)$$

In the next step, the model was verified, and thus the relevance of parameters, heteroscedasticity, auto-correlation and normality of distribution of random elements was examined. To verify the hypothesis concerning normality of distribution of random element, Shapiro-Wilk's test was applied (Shapiro, Wilk, 1965). On the other hand, Durbin-Watson's test was applied to examine auto-correlation (Durbin, Watson, 1950). Whenever the test did not give an explicit answer to the question of whether the auto-correlation was statistically significant, Breusch-Godfrey's test was applied (Maddala 2006). White's test was applied for heteroscedasticity analysis (White 1980). Due to significant probability of occurrence of collinearity of explanatory variables, in the next step, zero hypothesis of the absence of

collinearity was verified by the test proposed by D.E. Farrar and R.R. Glauber (Zelias, 1997). To verify the zero hypothesis the following statistics was calculated:

$$\chi^2_{|R|} = -[n - 1 - \frac{1}{6(2k+5)}] \lg |R| \quad (3)$$

where n represents the number of observations of each variable and k is the number of explanatory variables included in regression model. Due to occurrence of collinearity of variables, model parameters were estimated with the ridge regression method. This method was developed by A.E. Hoerl and R. W. Kennard and assumes that it is better to use weighted estimators of model parameters rather than estimators of larger variance. Ridge regression estimators can be calculated with the use of the following formula:

$$\hat{\beta}_g = (X^T X + W)^{-1} X^T y \quad (4)$$

where: $W = wI$.

It is assumed that w is a small value from the (0;1) range. Due to the lack of the ability to correctly estimate econometric models for almost half of the countries, it was decided that one more variable, gross domestic product at purchasing power parity per capita should be added to the set of explanatory variables. This variable should account for the economic development of individual countries. After adding the GDP variable to the set of explanatory variables, econometric models were re-estimated with the use of least squares method and if necessary, with ridge regression method. dorsal regression.

4. RESULTS AND DISCUSSION

The model parameters were estimated for all countries and the entire EU with the least squares method. If there was a collinearity of explanatory variables, the ridge regression method was used. Table 1 shows the parameters of the estimated models and the method with which they were estimated. If there is no value at a given variable, it means that the given explanatory variable had no significant impact on greenhouse gas emissions. In the table uses abbreviations for the names of explanatory variables:

- RES – renewable energy share,
- EIE – energy intensity of the economy,
- GDP - gross domestic product by purchasing power parity per capita.

Table following on the next page

Table 1: Parameters of econometric models for individual countries

Country	Intercept	RES	EIE	GDP
Austria	47607,471	-633,450	502,520	
Belgium	10735,000	-6400,500	501,866	1,951
Bulgaria	-4897,340	-1502,850	84,472	3,119
Cyprus	-277,273	-82,418	46,354	0,136
Czech Republic	140867,533	-2120,471	73,101	
Germany	248126,000	-27305,800	3631,690	13,774
Denmark	38929,020	-798,798	545,648	
Estonia	-6845,250	-743,797	73,496	0,697
Greece	166109,000	-4180,390		
Spain	-71977,200	-11025,200	2685,080	8,357
Finland	-29790,300	-1989,500	612,444	1,310
France	-159857,536	-6737,803	4557,726	4,557
Croatia	23315,497	-1004,826	110,623	0,336
Hungary	47058,000	-1126,470	124,367	
Ireland	24617,957	-2609,890	290,195	0,657
Italy	152295,642	-14961,704	2884,229	6,895
Lithuania	21759,100	-1146,250	29,457	0,711
Luxembourg	0,312	-3,212	85,167	0,041
Latvia	12236,209	-186,102	12,006	0,159
Malta	-2471,950		25,521	0,081
Netherlands	244710,000	-7513,660		
Poland	-38854,900	-15991,200	1122,440	13,582
Portugal	-1580,572	-558,128	647,682	
Romania	84915,744	-3538,693	276,888	2,574
Sweden	57136,834	-1242,135	235,833	0,801
Slovenia	-2841,999	-399,810	97,724	0,368
Slovakia	31396,497	-1744,688	61,902	0,605
EU-28	4358129,869	-84333,474	11953,786	
United Kingdom	394808,857	-14590,165	2688,910	

In the case of Greece, Malta and the Netherlands, it was not possible to estimate the model in which the explanatory variables would include both the share of energy from renewable sources and the energy intensity of the economy. Because of Brexit, all results for Great Britain are shown at the very end. In most cases, the ridge regression method was used to estimate the models because of the occurrence of a collinearity between the share of energy from renewable sources and the energy intensity of economies. This means that in EU countries there is strong emphasis on increasing the share of energy from renewable sources in total energy consumption and on reducing the energy intensity of economies. In the next step, it was decided that the greenhouse gas emission forecasts should be calculated for both the entire EU and individual countries for 2020 and 2030. For this purpose, some values of explanatory variables should be adopted for the analysed years. Two variants, i.e. an optimistic one and a pessimistic one was adopted. The optimistic variant assumes that all explanatory variables will be changing as in the analysed period, i.e. according to the linear trend. The pessimistic variant assumes a slowdown in economic growth and a reduction in the pace of changes in other explanatory variables. It was assumed that their change would be consistent with the logarithmic trend.

The only exception is the assumption concerning the energy intensity of economies in Lithuania, Romania and Slovakia, where in both variants the values resulting from the logarithmic trend were assumed (otherwise it would have to be assumed that energy consumption would adopt negative values). The forecasts are presented in Table 2.

Table 2 : Forecasts of explanatory variables for 2020 and 2030

Country	Year	Optimistic variant			Pessimistic variant		
		RES	EIE	GDP	RES	EIE	GDP
Austria	2020	38,9	97,6		34,3	105,1	
	2030	48,4	82,4		36,4	101,7	
Belgium	2020	11,70	126,60	51976,13	8,4	142,00	45772,81
	2030	18,1	96,4	64046,41	9,7	135,5	48336,5
Bulgaria	2020	23,9	320,1	22436,9	18,3	404,3	18602,51
	2030	33,9	141,1	30201,72	20,2	363,2	20313,63
Cyprus	2020	12,1	114,6	34045,25	8,8	128,5	33806,9
	2030	18,1	89,5	36509,94	10	123,7	34737,83
Czech Republic	2020	19,3	212,9		14,7	247	
	2030	27,7	139,1		16,4	229,9	
Germany	2020	18,2	97,8	55980,24	14,3	111,7	47745,23
	2030	25,8	70,2	71594,43	15,9	105,8	50978,29
Denmark	2020	37,6	58,6		29,4	68,3	
	2030	52,6	41,1		32,4	64,9	
Estonia	2020	34,1	386,9	35634,83	27,9	376	29452,14
	2030	45,4	397,4	47948,08	30,2	376	32125,08
Greece	2020	20			14,9		
	2030	29,1			16,6		
Spain	2020	20,8	97,4	37257,83	16,6	110,4	35052,66
	2030	28,8	70,7	42566,96	18,3	104,5	36387,67
Finland	2020	43	168,3	48256,34	37,5	177,2	43794,49
	2030	52,7	147,9	57846,59	39,4	172,3	46016,41
France	2020	17,8	108,3	46454,07	14,7	119,6	41280,91
	2030	23,4	86,1	56695,64	15,9	114,8	43491,98
Croatia	2020	31,2	177,6	26733,6	27,6	190,7	23396,95
	2030	37,1	150,1	33815,27	28,7	184,5	25021,08
Hungary	2020	23,2	215,2		16,7	236,2	
	2030	35,6	176,3		19,2	228,4	
Ireland	2020	12,3	61	63164,32	8,8	74,2	54093,05
	2030	18,8	37,4	78972,95	10,1	69,7	57075,66
Italy	2020	23,4	92,4	41144,57	18	100,9	38234,84
	2030	34	76,9	47540,52	20,3	97,8	39742,83
Lithuania	2020	28,2	186,7	36012,21	23,6	186,7	28590,6
	2030	36,1	154,3	50188,05	25,1	154,3	31547,55
Luxembourg	2020	6,1	72,9	120176,8	4,5	92,6	104131,8
	2030	9,2	34,3	152531	5,2	84,4	111234,6
Latvia	2020	40,6	195,9	29739,9	36,3	212,2	24444,2
	2030	47,2	160	40093,85	37,4	203,7	26653,46
Malta	2020		84,1	40485,64		113,2	33863,49
	2030		32	52773,16		103	36351,61
Netherlands	2020	7,3			5,7		
	2030	10,5			6,4		
Poland	2020	14,8	179,3	33827,32	11,8	227,8	27022,59
	2030	20,2	85,6	46852,71	12,9	208	29745,34
Portugal	2020	31,5	116,1		27,7	127,1	
	2030	39,1	93,1		29,3	121,8	
Romania	2020	29,7	221,6	28351,81	25,6	221,6	22503,85
	2030	37,9	193,5	40010,83	27,4	193,5	25037,24
Sweden	2020	61,2	103,6	54461,16	54,4	117,6	48302,1
	2030	74,6	74,7	66875,04	57,3	111,1	51026,27
Slovenia	2020	26,3	167,2	35078,52	22,4	182,7	31828,23
	2030	33,5	135,6	41885,75	23,8	175,6	33372,4
Slovakia	2020	15,1	196,8	37249,89	12	196,8	30804,1
	2030	20,8	166,5	50270,35	13,2	166,5	33667,02
EU-28	2020	20,6	107,2		16,5	121	
	2030	28,3	80,2		18,1	115,2	
United Kingdom	2020	10,3	78,6		6,8	95,8	
	2030	16,6	45,3		8,1	88,8	

Based on the estimated econometric models (table 1) and the adopted values of forecasted variables (table 2), the forecasts of greenhouse gas emissions were calculated. While calculating the forecasts, it was assumed that our model will be stable, i.e., its parameters would not change until 2030. Table 3 presents forecasts of greenhouse gas emissions for 2020 and 2030, the targets that should be achieved by the EU and the ratio of forecasted values to the determined objectives. The last value will illustrate how much the forecast of greenhouse gas emissions is greater or smaller than the assumed target. Similarly to the entire EU, reduction of greenhouse gas emission by 20 and 40% respectively in 2020 and 2030 compared to 1990 were adopted for individual countries.

Table following on the next page

Table 3 : Forecasts of greenhouse gas emissions for 2020 and 2030

Country	Year	Optimistic variant		Pessimistic variant	
		Forecast		Forecast	
Austria	2020	72012,19	1,13	78694,95	1,24
	2030	58356,12	1,22	75656,14	1,58
Belgium	2020	100773,7	0,84	117523,4	0,98
	2030	68199,24	0,76	110941,6	1,24
Bulgaria	2020	56211,17	0,67	59779,08	0,72
	2030	50282,94	0,80	58789,35	0,94
Cyprus	2020	8652,801	1,69	9536,789	1,86
	2030	7328,924	1,91	9341,586	2,43
Czech Republic	2020	115505,6	0,73	127752,5	0,81
	2030	92298,8	0,78	122897,7	1,03
Germany	2020	877428,3	0,87	920970	0,91
	2030	784744,2	1,04	900386,8	1,19
Denmark	2020	40869,18	0,72	52712,11	0,92
	2030	19338,38	0,45	48460,52	1,13
Estonia	2020	21078,96	0,65	20577,52	0,63
	2030	22033,16	0,91	20730,92	0,85
Greece	2020	82501,2	0,98	103821,2	1,23
	2030	44459,65	0,70	96714,53	1,53
Spain	2020	271575,7	1,16	334359,8	1,43
	2030	156049	0,89	310931,2	1,77
Finland	2020	50947,47	0,88	61495,81	1,06
	2030	31717,92	0,73	57625,32	1,33
France	2020	425493,2	0,96	474309,6	1,07
	2030	333248,7	1,00	454422,6	1,37
Croatia	2020	20600	0,81	24544,69	0,97
	2030	14010,38	0,74	23299,58	1,23
Hungary	2020	47687,67	0,63	57621,44	0,76
	2030	28881,57	0,51	53835,2	0,95
Ireland	2020	51714,89	1,13	58720,58	1,29
	2030	38287,7	1,12	55981,32	1,64
Italy	2020	352383,5	0,84	437630,3	1,05
	2030	193183,5	0,62	404674,8	1,29
Lithuania	2020	20554,46	0,53	20547,28	0,53
	2030	20629,74	0,71	19977,16	0,68
Luxembourg	2020	11096,75	1,05	12124,48	1,15
	2030	9120,546	1,15	11713,91	1,48
Latvia	2020	11765,83	0,56	11918,88	0,56
	2030	11754,51	0,74	11963,75	0,75
Malta	2020	2939,634	1,57	3148,198	1,68
	2030	2601,017	1,85	3088,558	2,20
Netherlands	2020	189860,3	1,05	201882,1	1,12
	2030	165816,6	1,22	196622,6	1,45
Poland	2020	385174,9	1,03	395164,3	1,05
	2030	370561,9	1,32	392330,3	1,39
Portugal	2020	56034,22	1,15	65279,6	1,34
	2030	36895,77	1,01	60953,88	1,67
Romania	2020	114149	0,58	113605,7	0,58
	2030	107360	0,73	105976,1	0,72
Sweden	2020	49185,41	0,84	55998,87	0,96
	2030	35671,4	0,81	53046,4	1,21
Slovenia	2020	15905,59	1,07	17782,13	1,19
	2030	12446,74	1,11	17097,45	1,53
Slovakia	2020	39758,93	0,67	41269,72	0,69
	2030	35811,98	0,80	39031,65	0,87
EU-28	2020	3902306	0,85	4413036	0,97
	2030	2930186	0,85	4208770	1,23
United Kingdom	2020	455878,5	0,70	553193,3	0,85
	2030	274419,7	0,56	515403,7	1,06

In the case of the optimistic variant, the forecast of greenhouse gas emissions for the entire EU for both 2020 and 2030 is definitely lower than the target set by the European Commission.

The difference is approximately 15% in both cases. When verifying the targets for individual countries, it proves that the forecast of greenhouse gas emissions for 2020 for 10 countries is higher than the assumed target. In the case of 2030, 11 countries will not have achieved the adopted targets. In 2020, the situation seems the best in the case of Lithuania, Latvia and Romania (forecasts are almost 50% lower than the targets) and the worst in the case of Cyprus, where the forecasts exceeded the set target by almost 70%. In 2030, the situation is best for Denmark (the forecasts do not even exceed half of the target), and the worst is for Cyprus, where this time the forecast is almost twice as high as the target. According to the pessimistic variant for the entire EU, the 2020 target will also be met with a small margin. In the case of 2030, the forecast of greenhouse gas emissions is 23% higher than the target set by the European Commission. In 2020, 14 countries will not have reduced the greenhouse gas emissions by 20% compared to 1990. The forecasts of greenhouse gas emissions for 2030 for individual countries will exceed the target in 21 cases, therefore only 7 countries will meet the set goals. In the case of the pessimistic variant, the best situation in 2020 will be again in Lithuania, Latvia and Romania, and the worst in Cyprus. In 2030, according to the pessimistic variant, Denmark will not achieve the target, and the best situation will be again in Lithuania, Latvia and Romania.

5. CONCLUSION

Wishing to continue to be a leader in environmental changes, the European Union determines ambitious goals. The European Commission has set its member states a target in the sphere of environment protection, which is the reduction of greenhouse gas emissions by 20% in 2020 compared to 1990, and by 40% in 2030. This objective is to be achieved by reducing the energy intensity of EU economies and increase of the share of energy from renewable sources in final gross energy consumption. The article analyses whether it is possible to achieve the set goal, and on the other hand whether the bar is not set too low. Indeed, the emission of greenhouse gases in most countries is significantly affected by both energy intensity of the economy and the share of energy from renewable sources. The model also introduces the third variable, which is gross domestic product at purchasing power parity per capita. This variable accounts for economic growth in individual countries. To calculate the forecasts of greenhouse gas emissions throughout the EU and its individual members, forecasts of explanatory variables are assumed in two variants. The optimistic variant predicts the values of explanatory variables in 2020 and 2030 determined according to the linear trend, and the pessimistic variant according to the logarithmic trend. The analysis shows that the target set by the EU for 2020 has been underestimated. Both in the case of optimistic and pessimistic variant, it will be achieved. Such little ambitious goal can lead to not using the existing potential and efforts to protect the environment that are much less intensive than it is possible. In the case of 2030, the European Union has set a much more ambitious goal, but it should also be achieved, however, in the event of a sharp economic slowdown, problems can occur. If the increase in the share of energy from renewable sources in total energy consumption and the decrease in energy intensity of economies will be rapidly slowed down, there will be huge problems with the achievement of the set target. This is a very pessimistic forecast, especially as the model does not include innovations in the field of climate improvement, which will certainly take place until 2030. According to the optimistic variant, in 2020, 14 countries will reduce greenhouse gas emissions by less than 20% compared to 1990. In 2030, it will be already 21 countries. The largest percentage decrease in greenhouse gas emissions will take place in Lithuania, Latvia and Romania, i.e. in Eastern European countries. This is probably due to the rapid changes that are still taking place in these countries after the change of the political system. The forecasts for Denmark according to the optimistic variant are also very beneficial. The paper assumes the stability of model parameters, which is little probable in such a distant time horizon.

Therefore the adopted models are a good starting point, and in subsequent years they should be updated to have full control over the achievement of the adopted target.

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IS WORK LIFE BALANCE IMPORTANT FOR GENERATION Y?

Anna Skorska

*University of Economics in Katowice, Poland
anna.skorska@ue.katowice.pl*

ABSTRACT

Changes occurring in the contemporary economies and societies show that the balance between professional carrier and personal life becomes one of the most important and appreciated values. Entry of the generation Y into the labour market resulted in changes in the approach to seeking the optimal ratio between time spent at work and time spent away from work. Generation Y (people born between the 1980's and the year 2000), also known as Millennials is independent, confident, and goal-oriented. They believe in living a well-balanced life in which it is possible to fulfil both personal and professional responsibilities. This generation expects work to be fun and flexible, with special focus on flexible working time. They do not want to work long hours at the expense of their families or friends. Therefore they are more interested in balancing their jobs and personal lives than the previous generations. In the light of the above considerations, the goal of the paper is to present the essence of the conflict between work and personal life, with special focus on changes in employment patterns of the generation Y depending on gender and the number of children. The research questions include:

- *How is the employment rate of adults changing depending on the number of children?*
- *What percentage of parents work at home while reconciling professional and non-professional responsibilities?*
- *Are there different patterns depending on gender?*

The research period covers the years 2008-2017 and the conducted analyses are mainly based on statistical data obtained from Eurostat. The considerations in the article are conducted in the following areas: 1) the characteristic of the generation Y, 2) conflict between work and personal life, 3) the analysis of the employment rates of the adults in the EU member states, depending on the number of children 4) changes of the employment patterns depending on gender.

Keywords: *employment, gender, generation Y, work-life balance, WLB*

1. INTRODUCTION

Changes occurring in contemporary economies, also those of social and demographic character, including the entry of generation Y representatives into the labour market, increase of occupational mobility and frequent changes of the workplace, growing rate of professionally active women (the so-called dual-career couples), transformation in family structure (single parent families), growing unwillingness to accept the culture of long hours of work, growth of the society available 24 hours a day for seven days a week and overload of technological novelties affect changes in the approach to work and family life. For the representatives of generation Y, i.e. people born between 1980 and 2000, the balance between professional career and free time for them and their family became very important. Flexibility and the ability to adapt to changing conditions is one of the most important features of people belonging to generation Y. They expect the same from their employers. Young people do not want to abandon their passions and interests; they want to pursue them beside performing duties related to their work. In the light of the above considerations, the goal of the paper is to present the essence of the conflict between work and personal life, with special focus on changes in employment patterns of the generation Y depending on gender and the number of children.

The research questions include:

- How is the employment rate of adults changing depending on the number of children?
- What percentage of parents work at home while reconciling professional and non-professional responsibilities?
- Are there different patterns depending on gender?

The research period covers the years 2008-2017 and the conducted analyses are mainly based on statistical data obtained from Eurostat. Because of the availability of statistical data, the age limit of generation Y was slightly expanded and therefore the analysis includes people aged 20-49.

2. CHARACTERISTICS OF GENERATION Y

Generation Y, also referred to as Millennium generation, 'Dot.com generation', the 'iGeneration', the 'MeGeneration' (Cennamo & Gardner 2008; Glass 2007; Shaw & Fairhurst 2008), is one of the youngest groups on labour market. It is most commonly perceived as the population born between 1980 and 2000 (Shih & Allen 2007). They are ambitious and well-educated people, they have clearly defined goals and they know what they want. They are very well-prepared for work in global terms and they skilfully use technological innovations (Eisner, 2005). They are often perceived as multi-tasking people, goal-oriented and capable of working under pressure (Freifield 2007), Shih & Allen 2007). They are truly committed to work, provided that they find it interesting. Previous generations focused on building the world and fighting to survive, did not have these qualities. They respected knowledge and traditions, and they approached work as the value they had to be fully committed to, and adapted to generally accepted requirements and systems. Millennials do not understand that some system has to organise their life because they do it best themselves, and if they do not know what to do, they seek advice on the Internet. For them, the world, the work and the environment are interconnected. However, nothing is more important than "me" and "my life objectives". It must be stated that considering their number, such a perception of reality is becoming increasingly more popular. This is because in the entire European Union they constitute almost 40% of the total population. The highest rate is observed in Luxembourg and Slovakia (over 44%), whereas the lowest in France, Finland and Germany (less than 38%). It is shown in table 1. It must be stated here that the share of women and men in this age group is proportional in all the countries with small prevalence of men (Malta, Slovenia around 52%) and women (Malta, Portugal).

Table following on the next page

Table 1: Population of people aged 20-49 in the European Union in 2017(Eurostat)

Country	Population of people aged 20-49			Percentage of		
	Total	Men	Women	People aged 20-49 in population	Men	Women
EU-28	198 755,8	100 072,5	98 683,3	38,8	50,3	49,7
Belgium	4 371,4	2 193,6	2 177,7	38,5	50,2	49,8
Bulgaria	2 844,2	1 462,7	1 381,5	40,0	51,4	48,6
Czechia	4 429,0	2 272,9	2 156,1	41,9	51,3	48,7
Denmark	2 216,0	1 121,8	1 094,2	38,5	50,6	49,4
Germany	31 156,6	15 960,4	15 196,3	37,7	51,2	48,8
Estonia	528,2	269,4	258,7	40,1	51,0	49,0
Ireland	2 010,5	991,9	1 018,6	42,0	49,3	50,7
Greece	4 197,0	2 121,0	2 076,0	38,9	50,5	49,5
Spain	18 906,3	9 510,5	9 395,8	40,6	50,3	49,7
France	24 243,9	11 915,3	12 328,5	36,2	49,1	50,9
Croatia	1 601,8	811,4	790,4	38,6	50,6	49,4
Italy	23 108,6	11 600,8	11 507,8	38,1	50,2	49,8
Cyprus	365,0	174,6	190,4	42,7	47,8	52,2
Latvia	746,3	372,8	373,5	38,3	49,9	50,1
Lithuania	1 096,6	548,1	548,4	38,5	49,9	50,1
Luxembourg	260,0	131,1	128,8	44,0	50,4	49,6
Hungary	4 024,3	2 036,0	1 988,2	41,1	50,5	49,5
Malta	202,1	105,4	96,8	43,9	52,1	47,9
Netherlands	6 498,0	3 253,7	3 244,2	38,0	50,1	49,9
Austria	3 526,5	1 770,8	1 755,6	40,2	50,2	49,8
Poland	15 146,8	7 689,5	7 457,3	39,9	50,8	49,2
Portugal	3 972,8	1 930,2	2 042,6	38,5	48,6	51,4
Romania	8 380,0	4 297,8	4 082,2	42,7	51,3	48,7
Slovenia	819,7	426,4	393,2	39,7	52,1	47,9
Slovakia	2 405,9	1 229,7	1 176,2	44,3	51,1	48,2
Finland	2 038,9	1 043,1	995,9	37,0	51,2	48,8
Sweden	3 925,3	2 010,5	1 914,8	39,3	51,3	48,7
United Kingdom	25 734,3	12 820,7	12 913,6	39,1	49,8	50,2

Generation Y is definitely more mobile than generation X, and thereby they are more willing to change the labour place if their needs and expectations are not satisfied. For generation Y the possibility to be promoted is of a great importance. If there is no such possibility, or the worker has gone through all career steps in a given company, they will most probably look for another place where they will be able to continue their professional development. They expect from the employer the freedom of actions and flexibility in such aspects as the place of work, working time and employment form, as well as forms of remuneration. For workers belonging to generation Y, keeping work-life balance is highly important therefore while choosing an employer, all types of benefits including benefits in the form of multisport card or private health care are really important. The research (Barron 2007, (Crumpacker & Crumpacker 2007, Sturges and Guest 2004) prove that they appreciate diversity, equality and tolerance both in professional and private life. Therefore, WLB systems seem to be an ideal solution for them.

3. WORK-LIFE BALANCE AND EMPLOYMENT PATTERNS

WLB idea emerged in the late 1970s and early 1980s as the response to consolidating off-balance lifestyle model, however, both scientists, as well as employers and employees started to be more interested in it much later (Lambert & Haley-Lock 2004; Lingard & Francis 2005, Ferguson et al, 2012). The balance between all the spheres of functioning ought to be a road to worker's self-fulfilment, that allows for growth of life satisfaction. However, this is not about strict separation of a private and professional sphere but linking and permeating them in a

harmonious way so that the work, family life and passions should constitute a coherent whole. Due to growing role of work-life balance, L. A. McNall (2009) defined three determinants of this concept:

- work – approached as professional life;
- non-work – that has nothing to do with unemployment, but represents a part of life after work, and therefore a private life;
- health.

The concept became especially important for representatives of generation Y, who are focused on personal development – investing in themselves or pursuing their passions, but at the same time, they value their free time and they cannot imagine that they may not have it. For majority of Millennials, work-life balance is one of the keynotes. The report “Millennials in SME. Under scrutiny” (2017), developed by the European Leasing Fund shows that 86% respondents perceive success as achievement of balance between private and professional life, which makes them different from generation X that lived focusing on work and professional life. It is noticed that the values have changed. Currently, representatives of generation Y seek convenient solutions on labour market such as flexible working hours or good location. They want to work from 8 to 4 and after that relax and pursue their passions. Are such declarations reflected in most popular forms of employment and real working time? According to Eurostat data, average weekly working time in EU-28 is 37 hours. The shortest weekly working time is observed among the Dutch (30.3 hours per week) and the Danish (33 hours). Poles, together with the Greek on average spend the longest hours at work (over 40). In the case of women, the working time is shorter – in EU28 it is less than 34 hours per week and in Denmark, Holland and Germany even 31 hours. However, it must be emphasised that there are countries, for example Bulgaria and Hungary, where the number of working hours for women reaches 40. In this situation, it is hard to reconcile professional and family life.

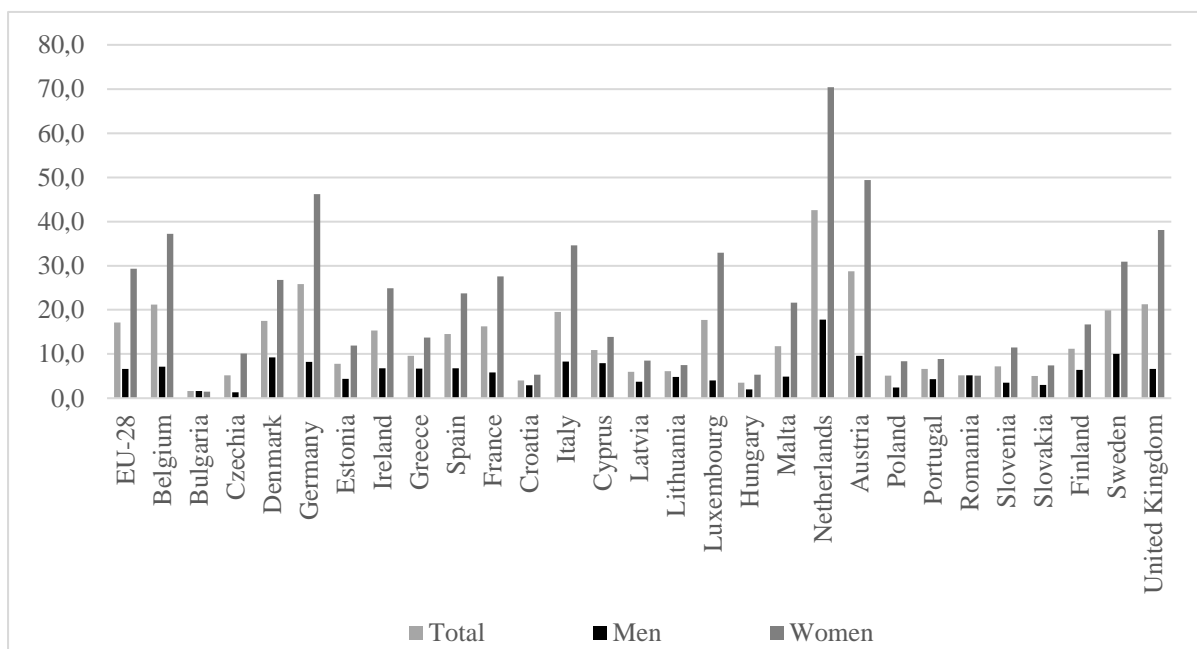


Figure 1: Part-time employment as percentage of the total employment in the European Union in 2017 [%] (Eurostat)

One of the solutions that support solving this conflict is taking a part-time job that allows to manage time better (Skórska, Balcerowicz-Szkutnik, 2017).

This employment form is most common in Holland, and it is more often dedicated to women rather than men, which is shown in figure 1. Women working part-time on average spend around 20 hours at work, i.e. from 17.4 in Portugal to 24.5 in Sweden. The highest rate of young women aged 25-49 work part-time in Holland. Their rate in 2017 was over 70% which is shown in figure 1. However, it is an exception because on average, in EU-28 around 30% women and 6.6% men work part-time. This form of employment can be observed the least frequently among women in Bulgaria (1.5%), Hungary, Croatia and Romania (around 5%). It must be emphasised that over 60% Dutch women take part-time work because of taking care of a child, but in the case of Romanian or Portuguese women the rate is only 6-7%. In Poland this rate is not higher than 19% and is even twice lower than the EU mean which proves that the conflict between professional and family life finds no solution in many cases.

4. WORK-LIFE-BALANCE AND GENDER

Social and cultural changes of the last decades were one of the key determinants for the emergence of the WLB concept. The main factors include entry of women into labour market and the necessity of a new division of household duties (Lee et al, 2009, Lee et al 2013, Skórska 2015, Ferguson et al 2012, Beutell 2013). Baby boomers generation was the one that started this trend. Due to the fact that women more and more frequently started professional work, men had to assume a part of household duties. The issue of finding balance has been an increasingly more common problem which was especially important when children are born in the family. Parents are facing the dilemma of how to reconcile professional work with childcare? Should one of the parents abandon their professional career, and if they should, who should it be? Is it possible to do a professional work in families with many children? Analysis of statistical data proves diversity in the employment rate not only depending on sex, education and place of residence, but also the number of children and their age. In the entire EU-28 the rate of employment among people aged 20-49 was 78.6%, while the lowest indicator refers to people having 3 or more children (70%), and the highest among parents of 2 children (81%). Considering differences occurring between the EU member states, 4 groups can be distinguished:

- the countries, where the employment rate is higher than 85% - Czech Republic and Slovenia,
- the countries of the employment rate higher than 80-85% - Great Britain, Sweden, Portugal, Poland, Austria, Holland, Malta, Lithuania, Luxembourg, Estonia, Germany, Denmark,
- the countries, where the employment rate fluctuates around 75-80% - Finland, Slovakia, Romania, Latvia, Cyprus, France, Croatia, Ireland, Bulgaria, Belgium,
- the countries of the lowest rate, i.e. on the level below 75% - Italy, Greece, Spain.

The highest employment rate in EU-28 is reached by men with 2 children, whereas the lowest by people with no children. In the case of women, employment rate is the lowest in comparison with men and declines together with the number of children, which is a trend observed in all EU countries. The biggest difference in the level of employment of women and men is observed in the case of families with 3 or more children (it is 3.3 percentage points) while in the case of Nordic countries (Denmark, Sweden, Luxembourg) the difference is considerably smaller (around 10 percentage points) in comparison with the countries located in the south of Europe, e.g. Greece and Italy (over 35 percentage points). Poland belongs to the group of countries in which having 3 and more children significantly limits the possibilities of continuation of professional work, especially by women; their employment rate is only 58.5% whereas in the case of women with no children in this age group was over 80%. The countries of the lowest employment rate of women (36-46%) who have 3 or more children include Bulgaria, Italy,

Malta, whereas in Denmark, Sweden and Slovenia it is higher by around 30-35 percentage points which is shown in table 2.

Table 2: Employment rate of people aged 20-49 by sex and number of children in the European Union in 2017 [%] (Eurostat)

Country	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
	Total		No children		1 child		2 children		3 children or more	
EU-28	84,2	73	79,5	77,2	87,8	73	91,4	72,3	86,2	56,7
Belgium	82,2	73,6	75,1	74,1	87,5	76,1	92,5	77,9	84,9	58,1
Bulgaria	81,8	73,6	78,9	76,8	86,3	75,3	88,3	71,3	62,7	36,4
Czechia	93,5	76,3	89,8	86,5	96,5	69,5	97,8	75	93,4	57,8
Denmark	85,1	79,1	77,3	74,3	91,6	77,9	94,5	85,2	91,3	81,6
Germany	86,7	78,9	83,5	84,3	92,1	78,3	93,6	74,9	84,6	53,2
Estonia	89,1	77,8	85,6	85,9	92,5	76,6	93	72,5	93,1	64,3
Ireland	83,9	72,5	79,5	81,4	86,2	73,1	88,9	69,7	87,1	58,5
Greece	74,8	56,3	67	55,6	80,8	56,2	88,6	59	84,8	50,7
Spain	78	67,9	73,1	71,9	80,4	66,9	86,8	66,3	78,8	52,4
France	82,6	73,2	77,1	74	85,4	78	90,2	59,1	85	
Croatia	78,8	71,9	71	69,6	81,6	71,6	88,2	77,9	86	64,4
Italy	77,2	58,2	71,4	62,4	80,3	57,8	87,6	55,2	82,9	44
Cyprus	81,5	73,8	74,9	78,1	86,2	71,2	89,8	70,8	82,5	71
Latvia	83	77,5	78,3	80,4	83,7	76,2	93,1	78,2	88,7	65,1
Lithuania	82,6	82,2	76,4	82,7	90,2	84,7	90,6	83,4	85,5	63,6
Luxembourg	85,2	76,6	82,7	77,1	83,7	76,2	92,1	80,5	87,3	64,6
Hungary	89,4	75,3	87,3	85,7	91,8	71,9	93,3	71,7	87,6	48,4
Malta	93	73,1	90,7	84,5	94,7	69,6	96,7	66,4	96,4	45,7
Netherlands	87,2	78,6	81,9	80,1	91,6	77,8	95,1	79,8	92,5	71
Austria	85,8	80,7	81,4	83,7	91,9	81,5	93,2	79,6	86,9	63,6
Poland	87,5	74,4	81,1	80,1	91	75,6	93,5	72,3	90,1	58,5
Portugal	85,2	80,3	78,5	78	90,1	82,3	92	82,1	87,1	72,7
Romania	86,3	70,9	82,9	74,2	89,8	73,9	89,4	69,2	83,6	50,4
Slovenia	88,7	82,7	82,2	78,6	92,5	83	96,3	87,9	93,4	79
Slovakia	86,4	72,1	82,7	82	89,9	68,8	91,2	70,3	83,7	53,3
Finland	81,5	74,9	75	75,3	86,9	71,9	93,1	81	91,6	67,3
Sweden	85,3	81,3	78,9	76,2	89,8	82,3	96,4	88,4	91,1	81
UK	88,7	77,6	85,4	84	93,2	80,2	93	74,9	89	53,9

It is obvious that reconciling full time work of both parents, especially in the case of care about younger children is difficult. Therefore in such situation the possibility to do professional work at home is important. But is it as common in practice as representatives of generation Y declare? Analysis of the rate of working women proves serious spatial differences inside EU. While in Holland the rate in the case of women who have the youngest child aged 6-11 is over 44%, in Sweden it reaches almost 42%, in Italy and Croatia is not higher than 5% which is shown in table 3. The rate of women working professionally from home is growing with the number of children, although also in this case spatial diversity is observed – from 3.6% in Greece among women who have 3 or more children to 45% in Holland. In Poland their rate is close to EU average. Regardless of the number and age of children, such working form is most common in the above-mentioned Holland, Denmark, Sweden and Finland. It is not surprising because these

are examples of the countries where WLB concept is common and the work of women within flexible employment forms, i.e. part-time work among others, or tele-working is popular. Support for employment of women is a real challenge for the countries of Southern as well as Central and Eastern Europe. Although the reasons for the situation are different (tradition of professional work of women, economic situation of a given country, legislation in the sphere of flexible employment forms), the consequences in many cases are similar. The process of formation of professional career of women who become mothers is broken and in many cases return to the labour market is often almost impossible.

Table 3: Percentage of employed women aged 20-49 working at home by number of children and age of youngest child, in 2017(Eurostat)

Country	Total	Children age			no child	1 child	2 children	3 children or more
		less than 6	from 6 to 11	more than 12				
EU-28	14,4	16,3	16,5	12,9	13,1	12,2	17,5	20,4
Belgium	22,8	23,7	23,9	24,5	20,9	20,3	27,4	24,0
Bulgaria	1,1	:	:	:	:	:	:	:
Czechia	8,5	13,4	8,7	6,4	7,6	7,6	9,5	14,1
Denmark	29,1	31,6	35,0	29,5	23,3	26,8	34,1	37,9
Germany	10,0	11,7	12,0	8,4	9,3	9,1	12,2	13,8
Estonia	18,5	21,4	18,2	13,0	19,2	16,0	19,0	22,6
Ireland	12,8	13,7	13,5	9,4	12,9	9,5	13,2	16,6
Greece	6,2	6,1	5,8	5,3	6,8	6,4	5,6	3,6
Spain	6,5	6,9	7,6	5,1	6,2	5,5	7,6	8,4
France	20,0	20,8	23,4	22,1	16,4	17,3	24,1	27,0
Croatia	6,2	6,4	4,8	6,2	6,9	5,6	4,7	10,0
Italy	4,3	4,8	4,2	3,4	4,4	3,8	4,5	5,0
Cyprus	1,9	2,5	:	:	1,9	2,4	1,8	:
Latvia	3,4	:	:	:	3,3	5,1	:	:
Lithuania	4,8	5,0	:	5,8	4,1	5,3	4,8	:
Luxembourg	31,7	37,3	29,7	26,0	31,6	26,9	33,2	40,1
Hungary	6,2	6,8	6,8	6,2	5,9	5,7	7,6	6,9
Malta	8,8	13,5	11,1	6,5	7,1	9,2	11,5	:
Netherlands	38,2	42,8	44,4	33,1	35,1	35,1	43,0	45,2
Austria	19,3	17,8	23,5	20,6	18,3	16,1	23,3	26,8
Poland	13,5	12,3	16,4	13,7	12,5	12,5	14,6	18,2
Portugal	13,4	14,7	14,7	10,7	13,6	11,2	15,7	18,9
Romania	0,7	:	:	:	:	0,8	:	:
Slovenia	21,1	24,0	23,9	18,0	19,1	18,0	23,5	31,9
Slovakia	8,4	10,4	8,8	7,2	8,2	8,5	8,9	7,6
Finland	26,0	28,1	34,4	29,0	22,8	27,8	33,5	27,8
Sweden	32,2	33,4	41,6	30,9	27,4	31,8	36,9	38,2
United Kingdom	24,1	25,1	27,1	23,4	22,4	21,9	29,7	23,7

It can be somehow surprising that such form of employment is equally popular among men, and their rate in some countries is higher than for women. In the whole European Union the rate of men working at home is comparable with women (it reaches 14.3%), and in the case of having 3 or more children lower only by 2.2 percentage points.

In Sweden and Denmark, the rate of men who have 3 or more children fluctuates around 45% and is higher than in the case of women. Poland belongs to the group of countries in which the situation is different. The reasons for such a situation can be partly noticed in development of technology, universal access to the Internet and increasingly greater possibilities of sending the work results without the necessity of doing it in the office, and also better and better education of younger generation and dematerialisation of work.

Table 4: Percentage of employed men aged 20-49 working at home by number of children and age of youngest child in 2017 [%] (Eurostat)

Country	Total	Children age			no child	1 child	2 children	3 children or more
		less than 6	from 6 to 11	more than 12				
EU-28	14,3	16,6	16,9	12,3	12,7	12,6	18,0	18,2
Belgium	22,5	24,2	28,1	22,0	19,7	20,9	27,7	25,4
Bulgaria	0,7	:	:	:	:	:	:	:
Czechia	8,7	9,5	10,3	8,7	7,7	8,2	10,8	8,9
Denmark	35,0	43,3	42,7	35,7	26,9	35,1	45,2	44,3
Germany	11,2	14,0	13,8	9,9	9,9	10,9	14,7	15,0
Estonia	18,0	19,2	17,9	13,4	18,1	15,7	19,0	20,7
Ireland	14,9	17,4	18,6	13,2	12,3	12,9	17,0	21,6
Greece	4,3	3,3	5,2	2,8	4,8	2,8	4,7	4,1
Spain	7,8	8,4	8,3	6,8	7,5	7,0	8,9	8,6
France	20,0	21,0	25,5	22,2	16,5	20,5	24,2	22,7
Croatia	5,2	5,1	5,7	4,1	5,5	4,9	5,5	4,2
Italy	4,5	5,0	4,3	3,3	4,6	4,0	4,7	4,7
Cyprus	2,9	3,9	3,3	:	2,6	3,0	3,1	:
Latvia	2,8	:	:	:	2,8	:	:	:
Lithuania	4,3	:	:	:	4,4	:	:	:
Luxembourg	30,3	38,3	28,3	22,9	29,4	26,8	34,2	33,1
Hungary	6,0	7,2	6,8	5,4	5,4	5,2	7,7	7,8
Malta	6,0	8,7	9,3	3,0	5,0	4,2	10,2	:
Netherlands	37,8	43,9	46,3	33,6	33,6	35,6	45,7	45,4
Austria	21,7	23,9	28,2	22,8	19,2	20,9	27,6	27,8
Poland	13,0	13,2	15,2	12,2	12,0	11,9	14,7	15,2
Portugal	14,5	17,8	16,4	12,0	12,9	12,9	18,5	20,3
Romania	0,5	:	:	:	:	:	:	:
Slovenia	16,4	19,2	20,9	15,9	13,4	17,4	18,5	25,4
Slovakia	8,0	9,8	8,3	5,8	7,8	7,7	9,5	5,5
Finland	30,3	37,3	43,0	34,6	25,9	34,0	43,2	37,0
Sweden	34,3	40,8	45,4	38,2	27,4	35,6	44,1	45,2
United Kingdom	23,2	25,4	29,0	20,4	21,0	22,0	30,9	20,7

Summing up, the presented data show increasingly larger prevalence of WLB concept and its implementation, even though the process does not proceed uniformly in the entire EU. The countries of Western and Northern Europe, in which the partner family model has been preferred for several decades, cope with reconciling professional and family life considerably better than the countries located in the south of Europe and some countries of Central and

Eastern Europe. In many cases changes in terms of law, but firstly changes in mentality both on the side of the employers and the workers are necessary.

5. CONCLUSIONS

According to WLB concept which emphasises that man finds self-fulfilment not only thanks to work, but also successful private life, maintaining balance between various spheres of life is one of the priorities. Expectations in this area is especially presented by young workers from generation Y, i.e. people born after 1980. They do not see happiness in traditionally approached professional career, but in harmonious and satisfying life. In response to their expectations various new solutions started to be implemented, both on micro scale (enterprise) and on macro scale that include legal regulations related to the possibilities of flexible employment (e.g. teleworking or part-time work) as well as facilitations introducing changes for workers who become parents (e.g. paternity/parental leaves). However, their development does not proceed equally. In the case of some EU countries, especially Nordic ones, declarations concerning WLB find reflection in facilitations in the sphere of employment. People who have children can reconcile professional and family life for example thanks to the possibility to work from home or doing part-time work, but also access to childcare institutions, including creches or kindergartens. However, in the south of Europe, this type of solutions is not common. In the culture of the region, tradition of professional work of women is not ordinary, and due to difficult situation on the labour market, employment opportunities are limited. Similar problems, even though resulting from different reasons can be observed in some countries of Central and Eastern Europe. Therefore, it seems important to understand that implementation of procedures in the sphere of work-life balance is profitable not only for workers but also for the employers and the whole society. It represents more harmonious and peaceful development of the society in which professional success will not have to mean a failure in the sphere of private life.

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THE ROLE OF MARKET KNOWLEDGE IN DETERMINING MARKETING STRATEGIES: A CASE STUDY

Benali Amina

University of Bechar, Algeria

Amina22benaliste@yahoo.fr

ABSTRACT

Today's business environment characterizes by many changes, so economic institutions must adopt market knowledge to reinforce the strategic choice. This is what this study attempts to confirm with a questionnaire addressed to 30 workers at the Condor enterprise in Algeria. The study used a five-dimensional Likert scale. Some statistical methods using to analyze the data: arithmetic mean, sample standard deviation, correlation coefficient, simple regression. The study concluded that market knowledge is imperative to support marketing strategies (cost strategy, differentiation strategy and focus strategy) in the Algeria's home appliance market. The paper gives a lot of direction on the efficiency of market knowledge. In the first place, our results prove that market knowledge comprises of a several measurements, each measurement having its very own effect on marketing strategies. This stresses the need for a full scope of measurements in the marketing strategies advancement. Albeit numerous organizations perceive the importance creating market information, there is a propensity among supervisors to overemphasize one measurement while disregarding others. The condor institution has to realize the customer more contrasted with in the wake of knowing the contenders. This may make a divided market and debilitate the efficiency of the learning age framework. Because the customer and the competitor are separate objects of perception, firms must use different sets of cognitive dimensions to learn about and understand them. This is the same result as Li and Calaantone in 1998. At the same time, this study focuses on developing knowledge for emerging institutions in Algeria and provides some useful sources for future research.

Keywords: *Cost strategy, Differentiation strategy, Focus strategy, Market knowledge, Marketing strategies*

1. INTRODUCTION

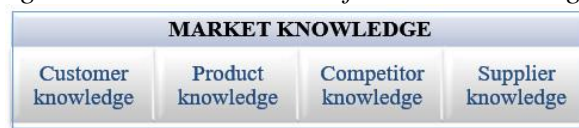
The Rapid economics' changes forced the institution to constantly seek a new competitive advantage in which it can withstand these changes. There have been many writings and research on sources of competitive advantage within the target market. One of the most important of these sources is knowledge market. Knowledge markets are defined as value exchange systems where the quantity, quality and terms of interactions amongst agents are determined primordially by the dynamic properties of intellectual capital creation and exchange. Such properties include the attributes of knowledge-based value production as well as a distinctive ethos and organizational design. (Carrillo, 2016, p. 264). This study puts market knowledge under the microscope to weigh the degree of its impact in creating and supporting the competitive strategy in the target market. At present, organizations are aware of the role played by market knowledge in general in the success of their policies and achieving their aims in the market. Therefore, this study sought to ask what market knowledge is and what role it plays in creating or supporting competitive strategies in the target market by measuring Relationship between them in a statistical way. The general problem reflected in: What is the impact of market knowledge in creating a competitive strategy in the target market?

2. LITERATURE REVIEW

The topic of market knowledge have seen a great deal of scholarly attention in recent years and arguably will be even more the next few years (Deshpande, 2001 , p 7).

Market knowledge defined as organized and structured information about the market. Here, organized means it is the result of systematic processing (as opposed to random picking), and structured implies that it endowed with useful meaning (as opposed to discrete items of irrelevant data). (Li, T., & Calantone, R. J., 1998, p 15). Market knowledge organized structured information about the market, including customer needs, market trends, and competitors' behaviors (Marinova, 2004). Firms with more MK are in a better place to detect market evolutions and adapt their strategy in the long run (Zhou & Li, 2012). So Market knowledge has become the major asset of modern businesses and the key to keep their competitiveness. To compete effectively, firms must leverage their existing knowledge and create new knowledge that favorably positions them in their chosen markets. (Hou, J. J., & Chien, Y. T. 2010 , p 97). The study of Matsuno & Mentzer (2000) concluded that market knowledge is very significant in choosing marketing strategy that enables the organization to improve performance and adapt to market conditions. The study added that competitive advantage is necessarily dependent on market share and sales growth compared to competitors in the target market. Matsuno & Mentzer emphasize that competitor knowledge is a benchmark for benchmarking performance. Furthermore, Mitra and Golder (2003) went into a new concept of near-market knowledge, which means the organization's acquisition of market knowledge from experiences in similar markets. While the study of Gima & Luca (2007) discussed several key factors that illustrate the market knowledge importance of in obtaining the best strategic choice for institutions. This study sought to find the positive impact of the attributes of market knowledge (capacity, depth, explicitness and specialization) and job collaboration on the creative performance of products, thus allowing them to create a sustainable competitive advantage. The results have shown that the failure to invent new products is the lack of market knowledge of the four attributes. The earlier studies dealt with several aspects of market knowledge, so that each study took one axis of market knowledge and studied its impact on determining the competitive strategy of the institution and its role in creating competitive advantage in a specific market. The current study can take advantage of the positive points mentioned in earlier research and follow-up new aspects that have not been exposed to these studies by linking all the axes of market knowledge and measuring their impact on the choice of strategy in the target market. Which is an integral model of the study. The dimensions of market knowledge: In order for market knowledge to cover its effective role it must integrated into four main axes as shown in the following figure:

Figure 1: The dimensions of market knowledge



Customer knowledge is an initiative for continuous improvement in the services and products provision to customers, using their ideas and needs. (Saloman and all 2011) . customer knowledge have different Variables , first focus on knowledge from the customer (i.e. knowledge residing in customers), rather than focusing on knowledge about the customer, as characteristic of customer relationship management.(Gibbert, & Probst, 2002). Product knowledge can defined as product related information stored in memory, such as information about brands, products, attributes, evaluations, decision heuristics and usage situations (Marks and Olson 1981). The concept is considered being of crucial importance among consumer researchers, not at least due to the following :(Fred & Kjell , 1986).

- First, knowledgeable consumers expected to have superior ability in approaching new information. Due to more developed knowledge structures such consumers are assumed more able to interpret and integrate new information than are their less informed counterparts (Johnson and Russo 1984; Chase and Simon 1973).

- Second, product knowledge assumed to impact the decision-heuristics applied in handling buying decisions. A few examples may clarify this point. Park and Lessig (1981) found informed consumers to make more use of functional attributes than did their less knowledgeable counterparts. Consumers low in product knowledge assumed be more inclined to seek external information than are consumers high in product knowledge (cf. Cox 1967; Newman 1977; Punj and Staelin (1983). An inverted U-shaped relationship between product knowledge and intensity of information search due to lower ability to handle and integrate among consumers low in product knowledge, have, however, been reported (Bettman and Park 1980).
- Competitor knowledge composed of the key capabilities of rival firms. Moreover, the amount, timeliness and accuracy of competitor intelligence figure the ability of one company to respond to competitive moves on a global scale(Tseng , 2009). Similar to customer knowledge competence, competitor knowledge competence means the ability to acquire, interpret and integrate information about the global competitive environment. Competitor knowledge is one of the market knowledge competencies required to do success in the marketplace, on that expected to have a significant positive impact on company performance (Kohli & Jaworski, 1990). When knowledge dispersed among firms (Enberg, 2012) and firms depend on each other's knowledge (Khanna, Gulati, & Nohria, 1998),knowledge sharing, i.e., “the act of making knowledge available to others” (Ipe, 2003, p. 341) increases a firm's stock of knowledge and enhances its performance (Chevallier et al., 2016).
- Supplier knowledge: used to help the decision-making process by linking customer demands with supplier capabilities, so that inventory costs can minimized (Yeniyurt, Cavusgil & Hult 2005) . The suppliers’ knowledge of design and manufacturing should thus be used by any firm that seeks to make sure the competitive advantage of a new product. Therefore, similar to that derived from customers, supplier knowledge must include in the market knowledge (Tseng , 2009).. This knowledge expected to have a positive impact on firm performance by constituting a competitive advantage in the marketplace (Barney, 1991).

3. METHODOLOGY

3.1. Research Framework and Hypothesis Development

The following table illustrates the main variables in the general hypothesis, namely the market knowledge and the marketing strategy of the target market.

Table 1: Basic variables of the study

Variables	Independent variable Market knowledge	The dependent variable
1.	Customer knowledge.	Marketing Strategy
2.	Product knowledge.	
3.	Competitor knowledge.	
4.	Supplier knowledge	

This study focused on four independent variables and a dependent variable (they will referred to in the study model); and conducted in the period between 25-04-2017 and 15-06-2018. The questionnaire distributed to the workers of Condor Algeria with several points of sale across the country.

Figure 2: Study model

Based on the basic problem posed by the research, the general hypothesis is as follows: "There is a significant relationship between market knowledge and marketing strategy in the target market." The following hypotheses divided:

- H1: Customer knowledge has a positive and direct effect on marketing strategy
- H2: Product knowledge has a positive and direct effect on marketing strategy.
- H3: Competitor knowledge has a positive and direct effect on marketing strategy.
- H4: Supplier knowledge has a positive and direct effect on marketing strategy.

3.2. Simplifying

The sampling method used in this study was non-probability sampling, where it is difficult to find part of the population. Specifically, this study used the proper sampling method, a sampling method that collects information from the part of the population (respondent) who intends to share the information requested. This study conducted in Algeria, and collected data from 30 participants.

4. RESULTS

4.1. Characteristics of the study sample

- Gender: The number of men was 17, representing 56.7% of the study sample. The number of women was 13, with 43.3%. The most interested in market knowledge were men.
- Age: The largest group of respondents was between 25 and 35 years of age at 36.67%, followed by the third tranche (35 years to 45 years) by 23.33%, followed by the two segments (less than 25 years) and more Of 45 years) by 20%. The most sensitive segment of the concept of market knowledge is a slice of 25 to 35 years.
- Academic Qualifications: The percentage of the members of the sample in terms of their academic qualifications varied among the university by 70%, which is the most attractive group for the subject studied. The percentage of people with post-grad and secondary qualification was 16.67% and 13.33% respectively. It will noted that the target sample included persons with positions that must scientific qualification for their employer
- Experience: The years of experience that characterized the interviewer were as follows: The most sensitive categories are those with years of experience (5-10 years) and (11 to 15 years).

- Career level: The class of department heads was 56.7%, then unit managers 33.3%, followed by administrative managers with 10%.

Table 2: characteristics according to years of experience

Years of experience	Percentage of sample
Less than 5 years	%40
5 to 10 years	%23.3
From 11 to 15 years	%33.3
More than 16 years	%3.3

4.2. Testing the hypotheses

The hypotheses tested using the square of Kai, and based on the Likert scale in balancing the answers as follows:

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

The results of Table 03 show that the chi-squared test for the questions associated with the first hypothesis write mostly that they have statistical significance and are less than 0.05. Except in the first term, as the significance level increased from the degree of confidence specified and this is a sign of refusal to impose nullity and acceptance of the alternative hypothesis, so there is a relationship of statistical significance between market knowledge and support marketing strategy in the target market.

Table 3: The respondents' answers to the first hypothesis questions

The number	The Paragraph	chi-squared test	statistical significance
1.	The organization monitors the needs of customers to meet them quickly in the target market is necessary.	12.011	0.78
2.	- The organization tracks the opportunities of market shares to positioning in the new market.	28.471	0.080
3.	- The organization is trying to acquire opportunities to shift customers from competitors.	30.297	0.003
4.	- The organization monitors the relationship between the client and her people until he make a distinctive mental image.	29.32	0.02
5.	- The organization can change its products and services according to the customer's wishes.	42.77	0.001

Respondents' responses to the questions of the second hypothesis led to the following results: (Table 4). It is clear from the results of the above table that chi-squared values in most of the paragraphs associated with the second hypothesis is less than (0.05) except the fourth paragraph, which is a clear sign of the lack of understanding of the workers the concept of market knowledge in its real sense.

Table following on the next page

Table 4: The respondents' answers to the second hypothesis questions

The number	The Paragraph	chi-squared test	statistical significance
1.	- The interest of the institution to suppliers of competitors is necessary to support marketing strategy.	30.011	0.005
2.	- Learn more about the research and development of competitors allows the institution to support marketing strategy.	26.50	0.009
3.	- Checking distribution channels used by competitors to support marketing strategy	40.06	0.000
4.	- Investigating the movements of competitors helps to support marketing strategy	14.52	0.89
5.	- Checking possibility of issuing a new product from competitors helps in developing marketing strategy.	29.50	0.020
6.	- Constant measurement of threat's degree imposed by the current or prospective competitor is necessary to support the marketing strategy.	25.11	0.090

Respondents' responses to the questions of the third hypothesis led to the following results:

Table 5: The respondents' answers to the third hypothesis questions

The number	The Paragraph	chi-squared test	statistical significance
1.	- Full knowledge of production models and experiments helps to support marketing strategy.	29.71	0.003
2.	- Knowledge of the current production process and possibility of developing it supports the marketing strategy in the target market.	24.414	0.081
3.	- Monitors new uses helps in developing marketing strategy.	31.075	0.002
4.	Tracking developments in the field of information and communication systems supports marketing strategy. .	34.66	0.004
5.	- Productive information security supports marketing strategy.	38.135	0.001

It is clear from the results of the above table that the values of the square of Kai are statistically significant except for the second paragraph, since the confidence interval is greater than the confidence limits. This is because the Condor people consider the change and development of the production process as a kind of additional cost. market . Thus, the nullity's imposition and acceptance of the alternative hypothesis rejected. The results of the following table show that the chi-squared test for the fourth hypothesis mostly a significant value and are less than 0.05. Except in the fourth paragraph, as the degree of statistical significance increased from the level of confidence specified and this is a sign that supplier's knowledge support the marketing strategy.

Table 6: The respondents' answers to the fourth hypothesis questions

The number	The Paragraph	chi-squared test	statistical significance
1.	- The organization is trying to shape a good relationship with its suppliers to support the marketing strategy	12.011	0.78
2.	- The organization tries to explore the characteristics of each supplier to integrate them into the marketing strategy.	28.471	0.080
3.	- Supplier's monitoring is important to build marketing strategy.	30.297	0.003
4.	- Commitment to the period of fulfillment supports marketing strategy.	29.32	0.02
5.	- The organization may change its suppliers and services according to its strategy.	42.77	0.001

5. CONSLUSION

The study showed the following results. There is a high degree of awareness of the workers of the Condor of Algeria for the term market knowledge, but in a random framework and this is what we see in the answers surrounding the hypotheses' acceptance :

1. By confirming hypotheses we can also conclude that market knowledge is very important in the household electronics market and is a key reason in adapting to the changing environment.
2. Condor adopts market knowledge. It tracks customers and the cell responsible for that falls within the commercial interest alone. However, listing them under one interest may hamper the field of knowledge, which supposed to cover all interests.
3. The Condor Foundation is still somewhat distant from the subject of market knowledge, which has made its members indifferent to basic concepts. Their signs of interest appeared in the form of scattered terms that did not live up to the marketing concept we were looking for.
4. Under the new technologies known by the world of electrochemistry, the market knowledge of the Algerian institution is an absolute necessity, the members of the institution must believe in it.:

The study's recommendations are summarized in:

- The study requires the decision makers in the Condor Foundation to check the market knowledge system in its serious sense and try to put it into an organizational framework, so that it will produce well and the institution will keep up its market share in a competitive way.
- The system of market knowledge can applied only to the will of people. Therefore, the behavior of the members of the institution must directed at understanding the subject and then do with its application as a doctrine to adopted.

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UNIVERSITY-BUSINESS COOPERATION FOR DEVELOPEMENT: A SYSTEMATIC REVIEW

Boukhari Nada

*Ph.D candidate, Faculty of Economic and Social Juridical Sciences, Casablanca
AinSebaa, Hassan II University in Casablanca, Morocco
nadaboukhari1992@gmail.com*

Lamari Siham

*Faculty of Economic and Social Juridical Sciences, Casablanca
AinSebaa, Hassan II University in Casablanca, Morocco
siham.lamari@gmail.com*

ABSTRACT

Improving and strengthening university research capacity have the inherent potential to generate a sustainable economic and social development. This means that the university needs to be engaged in innovation, especially when it comes to manage the impact of academic research on its ecosystem. So ideally, the transfer of ideas and data must be fluent and continuous between the academic sphere and the industrial, technological, social or economic spheres. This made the role and connections of the university an extensively studied topic over the last decade, giving rise to the triple helix economic model. This model advocates a new dimension of university-business-government relations. Because we can no longer tolerate an ambiguous relationship between institutions and functions, as it is necessary to assess how, up to when and to what extent the institutional arrangements encourage synergies between the different actors of development, in this case; "knowledge producers (universities)" and "capital producers (companies)". In this paper, we present a systematic review of the triple helix model for development with a focus on university-industry collaboration. The literature data is synthesized to show the strength factors and the barriers that the government faces to implement and catalyze synergies between these actors. The selection of articles dealing with this axis was based on their indexation and citation rate. This survey highlights how the literature defined the university-business partnership for development, what are the obstacles and success factors, and what are its social and economic benefits, according to published articles. We will also identify where knowledge gaps lie, mainly when it comes to underdeveloped countries, with recommendations for future research.

Keywords: *Economic development, innovation factors, transfer of knowledge, triple helix model, university-business partnership*

1. INTRODUCTION

Knowledge is power (Francis Bacon 1597); This quote, which was put forward almost hundreds of years ago, has never lost its veracity. Today, it illustrates more than ever the key to evolution and development. Indeed, besides the knowledge economy, many societies are now called "knowledge society" in order to honor the trivial role and impact of knowledge on business, politics, economy, science and academia (Stehr, 2012). These communities are characterized by a high potential for creating scientific and technological knowledge. We live now in an era of global opportunity. The emergence of Collaborative Network Organizations is generating new opportunities for cross-sector partnering and the exchange of scientific and technological knowledge (Dutton, 2012, pp.211-230). New Innovation ecosystems (IE) are increasingly gaining importance thanks to their promising potential to leverage regional development (Rabelo, Bernus, and Romero, 2015, pp. 323-336). In fact, the high correlation between economic development and innovative production of knowledge has been widely discussed in

the scientific literature (Howells, 2002, pp.871-884). It is a consensus now that gathering efforts to work on innovative outputs contributes to greater intellectual capital (Foray and Lundvall, 1998, pp.115-121), new market creation (Amesse and Cohendet, 2001, pp.1459-1478), sustainable economic growth (Cooke and Leydesdorff, 2006, pp.5-15), job creation (Capello, Olechnicka, and Gorzelak, 2012), wealth (Ribeiro and Nagano, 2018, pp.207-219), and a higher standards of living (Milberg, 2004). The value of collaborative research (Etzkowitz and Klofsten, 2005, pp.243-255), the imperative of knowledge management (Rowley, 1999, pp. 416-420), and technological transfer (Coccia, 2004, pp.31-51), are now an evidence for driving forward economies (Williams, 2014, pp. 73-86). Talking about knowledge production refers directly to the role of the university in this process. However, during many decades, business and government were considered much more significant institutions. In the course of our development and transition to a knowledge-based society, universities are beginning to play a more important role. One may ask the question, why are these universities, and not other institutes, organizations or divisions responsible for the production of knowledge? The fact is that young people are concentrated at universities - students, which gives these institutions a unique feature and an important competitive advantage. Indeed, the very organizational structure and nature of universities constantly supports the movement of human resources: new students come to the university with their ideas, they graduate from universities and begin to work for the good of society, with whom they share their knowledge. This process is renewed every year, each time bringing new potentials and ideologies, it constitutes an inexhaustible resource of continuous innovation. Thus, universities are the most flexible among all institutions known to us in terms of the generation and dissemination of knowledge. But still, knowledge itself is only an existing potential that cannot be effective and proactive without the opportunity for application and development (Hladchenko, 2016, pp. 376-389). That said, only active and effective use of it can increase the efficiency of national and regional economies. Since knowledge itself as a raw product does not transform the economy, and therefore, there is no guarantee that investments in research and higher education will bring economic benefits, especially when the research findings does not go beyond academic boundaries. This means that new mechanisms are needed to ensure the interconnection of economics and applied knowledge. The basis of such mechanism refers to an interaction between the university, the companies and the states on the principles of the triple helix model. Thus, this model includes the generation of knowledge in universities, research institutes, and business by creating synergies between actors. The aim of this paper is to highlight the importance of university-industry-government collaboration under the triple-helix model and to highlight the role of the university in the process of the innovative activity. After a discussion about the importance of the concept of collaboration for the economy, the paper then examines, using an analytical lens, the triple helix model to extract the main obstacles and drivers of its implementation in countries. We finally discuss how this model remains very specific to each ecosystem and why it is important to study it for each type of region, especially developing countries in which the stakeholders of the helix and especially governments have several specificities.

2. THE GENESIS OF COOPERATION IN ECONOMIC CONTEXT

The biggest challenge in today's fast-growing society is where to find the right ideas and the right people, because objectives are continuously pushed harder and functions are becoming increasingly specialized. The most promising way to generate intelligent solutions lies at the intersection of disciplines, experiences, and coalition of visions. A few years ago, the word "cooperation" did not appear in economic dictionaries like those of Pearce or Bannock et al. But the concept was more linked to gathering power in groups in order to survive. Darwin noted in "The Descent of Man" that group with greater cooperation among members tend to survive better.

For Darwin "If two tribes were competing, and the one tribe included a great number of courageous, sympathetic and faithful members, who were always ready to warn each other of danger, to aid and defend each other, this tribe would succeed better and conquer the other" (Darwin, 1896). Cooperation is however ubiquitous in the economy. This concept has gained ground thanks to the work of Elinor Ostrom, who has shown that economic agents can cooperate to avoid the destruction of public assets and collectively manage these assets (Ostrom, 2002). Then, the concept of cooperation began to gradually blur the traditional image of the struggle between actors for economic survival (individuals, businesses, and organizations, including governments). In the last decades, new management methods, based on knowledge transfer for innovation put cooperation on the agenda, particularly in terms of technology. With the genesis of new theories based on Knowledge management (Dalkir, 2013) and National systems of innovation (Etzkowitz and Leydesdorff, 1995, pp.14-19) the cooperation started to include new meanings. In their research paper based on a Study of the Cooperation Mechanism for Transformation of Scientific and Technological Achievements, Zhao et al. (2009) regarded the transformation of scientific and technological achievements from the view of cooperation and analyzed its characteristics by using the complex adaptive system theory. They conclude that the main characteristics of a successful cooperation system are the Openness, Non-linear and Non-uniform. Cooperation system operates and boosts the transformation of scientific and technological achievements, involving not only science and technology, education and economic fields but also the political and legal framework. Therefore, we must rely on the cooperation between business, government and research to create a market-laboratory result oriented and axis the development of communities on academic findings in all branches of science. In this way, after the era of consultation and outsourcing, local-level partnership and cooperation will increasingly become one of the most effective forms of work resulting from the raising awareness of exchange importance.

3. THE TRIPLE HELIX COLLABORATION MODEL FOR INNOVATION IN INNOVATION

In innovation studies, it has been always a challenge to model the different processes of generating an innovative environment. The tripartite relation of university-industry and government has been highlighted with the genesis of the national innovation systems and clusters industry. The triple helix is one of these models that try to capture the interaction between different innovation stakeholders and it is different from other models by bringing the university as a key actor in innovation on equal footing with industry and government. The main idea of the triple helix model is that the institutions which are capable of creating new knowledge must start to occupy a dominant position in the development path. The result is a new process of the innovation that differs both from the model of the national innovation system, in which enterprises were the main driver of innovation, and from the other models of innovation in which the government have the control and the leading role. Triple helix model was proposed for the first time by Etzkowitz and Leydsdroff in the mid-1990s (Etzkowitz and Leydsdroff, 1995, pp. 14–19, Leydsdroff and Etzkowitz, 1996, pp. 279–286) starting from the aim to study UIG collaboration at local and regional levels. The study began primarily with considering the relationship between universities and business. In the course of research, the inalienable role of the state became obvious, whose influence was palpable in any field. The state was everywhere - universities were part of the state, business was also part of the state. The state was the guiding force. This was the starting point for the development of the triple helix model, in which universities, business, and state are participants. Three different kinds of triple helix structure resulted from empirical studies, with particular reference to organizations types as showed in figure 1.

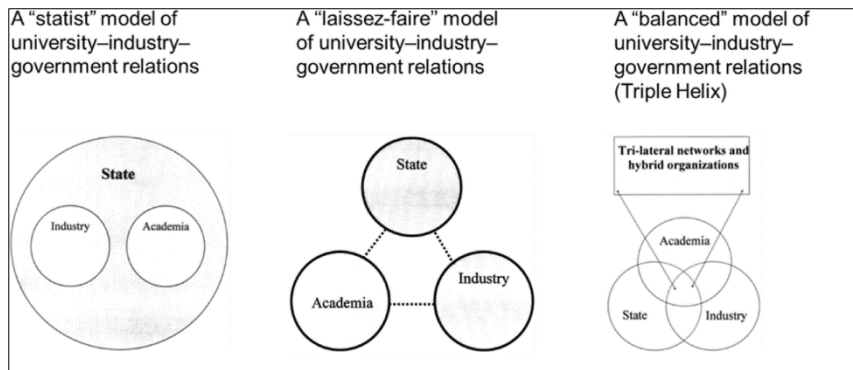


Figure 1: Triple Helix configurations [Etzkowitz and Leydesdorff, 2000]

In triple helix I (the statist model), the government is still taking the lead and "overshadows the university and industry structures". We notice this kind of relation in most of the underdeveloped countries where the state is governing over all the economic actors, university and industry relations does not present any exception. This type of weak structure was relieved also in Mexico, Brazil, and some Latin American countries. Studies of triple helix implementation in those regions showed that the centralization of administrative and financial decision-making has eliminated any development of the interests of the various partners to become active in the process of innovation. Institutional involvement was more a response to demands rather than any discussion of the strategic role of incubators, be it from a social, economic or technological point of view (Etzkowitz, de Mello, and Almeida, 2005, pp. 411-424). The triple helix II illustrates the cases where each actor works separately from the others. In this model, university, industry, and government are isolated bands and fail to cross borders. This structure represents an extremely limited relationship between the three actors. In the triple Helix II, the organization of the actors is characterized by individualism and implies a policy of laissez-faire, in reference to the evolution recorded in the operating modes and especially to illustrate the decrease of the dominance of the state present in mode 1. However, the "ideal" triple helix structure is triple helix III, where the three rings overlap. In this model, each stakeholder immerses himself in his partner's culture and participates in his role. Etzkowitz and Leydesdorff used the model to study knowledge-based economies. And since, a hundred works have been triggered in the majority of developed countries. Results of Etzkowitz et al. have been used in other works (Leydesdorff, 2012) as an operational study for regional development and incubators in the context of Brazilian universities (Almeida, 2005, pp. 258-277), Swedish (Etzkowitz, 2002), Chinese (Lu and Etzkowitz, 2008, pp. 5,11) Russian (Leydesdorff, Perevodchikov and Uvarov, 2015, pp. 1229-1238). Ye et al. (2013), focused on the comparison of China and the United States with the evolution of the triple helix. Kivinen and Varelius, (2003) illustrated the use of the triple helix in the field of biotechnology in Finland. Several other research studies on UIG network analysis for different countries/regions have been reported in the literature in recent years. Aware of the importance and utility of UIG network analysis, Leydesdorff et al. (2014), introduced an open-source software routine to measure relationship synergy in triple-helix and quad-helix indicators. In this new relational form, the actors maintain their traditional goals, while incorporating new features based on the philosophy of active contribution to its ecosystem. They become major actors of economic and social development at national, regional, and local levels, taking into account the concerns of society and new forms of student involvement in entrepreneurial activities then become a culture imbued in the spirit of each unit of the triad. Thus, in the mode 3 of triple helix, the interaction between universities, businesses and government is not only a process of connecting various fields of independent activity but rather a form of conjugation of their interests and objectives with a view to a common goal of sustainable economic development.

It is the innovative nature of the university that makes this type of collaboration an asset for sustainability because it represents a continuous flow of knowledge and human capital. It is an inexhaustible source of ideas and reflection because its main resource (the researcher or the student) knows each year a new genesis. Thus, the interconnection of the operating characteristics of each actor according to the conditions of the economy, science, education, and production, as well as other trends, constitute the main characteristics of an innovative economy. As said before, the main challenge of the triple helix paradigm is to reach the equilibrium where all three institutional spheres — universities, business, and the state — goes beyond their traditional missions, to play a new role, fulfilling the functions of other institutional spheres. Universities are engaged in education and research, but also contribute to the development of the economy, which has always been the prerogative of business. This happens through the creation of new companies in university incubators. Similarly, the business is improving its educational structure and partially performs the functions of universities, providing educational services. The traditional role of the state is to establish the norms and rules of the game, as well as to regulate the life of our society. Now the state is creating funds to provide financing for new business, thus starting to fulfill the functions of the business itself. Triple helix paradigm considers University-Business and Cooperation (UBC) as a synergistic relationship with a continuous flow of exchange and innovation that provides a solid foundation for the transition from an industrial to an innovative and knowledge society (Etzkowitz, 2003, pp. 293-337). UBC advocates moving from a dyadic university-business relationship to:

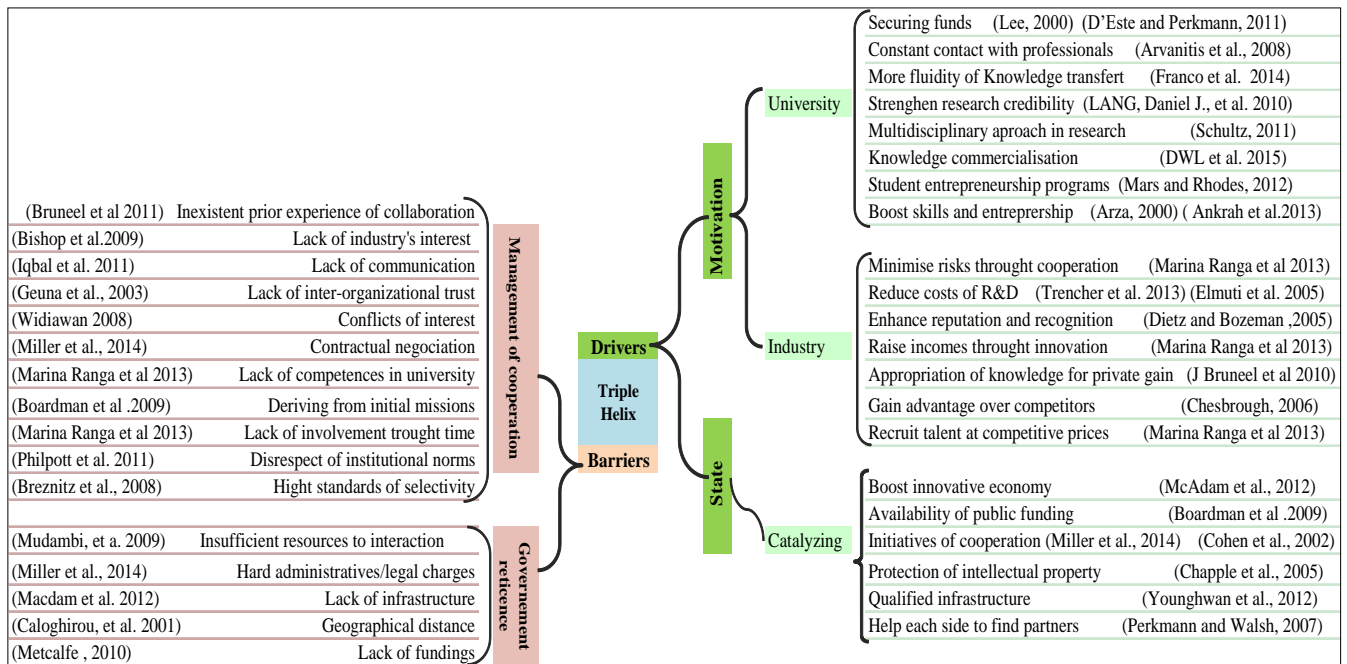
- Capturing the interaction between different innovation stakeholders;
- Bringing the university as a key participant in innovation on equal footing with industry and government;
- Providing an outlet for academic research in order to establish a triadic university-government-business relationship.
- Solving business problems;
- Finding new products;

4. DRIVERS AND BARRIERS OF IMPLEMENTING TRIPLE HELIX MODEL ACCORDING TO SCIENTIFIC LITERATURE

In order to advance knowledge in this area, this paper compiles the main drivers and barriers that resulted from the studies on this topic. But it must be noted that most of research papers were concentrated in countries with developed or emerging economies. It means that more factors can be revealed with the exploration of other type of countries.

Figure following on the next page

Figure 2: Map of major drivers and barriers of Triple Helix Model according to scientific literature (Source; Author's fieldwork)



5. DISCUSSION

Like any other model of economic development, the triple helix model must be seen as a beginning and not an end in itself. It is a structured way of generating knowledge and innovative processes for sustainable development. It must serve the regional economy by taking into account the different needs of each stakeholder. The studies showed that regions are now experiencing a process of radical transformation from distinct geographic, political and cultural actors into entities with a “triple helix” of business, science and state power, which are putting forward new innovative initiatives. Indeed, the criterion for the successful development of a region that has emerged on the basis of high technology is its ability to smoothly move from one technological paradigm to another. An ecosystem conducive to innovation and enterprise creation becomes the driving force that is able to create new technologies and business concepts, master them and implement them in the region. The reason for such an important transformation was the logic of the development of science, giving birth to more and more synthetic areas, which include both fundamental and applied research of interdisciplinary nature of development. In these areas, the links between scientists, technologists, and users become qualitatively different, as well as the functions performed by individual participants. But all these findings concerns only developed countries, as most of the Triple helix data, is gathered from countries with an initial strong rate of innovation and development. As said in our paper, the studies of triple helix started in the US, and then was extended to Canadian and European territories. That makes us question, how far this process is suitable for low income and underdeveloped region? Indeed, despite the revolutionary progress in triple helix research, it is still quite complicated to explain exactly why it is expressed so differently from one country to another. That makes the effective implementation of the triple helix model very specific to each region because many differences lie in the styles of leadership, governance systems, and type of business ecosystem. It would be a mistake to consider the simple fact of the interaction between governments, enterprises, and universities as a criterion for success, nor benchmarking and adopting foreign programs to apply the model in the local economy. The studies show that one of the major challenges is maintaining the motivation of the actors to stay involved in the cycle of cooperation.

Each country that wants to benefit from this model has to answer three big questions:

- The first question concerns the history of relations between government, business and universities.
- The second question concerns how far the legislation and administrative procedures facilitate the contractual steps of cooperation.
- The third question is whether local universities are able to raise the level of innovation and drive the construction of a knowledge-based economy.

6. CONCLUSION AND FUTURE WORK

Our study reveals that the majority of the reviewed papers are actually concentrated and focused on regions that were already prepared for the triple helix collaboration model. Therefore, there is a need for intensive research to provide additional insights into cause and effect, drivers and barriers of implementing this prodigious way of collaboration in low-income countries such as Morocco. Indeed, when looking at the governmental reports, and development plans, we can find government intentions to initiate triple helix collaborations on regional territories. As in accordance with the agreement signed in Dakhla in November 2010 between the Ministry of National Education and Scientific Research and the Ministry of Industry, Trade and New Technologies, the two ministries launch every two years the Competitiveness, University Business Partnership Award. Encourage the partnership between the world of scientific research and the socio-economic world, especially in the promotion of research and technology transfer and reward both research teams and companies engaged in innovation and collaboration processes. The question is how far the state initiative succeed to raise the Moroccan university - business cooperation to a triple helix level? Such question and more will be the subject of our future work, in order to measure how the triple helix model can be applied in a developing low-income country.

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ALIGNMENT OF LOCAL ENTREPRENEURSHIP INCENTIVE PROGRAMS WITH NATIONAL AND EU GUIDELINES

Ljerka Cerovic

*Faculty of Economics and Business, University of Rijeka, Croatia
ljerka.cerovic@efri.hr*

ABSTRACT

The paper reveals the importance of converging local self-government unit (LSGUs) – based entrepreneurship incentive programs to a higher-level strategy, or more precisely to the national and European entrepreneurship development strategic frameworks, primarily the Entrepreneurship Development Strategy of the Republic of Croatia 2013 - 2020, and the Europe 2020 Strategy. In this regard, the inclusion of these strategic guidelines and its elements in the criteria framework for defining LSGU policies aimed at promoting entrepreneurship at the local level can be proposed. There is no doubt that a complete framework for promoting entrepreneurship at LSGUs level should be based on a wide range of criteria, from mandatory to specific, to comply with the formal frameworks for promoting entrepreneurship as a local government strategy, to the substantial criteria such as the impact of small and medium-sized enterprises on economic growth of a local community, or the criteria regarding the contribution to the wider community, and some others as well. Among many criteria for promoting entrepreneurship at LSGUs level, the focus of this paper is set on the convergence criteria that ensure the adoption of the national and EU strategic guidelines. Convergence criteria impose as a natural and necessary strategic direction for development of LSGU entrepreneurship strategies.

Keywords: *Promotion of Entrepreneurship, Local Self-Government Units, Europe 2020 Strategy, Entrepreneurship Development Strategy of the Republic of Croatia 2013 – 2020*

1. INTRODUCTION

Developing a good theoretical and conceptual framework that enables local self-government units (LSGUs) to effectively promote entrepreneurship at the local level relies on findings, standpoints, opinions, judgments and recommendations derived from the analysis of local government performance, taking account of local issues and all development needs and priorities, in compliance with laws, rules and regulations related to small and medium-sized enterprises (SMEs) development at the local level and, above all, in accordance with the strategic guidelines for development of the European Union and the Republic of Croatia, as its member state, as umbrella bodies that support small business development. For a further discussion of the importance of aligning local entrepreneurship incentive programs to the national and European guidelines, the authors began with exploring the importance of small and medium-sized enterprises in EU and Croatia considered key to ensuring economic growth at LSGUs level. The paper then identifies the Europe 2020 Strategy as the main strategic framework for development of the EU and its member states, among which Croatia, acting as a guide for small business development at LSGUs level. Finally, the paper highlights the need for convergence of strategic measures that play an important role within local, national and European plans in promoting SME development and proposes convergence criteria for adoption of the EU and Croatia's development strategies to promote entrepreneurial activity at LSGUs level.

2. THE ROLE OF SMALL AND MEDIUM-SIZED ENTERPRISES IN EU AND CROATIA

In EU, over 99% of businesses are SMEs, which is the basic underlying argument to approach the issue as a priority sociological phenomenon, as it can provide solutions to many key issues of modern society - economic growth and development, competitiveness of enterprises, creating new jobs and maintaining existing ones, etc. Small and medium-sized enterprises (SMEs) have a significant role to play in Europe's national economies and are key factors that affect social and economic stability of EU countries. Small businesses confirm their role as main generators of new jobs, innovation, economic dynamism, and stronger social inclusion in the European Union. In EU, SMEs comprise 99.8% of all firms and employ 2/3 or 66.6% of employed persons (European Commission, 2013:7). In Croatia in 2013, SMEs made up 99.7% of all business employing 69% of all employees (Širola i Iskra, 2014), respectively 99.7% of all business employing 71.1% of all employees in 2016 (European Commission, 2017: SBA Fact Sheet 2017: Croatia). The definition of micro, small and medium-sized enterprises is based on the following criteria: 1) number of employees, 2) annual turnover, and 3) annual balance sheet total/fixed assets, of which two must be fulfilled in order to qualify as an SME. When defining SMEs, a required number of employees is a mandatory requirement that must be fulfilled, whereas only one of the following optional requirements need to be satisfied: annual turnover or annual balance sheet total/fixed assets. Pursuant to the Act on Incentives for the Development of Small Economy, small businesses comprise of micro, small and medium-sized enterprises (<https://www.zakon.hr/z/527/Zakon-o-poticanju-razvoja-malog-gospodarstva>):

- **Micro-enterprises:**
 - fewer than 10 employees (annual average)
 - annual turnover of less than EUR 2 million and/or annual balance sheet total/fixed assets not exceeding EUR 2 million.
- **Small enterprises:**
 - fewer than 50 employees (annual average)
 - annual turnover of less than EUR 10 million and/or annual balance sheet total/fixed assets not exceeding EUR 10 million.
- **Medium-sized enterprises:**
 - fewer than 250 employees (annual average)
 - annual turnover of less than EUR 50 million and/or annual balance sheet total/fixed assets not exceeding EUR 43 million.

A comparison of the structure of SMEs and large enterprises between EU-28 and Croatia in 2016 is given in Table 1.

Table following onm the next page

Table 1: Comparison of the structure of SMEs and large enterprises between EU-28 and Croatia in 2016 (the author's research, based on: European Commission (2017) Annual report on European SMEs 2016/2017; European Commission (2017) SBA Fact Sheet 2017: Croatia)

	Micro	Small	Micro & Small	Medium sized	SME	Large	Total
Number of enterprises (000's)	22.232 / 139,67	1.392 / 10,66	23.624 / 150,33	225 / 1,77	23.849 / 152,10	45 / 0,39	23.894 / 152,49
Percentage of enterprises	93,1 / 91,6	5,8 / 7,0	98,9 / 98,6	0,9 / 1,1	99,8 / 99,7	0,2 / 0,3	100 / 100
Number of employees (000's)	41.669 / 317,99	27.982 / 235,64	69.651 / 553,63	23.398 / 169,02	93.049 / 722,65	46.665 / 294,21	139.714 / 1.016,86
Percentage of employees	29,8 / 31,3	20,0 / 23,2	49,8 / 54,5	16,8 / 16,6	66,6 / 71,1	33,4 / 28,9	100 / 100

It is evident that SMEs play an important role in both the EU-28's economy and the economy of Croatia. It should be noted that both economies recorded almost equal percentages of total in both observed categories (number of enterprises and number of employees). Moreover, the SME share (71.1%) of total employment in Croatia was even higher than the EU-28 average. The above-mentioned relationship emphasizes the importance of the role of SMEs at all levels of economic development as well as that of LSGUs, which is particularly relevant in terms of promoting development of small and medium-sized enterprises at LSGUs level and defining a criteria framework for evaluation of eligibility to participate in any of the incentive programs.

3. EUROPE 2020: STRATEGIC FRAMEWORK FOR DEVELOPMENT OF EU AND CROATIA AS ITS MEMBER STATE

The European Union seeks to coordinate its member states' activities in the area of promotion and development of small and medium-sized enterprises, and thus of the entire society, through strategy and action plans, as well as various programs for financing small and medium-sized business. In this regard, among which, the 2000 European Charter for Small Enterprises, Lisbon Strategy (2000-2010), Europe 2020 Strategy, and Entrepreneurship 2020 Action Plan must be mentioned. New strategy documents occurred in response to the economic crisis, with the aim of creating conditions for a more competitive economy with higher employment rates. In that sense, the EU Commission undertook a thorough review of strategy documents, notably the Lisbon Strategy (EU Strategic Development Plan 2000-2010), according to which, EU should have become the most competitive and dynamic economy of the world by 2010 (European Commission, 2000:11). The result of the review of the Lisbon Strategy was the Europe 2020 Strategy, which laid the foundation for a future smart, sustainable and inclusive growth (<https://vlada.gov.hr/europa-2020/19454>), with a focus on competitiveness. The Europe 2020 flagship initiative An Integrated Industrial Policy for the Globalisation Era addresses competitiveness of the European industry, with particular emphasis on the growth of small and medium-sized enterprises and the improvement of their business environment (European Commission, 2010a: 3). The Entrepreneurship 2020 Action Plan, as an underlying plan that governs realization of European entrepreneurial potential (primarily new and young entrepreneurs), removing existing barriers and enabling deep changes in entrepreneurial culture oriented towards new skills and capabilities, should also be highlighted. The plan defines three priority areas (European Commission, 2010b: 3): 1) Developing entrepreneurship education, 2) Creating a favourable business climate, 3) Highlighting entrepreneurial role models and attracting specific groups (e.g. young people, women, etc.).

The Europe 2020 Strategy consists of 5 headline targets expressed as quantitative goals (<https://vlada.gov.hr/europa-2020/19454>):

1. Employment,
2. Research&Development,
3. Climate change and energy sustainability,
4. Education,
5. Fighting poverty and social exclusion.

The success of the Europe 2020 Strategy largely depends on the ability of EU member states to play their part in implementing the necessary reforms at the national level, where each member state has adopted its own national goals in each of these areas. There is a necessary connection between the main objectives of the Europe 2020 Strategy and those of the Development Strategy of the Republic of Croatia as shown in Table 2.

Table 2: Achievement of Europe 2020 Strategy objectives in EU vs. Croatia
(https://www.cms.hr/system/article_document/doc/256/Strategija_EU_2020_Policy_analiza_Vladimir_Cvijanovic_final.pdf; <http://edic.pulapola.eu/it/novita/post/novosti/kako-eu-napreduje-prema-ostvarenju-ciljeva-strategije-europa-2020/>; <http://odgovorno.hr/o-dop-u-strucno/dobro-je-znati-strategija-europe-2020-strategija-za-pametno-odrziv-i-ukljuciv-rast-prioriteti-ciljevi-i-poticajna-sredstva-fondovi/>)

HEADLINE TARGET	EU27 2011	Croatia 2011	EU28 2020	Croatia 2020
1. Employment (the employment rate of the population aged 20–64)	68,6%	57%	75%	59%
2. Research & Development (percentage of GDP invested in R&D)	2,03%	0,75%	3%	1,4%
3. Climate change and energy sustainability				
3a. Reducing greenhouse gas emissions as compared to 1990 levels	(85%)	(95,2%)	(80%) -20%	(80%) -20%
3b. The share of renewable energy in final energy consumption	12,5%	13,8%	20%	20%
3c. Increasing energy efficiency	-	-	20%	20%
4. Education				
4a. The share of early school leavers	12,9%	4,1%	10%	4%
4b. The share of the population aged 30–34 having completed tertiary education	35,5 %	24,5 %	40%	35%
5. Poverty and social exclusion (the number of people living below national poverty lines)	119.600.000 (24,2%)	1.382.000 (32,7%)	100.000.000 (- 20 mil)	1.282.000 (- 100.000)

In 2002, Croatia harmonized national legislation with certain aspects of the EU's Small Business Act (SBA) for Europe to encourage and support SMEs, through a national Act on Incentives for the Development of Small Economy (NN 29/2002), which was amended in 2007 (NN 63/2007), then in 2012 and 2013 (NN 53/2012 i 56/2013) and finally in 2016 (NN 121/2016). The national program provides guidelines for developing a small business economy, incentive measures and national implementing bodies, implementation activities, sources of funding, period of implementation of incentive measures and methodology for monitoring the implementation of specific measures. In Croatia, government programs for promotion of small business have been implemented since 2001 by the Ministry of Crafts and Small and Medium-sized Enterprises (2001-2003) and the Ministry of Economy, Labour and Entrepreneurship (2004-2012).

Today, the SME sector is regulated and promoted through a range of policies and programs, such as (<http://www.cepor.hr/wp-content/uploads/2015/04/Cepor-izvjesce-2016-HR-web.pdf>):

- Entrepreneurship Development Strategy of the Republic of Croatia 2013 – 2020, a document replacing all other policies and programs developed to support crafts and small and medium-sized enterprises; the first such strategic document adopted at the national level <http://www.europski-fondovi.eu/sites/default/files/dokumenti/Strategy-HR-Final.pdf>
- Women's Entrepreneurship Development Strategy of the Republic of Croatia 2014 – 2020 <http://www.europskifondovi.eu/sites/default/files/dokumenti/SRP%C5%BD%20%202014%20-%202020.pdf>
- Cluster Development Strategy of the Republic of Croatia 2011 – 2020 https://www.mingo.hr/public/Poduzetnistvo/Strategija_razvoja_klastera_RH12117.pdf
- Regional Development Strategy of the Republic of Croatia until 2020 http://europskifondovi.eu/sites/default/files/dokumenti/Nacrt%20kona%C4%8Dnog%20prijedloga%20Strategije%20regionalnoga%20razvoja%20RH%20za%20razdoblje%20do%20kraja%202020.%20godine_0.pdf#overlay-context=content/strate-ki-plan-ministarstva-rada-i-mirovins
- Innovation Strategy of the Republic of Croatia until 2020 <http://www.europskifondovi.eu/sites/default/files/dokumenti/Strategija%20poticanja%20inovacija%202014-2020.pdf>
- National Renewable Energy Action Plan until 2020 <http://www.europskifondovi.eu/sites/default/files/dokumenti/Nacionalni%20akcijski%20plan%20za%20obnovljive%20izvore%20energije%20do%202020.%20godine%20%28prijedlog%29.pdf>
- Strategy for Combating Poverty and Social Exclusion of the Republic of Croatia 2014-2020 <http://europski-fondovi.eu/sites/default/files/dokumenti/Strategija-siroma%C5%A1tvo.pdf>

For the purpose of this work, among the above-mentioned programs and policies that promote development of small business economy, the Entrepreneurship Development Strategy of the Republic of Croatia 2013 – 2020 should be emphasised. Its main objective is to enhance competitiveness of small businesses through five strategic steps (<http://www.europski-fondovi.eu/sites/default/files/dokumenti/Strategy-HR-Final.pdf>):

1. Improving economic performance,
2. Improving access to finance,
3. Promotion of entrepreneurship,
4. Improving entrepreneurial skills,
5. Improving business environment.

Consequently, it can be concluded that Croatia has recognized the need for the adoption of national strategy and action acts and plans and thus expressed its intention to follow EU's recommendations and opinions in terms of promoting entrepreneurship and the SME sector. By recognizing the importance of the EU SBA and its strategic objectives, Croatia has gained access to various EU funding opportunities and programs for SME finance. The most important sources of SME financing in EU are structural funds, among which the European Regional Development Fund, Cohesion Fund and European Social Fund. In addition, various EU programs such as COSME, Horizon 2020, Erasmus +, Creative Europe and others are also available to Croatia. The Funds will contribute to the achievement of specific EU objectives related to entrepreneurship, science, education, culture and other development priorities for the period 2014-2020.

4. CONVERGENCE BETWEEN LOCAL, NATIONAL AND EUROPEAN APPROACHES TO PROMOTING SME DEVELOPMENT

EU and national guidelines for the application of measures in support of promoting SME development need to be redefined into a lower-level, local government-based strategic programs, plans and measures, considering a hierarchical relationship and a tendency for convergence exist among these levels of authority. Literature review sources suggest that Croatia has successfully established a harmonized framework for the implementation of most of EU's priorities and objectives for entrepreneurship development on the national level, but significantly less on the local level. In view of sectoral goals, Croatia has so far adopted one-third of the EU's recommendations. However, when investigating the process of monitoring the effects of measures directed towards promoting entrepreneurship, the European Indicators System has recently been implemented only on the national level, not on the local level, considering there is a lack of infrastructure for creating local databases to ensure monitoring of local public expenditures and distribution of state-owned resources to local levels. Bearing in mind that cities and municipalities have their own specific needs, defined through LSGU development strategies, measures directed towards promoting entrepreneurship development, and the criteria for their definition should be based on the following vertical hierarchy: EU - state - county - LSGUs. Only such kind of a relationship, which reveals a connection between LSGU-based entrepreneurship incentive programs and strategies adopted at the national and EU level, yields the best outcome. Although local, national and European strategies do correspond in part, it should be noted that further steps need to be done in an effort to align LSGU-based measures of entrepreneurship development with the EU and national strategies for promoting entrepreneurship. In this regard, it is suggested that national and European guidelines for development of small business be recognized when building a criteria framework for promoting entrepreneurship at LSGUs level.

5. CRITERIA FOR CONVERGENCE TO EU AND NATIONAL STRATEGY TO SHAPE ENTREPRENEURSHIP PROMOTION STRATEGIES AT LOCAL GOVERNMENT LEVEL

Based on the analysis of strategic guidelines for development of small and medium-sizes enterprises in EU and Croatia and the need for alignment of high-level strategies into low-level strategies, convergence criteria are proposed to ensure LSGU-based measures in support of promoting entrepreneurship at the local level are aligned with the EU and national strategies. In that sense, all the previously presented proposals and guidelines have been systematized, categorized and formulated into a sort of criteria framework for promoting entrepreneurship at LSGUs level. The convergence criteria that ensure the adoption of the national and EU strategy at the local government level are outlined below:

- Europe 2020 Strategy:
 - Employment,
 - Research&Development,
 - Climate change and energy sustainability,
 - Education,
 - Fighting poverty and social exclusion.
- Entrepreneurship Development Strategy of the Republic of Croatia 2013 - 2020:
 - Improving economic performance,
 - Improving access to finance,
 - Promotion of entrepreneurship,
 - Improving entrepreneurial skills,
 - Improving business environment.

Table 3 indicates key criteria for promoting entrepreneurship at LSGUs level in terms of their definition and implementation.

Table 3: Criteria for convergence to EU and national strategy to shape entrepreneurship promotion strategies at local government level (the author's research)

List of Criteria	Description	
	Content	Implementation
Europe 2020 Strategy	Goals: Employment; R&D; Climate change and energy sustainability; Education; Fighting poverty and social exclusion	Implementing strategic objectives in entrepreneurship incentive programs
Entrepreneurship Development Strategy of the Republic of Croatia 2013 – 2020	Goals: Improving economic performance; Improving access to finance; Promotion of entrepreneurship; Improving entrepreneurial skills; Improving business environment	Implementing strategic objectives in entrepreneurship incentive programs

It is expected that such a multiple-criteria approach, along with implementing strategic guidelines for development of the EU and its member states (Europe 2020 Strategy) as well as national development strategies, will satisfy the specifics of business of all SMEs operating at LSGUs level, and serve as a framework for designing LSGU entrepreneurship development strategies.

6. CONSLUSION

Given the research groundwork and the purpose and objectives of this paper, aimed at aligning local entrepreneurship incentive programs with strategic guidelines deriving from European and national policies, it can be concluded that the importance of convergence between local, national and European approaches to shape entrepreneurship promotion strategies at LSGUs level, has been acknowledged. With the purpose of building a criteria framework for the promotion of entrepreneurship development at LSGUs level, the importance of convergence of LSGU entrepreneurship development guidelines with those stemming from the strategic framework for SME development at the national and European level, in particular the Entrepreneurship Development Strategy of the Republic of Croatia 2013 – 2020 respectively Europe 2020 Strategy, was investigated. Based on the analysis of strategic guidelines for SME development in the EU and Croatia, convergence criteria for enhancing entrepreneurship development at LSGUs level have been proposed: employment, research&development, climate change and energy sustainability, education, fighting poverty and social exclusion (under the Europe 2020 Strategy), as well as improving economic performance, improving access to finance, promotion of entrepreneurship, improving entrepreneurial skills, improving business environment (within the Entrepreneurship Development Strategy of the Republic of Croatia 2013 - 2020). Although the entire LSGU entrepreneurship promotion framework should be based on a wide variety of different criteria, this paper focuses on convergence criteria that ensure the adoption of the national and EU strategy, which, considering their vertical hierarchical structure, serve as a sort of umbrella guideline, to shape entrepreneurship development strategies at the local government level.

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THE ROLE OF VISUAL IDENTITY GUIDES AND BRAND BOOKS IN COUNTRY BRANDING – HOW TO GET INSPIRATION FROM FINLAND AND ESTONIA

Arpad Ferenc Papp-Vary
Budapest Metropolitan University, Hungary
apappvary@metropolitan.hu

ABSTRACT

Country branding (also known as nation branding) is actually nothing else than the technical application of branding for countries in order to improve the reputation of the country, thus attracting more tourists and investors, improving export, etc. – in other words, resulting in greater competitiveness and more money. In the past two decades, country branding has become a hot topic: country image centres and country brand councils have been created throughout Europe and the world. Their task is the same everywhere: to position the country, distinguish it from "competitors", create a uniform brand strategy, and coordinate the various messages about the country in a certain sense. One of the important elements of this branding activity is the visual identity guide defining the logo and colours used by the country and the basic visual implementations used in most frequently used offline and online communication tools. Although visual identity guides are extremely useful, we have to admit that they mostly serve as an aid for advertising agencies designated to country branding, helping them to create country advertisements that are as consistent visually as possible. However, if we want to achieve a greater impact involving the citizens in the promotion of their country, we need more: a so-called brand book. This tool also provides guidance verbally: it tells the "story" of the country – what are its typical attributes, why is it special, what is its character, what values does it represent, what messages does it communicate, and how – more precisely, how it should communicate in order to have maximum impact. Therefore, such a publicly available brand book may also be considered a knowledge centre or a knowledge management tool. The present article provides countries with advice on this topic through an analysis of the brand books of Estonia and Finland. The two countries were selected for several reasons. First, both countries created a well-devised and complex system that is easy to use. Second, their brand building is characterized by a lot of creativity from word games to emojis. Third, their identity building has a digital focus, providing state-of-the-art solutions. Fourth, they particularly encourage citizens to "engage" in the building of the country brand.

Keywords: brand book, brand identity, country branding, nation branding

1. INTRODUCTION: THE DIMENSIONS OF BRAND IDENTITY

In the for-profit world it is well-known that the communications of products and services are regulated by various manuals, but we can also find more and more such examples in the nonprofit sector. It can be said, however, that they mostly (or primarily) focus on visual appearance, although identity may have several levels. This is also true for country branding, also known as nation branding (DINNIE 2008). There are only a few countries where they cover every aspect listed below:

- Visual identity:
In many cases the only guidance for the branding process is a so-called visual identity guide, presenting the logo, the ways it could/should be used in each (marketing) communication material and the ways it must not be used. Ideally, the material also discusses colours. In an even better scenario, it also covers images, that is, what photos the country should use in its communication. In 2005, for example, people in Taiwan could vote on the 24 images to be

used in their communications materials worldwide (LI 2006). However, the visual identity work may also involve the creation of the country's/nation's own typeface or font as the examples of Finland and Estonia show. Moreover, an identity may have many other elements, but these are still limited to visual solutions.

- **Verbal identity:**
This is often simplified to a country slogan. However, difficulties start with the question if a country slogan is enough, or separate slogans should be created for the promotion of tourism, the attraction of investments, and the facilitation of product exports – or vice versa, is a country slogan necessary at all? Sweden, for example, is getting along quite well without it. At the same time, verbal identity does not only involve a slogan, but may also include expressions to be used on a regular basis (according to the target group), or search keywords that the country would use to appear in the top hits on Google. The whole idea of storytelling, that is, the national narrative also belongs here. In many cases, verbal identity is the distinctive feature providing the basis of the whole concept: for example, the Faroe Islands did this in the case of words beginning with the prefix "UN". We also need to take in account that there are more than 1500 so-called un-words in English, and this also works the same way in German or Danish, providing plenty of options for brand wordplays: unspoiled, unexplored, unbelievable, etc. As the brand book of the Faroe Islands says, "Perhaps ordinary descriptive words just are not adequate. Or perhaps (...) the best way to describe it is by setting it apart from the rest, by applying the inherent meaning of the small, yet powerful prefix, UN." (VISIT FAROE 2014)
- **Auditive identity:**
Another aspect of identity called sonic branding is often forgotten, although it may also be important. Let us think of Beethoven's Ode to Joy as an important symbol of the European Union in addition to the flag of Europe. However, in certain cases, a short signal could identify a country.
- **Brand book:**
This is a tool combining the functions above, but most importantly it tells the country's story including its features, unique attributes, character, values, messages, and the way it communicates itself. In such *brand books* it may be useful to introduce the country brand through a well-known branding model. One of these methods is the *brand key model* encompassing nine factors: 1) root strengths, 2) competitive environment, 3) target group, 4) consumer insight, 5) benefits, 6) unique selling proposition, 7) reasons to believe, 8) values, belief, personality 9) essence / brand idea. However, you do not necessarily have to adapt to such systems, and the framework may also be something completely different.

In the following, we discuss two cases as best practices regarding brand books: the examples of Estonia and Finland. We chose them for several reasons:

- Both states developed a very thought-out, complex system which is easy to use at the same time. They give clear guidance for advertising agencies for the creation of country brand advertisements or any other kind of communication that are also easily understandable by citizens.
- They expressly encourage citizens to "get involved" in the building of the country brand, by suggesting what they should say about the country and do on their own Facebook pages to show their national identity.
- The brand building of both countries is largely characterized by creativity, from word games to emojis.

- Both Estonia and Finland have a strong digital focus, therefore they use state-of-the-art solutions.

2. ESTONIA'S IDENTITY BUILDING AS A BEST PRACTICE

Estonia's new visual identity, introduced in 2017, is both great and simple. It is actually so simple that the country has no slogan, and its logo is nothing but the blue text Estonia, though written with the country's official typeface "Aino". In addition, they created wordmarks such as visit estonia, think estonia, invest estonia, enter estonia, taste estonia, study estonia, use estonia, design estonia (Underconsideration.com 2017). These come with clean layout where the colours of the Estonian national flag (blue and white) have a key role. The icons are also very simplistic, blue on a white background. As part of the visual identity, they also provide many high quality stock photos of the country that can be downloaded free of charge. Some of them are already captioned with the messages of the Estonia brand.



Figure 1: Estonia's current logo is quite clean: it is just the name of the country with the Estonian typeface called Aino



Figure 2: Wordmarks complement the use of the "country logo"

However, it is much more than visual identity. Estonia's digital country platform, brand.estonia.ee (2017) is an excellent example of a brand book, and how to build a country brand involving local citizens, facilitating uniform communications.

As the website explains to its users:

- "Brand Estonia helps you introduce Estonia in a way that attracts attention, creates trust and makes you proud.
- It can be used by anyone who wants to talk about Estonia: businesses, government institutions, universities, organisations, events and people.
- Here you will find the tools to introduce Estonia in a considered, clear and recognizable way. Together we will create the image of Estonia."
- Considering the brand platform and usage, they formulate different levels: think, use, create, and see.

The think level includes character, core messages, story and verbal identity, the use of words. Let us examine these in more detail.

2.1. Character

"Actually, three words: Nordic, surprising, smart. These are the essence of Estonia. These are what we want to be and to be known for. If we understand and present Estonia's values and advantages in the same way, our voice is stronger and more convincing. These traits are not to be shouted out as slogans. For that we have our story and our core messages — they bring out Estonia's advantages and uniqueness. The values here are the starting point for all actions aimed at promoting Estonia. They are the essence of Estonia."

Table 1: The character of the Estonia brand

<i>Nordic</i>	<i>Surprising</i>	<i>Smart</i>
<ul style="list-style-type: none"> - Pragmatic - Honest - Straightforward - Egalitarian - Close to nature 	<ul style="list-style-type: none"> - Different - Individualistic - Contrasting - Brave 	<ul style="list-style-type: none"> - Innovative - Tech-savvy - Curious - Discontented
Effect: We are trustworthy.	Effect: We attract attention.	Effect: We are pioneers.

Source: BRAND ESTONIA (2017): URL: <https://brand.estonia.ee/>, downloaded: 27 August 2017

2.2. Core messages

"These core messages are the first things you can say about Estonia. Pick any combination of them depending on the target audience. Always use at least one of the core messages when introducing Estonia for the first time."

Table following on the next page

Table 2: The core messages of the Estonia brand

<p>Independent minds:</p> <p>Estonia's biggest asset is our people. Many of them have done significant things. Some are world famous and others known only to a few. What matters is that all of them have used their minds independently and brought their vision to life.</p> <ul style="list-style-type: none"> - Our society is not hierarchical - Everyone can live up to their potential - Easy and straightforward communication with the state
<p>Clean environment:</p> <p>Estonia has a lot of untouched nature and a low population density. This is very rare in today's world. We know how to care for our environment and we are proud of it.</p> <ul style="list-style-type: none"> - We hold fourth place in urban air quality in the world - 51% of Estonian territory is covered with forests - 40% of the territory is organic collection area - 17% of our farmland is organic - 22% of our country is wildlife preserves - From any point, the nearest marsh is always less than 10 km away.
<p>Digital society:</p> <p>Estonia is the first country to function as a digital service. Our citizens and e-residents can get things done fast and efficiently. A number of world-renowned technology companies were born in Estonia and the nation boasts more thriving start-up companies per capita than anywhere else in Europe.</p> <ul style="list-style-type: none"> - The first country in the world to offer e-residency - The first country in the world to vote online - Three minutes to file your taxes - Most entrepreneurial country in Europe

Source: BRAND ESTONIA (2017): URL: <https://brand.estonia.ee/>, downloaded: 27 August 2017

As it can be seen, digital society is just one of three pillars here. Half of Estonia is covered with forest, and the choice of nature may serve as some kind of a counterpoint or balance with technology: "We treasure Estonia's breathtaking nature, such as the forests and marshes, just as much as our e-state solutions; in fact, you could say that we use the latter to spend more time enjoying the former", they say. And why is "independent minds" the first pillar? Probably because the commitment to eliminate the so-called homo sovieticus, a post-communist kind of personality is still strong. This way, the Estonian state supports all initiatives that facilitate the self-reliance of people and decrease their dependence on the state. This also involves determined, almost extremely market and enterprise friendly economic policies. (Atlatzo.hu 2016)

2.3. Story/History

"In Estonia, clean and untouched nature co-exists with the world's most digitally advanced society. It is a place for independent minds where bright ideas meet a can-do spirit."

2.4. Verbal identity

"The way we speak reveals the way we think. The way we talk and write about Estonia is critical, as is the tone we use and our manner of speaking."

Table following on the next page

Table 3: Characteristics of the verbal identity of the Estonia brand

Friendly: Write like you would write to a friend — be direct but polite. Don't fawn, flatter or apologise.
Unique: Focus on our uniqueness. Talk about things that catch your listeners' or readers' interest.
Content-rich: Do you have something new and informative to say to your readers? Avoid excess adjectives, don't be wordy or generic.
Down-to-earth: We always have a plan how to make our disadvantages work for us. Instead of saying how much it rains in Estonia, introduce people to mushroom picking. Also — use the word "small" only in a positive context.

Source: BRAND ESTONIA (2017): URL: <https://brand.estonia.ee/>, downloaded: 27 August 2017

Of course it is extremely important how a brand can come alive. As the "use" menu item of the abovementioned brand.estonia.ee website says: "The easiest way to make Brand Estonia work for you is to use these ready-made materials to promote Estonia. Here you will find up-to-date and professional presentations, videos, publications and our official webpage. These materials are meant for businesses, government employees, tourism professionals, journalists and anyone else wishing to introduce Estonia to the world."

Just to mention one aspect, Power Point presentations (brand.estonia.ee 2017) include examples such as:

- Need to introduce Estonia for the first time? – Here is a general overview
- e-Estonia introduction – Want to introduce e-Estonia and the world's first fully digital business environment?
- What is Brand Estonia? – Here you will find the Brand Estonia introduction
- Fun facts – 12 fun facts about Estonia
- Want to be brutally honest? – Here are 8 not so positive facts about Estonia

The "Create" menu item is even more exciting. On the one hand, a lot of quality photos about Estonia are available in visual compositions in accordance with the brand, which can be freely used for the promotion of Estonia as long as the source is indicated. In addition, the "EST" game also appears here, which is not only an abbreviation of Estonia, but also the ending of several English words, e.g. as the superlative of adjectives. This creates the opportunity for a little game highlighting the "est" suffix, be it campaigns, presentations, websites, or even souvenirs. A non-exhaustive list of such words is presented below.

Table 4: Highlighting the EST suffix in English words as a superlative form of the adjective

best	clearest	finest	lightest	scariest
biggest	closest	funniest	longest	shortest
blackest	coldest	greatest	loveliest	smartest
boldest	coolest	happiest	lowest	strongest
bravest	cosiest	healthiest	newest	sweetest
brightest	dearest	highest	oldest	warmest
busiest	deepest	hippest	prettiest	weirdest
chillest	easiest	hottest	proudest	whitest
cleanest	fastest	largest	safest	wildest
				wisest

Source: BRAND ESTONIA (2017): URL: <https://brand.estonia.ee/>, downloaded: 27 August 2017

Besides, there are English words where EST does not appear as the superlative form of the adjective. Examples include:

- forest
 - guest
 - invest
 - manifest
 - modest
- and
- festival



Figure 3: Examples of wordplays with the "est" syllable

Another "wordplay" and a part of the branding process according to the E-Stonia concept is that they ask people to create a link between positive and progressive words starting with the letter "e" and Estonia so that these e-words become synonyms for Estonia. A few examples can be seen in the table below. However, you can not only play with letter 'e' at the beginning of words: other examples reinforcing the concept of digital society and E-Estonia include "Why there's so many e letters is peer to peer?"

Table 5: E-words, that is, words starting with the letter "e" which can be linked to Estonia in a positive and progressive way (E-stonia)

- eager	- electronic	- encouraging	- especial	- expectant
- eat	- embrace	- enjoy	- even	- experience
- edifying	- eminent	- enlightened	- excellent	- experimental
- educational	- emphatic	- enter	- exciting	- explore
- effective	- empower	- entertaining	- exhilarating	- expressive
- efficient	- empowering	- enthralling	- exotic	- exquisite
- egalitarian	- enable	- enthusiastic	- expand	- extend
- electrifying	- enchanting	- e-residency	- expanding	- extensive
				- extraordinary

Source: BRAND ESTONIA (2017): URL: <https://brand.estonia.ee/>, downloaded: 27 August 2017

Last, but not least, an important part of the "Create" item is how to involve Estonians (who are otherwise active in social media) in the country branding process.

The website facilitates it by providing help to include a pebble-like image in the Facebook cover picture and the profile picture. The pebble (at least this form) is again an Estonian characteristic, which is also part of the visual identity of the Estonia brand. They encourage Estonians to make their Facebook pages unique and distinct with this pebble solution.

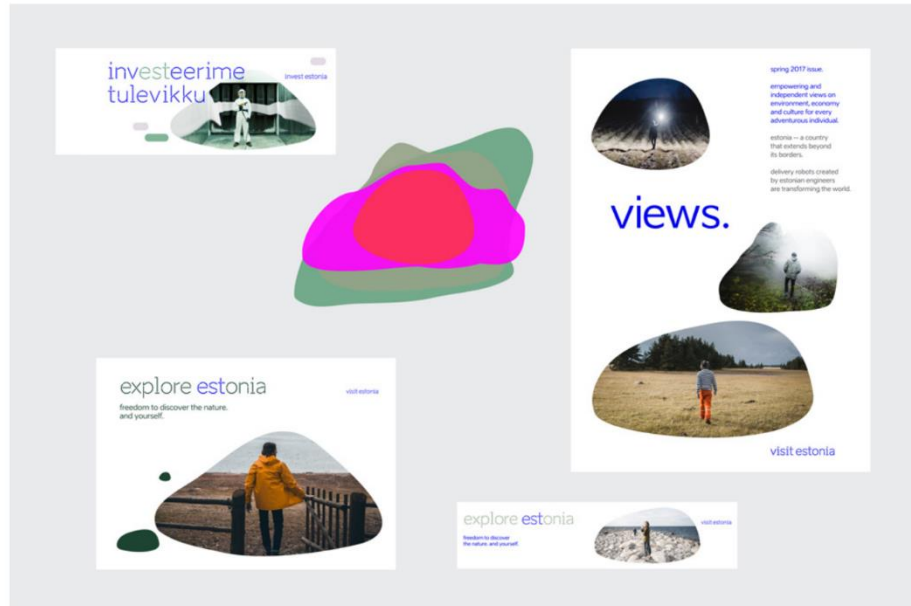


Figure 4: The use of the pebble as an Estonian characteristic in visual communication

The Design menu item of the brand.estonia.ee website provides help primarily for graphics experts and design professionals, and is closely connected to the point above. This part also determines the fundamental principle that: "The visual language of Brand Estonia is light, clean and simple. Simple as in clear, but also smart. Clean as in uncluttered with unnecessary elements and confusing typography. Light because we leave enough room around text and images; that makes them easy to read and the focus will be on the content." (Brand.estonia.ee 2017).

Two other aspects of design must also be mentioned:

- There is no central country slogan. Instead, they use wordmarks that are connected to Estonia and a specific topic. They have distinct graphic form and usage rules. The text of each mark is related to the key search terms or URL of the topic – thus making access to information easier.
- The other aspect is that the country has its own official typeface called Aino, created by Estonian Design Team and ANTON KOOVIT. From a certain point of view, this is the most wide spread and recognisable element of the brand as it communicates their ideas in various mediums. In print and on screens; in long and short texts. (*Underconsideration.com* 2017)

Figure following on the next page



Figure 5: Estonia's own typeface, Aino

3. FINLAND'S IDENTITY BUILDING AS A BEST PRACTICE

Although Estonia's branding and identity building could be started only after the disintegration of the Soviet Union and the restoration of Estonian independence in 1991, Finland had been building its brand consciously before that, even if it was not called branding. An integral part of the concept was to make Finland (considered a Baltic state originally) a Nordic country or a part of Scandinavia in a geographical and – even more importantly – a physical sense, with the Nordic countries including Iceland in addition to Scandinavia. Finland's image all around the world has always been one of the country's priorities. For this purpose they have used plenty of tools including the invitation of 20 young European journalists for a month each year to show them around Finland. The author of the present article also won one of these scholarships in 2001, and was impressed by the conscious presentation of the country: its foreign and domestic policies, tourist attractions, traditions, customs, or most advanced industries and brands. For example, a central website was already available during his visit almost twenty years ago with high quality photo and video materials that could be freely downloaded and used for the illustration of press materials. Today, thousands of business and lifestyle images of Finland are available to help the work of journalists, but the public photo database also provides the opportunity for Finnish people to share such content on their social media pages. We have already detailed the areas a brand book may cover in the case of Estonia, therefore we only focus on elements that provide new information in the case of Finland. The first unique characteristic is that Finnish identity materials use Suomi, the original name of the country in addition to the English name Finland or the country name in the language of the target country (Toolbox.finland.fi 2016).

Figure following on the next page



Figure 6: The English name of the country (or the name in the language of the target country) is always accompanied by Suomi

Just as the Estonians created their own typeface, Aino, so the Finnish have the typeface Finlandica. In the spirit of Scandinavian or Nordic cleanness the whole Finnish identity including posters are clean – they only feature a large image with the link of the general country (brand) website thisisfinland.fi, or their tourism website visitfinland.com. Besides visual identity, verbal identity is, of course, equally important or even more important considering the values it represents and communicates, and the way the country and its citizens "speak". As the brand book also available online says in this regard (Toolbox.finland.fi 2016):

"The way we talk:

- We want everybody to know that Finland is: Reliable, Quirky, Sympathetic.
- This is the tone of voice we use: Honest, Quirky, Human."

In order to present its values, Finland also uses special tools including 100 Fun Facts on Finland, a smart and witty infographic of facts you should (or should not) know about Finland.

The special elements of the identity also include emojis which symbolize characteristics typical of Finland, such as (Toolbox.finland.fi 2016):

- Sauna (The "sauna" feeling): Sauna is a holy place for Finns. This is a country with 3.2 million saunas and 5.4 million people. Finns go to the sauna naked – and often together with family. Every Finn has her/his own way of going to the sauna but one's mind and body will always be cleaned. It's a sauna state of mind.
- Reindeer (Mixed feelings): Finns love reindeer – in all forms. Reindeer are useful animals in many ways. They are cute but reindeer stew is delicious. You eat it with mashed potatoes and lingonberries.
- Nordic family (The feeling of friendly rivalry): Finland, often represented symbolically as the Maiden of Finland (based on the country's shape on the map), shares culture and a long history with the rest of the Nordic/Scandinavian countries: Sweden, Norway, Denmark and Iceland. As in any family, they maintain friendly competition, and this ensures that they all stay at the top of any international ranking. Well, Nordic cooperation might also have something to do with it.
- The Original Santa (The feeling of the never-ending wait for Santa Claus): The real Santa comes from Finland. He has always lived in Korvatunturi, Lapland. Not the North Pole!

- Aurora borealis (Magic in the sky): Finland is *the* place to experience the spectacular dance of the Northern Lights. This colourful natural phenomenon is visible across the country, but you usually get the best views in Lapland, in northern Finland.
- Cross-country skiing (Skiing with feeling): Finns learn to ski and skate right after they learn to walk. Skiing offers a fun, healthy way to enjoy the magnificent Finnish nature during winter.
- The polar bear (...that never existed): Although Helsinki is a really cool city, polar bears do not roam the streets. Actually, they don't live anywhere on Finnish soil, but a large number of other arctic animal species do.
- Swan (The return of light): The majority of swans are migratory, and when Finland's national bird reappears in Finnish latitudes, it coincides with the return of spring. Maybe that's why the swan is associated with light, grace and new beginnings, as well as endurance and eternal love, since they mate for life. And the little cygnets are cute – could swans be the new cats?
- Unbreakable (The 'unbreakable' feeling): Finns are tough, almost unbreakable. Finland has produced quite a bunch of unbreakable and long-lasting items such as the old Nokia 3310 phone which is famous for being, well, unbreakable.
- Headbanger (The feeling of banging your head.): In Finland, heavy metal is mainstream. There are more heavy metal bands in Finland per capita than anywhere else.
- Iceman (The feeling of "Leave me alone. I know what I'm doing."): This typically Finnish attitude was made famous by the Iceman himself, Formula 1 driver Kimi Räikkönen. We feel he quite nicely sums it all up.
- Girl Power (The feeling of when women can.): Finland was the first country in the world to give women both the right to vote and to be elected. Finnish women are highly educated and full-time employment is the norm. The pronoun 'hän' means both she and he.
- Tom of Finland (Finnish pride): Boy, have times changed since Tom of Finland (Touko Laaksonen, 1920–1991) first published his homoerotic drawings in the 1950s. The artist made, and continues to make, a significant contribution to the advancement of human rights, advocating for tolerance, respect and freedom.
- Education (That first-day-of-school feeling): Approaching the schoolyard on your first day of school – you're excited but anxious, butterflies in your stomach, new backpack almost as big as you are. You're about to make new friends and learn about the world. Every Finn has the same opportunity and right to go to school, and lifelong learning is encouraged.
- Lavatanssit (The feeling of finding someone): Somewhere, maybe in the middle of nowhere, in a village or beside a lake, people find each other and dance tango and other even more mysterious dances. They get dressed up, go out, and dance the summer evenings away, moving counterclockwise around a dance pavilion as the band plays old favourites and new.
- Kalsarikännit (The feeling when you are going to get drunk home alone in your underwear – with no intention of going out.): A drink. At home. In your underwear. And there is a word for it. Kalsarikännit."

Figure following on the next page

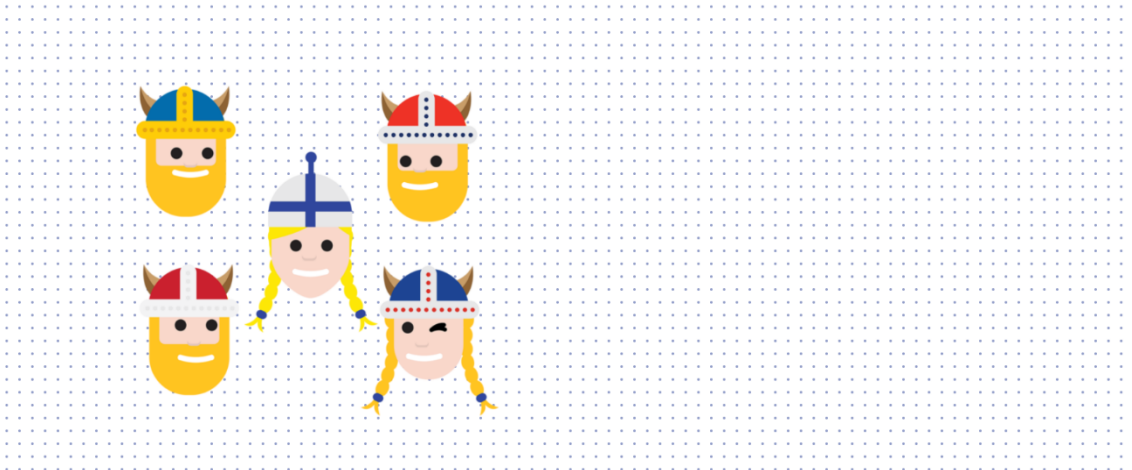


Figure 7: Emojis are unique elements of the identity: "The Nordic family" represents Finland, Sweden, Denmark, Norway and Iceland.

Finnish people usually think that the *communication* and appropriate *visualization* of information is very important: they think that there should be less text, but it should appear with a design that is as clean and simple as possible. Several roll-up displays represent Finland's place in the most important rankings, and they emphasize these in exhibitions and fairs. Infographics also highlight these and other topics or some very important fact with a clean, refined blue and white design (toolbox.finland.fi 2018b). These include Finland's world leader position in the areas below:

- Skills development at work #1: Finns have the best opportunities in Europe to develop their skills at work. (Source: European Working Conditions Survey)
- Good working hours #1: Finnish working hours are the most employee friendly, according to the European Company Survey. (Source: European Company Survey)
- Time dads spend with children #1: Finland is the only country in the developed world where dads spend more time with school-aged children than mothers. (Source: OECD)

In total, 53 graphics are available in the infographics section of Toolbox.finland.fi, 38 of which refer to some rankings – obviously ones where the Finns are the first or one of the best.

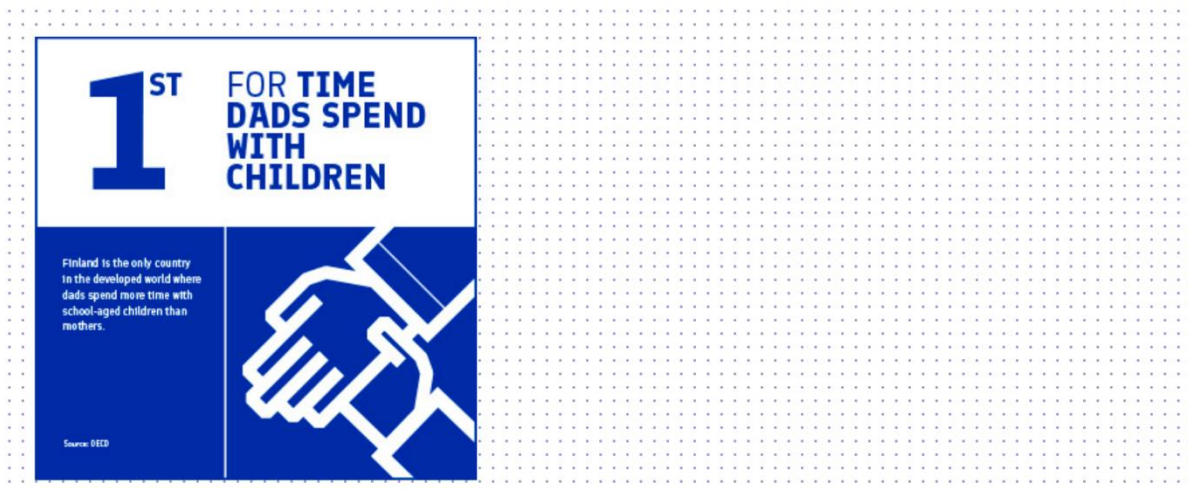


Figure 8: The country uses clean infographics with the colours of the Finnish national flag and a short piece of information – something in which Finland is a world leader or one of the best

This is Finland magazine is the country's own magazine, where readers may find articles and contents involving the identity and the brand message. The four highlighted columns of the magazine are: innovation – people – technology – fun. In addition they discuss progressive topics such as artificial intelligence. In addition to the above, the *social media portfolio* includes:

- Facebook: thisisFINLAND – things you should and you shouldn't know
- Instagram: thisisfinlandofficial
- Twitter: thisisFINLAND
- Youtube: thisisFINLANDtube

The values and style of the brand are also highlighted on these platforms in the same way – the latter is represented by a word game in the highlighted video "Proudtubefin" ("Proud to be Finn"). Although the items above are usually connected to the country brand, the same elements can be found in connection with the building of the country's tourism brand:

- Facebook: VisitFinland (I wish I was in Finland) (the official tourism slogan of the country)
- Vkontakte (the "Russian Facebook"): Visit Finland
- Weibo (Chinese social media site): Visitfinland.com
- Instagram: VisitFinland (Ourfinland)
- Twitter: VisitFinland (Ourfinland)
- Youtube: VisitFinland

The visitfinland.com website features unique solutions such as animated maps that you can scroll on to see the country's most important attractions. Besides that, the Finnish tourism organization Visit Finland (2015) has a funny handbook presenting photos that largely characterize the country (plus sign) and ones not characterizing the country at all (minus sign) as shown in the table below. As their country's brand book says, "Finland's travel branding is based on the key idea that in comparison with most other countries, Finland is the unconventional alternative to places crowded with tourists. It offers fresh and genuine experiences that really take your breath away. The main target group for brand marketing consists of open-minded people who have travelled a lot and are seeking new options."

Table 6: Characteristics not typical of the country and characteristics typical of the country, listed in Finland's tourism brand book

<i>Finland is not (-)</i>	<i>Finland is (+)</i>
Something for everyone	Something special for the ones that think they have seen it all
Noise and hassle	Peace and quiet
Packed	Spacious
Sweltering	Fresh
Superficial	Holistic
About complex cultural codes	Straightforward
For masses	For individuals
Polluted	Clean
Formal	Inventive
Artificial	Natural
Bling bling	Authentic
Dangerous and unpredictable	Safe and secure
A place to show off	A place to be yourself

Source: VISIT FINLAND (2015): Visit Finland Brand Book

https://www.visitfinland.com/app/uploads/sites/9/2015/04/VisitFinland_Brand_Book_175x220_LR_9559.pdf, download: 27 March 2017

Last but not least, it is important to point out that the Finnish make their country image building activities fully transparent mostly for locals, but also for foreigners. They also use publications such as "Building the image of Finland – Review of the country image work in 2015–2016".

- The document mentions that the objectives of their country image work are: to make Finland visible abroad (awareness-raising), highlight Finland's strengths (image-shaping), and increase the number of people choosing Finland (assistance of decision-making).
- The next chapter of the document presents Finland's position in different country image and country brand rankings. Based on these surveys, Finland's most important strengths and weaknesses, that is, other peoples' opinions about the country are defined.
- In addition, "Building the image of Finland" also focuses on the examination of Finland's representation in international media, pointing out that this in itself is not the country image (thus its much more extensive examination is needed), and the picture presented by the media does not necessarily correspond to reality.
- The third big chapter of the publication discusses how Finland is building its image, what related activities were implemented in 2015-2016, and what tools they used. The document emphasizes the importance of renewing the Finland.fi website and the emoji system mentioned above, which was hugely successful. It also stresses that Finland celebrated its 100th birthday (its century of independence) in 2017, and discusses the country branding tasks associated with the centenary.
- Last but not least, the material also presents the organizations engaged in country image building and the tasks of the renewed Finland Promotion Board.
- It is also interesting that all countries compare themselves to something. In the case of Finland it is Sweden, which they make clear in the material, adding that the history of the latter is much richer and they started working on their country image much earlier.

4. CONCLUSION: THE EXAMPLES OF ESTONIA AND FINLAND AS INSPIRATION TO CREATE THE BRAND BOOKS OF OTHER COUNTRIES

Now let us see what parts of the two case studies described above may be worthy of adaptation or, if you prefer, how to get inspired. Considering the philosophy of the identity, the following ideas may serve as important advice:

- First of all we must point out that branding does not start with graphic design, and it is not even the most important part of branding. Each nation must define, invent, or find itself. Where is the country now, and where is it going? What are its mission and vision? What are we, what would we like to become, what do we want to be known for? What values do we represent? What unique things does the country provide the world, why is its existence important, and why is it different from other nations? It is useful to cover all these topics.
- For all these reasons, it is worth considering a brand book defining these aspects instead of a visual identity guide. It can also be seen as a knowledge management tool of country information.
- This can be extended to create a "toolbox" including all the important identity elements and tools. If this brand book or toolbox is available online, it can be quickly and easily updated.
- The brand system must be made publicly available to both foreigners and the citizens of the country. It must be open to foreigners to provide access to all important information on the country, which is especially valuable for journalists. It must be available to locals because it includes nothing they should hide, and the brand can be built effectively with their involvement – if they follow the instructions or do some of the things recommended by the document, it may facilitate the formation of a more consistent image. As the Estonian material explains, a good brand book helps citizens to present their country with pride, in a way that raises awareness and builds trust.

- A publication may provide transparency for the process of country brand building, detailing the advertising and PR campaigns for that year, their results, and the spendings of the relevant state organization on these purposes. This publication may, of course, be published online.
- In connection with the abovementioned ideas, sincerity is very important, therefore it is useful to discuss what the international public opinion thinks about the country, and view our position in rankings such as the IMD World Competitiveness Rankings or The Global Competitiveness Report published by the World Economic Forum. We need to see where the Forbes, The Economist and Euromoney put us in their rankings, and how are we doing compared to other countries (especially our regional "competitors") in specific country brand indexes such as the Anholt Nation Brands Index, FutureBrand Country Brand Index, Bloom Consulting Country Brand Ranking (Tourism Edition and Trade Edition), Bloom Consulting Digital Country Index, and the Anholt Good Country Index may also be mentioned. These and other studies may help define the strengths and weaknesses of the country. We do not have to be good at everything, but if there is something we excel at, it must be communicated (sold, if you will) effectively. As the slogan of the McCann-Ericsson advertising agency says, the idea we must represent is "Truth well told".
- To achieve this objective it is important to find exciting and unique facts about the country. This can also be some kind of a "depository of values", but it should only serve as the basis for communication. The challenge is how these values can be "translated" and presented in an entertaining way, as is the case in Finland and its infographic 100 fun facts on Finland. The recipients of the message usually like to see a country that does not take itself too seriously and is able to make fun of itself. Therefore it may be worthwhile to talk about weaknesses in addition to strengths.

In terms of identity and toolset, it is worth considering the following ideas:

- Good design is simple and clean. As the Estonian and Finnish examples show, the logo should not be overcomplicated. At the same time it is worth creating the country's own typeface as it may also distinguish us.
- Progressive design demonstrates that the country is progressive as well – but only if it is well-founded.
- The brand name is always a dilemma. It could happen that it is worth using the international name and the country name in the official language of the specific nation together, in the same way as Finland uses Suomi.
- The term "small country" must be forgotten. There is a reason Estonia clearly avoids it.
- It is impossible to build a brand without creativity. It is worth considering word games similarly to Estonia's use of "est" and "e", and other tools such as the emoji system or animated maps invented by Finland.
- It is necessary to approach identity with a digital focus. The most important issue is not how a country appears in the case of a print advertisement or a citylight billboard, but how it appears on the screens of mobile phones.
- It is also necessary to consider all social media applications: the use of Facebook and Instagram has become self-evident, but Twitter may also be required because of some countries. The social media platforms of big countries such as Vkontakte of Russia or Weibo of China must also be considered.
- A large and public photo and video database is also an important part of identity. This may be helpful for foreign and local journalists when they write articles or produce materials. On the other hand, they may also be useful for citizens as they can post these images or videos on their Facebook or Instagram pages.

- The creation of several PPT or Prezi presentations about the country may be equally important.
- If the country manages to find a distinctive verbal or visual symbol, it needs to consider how it can be distributed with the help of social media, just as Estonians did through the creation of their "pebbly" Facebook-profile.
- In this connection it should be clear that nothing may be forced – it would be propaganda, not branding. People must be involved to make them join these efforts voluntarily, make them feel they want it, and, actually, make them want it.

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IMPLEMENTATION AND EFFECTS OF THE POST-CRISIS BANKING REGULATIONS IN EUROPEAN UNION

Ivanna Chaikowska

Jagiellonian University in Krakow, Poland

ivanna.chaikowska@doctoral.uj.edu.pl; chaikowska.ivanna.pl@gmail.com

ABSTRACT

The recent financial crisis has exposed to weaknesses the area of banking regulation and supervision, and has also showed the need for their amendment at the supranational level well as at the national level. Cooperation in the development of new regulatory principles and coordination of supervisory at the international level is an important task to achieve. Paper takes the issue of post-crisis regulation of the banking sector, their theoretical bases and practical expressions. In particular, it focuses on the regulatory reaction of the European Union after the crisis from 2008 to 2014. Was revealed the process of implementation of the The Basel Accords in european law, and then to the countries laws. The model of a new architecture of banking supervision in the European Union was also presented. The main part of this paper is dedicated to the project of the Union banking, by creating a framework to deepen Economic and Monetary Union in the EU. It was presented the structure, objectives and competences of Union banking, as well as the controversy around its implementation. The aim of the research paper is to analyze the process of implementation of the post-crisis banking regulations in European Union. As well as define the effects of introducing the post-crisis banking regulations for european banks.

Keywords: bank, bank supervision, compliance, enforcement actions, European Union, post-crisis regulations

1. INTRODUCTION

One of the main reasons for global financial instability in 2007-2010 was the significant gap between the level of pre-crisis regulation and supervision related to the banking sector and the level of its development (and the risk taken by banks). In reference to what, there was a need for a new modeling of regulatory solutions adapted to the current level of cross-border development of the around-the-world, around-the-clock banking sector. For this purpose, a large number of post-crisis banking regulations aimed at restoring the stability of the banking sector in the European Union. The review of European legal acts, proposals for their amendment and literature on post-crisis regulations in the European banking sector indicates that the majority of banking regulations currently in force in the EU were introduced during the post-crisis period, which proves a huge increase in regulatory requirements, so-called regulatory inflation, regulatory shock.

2. THEORETICAL BASIS AND JUSTIFICATION OF BANKING REGULATIONS

The activity of the banking sector in the economy is based on two criteria: on the one hand - on the market criterion, and on the other - on the criterion of public trust. This means that on the one hand - because their operation is based mainly on resources provided by shareholders and depositors, which are the basis for providing income-generating services - banks must constantly care for their credibility and trust of their clients, as well as actively participate in corporate social responsibility and in shaping reputation. On the other hand, banks operate according to the principles of a market economy. And the market banking mechanism is unreliable. The most frequently mentioned failures of the banking sector include: the existence of information asymmetry, external bankruptcy costs, moral hazard, negative selection, instability and procyclicality (periodic occurrence of excessive credit expansion that leads to a

banking crisis). Therefore, the activities of banks are constantly monitored, controlled and subject to strict supervision and regulations. Banks are public trust institutions, their activities are subject to strict supervision and regulations. The regulatory environment strongly interferes in all areas of banks' operations, in particular in the post-crisis period by extending and deepening regulatory areas. In the literature of the subject, it is noted that the waves of regulatory reaction take place after the occurrence of crisis phenomena. As H. Davies and D. Green point out, "one can get the impression that a crisis is needed to get politicians interested in the regulatory sphere" (Davies H., Green D., 2010, p. 21). Confirmation of what was a strong regulatory response as a result of the recent financial crisis in 2008-2014 at the supranational, European and national levels. A review of the literature on the subject proves that the term "regulation" comes from the Latin word "regulatio", which means "ordering", "regulating". In the literature, the general definition of regulation reads as follows: "it is a state's activity whose aim is to induce households and enterprises to make specific choices" (Borkowska B., 2013, p. 200). As pointed out by David Levi-Faur in the book *The Politics of Regulation: Institutions and Regulatory Reforms for the Age of Governance*, regulations can be defined as legal conditions involving the state's influence on the economy by issuing administrative decisions, ordering enterprises, performing specific market-related obligations, and analyzing the monitoring of the functioning of the market as a whole (Levi-Faur D., 2004, p.3; Baldwin R., Scott C., Hood C., 1998, pp. 1-55). During the modern evolution of banking systems, characterized by such phenomena as globalization, deregulation and liberalization, change of ownership structure, it is important to note that the model of modern banking is dynamic and not static. Which means that banking activity excludes from outside the standard framework of activities, and acquires newer and newer forms using innovative technological solutions. All of the above mentioned justifies the need in the regulations of the banking sector and the necessity to introduce a new regulatory and supervisory framework in order to maintain an appropriate level of security for the banking sector.

3. CHARACTERISTICS OF POST-CRISIS BANKING REGULATIONS IN THE EUROPEAN UNION

At the supranational level, the Basel Committee on Banking Supervision in December 2010 presented a set of guidelines referred to as Basel III, which concerned the tightening of prudential requirements (Basel III: A global regulatory framework, 2010). It was deemed necessary to strengthen the stability of the global banking sector by raising capital requirements, introducing liquidity and solvency requirements for banks and limiting the possibility of using high financial leverage. Until the financial crisis in 2007-2009, a micro-prudential approach to regulation was common, the essence of which is the statement that "the entire financial system is healthy if and only if every individual institution is healthy". In turn, the recent financial crisis has proved that in the times of globalization and cross-border activities of banks, an important task is to prevent systemic risks and ensure the stability of the banking system. To this end, as a result of the crisis, they began to introduce a macro-prudential approach, the so-called "top to bottom". According to which, regulatory standards should be determined first for the banking system as a whole, and only then they should be broken down into individual banks, depending on their role in the system. In turn, it is important to note that post-crisis banking regulations confirm the application of the principle of proportionality by regulators, aimed at reducing regulatory requirements for smaller banks. Thus, post-crisis regulations become adequate to the importance of individual banks in the banking system.

3.1. Implementation of Basel III in European Union

Implementation of Basel III recommendations took place in 2010 in the United States (Dodd-Frank Act and Consumer Protection Act) and in the European Union in 2013 (package of CRD

IV / CRR directives - Capital Requirements Directive IV / Capital Requirements Regulation) (Acharya V., Cooley T., Matthew P., 2011, p. 75). CRD IV / CRR package clarified the prudential requirements relating, inter alia, to the bank's own funds, liquidity standards, financial leverage, capital buffers, credit risk assessment, corporate governance and management salaries. The purpose of the post-crisis regulatory reaction in the European Union was primarily to reduce systemic risk and protect banks against insolvency, as well as to reduce the scale of fiscal burdens for European countries' budgets in the event of a bank failure.

Table 1: The capital requirements regulation CRD IV/CRR (European Council, Capital requirements for the banking sector)

Regulatory requirements		Level
Common equity Tier 1		4,5%
A total amount of capital		8,0%
Capital buffers:	Capital conservation buffer	2,5%
	Countercyclical capital buffer	0-2,5%
	Global systemically important institutions buffer	1,0-3,5%
	Other systemically important institutions buffer	0-2,0%
	Systemic risk buffer	1,0-3,0% (5,0% od 2015 r.)

The CRD IV / CRR package was mainly bought by introducing the following (European Council, Capital requirements for the banking sector...):

- Capital requirements - the regulation requires banks to have set aside enough capital to cover unexpected losses and keep themselves solvent in a crisis. As a main principle, the amount of capital required depends on the risk attached to the assets of a particular bank. A total amount of capital that banks and investment firms are required to hold should be equal to at least 8% of risk-weighted assets. The share that has to be of the highest quality capital - common equity tier 1 - should make up 4.5% of risk-weighted assets (up to December 2014 - between 4% and 4.5%) (please see table 1).
- Liquidity requirements - financial institutions must hold sufficient liquid assets to cover net liquidity outflows under gravely stressed conditions over a period of 30 days. The liquidity coverage ratio - unencumbered high quality assets against net cash outflows over a 30-day stress period - will be phased-in gradually, starting at 60% in 2015 and reaching 100% in 2018.
- Leverage - leverage is the relationship between a bank's capital base and its total assets. A bank's assets are 'leveraged' when they exceed its capital base. The regulation aims to reduce excessive leverage, because it may have a negative effect on banks' solvency.
- Capital buffers – in addition to the mandatory amount of 4.5% of common equity tier 1 capital requirement set out in the capital requirements regulation (CRR), all banks are required to hold a capital conservation buffer and a countercyclical capital buffer, to ensure that they accumulate a sufficient capital base in prosperous times to enable them to absorb losses in the event of a crisis.
- Bankers' bonuses - the bonus is capped at a ratio of 1:1 fixed to variable remuneration. This means that a bonus can only be smaller than or equal to the fixed salary. The cap may be raised to a maximum of 2:1, if shareholders approve.
- Governance and transparency - from 1 January 2014, banks are required to make public the number of employees in each of their institutions and their net banking income. All systemically important European banks have to report on profits made, taxes paid and subsidies received.

3.2. A new global supervisory architecture in the European Union

From 1 January 2011, the European Union has a new European System of Financial Supervision which aims to ensure financial stability and trust in the financial system and to protect consumers of financial services.

The European System of Financial Supervision consists of:

- European Systemic Risk Board (ESRB),
- European Supervisory Authorities (ESA):
 - European Banking Authority (EBA);
 - European Insurance and Occupational Pensions Authority (EIOPA);
 - European Securities and Markets Authority (ESMA).
- Joint Committee of the European Committee of Supervisors,
- the supervisory authorities of the Member States set out in the relevant Union acts.

A new supervisory concept covering the macro- and micro-prudential level of the financial market in the EU. Supervision at the macro-prudential level is exercised by the European Systemic Risk Board, which operates at the European Central Bank. The main task of the European Systemic Risk Board is to effectively monitor various types of systemic risk. Therefore, credit institutions, financial conglomerates, investment funds and payment institutions are subject to the supervision of the European Systemic Risk Board. The main decision-making body in the ESRB is the General Board, which the Steering Committee prepares, and monitors progress in its ongoing activities. As regards European micro-prudential supervision, it is composed of three bodies, namely EBA, EIOPA and ESMA. The purpose of the given institution is to ensure the safety of individual market segments and harmonization of national regulations. In the banking sector, the functions are performed by the European Banking Authority, the main competencies of which include: ensuring a consistent level of regulation and supervision, ensuring transparency and proper functioning of the banking services market, preventing regulatory arbitrage and promoting equal conditions of competition and strengthening the protection of clients.

3.3. Concept of a banking union in EU

An important direction of post-crisis activities in the European Union was work on the concept of a banking union, which according to the document entitled Towards a real Economic and Monetary Union, it is the next stage of euro area integration in the financial area. The Banking Union unifies responsibility for supervision (I pillar - Single Supervisory Mechanism), restructuring and orderly bank liquidation (Pillar II - Single Resolution Mechanism) and Deposit Guarantee Scheme (3rd pillar - Single Deposit Guarantee Scheme), and obliges banks operating throughout the euro area to comply with the same provisions (as per the provisions contained in The Single Rulebook). The majority of banking regulations currently in force in the European banking sector were introduced during the post-crisis period, what caused the significant increase in regulatory requirements. Post-crisis regulatory change in the European Union mainly consisted in new rules introduction, existing rules amendment and institutions establishment or reformation (Quaglia L., 2017, p. 8). It is important to note, that the level of detail and complexity of post-crisis banking regulations has increased, that mean for banks more challenges for European banks.

4. THE ROLE OF THE COMPLIANCE FUNCTION IN THE BANKS

During the post-crisis period, the main challenge for banks became the need to adapt their structures and methods of operation to a much larger number of new regulatory requirements. For this reason, the compliance function has begun to gain importance in order to secure compliance of the bank's activities with the applicable law, internal regulations and standards

of conduct adopted by the bank. As a result, the compliance function assumed a fundamental role in supervising the correct implementation of post-crisis regulations in the banking sectors of global economies, including European Union.

4.1. Definition of compliance function in banks

The definition of compliance function in banks was provided by Basel Committee on Banking Supervision in Consultative Document “The compliance function in banks” in 2003. According to which, compliance function can be defined as: an independent function that identifies, assesses, advises on, monitors and reports on the bank’s compliance risk. That is, the risk of legal or regulatory sanctions, financial loss, or loss to reputation a bank may suffer as a result of its failure to comply with all applicable laws, regulations, codes of conduct and standards of good practice (The compliance function in banks (2003), The Basel Committee on Banking Supervision, p. 3-8). In April 2005, the Basel Committee on Banking Supervision recommended to create a special compliance unit dealing with the compliance risk, to ensure safety and soundness banks and the stability of the financial system (Compliance and the compliance function in banks (2005), The Basel Committee on Banking Supervision, April 2005, p. 9-16.). The compliance unit should operate based on the main principles implemented by the Basel Committee on Banking Supervision, namely regarding independence of compliance function, resources, obligations and relations of the compliance unit with internal audit unit. The overview and description of the main compliance function principles, adopted by the Basel Committee on Banking Supervision, are presented in Table 2.

4.2. Placement of the compliance unit in the bank structure

Important to note that although the obligation to create compliance units at banks was introduced by regulators, however, issues related to their location in the bank’s structure and scope of duties depend on individual decisions of each bank. For this reason, in practice the compliance function operates on similar principles in banks, nonetheless, diversify in terms of scope of duties and placement within the bank’s structure. In reference to the above, due to the placement of the compliance unit in the bank structure, compliance organizations in banks can be divided into three types (A best-practice model for bank compliance, McKinsey & Company, January 2016). There are following compliance models in banks: 1) separated – stand-alone model; 2) combined model – legal-led organization; 3) combined model – risk-led organization. In the separated model, – stand-alone model – compliance unit reports directly to the bank’s senior management and is fully independent from other departments. In turn, in the combined models, the compliance unit is an integral part of another department, e.g. legal or risk department.

Table following on the next page

Table 2: Overview of compliance function principles, implemented by the Basel Committee on Banking Supervision

Compliance function principles	
1. Independence. The bank's compliance function should be independent.	<ul style="list-style-type: none"> • First, the compliance function should have a formal status within the bank. • Second, there should be a group compliance officer or head of compliance with overall responsibility for coordinating the management of the bank's compliance risk. • Third, compliance function staff, and in particular, the head of compliance, should not be placed in a position where there is a possible conflict of interest between their compliance responsibilities and any other responsibilities they may have. • Fourth, compliance function staff should have access to the information and personnel necessary to carry out their responsibilities.
2. Resources. The bank's compliance function should have the resources to carry out its responsibilities effectively.	<p>The resources for the compliance function should be both sufficient and appropriate to ensure that compliance risk within the bank is managed effectively. The professional skills of compliance function staff, especially with respect to keeping up-to-date with developments in compliance laws, rules and standards, should be maintained through regular and systematic education and training.</p>
3. Compliance function responsibilities.	<p>The responsibilities of the bank's compliance function should be to assist senior management in managing effectively the compliance risks faced by the bank. Its specific responsibilities are set out below. If staff in different departments carry, some of these responsibilities out, the allocation of responsibilities to each department should be clear.</p> <p>Important note: not all compliance responsibilities are necessarily carried out by a "compliance department" or "compliance unit".</p>
4. Relationship with Internal Audit.	<p>The scope and breadth of the activities of the compliance function should be subject to periodic review by the internal audit function. Compliance risk should be included in the risk assessment methodology of the internal audit function, and an audit program that covers the adequacy and effectiveness of the bank's compliance function should be established, including testing of controls commensurate with the perceived level of risk.</p>

(The compliance function in banks, The Basel Committee on Banking Supervision, October 2003, pp. 3-8.; Compliance and the compliance function in banks, The Basel Committee on Banking Supervision, April 2005, pp. 9-16.)

Nowadays, the separated model acquires popularity, that is, the separation of the compliance unit on the procedural, organizational, technical and physical grounds (Jakubowski R., (2013), p.59). In banks where the compliance unit is an integral part of another department, a recent trend consists in migration of compliance unit from legal department to risk department. This new trend reinforces the view of compliance function as a risk similar to operational risk and as a control rather than advisory function. Which means that in situations where the compliance unit forms part of another department, it becomes important the following: proper division of competences, communication, consulting, support and effective exchange of information between departments. Additionally, constriction of compliance function, on the one hand, depends on the profile, the scale of the banks' operations, their size, and on the other hand – on the legal and cultural environment, short and long-term state policy and the decisions of national regulators who care about the stability of financial systems.

4.3. Compliance function activities inside and outside the bank

Important to note, that the compliance unit operates in two ways, namely both within the organization at the level of internal procedures and standards, as well as outside according to the applicable legal provisions and regulatory requirements. This means that from inside perspective the compliance function is fundamental to ensuring bank's safety and soundness (Enforcement, sanctions and reporting breaches, Banking Supervision, European Central Bank), and from outside perspective, to ensuring compliance with regulatory requirements by collecting, monitoring and analyzing regulatory data and tracking developments in a rapidly changing European environment in regulatory sphere. The all above-mentioned confirms that, as the complexity of the regulatory activity has risen markedly, the compliance function is essential and significant for the effective operation of banks in the rapid evolution of the banking regulations and contemporary conditions. Compliance unit, apart from ensuring compliance of banking activity with legal provisions, also performs many other functions as control, supervisory and coordination, supporting activities of another bank's units (e.g. audit, legal, operational risk department etc.). Thanks to the controls and supervision exercised by the compliance function, it becomes possible to take instant corrective actions before the incident occurs or just after its occurrence. The compliance unit also has a preventive function, which is very important in managing reputation risk and in contacts with supervisory institutions.

5. ENFORCEMENT ACTIONS IN EUROPEAN UNION

In the post-crisis years in the European Union, as well as in the United States, the cost of non-compliance and law breaking in the banking sector are rising, which is illustrate by penalties and financial sanctions of the supervisory authorities (enforcement actions). Enforcement actions are a key tool for banks' supervisors in order to make banks comply with the prudential requirements set out in banking regulations, standards and sets of recommendations. Due to the fact that the number of applicable regulations is increasing, the intensiveness and the number of enforcement actions against banks are increased due to non-compliance. In the post-crisis years in the European Union, as well as in the United States, there is a trend of rising costs of non-compliance and law breaking in the banking sector, which are expressed in penalties and financial sanctions of the supervisory authorities. With reference to the above, important attention is made on the effective operation of the compliance function in banks, which can identify non-compliance in advance and prevent or minimize the application by the supervisor of enforcement actions. The main entity applying enforcement actions within the European Union is the European Central Bank (ECB), which, under Single Supervisory Mechanism (SSM), entrusted with specific supervisory tasks concerning the prudential supervision of credit institutions. Important to note, that few tasks, such as consumer protection, the fight against money laundering and terrorist financing transferred to the national authorities (Report on misconduct risk in the banking sector in 2015, European Systemic Risk Board). The ECB exercises the supervisory tasks by imposing pecuniary penalties, or fines, the maximum amount of which can be equate to twice the amount of the profits gained or losses avoided as a result of the breach, or 10% of the bank's total annual turnover (Sanctions, Banking Supervision, European Central Bank). Because the number of applicable regulations is increasing, the intensiveness and the number of enforcement actions against the European banks are increased due to non-compliance. According to statistics of European Central Bank, by 31 December 2017 the ECB had imposed five penalties amounting to 15.3 million EUR (Enforcement, sanctions and reporting breaches, Banking Supervision, European Central Bank). The ECB also submitted 12 requests to national competent authorities to open proceedings, which so far have led to total penalties of 5.1 million EUR (Sanctions imposed by the ECB Banking Supervision, European Central Bank). The main areas on which the ECB focuses in enforcement actions are following, namely capital and liquidity requirements, large exposures, reporting obligations and

governance in banks. In the post-crisis years in the European Union, as well as in the United States, there is a trend of rising costs of non-compliance and law breaking in the banking sector, which are expressed in penalties and financial sanctions of the supervisory authorities. With reference to the above, important attention is made on the effective operation of the compliance function in banks, which can identify non-compliance in advance and prevent or minimize the application by the supervisor of enforcement actions.

6. CONSLUSION

Currently, from compliance units in the bank are also expected to have high control capabilities, thanks to which banks will more effectively avoid financial penalties and fines for non-compliance or violation of applicable regulatory requirements. In other words, it is expected that the effective operation of the compliance function will affect the minimization of fines and financial sanctions against banks by supervisors as part of their enforcement actions.

As a result, the compliance function assumed a fundamental role in supervising the correct implementation of post-crisis regulations in the banking sectors of global economies, including European Union. This is the confirmation of the formulated hypothesis that the importance of the regulatory compliance increases with the intensification of the enforcement actions of banking supervision authorities.

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SIGNIFICANCE OF MONTE CARLO SIMULATION IN PREDICTION OF ECONOMIC PROJECTIONS: A CRITICAL REVIEW

Ivana Bestvina Bukvic

Josip Juraj Strossmayer University of Osijek, Academy of Arts and Culture in Osijek
ibbukvic@unios.hr

ABSTRACT

In the evaluation of capital investments, the Monte Carlo stochastic method enables combining the potential values of numerous key factors which could be in the complex and interconnected relation and therefore give the insight of possible future investment project outcomes. By the earlier studies, it was found that despite its usefulness it is still not widely used in practice, especially in evaluating possible outcomes of economic forecasts. This is a surprising fact, considering the effects of the recent economic crisis, among other, on the results of implemented investment projects, business performance, industrial sectors and overall economy. The objective of this paper is to analyze whether there is a significant number of examples and research of its application in the evaluation of projections of individual industry sectors future development with an emphasis on the IT sector. The author conducted an analysis of available literature and surveys on this topic. The work is structured from two separate parts – first analysis of literature working on definition and correlation of risk, uncertainty and the Monte Carlo simulation in business decision-making and the second the analysis of literature dealing with its applicability in practice. It was found that the Monte Carlo method is considered as a method that provides specific and relevant information in the process of decision-making regarding the project implementation, but considering its specificity and in combination with other methods of assessing project investment. At the other hand, it is rarely used in the analysis of the economic forecast of specific industrial sectors.

Keywords: capital budgeting, Monte Carlo method, stochastic risk analysis, industry sectors forecast, IT sector development projections

1. INTRODUCTION

Monte Carlo is a simulation method, a computerized tool, which predicts and assesses the probability of possible combinations of the expected results of the observed phenomena. The application of the Monte Carlo analysis is in solving complex deterministic problems, insufficiently known phenomena, statistical problems that do not have an analytical solution, etc. In capital budgeting processes “the purpose of the simulation is to help the investor to better understand all the potential investment results that can occur in different conditions of implementation and use of the investment object in the future.” (Karić, 2006, p. 8). The objective of this paper is to analyze the recent literature with the aim of its systematization and identification of still less explored fields of Monte Carlo method application. Following the two hypotheses were defined. The first hypothesis claims that there is an increasing interest in exploring the application of the Monte Carlo analysis while the other hypothesis claims that there are unexplored possibilities of Monte Carlo method application in the economy, especially in the field of economic trends forecasting. This research is a part of authors’ work that includes the projections of future development perspectives and development scenarios of the IT sector in Croatia, where Monte Carlo is planned to be used in defining the possible outcomes arising from initial economic projections. Therefore, the focus of this paper is to identify whether there are examples and surveys of Monte Carlo method applied in the evaluation of industry sectors future development forecast with an emphasis on the IT sector.

The author conducted the analysis of available literature and surveys on this topic, mainly in the last fifteen years, but especially focusing on literature of the last two years. The work is structured from two separate parts – first analysis of literature dealing with definition, methodology and correlation of risk, uncertainty and significance of the Monte Carlo simulation in economy and the second that focuses on the analysis of literature dealing with its applicability in practice, subdivided into two parts, first: application in business and investment decision-making processes and the second: application in economic and sectoral forecasting. The last chapter is giving the closing discussion and conclusion where the author summarized the significant trends in research on application of Monte-Carlo method, and identified the issues that should be addressed in the future. Therefore in addition to the systematization of recent literature, the scientific contribution of the work is in the recommendations for future research regarding the open issues of the application of the Monte Carlo model, since after the critical review the recommendations for the future research were given.

2. MONTE CARLO METHOD – DEFINITION, APPLICATION AND GOOGLE SEARCH INTEREST

The simulation can be defined as a "modeling process of a real system model and performing a trial with it, either to find out how the system functions or to evaluate its different functionalities (within the area defined by some criterion or set of criteria)" (R. E. Shannon, 1975, referenced by Karić, 1992, p. 257). Monte Carlo is most often explained with a roulette game system, as of the uncertainty of its outcome. If each result of the roulette spin would be recorded and for the total results statistical indicators would be calculated, the observer would conduct the basic steps of the Monte Carlo method. In the capital budgeting, the gambling strategy is being replaced with the project model and roulette with the model of the real world in which the project operates. (Brealey, Myers, 2003, p. 232) With this method, a wide range of possible outcomes is attempted to be predicted and measure the frequencies of predicted outcomes. These results interpret the probability of occurrence and altitude of the outcomes that are different from the average expected value. In this sense »...risk is measured not only in terms of losses but also in terms of uncertainty.« (Block et.al, 2008, p. 404). Within this paper, selected literature has been classified into two main groups and two subgroups. The classification criteria were chosen in such a way that the homogeneous groups are separated from those that are dealing with the question of:

- the definition and methodology of Monte Carlo method
- the application of Monte Carlo method, within which:
 - the application in business and investment decision-making processes
 - the application in economic and sectoral forecasting.

As the objective of this paper is to analyze whether there are examples and research of its application in the evaluation of forecasts of economic development or industrial sectors future economic trends with an emphasis on the IT sector, the author analyzed the literature that was published in the recent years. In this process about 50 articles were found and separated by the period in which they were published, but 31 article was analyzed and classified by the methodology described in this chapter, and presented in Table 1.

Table following on the next page

Table 1: Literature classification (authors work)

Definition and methodology of Monte Carlo method		Application of Monte Carlo method			
		in business and investment decision-making processes		in the economy and sectoral forecasting	
Author	year	Author	year	Author	year
Emmet, Goldman	2004	Clark, Reed, Stephan	2010	Cheah, Liu	2006
Greasley	2004	Merková, Drábek, Jelačić	2013	Maarit, Kallio	2010
Vishwanath	2009	Karić, Bestvina, Buljubašić	2013	Buseti, Marcucci	2013
Laise, Elen	2010	Crnjac Milić, Masle	2013	Oelrichs	2017
Allman, Laurito, Loh	2011	Platon, Constantinescu	2014	Kang, Ratti, Vespignani	2017
Mundar, Zemljak	2016	Tietjen, Pahle, Fuss,	2016	Savoiu et al.	2017
		Khazraeian, Hadi	2016	Sauhats et al.	2018
		Welkenhuysen et al.	2016	Zheng, Gohin	2018
		Odavić, Zekić, Milić	2017	Liu, Sioshansi	2018
		Megla, Kurnoga, Dolinar	2017	Ornstein	2018
		Trejo-Pech, Spreen, Zansler	2018	Akanbi, Ojo, Oluneye	2018
		Todorov	2018		
		Kuppens et al.	2018		
		Leiss, Nax	2018		

The literature separated by specific criteria and presented in Table 1 will be further analyzed in next subchapters together with other significant but previously published papers covering this topic.

2.1. The literature dealing with the definition and methodology of the Monte Carlo method

The consistent development of predictive behaviour models of complex, unpredictable systems began by mathematician Stanislaw Ulam, recognizing the potential of newly invented computers to automate the formation and recording of statistical samples. In the following years, professor Ulam set up algorithms for computer deployment with associates John von Neuman and Nicolas Metropolis. A research result was published in 1949 in the Journal of the American Statistical Association presenting and naming the Monte Carlo method for solving the deterministic problems associated with random numbers (Metropolis et.al, 1949, p. 335-341). The ability to use the Monte Carlo model in business decision-making was first given in 1964 by David Hertz in article "Risk Analysis in Capital Investment" (Hertz, 1964, p. 95-106) and since then its application in economy and different business functions, such as forecasts of future economic trends, investment decision-making, transportation and environmental issues which are having economic effects, introduction of new systems and energy sources have been analyzed. After the publication of David Hertz's work, a number of further researches and papers on this topic were published. In numerous papers authors recommend the Monte Carlo method to be used in different, already named economic fields but especially in business decision-making (Lewellen and Long, 1972; Philippatos, 1973; Rubenstein, 1981; McCarthy,

2000; Kautt and Hopewell, 2000; Emmet and Goldman, 2004; Vishwanath, 2009 and others), in other works, authors argue that the usefulness of applying Monte Carlo method in business decision-making is questionable (Nawrocki, 2001) and that the results in the large portion depend on the objectivity of analysts or just represent a static view of the portfolio (Chong, 2004). However, these works analyze the possibility of applying the Monte Carlo model in case of investing in the securities market and did not thoroughly analyze the applicability of this method in other fields such as capital adequacy assessment or economic sectors development forecasts. In recent period, authors are oriented on a wider area of application possibilities such as forecasting (Kautt, Hopewell, 2010), political economy and urban growth (Ornstein, 2018), investment planning (Liu, Sioshansi, 2018), capital markets (Vishwanath, 2009; Mundar, Zemljak, 2016), innovative transportation systems (Khazraeian, Hadi, 2016) and investment solution in environment protection (Welkenhuysen et al. 2017) finding disadvantages and possible solutions of the methodology advancement (Laise 2009; Emmet and Goldman, 2009). All these works have identified and use the potential of the Monte Carlo method in the same time trying to develop variants and solutions for identified problems applicable to the immediate area of their research.

2.2. Application of Monte Carlo method

Regarding the intensity of application of Monte Carlo method in practice, Kester and co-authors (1999) conducted a research on a sample of managers from six Asian and Pacific countries that has shown that although practically applied, the Monte Carlo analysis is still underused in the Asian and Pacific countries in the assessment of investment projects compared to other methods such as Capital Asset Pricing Model, Scenario Analysis, Sensitivity analysis, and Decision Tree. (George W. Kester et al., 1999 referenced by Brigham et.al., 2008, p. 566) In a survey conducted in 2012 in the area of eastern Croatia on a sample of 58 investment projects, it has been found that Monte Carlo method is not commonly used in the assessment of investment projects nor are investors familiar with its characteristics. (Bestvina Bukvić, 2012, p. 213). This situation is expected to be changed as of European commission guidelines that recommend Monte Carlo as one of the methods in evaluation of infrastructural investment projects. (European Commission, 2015). It is to be expected that the same recommendation will be in the future expanded on the investment proposal evaluations in the business sector as well.

2.2.1. Application of Monte Carlo method in business and investment decision-making processes

In recent time a significant number of authors in the area of financial management issues are dealing with the problems of assessing the justification of investing in financial or tangible assets and determining the level of investment risk. Brealey and Myers analyze issues of financial decision-making, capital budgeting, business performance analysis and business risk issues giving the examples and analyzing the possibility of Monte Carlo applicability in the analyzed field. (Brealey, Mayers, 2003, p. 232) In the recent times the authors are using the Monte Carlo method in the process of determining the level of risk of the project proposal or a business plan covering projects from the agriculture, energetic, finance (whether they invest in financial or tangible assets), infrastructure, transportation etc. (Odavić, Zekić, Milić, 2017; Greasley 2004; Karić et al. 2013; Mundar, Zemljak, 2016; Clark, Reed, Stephan, 2010; Trejo-Pech, Spreen, Zansler, 2018; Merková, Drábek, Jelačić, 2013; Khazraeian, Hadi, 2016 and others). Liu, Sioshansi (2018) by analyzing the capital projects in energetics are proposing a new model with the aim of defining and calculating large- and small-scale uncertainties such as investment and fuel- cost changes, renewable energy availability etc. In the same year, Leiss and Nax (2018) are using Monte Carlo method for testing the model applied in the field of predicting downturns on the capital market.

It can be seen that the application of the Monte Carlo method in business and investment decision-making processes is broad and often overlapping with the application in interdisciplinary fields including combination of economy and technical, environment or agricultural sciences in the part of the economic valuation of planned investments where the borders between different disciplines are disappearing.

2.2.2. Application of Monte Carlo method in economic and sectoral forecasting

Zheng and Gohin (2018) argue that stochastic decision models are widely used in macroeconomics for optimal policy analysis under various structural shocks. Here the DSGE (Dynamics stochastic general equilibrium) models are being applied. Nevertheless, the authors use the Monte Carlo method to test their model and identify whether it provides optimal estimation (Zheng, Gohin, 2018). By analyzing the papers covering the issue of application in the economy and industry sectors and even social development forecasting it was found that they are not as rare as expected, but are covering a broad thematic area, from valuing governmental support in infrastructure projects as real options using Monte Carlo simulation (Cheah, Liu, 2006), valuing uncertainty in a forest sector model (Maarit, Kallio, 2010), comparing economic forecast accuracy (Buseti, Marcucci, 2013), modelling economic changes (Oelrichs, 2017), analyzing global commodity prices and global stock volatility shocks (Kang, Ratti, Vespignani, 2017), applying Monte Carlo method in the area of political economy considering urban growth (Ornstein 2018), GDP trends forecast (Akanbi, Ojo, Oluneye, 2018) etc. The estimation of future annual fractional change in GDP per capita in Australia, per example, was analyzed by Franses (1996) and confirmed its usefulness in this area of research. Sauhats et al. (2018) tested the forecast of electric energy generation and consumption and economic indicators for the next 25 year by Monte Carlo method with which they confirmed the recommendation of change the current energetic system. Regarding the system analysis Greasley states that the simulation method is able to incorporate different sources of variability to provide a more realistic picture of system performance, where the Monte Carlo is “widely used in risk analysis for assessing the risk and benefits of different, and often very expansive, decisions” (Greasley, 2004, p. 12). Although above-named authors were categorized as the application in economy and sectoral forecasting, the literature is having only a limited application in the individual sectors projections evaluation. In recent times, as predicted by Greasley back in 2004, the Monte Carlo method is today even more used in testing fields other than business and economy, dealing with issues such as environmental issues, medical, transport and logistics or technological questions. As well, it seems that this model becomes more commonly used in practice than it has been so far, especially as of the EU guidelines by which Monte Carlo is the method which is suggested for calculation of the probability distribution of the financial rate of return (FRR) or net present value (NPV) in infrastructural project applications (European Commission, 2015). Although the numerous recent papers are, to a limited extent, dealing with economic issues and some using the Monte Carlo method in the research process, for the purpose of confirming or rejecting the first hypothesis, the author analysed wider interest in this topic in the time scale 2004 – 2019. The results are shown in the following subchapter.

2.3. The term “Monte Carlo method” search intensity

By analysis of the interest and placed search query through Google search platform for the following terms: »Monte Carlo method«, »economic development forecasts« and »investment risks«, by using the possibilities of Google Trends internet platform it was found that the »Monte Carlo method« is most frequently searched term compared to the other two in the period 2004 to 2019 (as shown by Chart 1).

This was especially emphasized in the period before economic crises (starting 2007). To recent times, the search interest for the »Monte Carlo method« significantly decreased, while remained stable for the other two terms. Chart 1 shows the trend of search interest over the last 15 years that show that in comparison to 1st of January 2004 to February 2019.

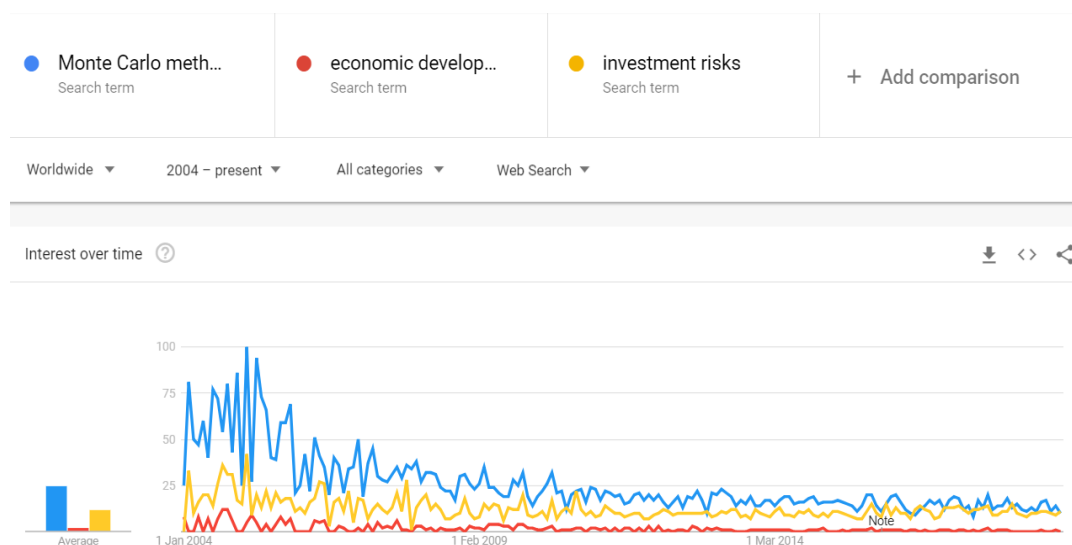


Chart 1: Interest over time (authors' work according to Google Trends data and methodology¹)

There are differences if observing the different categories of search. If observing the search intensity over time in the same period (2004 – 2019) by categories that are offered by the platform Google Trends: »Business & Industrial«, »Finance«, »Computers & Electronics«, it was found that the Monte Carlo method is most searched term in category of »Business & »Industrial« while in the category »Finance«, the most searched term was »investment risk« while the other two, »Monte Carlo method« and »economic development forecast« were found on the level below 10, especially in the last ten years. It is interesting that in the category of »Science« the »Monte Carlo method« was in the past and still generates high interest, while the other two terms, economic development forecast and investment risks are remaining on the level below the value of 10. As of given results it cannot be claimed that there is an increasing interest in exploring the application of the Monte Carlo analysis, and therefore the first hypothesis is rejected.

3. CONCLUSION

This paper is giving the categorization and the review of recent literature dealing with the Monte Carlo method and its use in economy and its different sub-fields. As noted before, the literature found was classified by the criteria of area of research as follows: dealing with the issue of definition and methodology of Monte Carlo method or its application in two fields: in the business and investment decision-making processes and application in economic and different industry sectors forecasting. It was found that in most cases authors consider that this method provides specific and relevant information in the investment decision-making in different industries but with taking into consideration its specificity and in combination with other

¹ Explanation: »Numbers represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. A score of 0 means that there was not enough data for this term« Google Trends, retrieved 19.02.2019. from <https://trends.google.com/trends/explore?date=all&q=Monte%20Carlo%20method,economic%20development%20forecast,investment%20risks>

methods of assessing project investment. Despite the shortcomings listed by some authors (Nawrocki, 2001, Laise, 2009, etc.), it was found as a useful method of risk assessment and should be included in capital budgeting processes (as recommended by the European Commission as well) as it provides specific information on the probabilities of achieving unsatisfactory results and highlights the level of impact of identified risk factors on project or business performance. Although the usefulness of Monte Carlo method in the macroeconomics, especially in economic forecasts has long been known, there is lack of a significant number of researches in this field and this method is rarely used to test industry development or economic forecasts. Analyzing the articles in the last 15 years any work associated with the use of Monte Carlo in the analysis of projections of future development of the IT sector has not been found. For that reason, the future research should be based on testing the Monte Carlo method on the industry level. As well, a new models and Monte Carlo method versions have been developed at the theoretical level and it is expected that future works will empirically test this newly developed theory. Regarding the research hypothesis, the first hypothesis that claimed that there is an increasing interest in exploring the application of the Monte Carlo analysis was rejected as of declining interest on the level of interest search on the Google platform, as well as the focus of this paper, although covering the longer period was only on the recent two years the time range does not provide enough information to accept the hypothesis. The other hypothesis that claims that there are unexplored possibilities of Monte Carlo method application in the economy, especially in the field of economic trends forecasting was accepted, as there are rare papers dealing with this topic, that was explained in former subchapters. Limitations of the research are in the number and availability of papers published in analyzed period, where it cannot be claimed that all researches and papers were taken into consideration. As well, the conclusions were formed according to the findings of other authors and literature analysis and not on authors' empirical research. Recommendations of future research are answering the above-stated limitations. In that respect, the future research should cover the application of the Monte Carlo method in the area of economy and sectoral forecasts as well as the results of its application in infrastructural projects proposals on the EU calls for financing. The research which the author is conducting will in one part, cover the named limitation as it will be focused on creating the projections of IT sector future development and trends that will be tested by Monte Carlo method. Existing interest and consideration of the research results and recommendations from the literature can result in better business decisions at the level of individual investors, but also at the level of economic policymakers for the purpose of developing the economic forecasts and adoption of appropriate economic incentives with the aim of achieving the economic development and growth. As well, basic classification, analysis of the works and suggestions could be useful for other authors' future research.

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IMPLEMENTATION OF HEADLINE TARGETS OF EUROPE 2020 STRATEGY – POLAND COMPARED TO EU COUNTRIES

Katarzyna Warzecha

University of Economics in Katowice, Poland
warzecha@ue.katowice.pl

ABSTRACT

Europe 2020 Strategy is a long-term program of the socio-economic development policy of the European Union and its member states. Its main target is building economy based on knowledge and innovations; efficient use of resources and environment protection through supporting low-carbon economy; increase of employment and growth of socio-economic cohesion. The strategy specifically emphasises the need of joint actions of the member states and implementation of reforms that should enable facing the challenges associated with globalisation, population ageing and growing need of rational use of resources. The paper aims to analyse how implementation of the headline union (reference) goals as determined by Europe 2020 Strategy is proceeding in Poland and other European Union member states. It also aims at forecasting whether it is possible to achieve the goals determined for individual European Union states by 2020. The research shows that the level of achievement of individual targets determined in Europe 2020 Strategy by the European Union member states is characterised by high diversity, which can delay timely implementation of the Strategy objectives. To assess the chances of implementation of the targets of Europe 2020 Strategy by the union states, the mean pace of changes was calculated as a geometrical mean of annual indicators from the years 2004-2016. On this basis, it was verified whether a given country is likely to achieve its goals in 2020, provided that the dynamics of the studied phenomena does not change. The research period covers the years 2004-2016, and the reference target values are determined for 2020.

Keywords: EU countries, Europe 2020 strategy, forecasts, strategy reference goal

1. INTRODUCTION, OBJECTIVE, SUBJECT AND RESEARCH METHOD

Europe Strategy 2020 is focused on three areas: smart growth (European Commission, 2010; Kukuła 2017; Kasprzyk, Fura & Wojnar 2016; Wójcik & Warzecha, 2017): smart growth (i.e. development of economy based on knowledge and innovations (Greta, Tomczak & Lewandowski, 2012)); sustainable development (i.e. efficient use of resources and environment protection through low-carbon economy (Wójcik & Wąsowicz 2017; Wójcik 2018a, Wójcik 2018b)) and development favouring social inclusion (associated with increasing the employment rate (Warzecha, 2018) and combating poverty and social exclusion (Łopatka 2016; Kryk, 2016; Warzecha & Skórska, 2017)). The strategy is the vision of social market economy for the Europe of the 21st century, i.e. economy of high level of employment and territorial cohesion. Target values of Europe 2020 Strategy were determined on a global level, i.e. for the entire European Union, but also for individual EU member states, because they are countries highly diversified in social and economic terms. For each of them, “the starting point” is different, just like the target values or country objectives (country objectives for some member states are considerably lower or remarkably higher than reference targets, which is related to the specific nature and significant differences in socio-economic development between individual EU states), that can be achieved in the time horizon established by the Strategy, i.e. until 2020 (Warzecha, 2018). Each of the states also has to implement different methods to achieve the targets. They need to be adapted to their specific character and the problem areas. Within determined trends, European Union proposes flag initiatives, and operational programs on the level of member states that should support achievement of established targets.

Strategy targets for all EU-28 countries are presented below. The targets of Europe 2020 Strategy, related to sustainable development include:

- increasing investments in research and development sector (3% GDP);
- reducing the greenhouse gasses emission (CO₂) compared to the level of 1990 (by around 20%);
- 20% of total energy consumption should come from renewable resources;
- growth of efficient energy use – consumption of primary energy – 1483 million TOE.

The objectives of Europe 2020 Strategy related to development favouring social integration:

- increasing the employment rate of the population aged 20-64 to 75%;
- reducing the number of people at risk of poverty/exclusion by 20 million on the level of the European Union.

Targets of Europe 2020 Strategy related to smart development:

- implementation of all necessary educational actions to prevent early school leaving among young people (reduction of the rate of early school leavers to the level of 10%);
- increasing and facilitating access to universities to increase the number of graduates with tertiary education (increase in the share of people aged 30-34 with tertiary or equivalent level of education to at least 40%);
- improvement in the quality of education towards digital society.

Trends and targets of Europe 2020 Strategy are implemented using the regional policy funds, including European Regional Development Fund (ERDF), European Social Fund (ESF), cohesion Fund (CF) and other funds from sector policies. The paper is focused on the assessment of the position of Poland compared to the European Union member states on the basis of achieved EU headline targets of Europe 2020 Strategy by individual EU member states at the end of 2016. It also aims to verify and assess the chances of achievement of the headline targets of Europe 2020 Strategy by EU countries by the end of 2020. To assess the chances of achievement of the headline targets of Europe 2020 Strategy, mean pace of changes was calculated as geometrical mean of annual rates in the years 2004-2016. Based on this, it is verified whether a given country has the chance to achieve the targets in 2020, provided that the dynamics of studied phenomena does not change.

2. LEVEL OF ACHIEVEMENT OF THE EUROPEAN UNION HEADLINE TARGETS OF EUROPE 2020 STRATEGY IN EU MEMBER STATES AT THE END OF 2016 AND CHANCES OF ACHIEVEMENTS OF THESE OBJECTIVES AT THE END OF 2020

It is reviewed below which EU countries met the main EU targets of Europe 2020 Strategy at the end of 2016 (table 1). The employment rate in Europe reached in 2016 on average 71%, thus there are around 4 percentage point separating the EU countries from the determined level of 75%. It is positive that majority of the countries have the employment rate above the mean. The highest employment rate of the population aged 20-64 was observed in Sweden – 81.2%, whereas the lowest in Greece (56.2%), which confirms economic collapse of the country which was a result of the economic crisis of 2008-2009. Improved conditions for conducting research and development activity in EU states through investments of 3% GDP in this sphere is another EU target of Europe 2020 Strategy. EU countries are highly diversified with respect to the analysed indicator, and for majority of the states the indicator is lower than EU mean (reaching the level of 2.03% in 2016). The largest spending on research and development in 2016 was reported in Sweden (3.25% GDP) and Austria (3.09% GDP), whereas the lowest in Cyprus (0.49% GDP) and Romania (0.48% GDP). As data included in table 1 and figure 1 show, the EU target of Europe 2020 Strategy, concerning the rate of expenditures on research and

development was reached in 2016 by only two EU countries. Analysing the share of renewable energy in final gross energy consumption, the highest rate in 2016 was achieved in Sweden (53.8%) and Finland (38.7%), whereas the lowest in Luxembourg (5.4%), Malta and Holland (6%). Furthermore, in most of the countries the share is lower than the EU mean (reaching 19.96% in 2016). As data included in figure 1 show, the EU target of Europe 2020 Strategy concerning the increase in the share of renewable energy in final gross energy consumption was reached in 2016 by 11 EU countries. According to Europe 2020 Strategy, the member states should aim to increase the rate of people aged 30-34 with tertiary education (in 2016 the highest rate was reached by Luxembourg (54.6%) and Lithuania (58.7%), whereas the lowest by Romania (25.6%) and Italy (26.2%)). In most EU-28 countries, the rate was higher than the union mean (that reached 41.32% in 2016). As data included in figure 1 and table 1 show, the EU target of Europe 2020 Strategy concerning the growth of the rate of population aged 30-34 with tertiary education was achieved in 2016 by 18 EU member states. It is assumed in the strategy that the number of early school leavers aged 18 – 24 should be reduced to 10%. In 2016 the lowest rate of this phenomenon was reported in Croatia (3.1%), Slovenia (4.3%) and in Poland (5.0%). On the other hand, in this respect the situation was the worst in Spain (18.3%), Malta (18.6%) and Romania (18.1%). As data presented in figure 1 and table 1 show, the EU target of Europe 2020 strategy concerning decreasing the rate of early school leavers aged 18 – 24 was reached in 2016 by 18 EU member states. Tables 2 – 4 present data on the basis of which the chances of achievement of EU targets of Europe 2020 Strategy by individual EU states by the end of 2020 are analysed. Each of the tables presents the national target of Europe 2020 Strategy that is relevant to the analysed area, the mean pace of changes of the given indicator between 2004 and 2016 is calculated and forecasts for a given indicator for 2020 are determined (provided that the dynamics of changes of the phenomena does not change). Furthermore, the difference between the forecast and assumed target is calculated. It shows whether a given EU country has the chance to achieve the EU target of Europe 2020 Strategy (countries that have the chances to achieve the given target in a specific area are marked in grey in tables 2 – 4). As previous analyses show (data included in table 1 and in figure 1) 9 EU countries met the EU target related to employment at the end of 2016. If the pace of changes in the analysed indicator does not change, by 2020 Latvia will also have met the target (according to forecasts included in table 1 it will even reach a higher level than the assumed one). Data included in table 1 show that in 2004 – 2016 the highest real mean pace of changes in employment indicator was observed in Poland (1.6% per year) and Malta (1.5% per year).

Table following on the next page

Table 1: The number of targets of Europe 2020 Strategy that have the chances to be achieved by EU countries by the end of 2020 and the number of targets met at the end of 2016

No	EU country	Target type*						Number of targets achieved by individual UE countries		Forecast of the number of targets that can be achieved by individual EU countries	
		A	B	C	D	E	F	union targets in 2016	national targets in 2016**	union targets in 2020	national targets in 2020**
1	Belgium			X	X	X		2	1	3	3
2	Bulgaria					X	X	1	1	2	2
3	Czech Republic	X		X	X	X		3	4	4	4
4	Denmark	X	X	X	X	X	X	5	3	6	4
5	Germany	X	X		X	X	X	2	1	5	4
6	Estonia	X		X		X	X	4	3	4	3
7	Ireland			X	X			2	2	2	2
8	Greece			X	X	X		2	2	3	4
9	Spain			X			X	1	0	2	2
10	France			X	X			2	1	2	1
11	Croatia				X	X	X	3	2	3	3
12	Italy					X	X	0	3	2	3
13	Cyprus			X	X			2	3	2	4
14	Latvia	X		X	X	X	X	4	3	5	3
15	Lithuania	X		X	X	X	X	5	3	5	4
16	Luxembourg			X	X			2	1	2	1
17	Hungary			X		X	X	1	1	3	2
18	Malta						X	0	0	1	3
19	Netherlands	X		X	X			3	2	3	2
20	Austria	X	X	X	X		X	5	3	5	3
21	Poland			X	X			2	0	2	2
22	Portugal			X	X		X	1	0	3	3
23	Romania					X	X	2	1	2	2
24	Slovenia			X	X		X	3	1	3	1
25	Slovakia			X	X	X		2	0	3	2
26	Finland			X	X	X	X	3	3	4	3
27	Sweden	X	X	X	X	X	X	6	3	6	4
28	United Kin.	X		X		X		3	***	3	***
Number of achieved union targets (2016)		9	2	18	18	13	11				
Number of achieved union targets (2020)		10	4	22	20	17	17				

*- targets that have the chance to be achieved by a given EU country by the end of 2020 are marked in grey;

** - the number of achieved national targets presented on the basis of previous analyses and calculations (Warzecha, 2018); *** - Great Britain did not determine the national targets.

A - Employment rate age group 20-64 in %; B - Gross domestic expenditure on R&D% of GDP; C - Tertiary educational attainment, age group 30-34; D - Early leavers from education and training % of the population aged 18-24; E -- greenhouse gases; F -- renewable energy.

Source: Own study on the basis of Eurostat

Table 2: Assessment of the chances of achievement of EU target levels determined for 2020 with respect to the main indicators of Europe 2020 Strategy in EU countries and estimated number of targets that can be achieved by the end of 2020

No		2020 targets	Mean pace of changes	Forecast for 2020	Difference	2020 targets	Mean pace of changes	Forecast for 2020	Difference
	EU country	A - Employment rate age group 20-64 in %				B - Gross domestic expenditure on R&D% of GDP			
1	Belgium	75	1.003	68.41	-6.59	3	1.027	2.77	-0.23
2	Bulgaria	75	1.010	70.44	-4.56	3	1.043	0.92	-2.08
3	Czech Republic	75	1.008	79.04	4.04	3	1.032	1.91	-1.09
4	Denmark	75	1.000	77.33	2.33	3	1.014	3.04	0.04
5	Germany	75	1.012	82.41	7.41	3	1.016	3.14	0.14
6	Estonia	75	1.007	78.82	3.82	3	1.035	1.47	-1.53
7	Ireland	75	0.998	70.91	-4.09	3	1.000	1.18	-1.82
8	Greece	75	0.989	53.85	-21.15	3	1.055	1.25	-1.75
9	Spain	75	0.998	63.41	-11.59	3	1.011	1.24	-1.76
10	France	75	1.001	70.27	-4.73	3	1.006	2.31	-0.69
11	Croatia	75	1.003	62.05	-12.95	3	0.984	0.80	-2.20
12	Italy	75	1.000	61.60	-13.40	3	1.017	1.38	-1.62
13	Cyprus	75	0.993	66.69	-8.31	3	1.033	0.57	-2.43
14	Latvia	75	1.006	75.06	0.06	3	1.008	0.45	-2.55
15	Lithuania	75	1.007	77.28	2.28	3	1.010	0.89	-2.11
16	Luxembourg	75	1.004	71.73	-3.27	3	0.979	1.14	-1.86
17	Hungary	75	1.012	74.94	-0.06	3	1.029	1.36	-1.64
18	Malta	75	1.015	74.00	-1.00	3	1.018	0.66	-2.34
19	Netherlands	75	1.002	77.85	2.85	3	1.010	2.11	-0.89
20	Austria	75	1.006	76.66	1.66	3	1.030	3.48	0.48
21	Poland	75	1.016	73.83	-1.17	3	1.048	1.17	-1.83
22	Portugal	75	0.998	69.98	-5.02	3	1.047	1.53	-1.47
23	Romania	75	1.004	67.26	-7.74	3	1.020	0.52	-2.48
24	Slovenia	75	1.000	70.00	-5.00	3	1.032	2.27	-0.73
25	Slovakia	75	1.008	71.96	-3.04	3	1.039	0.92	-2.08
26	Finland	75	1.001	73.80	-1.20	3	0.985	2.59	-0.41
27	Sweden	75	1.004	82.51	7.51	3	0.996	3.20	0.20
28	United Kingdom	75	1.003	78.35	3.35	3	1.007	1.74	-1.26

Source: Own study on the basis of Eurostat

Analysing data concerning investments on research and development and data included in table 1 and in figure 1, it can be stated that only two countries met the union target at the end of 2016. Data included in table 1 and table 2 show that also Denmark and Germany have the chances to achieve the target or the level even higher than the target value by 2020 (provided that the dynamics of changes of the described phenomenon does not change). In 2004 – 2006 the highest mean real pace of changes in the indicator of spending on research and development was observed in Greece (5.5% per year) and Poland (4.8% per year). Furthermore, it results from data included in table 2 that for majority of EU countries (provided that the pace of changes in the studied phenomenon remains on the level similar to calculated in the table) the target related to the level of investments on research and development will not have been achieved by 2020.

Table 3: The assessment of the chances of achievement of EU target levels of the main indicators of Europe 2020 Strategy as determined for 2020 in EU countries and estimated number of targets that can be achieved by the end of 2020

No	EU country	2020 targets	Mean pace of changes	Forecast for 2020	Difference	2020 targets	Mean pace of changes	Forecast for 2020	Difference
		C - Tertiary educational attainment, age group 30-34				D - Early leavers from education and training % of the population aged 18-24			
1	Belgium	40	1.011	47.68	7.68	10	0.9674	7.71	-2.29
2	Bulgaria	40	1.025	37.28	-2.72	10	0.9641	11.92	1.92
3	Czech Republic	40	1.082	45.00	5.00	10	1.0039	6.70	-3.30
4	Denmark	40	1.012	50.01	10.01	10	0.9834	6.73	-3.27
5	Germany	40	1.018	35.66	-4.34	10	0.9867	9.76	-0.24
6	Estonia	40	1.040	53.15	13.15	10	0.9799	10.05	0.05
7	Ireland	40	1.026	58.17	18.17	10	0.9396	4.83	-5.17
8	Greece	40	1.045	50.97	10.97	10	0.9316	4.67	-5.33
9	Spain	40	1.007	41.23	1.23	10	0.9570	15.94	5.94
10	France	40	1.017	46.65	6.65	10	0.9725	7.87	-2.13
11	Croatia	40	1.047	35.27	-4.73	10	0.9467	2.25	-7.75
12	Italy	40	1.044	31.14	-8.86	10	0.9580	11.62	1.62
13	Cyprus	40	1.022	58.32	18.32	10	0.9203	5.45	-4.55
14	Latvia	40	1.074	56.92	16.92	10	0.9621	8.57	-1.43
15	Lithuania	40	1.055	72.70	32.70	10	0.9384	3.72	-6.28
16	Luxembourg	40	1.047	65.66	25.66	10	0.9326	4.16	-5.84
17	Hungary	40	1.049	40.02	0.02	10	0.9987	12.33	2.33
18	Malta	40	1.045	35.68	-4.32	10	0.9387	15.29	5.29
19	Netherlands	40	1.026	50.63	10.63	10	0.9539	6.62	-3.38
20	Austria	40	1.056	49.83	9.83	10	0.9712	6.14	-3.86
21	Poland	40	1.067	57.89	17.89	10	0.9938	5.07	-4.93
22	Portugal	40	1.065	44.47	4.47	10	0.9176	9.92	-0.08
23	Romania	40	1.079	34.68	-5.32	10	0.9842	17.36	7.36
24	Slovenia	40	1.048	53.38	13.38	10	1.0109	5.12	-4.88
25	Slovakia	40	1.077	42.42	2.42	10	1.0071	7.61	-2.39
26	Finland	40	1.005	47.04	7.04	10	0.9805	7.30	-2.70
27	Sweden	40	1.035	58.44	18.44	10	0.9820	6.88	-3.12
28	United Kingdom	40	1.031	54.36	14.36	10	0.9936	10.92	0.92

Source: Own study on the basis of Eurostat

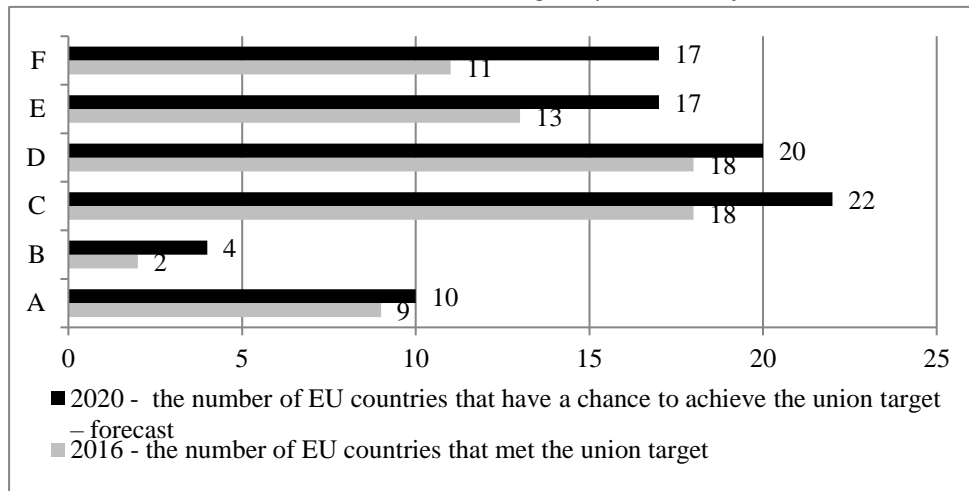
Analysing data concerning the indicators related to education and data included in table 3 and in figure 1, it can be stated that at the end of 2016, 13 EU countries met the union target related to the increase in the rate of population aged 30 – 34 with tertiary education, and 18 EU countries achieved the union target concerning the reduction of the rate of early school leavers aged 18 – 24. Data presented in table 3 show that 4 more countries (Czech Republic, Hungary, Portugal and Slovakia) have the chance to achieve the EU target related to the rate of population with tertiary education or even have a higher level of this rate by 2020 (provided that the dynamics of changes of the analysed phenomenon does not change). Data included in table 3 show that 2 more countries (Germany and Portugal) have the chances to achieve the union target concerning the rate of early school leavers aged 18 – 24 or even achieve a higher value of this indicator by 2020 (if the dynamics of changes of the analysed phenomenon does not change).

Table 4: The assessment of the chances of achievement of EU target levels of the main indicators of Europe 2020 Strategy in EU countries as determined for 2020 and estimated number of targets that can be achieved by the end of 2020

No	EU country	2020 targets	Mean pace of changes	Forecast for 2020	Difference	2020 targets	Mean pace of changes	Forecast for 2020	Difference
		F – Share of renewable energy in final gross energy consumption				G – emission of greenhouse gases			
1	Belgium	20	1.135	14.45	-5.55	80	0.981	75.59	-4.41
2	Bulgaria	20	1.059	23.69	3.69	80	0.994	55.77	-24.23
3	Czech Republic	20	1.068	19.35	-0.65	80	0.988	62.62	-17.38
4	Denmark	20	1.066	41.63	21.63	80	0.974	66.50	-13.50
5	Germany	20	1.081	20.22	0.22	80	0.991	71.52	-8.48
6	Estonia	20	1.038	33.44	13.44	80	1.001	48.86	-31.14
7	Ireland	20	1.121	15.03	-4.97	80	0.993	110.08	30.08
8	Greece	20	1.068	19.78	-0.22	80	0.971	79.70	-0.30
9	Spain	20	1.062	22.01	2.01	80	0.980	107.29	27.29
10	France	20	1.044	19.04	-0.96	80	0.985	80.75	0.75
11	Croatia	20	1.016	30.11	10.11	80	0.984	71.56	-8.44
12	Italy	20	1.088	24.41	4.41	80	0.976	76.00	-4.00
13	Cyprus	20	1.096	13.41	-6.59	80	0.997	151.22	71.22
14	Latvia	20	1.011	38.79	18.79	80	1.002	44.12	-35.88
15	Lithuania	20	1.034	29.23	9.23	80	0.995	41.11	-38.89
16	Luxembourg	20	1.161	9.81	-10.19	80	0.984	82.01	2.01
17	Hungary	20	1.103	20.98	0.98	80	0.983	61.34	-18.66
18	Malta	20	1.407	23.49	3.49	80	0.975	89.76	9.76
19	Netherlands	20	1.096	8.65	-11.35	80	0.991	88.39	8.39
20	Austria	20	1.034	38.25	18.25	80	0.989	98.72	18.72
21	Poland	20	1.042	13.32	-6.68	80	1.000	85.01	5.01
22	Portugal	20	1.033	32.51	12.51	80	0.983	108.15	28.15
23	Romania	20	1.036	28.83	8.83	80	0.977	41.68	-38.32
24	Slovenia	20	1.024	23.38	3.38	80	0.989	91.08	11.08
25	Slovakia	20	1.054	14.80	-5.20	80	0.982	51.70	-28.30
26	Finland	20	1.024	42.51	22.51	80	0.974	75.71	-4.29
27	Sweden	20	1.028	60.04	40.04	80	0.979	70.01	-9.99
28	United Kingdom	20	1.195	18.95	-1.05	80	0.971	56.63	-23.37

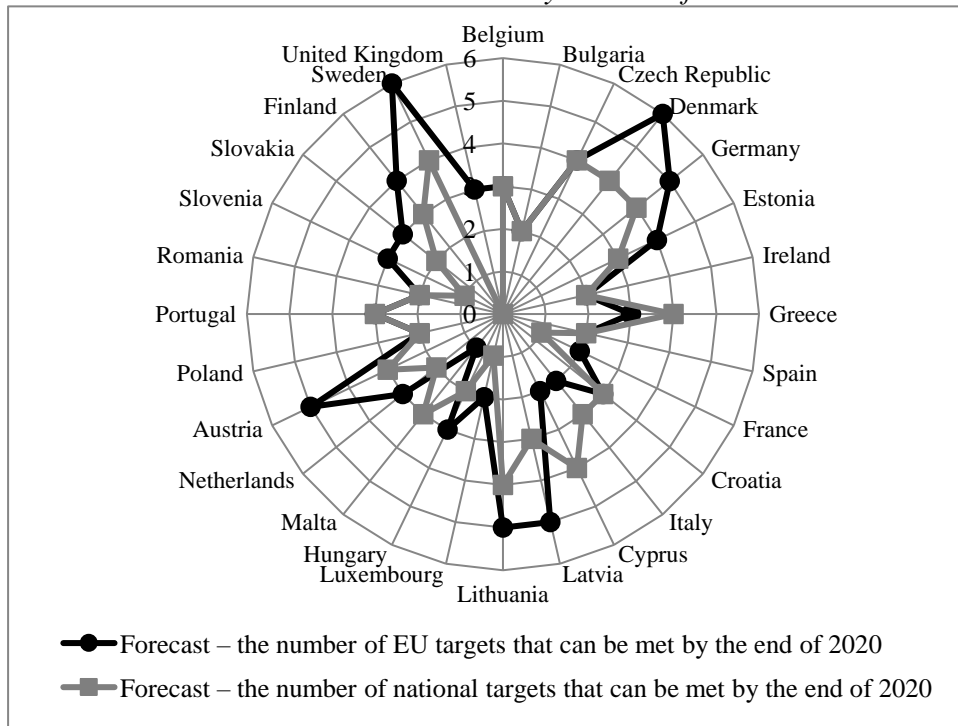
Source: Own study on the basis of Eurostat

Figure 1: The number of EU countries that met the EU target in 2016 and those that have the chance to meet the union target by the end of 2020



Where: A - Employment rate age group 20-64 in %; B - Gross domestic expenditure on R&D% of GDP; C - Tertiary educational attainment, age group 30-34 ; D - Early leavers from education and training % of the population aged 18-24; E – greenhouse gases; F – renewable energy.

Figure 2: The forecast of the number of EU targets and national targets that can be met by individual EU countries by the end of 2020



As data included in figure 1 show, the target of Europe 2020 Strategy concerning increasing the share of renewable energy in final gross energy consumption was reached in 2016 by 11 EU countries, whereas data presented in table 1 and table 4 show that also further 6 countries (Germany, Bulgaria, Italy, Hungary, Spain and Malta) have the chance to achieve the EU target in this area. The fact that the target of Europe 2020 Strategy related to reducing greenhouse gases emission compared to the level of 1990 by 20% was achieved at the end of 2016 by 13 EU countries and further 4 countries (Belgium, Greece, Italy and Finland) have the chance to

meet the union target in this area by the end of 2020. Data of Eurostat show that the target of Europe 2020 Strategy concerning the increase in energy efficiency (i.e. decrease in primary energy consumption) was not achieved at the end of 2016 by any EU country and the forecasts show that by the end of 2020 none of the EU countries will have achieved this target. As data included in figure 2 show, it is easier for European Union countries to achieve the union targets of Europe 2020 Strategy rather than national targets determined for each of the countries (out of 27 countries, 14 have the chance to meet more union targets than national targets, whereas 4 countries have the chance to meet more national targets than union targets and 9 countries have the chance to meet as many union targets as national targets).

3. CONSLUSION

The paper attempts to assess the level of achievement of selected headline EU targets of Europe 2020 Strategy by EU countries. Conducted analysis shows considerable differences between the countries in the studied area. The best situation with respect to the level of achievement of the targets of Europe 2020 Strategy at the end of 2016 was observed in Sweden (the country met 6 union targets); Denmark, Austria, Lithuania (the countries met 5 union targets); Estonia and Latvia (the countries met 4 union targets). However among the EU countries there are also states that should intensify their actions to achieve the level of indicators outlined in Europe 2020 Strategy, because by the end of 2016 they had not met any of the EU targets of the Strategy (they are Italy and Malta). Generally, it can be stated that EU countries are well on their way to meet or come closer to the assumed values of indicators in the sphere of education, climate and energy. Conducted analysis shows that educational targets are the easiest to achieve (18 countries met the targets related to the growth of the rate of people aged 30-34 with tertiary education), and forecasts show that 22 EU countries will have achieved the target determined for this indicator by the end of 2020. Union target of Europe 2020 Strategy concerning the rate of early school leavers aged 18 – 24 at the end of 2016 was reached by 18 EU countries, whereas according to forecasts by the end of 2020 this target will have been achieved by 20 countries. Positive forecasts also concern the indicator of growth of the share of renewable energy in final gross energy consumption. At the end of 2016, 11 EU countries achieved the union target and it is estimated that the target will have been achieved by 17 EU countries by the end of 2020. On the other hand, it is the hardest for EU countries to meet the targets related to spending on research and development (by the end of 2016 only two countries achieved the target, i.e. Austria and Sweden, and forecasts show that by the end of 2020 only four countries will have achieved the target) and indicators of poverty and social exclusion. In comparison to EU countries, Poland was rated very poorly (two out of six headline EU targets of Europe 2020 Strategy were achieved at the end of 2016). Calculated forecasts show that by the end of 2020 Poland will not have achieved any other strategy target. Finally, it must be stated that timely achievement of all reference targets of Europe 2020 Strategy related to its headline assumptions by all EU countries seems little probable. The most difficult situation is observed with respect to achievement of targets related to employment, spending on research and development and the problem of poverty.

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EUROPEAN REGULATION OF INTERNATIONAL PRIVATE RELATIONS: THE EMERGENCE OF A EUROPEAN PRIVATE INTERNATIONAL LAW

Maria Joao Mimoso

*Portugalense University,
Portugalense Institute for Legal Research, Portugal
mjmarbitragem@gmail.com*

Maria do Rosario Anjos

*IPMAIA - Polytechnique Institute of Maia,
IJP - Portugalense Institute for Legal Research, Portugal
rosario.anjos@socadvog.com*

ABSTRACT

There is no doubt that we are experiencing increasing integration on the part of the European Union, which has triggered a growing substitution of Member States' legislation. Of all the sectors of law, private international law (PIL) is the one where the most influence of the EU is felt. Thus, our aim is to address a specific issue: the implications of the Amsterdam and Lisbon Treaties on private international law from the internal source. The communitarisation process increased sharply from these two milestones, as we shall see, have announced the death of the classic PIL. We will discuss the implications of the new powers of the European Union bodies in the PIL and the contribution of the Court of Justice of the European Union on the relevance of Community freedoms under the PIL. Therefore, a review of the literature and an analysis of some of the legal texts that matter to the PIL will be carried out. We want to highlight the changes that have taken place not only in terms of the competence of the European institutions in PIL but also in the strengthening of community freedoms. The deductive method will be used in the process of analyzing the transformations that have taken place in the field of PIL in order to conclude the true Europeanization of the PIL.

Keywords: *communitarization, competences, European Union, institutions, private international law*

1. INTRODUCTION

PIL is considered the area of private law more subject to external mutations, be they of a political, economic or even philosophical nature. It should be noted that it includes: the conflict law, the right to international jurisdiction and the right of recognition. The transformation in the PIL is due mainly to the Treaties of Amsterdam and Lisbon. When we talk about the current crisis in PIL we only want to show the decline of the national PIL systems after the entry into force of the Treaty of Amsterdam and not, properly speaking, the crisis of the PIL as a branch of law. This will continue to exist as a discipline able to solve the problems within the transnational private situations (SOUSA, 2012). The functioning of the state-owned PIL becomes increasingly hard to understand, since European Union law sort of "blurs" the diversity of PIL systems, seeking to end existing asymmetries (SOUSA, 2012). The Treaties establishing the European Communities did not contain conflict rules, norms of international competence and rules of recognition. Nonetheless, since the dawn of European integration, there has been a concern for the mutual recognition of judicial decisions (Calvo-Caravaca, 2003). Both the recognition of decisions in civil and commercial matters as well as the existence of norms of international competences, coupled with the Member States' willingness to unite conflict law in the context of contractual obligations, would contribute to the current communitarization of PIL (Sousa, 2012).

The Treaty establishing the European Economic Community (EEC), in its Article 200, already foresaw cooperation between Member States in order to standardize and unify the applicable legal regimes. The 1968 Brussels Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters was an example of this. However, the Member States, at that time, needed to see the right to conflict unified in terms of contractual obligations. It was necessary to limit forum shopping (Mimoso & Anjos, 2018). With this in mind, the Rome Convention of 1980 appeared, on the law applicable to contractual obligations which harmonized, as far as possible, the conflict rules of the Member States, since it was an instrument subject to ratification by States, indicating, wherever that the question was asked, the applicable law. It was not until the 90's that European Union law became directly interested PIL.

2. CONTEXTUALIZATION OF THE PARADIGM SHIFT

Private International Law (PIL), in its classic version, is seen as a set of legal norms created by a legislative body for the purpose of resolving conflicts of laws in space. Its object is the international private legal relations. It is a set of conflict rules that indicate to the local judge the applicable law to a situation that has contact with more than one legal system (Mimoso, 2009). Currently, Private International Law is in a process of communitarization or Europeanization, through the elaboration of common rules of PIL (Stones, 2014), (Miguel, 1997). Before the entry into force of the Treaty of Amsterdam (1999), the understanding was that the treaty did not contain "hidden conflict rules", did not condition the conduct of Member States' conflict law and did not raise the issue of the compatibility of internal conflict rules with originating Community law, with exception to certain discriminatory rules, which could arise due to the diversity of cultures and understandings between the affected countries (Pinheiro, 2011), (Sousa, 2012). The first phase of PIL unification was imminently intergovernmental since it was implemented through instruments of public international law (international conventions signed between Member States (Pinheiro, 2011)).

2.1. The Treaty of Amsterdam

In Amsterdam, on October 2nd, 1997, the Heads of State and Government of the 15 EU countries drew up a new political treaty for Europe. It enshrined a more democratic and social Europe by introducing improvements in the Union's external policy, free movement of citizens and, at the same time, seeking to increase the effectiveness of the fight against organized crime. This treaty had four main goals:

- Make employment and citizens' rights the centerpiece of the Union;
- Eliminate the last obstacles to free movement and reinforce security;
- Give the EU a renewed identity in order to make itself better heard in the world and increase the effectiveness of the EU's institutional structure, in order to the next enlargement;
- Consolidate the three main bases on which the EU settles its action since the entry into force of the Maastricht Treaty (European Community, Foreign Policy and common security and judicial and police cooperation in criminal matters).

In the area of Private International Law, the most significant shift was the change in the legal framework governing the competence of EU bodies. At the same time, there was a shift in the Court's case-law on the relevance of Community freedoms (Ribeiro, 2014). The Treaty of Amsterdam created a new Title, "Visas, Asylum, Immigration and other policies relating to the free movement of persons" (Part III, Title IV of the EC Treaty). This new title has led to the progressive creation of an area of freedom, security and justice in the EU, in particular through judicial cooperation in civil matters (Article 61c)) and also set out the objectives to be achieved through judicial cooperation measures with Article 65 of the EC Treaty.

The Treaty of Amsterdam has assumed civil judicial cooperation as essential for the free movement of persons, consecrating as its aim the improvement and simplification of legal matters essential to that freedom of movement (Remien, 2001). As set out in Article 61 (c), the Council shall adopt measures in the field of judicial cooperation in civil matters, as provided for in Article 65, which shall add that “to the extent necessary for the proper functioning of the internal market”, those will aim to improve and simplify the recognition and enforcement of judgments in civil and commercial matters, including non-judicial decisions, to promote the compatibility of the rules applicable in the Member States on conflicts of law and jurisdiction as well as to remove obstacles to the good conduct of civil actions by promoting, if necessary, the compatibility of the rules of civil procedure applicable in the Member States (Stones, 2014). In practice, the EU entities understood this competence as being generic in terms of regulation in matters of PIL, and the Member States did not contest this understanding (Pinheiro, 2011). Thus, some regulations have been created regarding to international jurisdiction and recognition of foreign decisions in matters of property right:

- Regulation (EC) n. ° 1346/2000 of 29 May 2000, on insolvency proceedings;
- Council Regulation (EC) n. ° 1347/2000 of 29 May 2000, on jurisdiction, recognition and enforcement of decisions in marriage matters and in matters of parental responsibility for children of both spouses;
- Council Regulation (EC) n. ° 1348/2000 of 29 May 2000, on the service and notification of judicial and extrajudicial acts in civil or commercial matters in the Member States;
- Council Regulation (EC) n. ° 44/2001 of 22 December 2006, on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters;
- Council Regulation (EC) n. ° 1206/2001 of 28 May 2001, on cooperation between courts of the Member States regarding the attainment of evidence in civil or commercial matters.

The Treaty of Amsterdam also created the formal possibility for some Member States to establish enhanced cooperation between themselves in the framework of the Treaties, using EU institutions and procedures, i.e. the possibility for a group of countries to move to a higher level of integration in a given area, even if others did not wish to join in right away, with the possibility of these countries to join later (Piçarra, 2001). Currently, the mechanism of enhanced cooperation is found in only two areas: divorce and legal separation as well as unitary patent protection (Alves, 2015). Examples of this cooperation include:

- Council Regulation (EU) n. ° 1259/2010 of 20 December 2010, establishing enhanced cooperation in the area of applicable law to divorce and legal separation;
- Regulation (EU) n. ° 1257/2012 of the European Parliament and of the Council of 17 December 2012, regulating enhanced cooperation in the field of the creation of unitary patent protection.

It should be noted that the unification of PIL changed from an intergovernmental basis (through conventional instruments) to a supranational basis, carried out by community legislative acts, mainly by the regulations (Pinheiro, 2011).

2.2. The Treaty of Lisbon

The Treaty of Lisbon, signed on December 13th, 2007, entered into force on December 1st, 2009 and amended the previous treaties, although without replacing them, presenting itself as the most recent step in deepening the Europeanization. The fundamental principles of this instrument are democratic equality, representative democracy and participation democracy. Regarding the competence of the EU bodies in matters of private international law, it has since become established in the Treaty on the Functioning of the European Union (TFEU), in Title V of Part III, which aims the so-called freedom, security and justice.

Article 81 (1) of the Treaty established that the Union is an area of freedom, security and justice in compliance with fundamental rights and different legal systems and traditions of the Member States, implementing easy access to justice through the mutual recognition of judicial and extra-judicial decisions in civil matters. Competence has been attributed as follows: the EU now has exclusive competence in matters covered by Article 3 TFEU, has shared competence in matters set out in Article 4 TFEU and also has support competence in areas where the EU complements measures aimed to support, coordinate or supplement national policies, in accordance with Article 6 TFEU. Chapter III is intended for judicial cooperation in civil matters, by establishing in Article 81 that the EU will develop legal cooperation with cross-border implications and may adopt measures to achieve approximation of the laws and regulations of the Member States. Anytime deemed necessary, the Council and the European Parliament may take steps, through the ordinary legislative procedure, to ensure the proper functioning of the internal market. For the freedoms of movement of persons and goods within the EU, have led to an increase in transnational litigation and, consequently, to an increase in costs and difficulties in access to justice for these transnational litigation. PIL is no longer conditioned by the proper functioning of the internal market, becoming one of the vectors to be taken into account (Pinheiro, 2011). Decisions on PIL matters are now scrutinized in accordance with the ordinary legislative procedure and by a qualified majority in accordance with Article 81 (2) TFEU. However, by way of derogation from paragraph 2, measures relating to family law having cross-border implications shall be laid down by the Council, acting in accordance with a special legislative procedure. The Council shall act unanimously after consulting the European Parliament, Article 81 (3). Thus we can see that there is a consolidation and generalization of the process of European unification on a supranational basis of private international law. This Europeanization has made important progress in many aspects and has managed to bring about controversial solutions and on conflicts of jurisdiction.

3. THE EUROPEAN PIL

As a result, we have no doubts as to the delineation of a genuine European Private International Law. However, there have been some doctrinal divergences concerning the national or international foundation of PIL. In addition, the modern doctrine of Private International Law draws on two established methods in the search for solutions to the problems arising from inter-state legal relations: the individualist (from the followers of the conflict method, proposed by Jitta) and the universalist (from the lessons of Pillet on the extraterritoriality of the law). The universalist method, thinking the human being within the scope of the international society, seeks uniform solutions to the conflicts of different laws, through bilateral and / or multilateral treaties, thus avoiding conflict of laws; the individualist method advocates the incorporation of the PIL rules into the domestic positive law of each country, through a system of options (rules of connection) to determine which domestic legislation to apply in cases of conflicts between individuals connected to autonomous and divergent legal systems. Internationalist doctrines refer to the exercise of communitarian competence in matters of PIL, both in the field of conflict of laws and in the field of conflict of jurisdictions, appealing to universalist principles that have always presided over the construction of this legal branch, defending that recognition within the EU of the legal situations constituted in the various Member States (Ramos, 2016) is undeniable. They think of the human being within the framework of international society, seeking uniform solutions to the conflict of laws. In line with the internationalist doctrine (or so-called universalist doctrine), there are those who see PIL as a supra-seasonal problem, which means a problem analyzed in the context of relations between States, transcending the autonomy of each Member State individually considered (Mimoso, 2009). In effect, there would be an integration of PIL in its own rules of the International community (Urrea, 2016).

On the other hand, others support the idea that PIL will be a product of the autonomous creation of the States themselves, contemplated from the nationalist positivism that would be established from a purely national codification, expanding, on a case-by-case basis, to rules of international source (Ramos, 2016). They advocate the incorporation of PIL rules into the domestic positive law of each country, through a system of connections aimed at determining the domestic legislation to be applied. However, in the present, this system, as far as conflicts of laws are concerned, has not been revealed, even though it has a residual application in conflict of jurisdictions. In fact, its residual use for resolving conflicts of jurisdiction does not create problems, but this does not happen in the field of conflict of laws. Here a real substitution of the rules of state source is operated by EU standards (Ramos, 2016). Universalists argue for the need to create a new corpus of PIL rules, imposed on all Member States, emphasizing the idea of a uniform model of conflict rules. In this way, the application of the same law to a given international private relationship is desired, regardless of the place where it's discussed. The designative criteria of the regulatory act will be the same. Nevertheless, this uniformity has consequences. It should be pointed out that the uniformity of the rules on conflicts accentuates their own rigidity, undermining the idea of flexibility, very common, in the face of the right of conflicts of State origin, moreover proclaimed by eminent international privatisms (Correia, 2018). The normative instruments that contemplate state source conflict rules usually have a general part in PIL, where solutions to problems arising from the *modus operandi* of those rules are contemplated. Currently, towards the replacement of the overwhelming majority of Member States' conflict rules with European PIL standards, conflict rules themselves (in addition to the recognition and enforcement rules), it are no longer take into account the legislative and interpretative rules regarding the general part of PIL. The state, coherent and harmonic PIL systems, as a whole, cease to make sense, losing their unity. The general part "has as its main function to consecrate a particular conception of justice" (Ribeiro, 2014). Consider, for example, the general part of the Portuguese civil code of 1966, where the option of the Portuguese legislator is verified by criteria of formal justice, always aiming at stability and security of multi-location juridical relations. In the scope of PIL, a disengagement by the state legislator in relation to the criteria of the *lex fori* was evident, leading to a constant concern in the search for the protection of the legitimate expectations of individuals (Ramos, 2016), (Ribeiro, 2014). It should also be noted that PIL rules set up by the Community legislature have been subject to scrutiny by the Court of Justice of the European Union (CJEU) through the questions referred for a preliminary ruling (Ramos, 2016). It has been understood that whenever cross-border private situations are involved in the EU, an integrated analysis of such relations should be carried out on a basis of private international law and European Union law, in particular the European Union primary material law on free circulation. Regarding non-EU relations, it should be noted that they too are no longer in the orbit of state legislators. The European legislator has adopted universal norms and the rules of conflicts (contained in the European Regulations) for a given international private relationship may designate the law of a third State (universal character). In terms of jurisdictional conflict, mutual recognition has been limited to the recognition of judgments handed down within the Union, and judgments from the courts of third States will be subject to the rules of common international civil procedural law.

4. CONCLUSION

European Private International Law is an area of law that has been heavily influenced by the EU. By 1958, PIL had a marginal place in the European Union, being of a strictly intergovernmental nature, which means each State created its rules of conflicts in order to regulate the absolutely international legal relations. What was intended to be investigated was to what the extent there is a Common European Private Law in the European Union. Nonetheless, Private International Law is now common law for almost all Member States

(Stones, 2014). The European Union has undergone an evolution in which there were two important milestones, the Treaty of Amsterdam and the Treaty of Lisbon. The major consequence of the amendment of the Treaty on European Union, through the Treaty of Amsterdam, was that the European Union had the competence to regulate matters of Private International Law aiming to ensure freedom of movement within the Community. From here the European Union, through the Treaty of Amsterdam, came to have direct competence to legislate in Private International Law. This competence has been confirmed and strengthened by the Treaty of Lisbon. To highlight the character of the reinforced corporations that has allowed a development more sustainable and safe for the achievement of these objectives. Prior to the entry into force of the Treaty of Amsterdam, the Treaties establishing the European Communities did not contain rules of conflict of international jurisdiction or of recognition addressed to the law enforcement agencies of the Member States. It is questionable to what extent the unification of Private International Law is necessary for the proper functioning of the internal market, since there are several countries where pluralities of local legal systems in which they have their own private international law coexist. The Union has adopted an important set of regulations dealing with international jurisdiction and the recognition of foreign decisions in matters of marriage law, including insolvency and maintenance obligations, divorce, separation and annulment of marriage, parental responsibility and determination of the applicable law to contractual and non-contractual obligations, to insolvency and maintenance obligations and currently also to succession. It was intended that there would be a shift in the case-law of the Court of Justice aiming to deduce from Community freedom limits on the operation of Member States' conflict law. However, the contours of these limits are not sufficiently clear, since it seems that the basis for Europeanization of Private International Law is found in European legislative instruments and not in a case-law. However, the unification of Private International Law has shifted from an intergovernmental basis to a supranational or community basis and has now been implemented through Community legislative instruments.

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MEMORIAL TOURISM AS A PART OF TOURIST OFFER IN WAR AFFECTED COUNTRIES

Marina Gregoric

*Senior Lecturer at Polytechnic of Međimurje in Čakovec
marina.gregoric@mev.hr*

Daniela Gracan

*Full Professor at Faculty of Tourism and Hospitality Management,
University of Rijeka, Croatia
danielag@fthm.hr*

Marina Barkidija Sotosek

*Faculty of Tourism and Hospitality Management,
University of Rijeka, Croatia
marinab@fthm.hr*

Vedrana Blazuc

*Polytechnic of Međimurje in Čakovec
blazucvedrana@gmail.com*

ABSTRACT

Memorial tourism is a part of dark tourism and includes visits to sites marked by human suffering and widespread tragedy such as concentration camps, battlefields, places of great historical battles and places of natural disasters with a large number of victims. The main motivation in memorable tourism is education and empathy towards the victims. The development of memorial tourism is based on the very historical facts and the better interpretation of the same. Due to the social sensibility of resources on which tourism is based, the question arises: Can places of persecution become places for tourist visits, and thus generate profits? For the purpose of finding out a response to the question asked, research in the Republic of Croatia has been conducted, which in the past was exposed to major scale war conflicts. During the Homeland War, the eastern part of the Republic of Croatia was significantly more affected than the other parts of the country, so memorial tourism is the most represented in Eastern Croatia. One of the most important destinations of memorial tourism is Vukovar, whose tourist offer is mostly based on memorial tourism and achieves remarkable success. The memorial sites in Vukovar make up a whole - Vukovar's nocturnal. Good geographic position and the location of the city on important traffic directions create good prerequisites for further development of memorial tourism.

Keywords: *dark tourism, memorial tourism, tourist resources, motivation in memorial tourism, Vukovar*

1. DEVELOPMENT OF TOURISM

With the development of society as a whole and the general increase of social well-being, the standard of the individual grew. By enhancing the quality of life, when, besides satisfying the existential and primary needs, a certain amount of free time and free resources was achieved, the basis for meeting certain secondary needs was created. The human desire for quality and active leisure time in nature, traveling, getting acquainted with other countries and cultures, having fun, sports or recreation and enjoying in many other activities, has created a phenomenon of tourism (Gračan, Alkier Radnić, Uran, 2011, 3).

2. FROM MASSIVE TOURISM TO SPECIFIC FORMS OF TOURISM

During its development, tourism has gone through various phases of individual (tourism of privileged groups) to mass. Mass tourism, after a long period of expansion and upsurge, especially in the last two or three decades, has gradually begun to invest in various and ever increasing contradictions, accumulating an increasing number of negativities and even more (in a relatively short time) and entered into all the manifest crisis, which, despite the constant growth of traffic, capacity and revenues, substantially undermined and diminished all its unambiguous positive features, which is primarily socially recognizable. The phases of contradictions and the crises which are its contemporary synonyms are, at the same time are increasingly subject to the area of tourism theory and practice, all in order to find solutions for its revival and healing. Massive tourism, due to its growing negativity and conflict, is today seen as not creative, unreliable, unmanageable and long-term unsustainable. Therefore, short-term and long-term policies and dynamics need to be constantly adapted and changed (Jadrešić, 2010, p. 159). There has been a lot of change in the demand market with the emergence of more complex travel motivation packages. The tourist wants new experiences of this diversity from his everyday environment and the usual life circumstances. Innovative offers and staging, which in addition to the basic standards allow unusual experiences, surprises and incentives, are increasingly present in tourism. Tourists are given a special atmosphere or additional emotional benefit (ambiance, experience, entertainment, adventure, socializing with hosts and other guests, etc.) (Geić, 2011, p. 213).

2.1. Definitions of specific forms of tourism

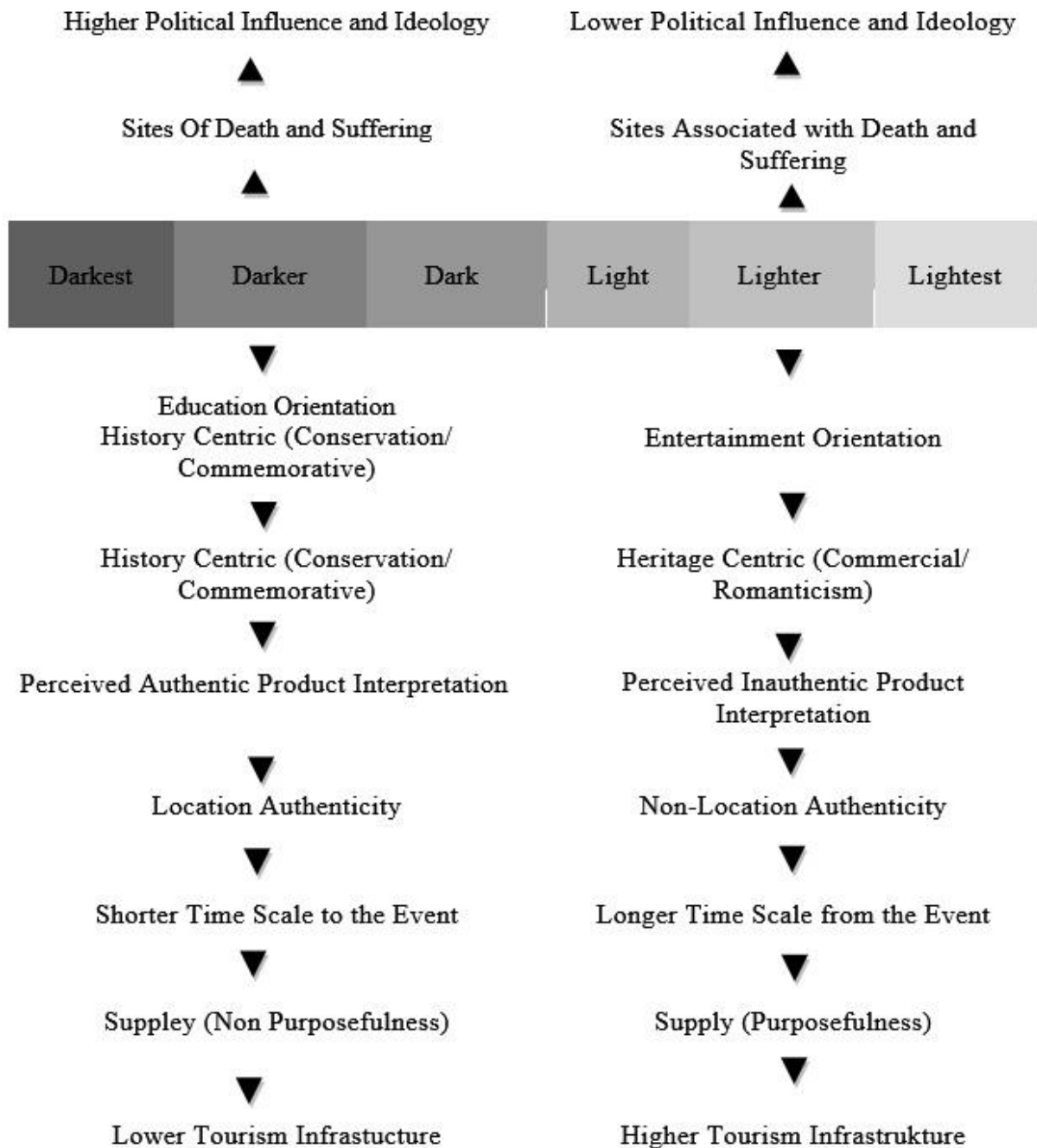
More recently, the concept of mass and "ready-made" tourism has been abandoned, and it is supported by responsible development based on selected programs and types of tourism, resulting in a new differentiation and quality in an increasingly demanding tourist market with the present restructuring of tourism in the direction of balanced and polycentric development. Quantum is replaced by the development of quality factors, ie the quality of choice, identity, ambiance and ecological purity (Jadrešić, 2010, p. 171; Krce Miočić, 2014). The market is increasingly divided into subgroups that are defined by lifestyle, personal preferences, needs and lifestyles. All of this encourages interest in different forms and forms of tourism at all levels of tourist demand. The last decade of the 20th century was marked by the intense growth and dispersion of tourism in all parts of the world and its diversification into various forms that tourism theory treats with specific, alternative or selective forms of modern tourism (Geić, 2011, p. 213). Such forms of tourism can not completely replace the role of mass tourism, but contribute to the creation of new quality and competitive position in the tourism market (Bartolucci, 2013, p. 185). The author of Pančić Kombol (2000, p. 85) uses the term "Alternative Tourism", which is very broad and based on the understanding of the contrast to mass tourism based on which tourism researchers and authors of a larger number of published approaches and attitudes about "alternative" movements of recent times addressed more new titles related to (often very similar) tourist movements and motives. As there is still no consensus and widespread definitions of certain forms of tourism, new names are constantly emerging that mark and explore all the narrower segments of tourist movements of specific needs or goals. According to author Jadrešić (1996, p. 243) defines selective tourism as a synthetic and generic term that marks the new quality and the characteristic of contemporary tourism, which is primarily based on responsible selection of tourist programs, the respective behavior of all participants, ecological, socio-cultural and economic principle of balanced development at the qualitative level of services, all with a desirable and balanced relationship between the number of tourists and the number of locals in a given space. According to author Hrabovska-Tomic (2008, p. 22) selective tourism is the answer to mass tourism. Sometimes it is identified with the term "sustainable tourism", and the cause is to give a new approach to

solving old problems, realizing minor negligent actions both on nature and on the population of tourist destinations. Many authors (Weiler and Hall, 1992, Trauer, 2006, Krce Miočić, 2014) agreed that specific forms of tourism were not linked by a single link. Their fundamental link is to move away from mass and adapt to individual customer desires, recognizing in the mass of tourist segments with a distinctly specific tourist motif. In the international tourism literature published in English, selective forms of tourism and new tourism trends and reflections are used, with alternative tourism and tourism of special interest, concepts that are rarely used in Croatian tourist literature (or are not used at all), and some can not be used if literally translated: green tourism, ecotourism, indigenous tourism, integrated tourism, secondary tourism, cultural tourism, educational tourism, art tourism, heritage tourism, appropriate tourism, responsible tourism, community-based tourism, environmental tourism, environmental friendly tourism, (environmental pilgrimage), rural tourism, agro-tourism, adventure tourism, farm tourism, health tourism wellness tourism (well being tourism), nature tourism, nature-based tourism, nature-oriented tourism, wildlife tourism, sustainable tourism, ethical tourism, soft tourism, hard tourism, community-based tourism, intrinsic tourism, new tourism, good tourism, recreational tourism, adventure tourism, ethnic tourism, youth tourism, vernacular tourism, folk tourism, secondary tourism, social tourism (Pančić Kombol, 2000, p. 86).

2.2. Dark tourism as a specific form of tourism

Numerous tourist products inspire the interests of today's increasingly demanding tourists. According to the theme of travel and motivations that encourage people to travel to destinations and localities that have been marked by death, violence, suffering and suffering in the past, memorial tourism belongs to the so-called "Dark tourism" (Kesar and Tomac, 2014). Visiting such places is often bizarre and has little to do with pleasure and entertainment, but still attracts tourists and is more and more present in contemporary tourism. The authors of Kesar and Tomac (2014, p. 53) consider that "dark tourism" is awkward for use from the point of view of tourism theory, because it does not concretize the motive of tourism travel, which is actually the essence of the existence and development of specific forms of tourism. "Black spots tourism", "thanatourism" (inspired by the Greek word *thanatos* which means death and term is related to morbid tourism but specifies violent death and is rarely used), "morbid tourism", "grief tourism" are just some of the terms used for tourist visits to places associated with death, catastrophe, war, genocide, etc. (Rabotić, 2012, p. 229). What makes the place of suffering and suffering attractive to tourists and what is the main motive for such travel becomes the subject of many discussions. There is a question of justifying the use of tragedy symbols for commercial or profit purposes. Where is the boundary between acceptable and unacceptable transformation of suffering into a tourist attraction? The author Hrabovska-Tomić (2008, p. 257) considers that many outstanding issues remain, such as whether different places, attractions and exhibitions linked to death and anger can be categorized as "morbid tourism", or can identify the "shades" of darkness and attribute to a certain type of dark tourist product. According to Stone (2006), some products, at least conceptually, have similar characteristics and perceptions that can be freely considered to be different "shades of darkness". That is why dark tourism products can be deployed along a fairly fluid and intensity of the dynamic spectrum, so some places may be more "dark-morbid" than others, depending on the different characteristics and perceptions of the product.

Figure following on the next page

Figure 1: The Spectrum of Dark Tourism (Stone, 2006, p. 151)

According to such a shadowing of the dark tourist product, it is possible to formulate seven sources of dark tourist attractions, ranging from the brightest themes to the lesser ones: 1) dark theme parks - productive houses that produce mystical and spirited stories from big cities; 2) themes - offer a more serious theme of displaying tragedy and death in a concrete and explicit way, often outside the authentic location of the tragic event to which the exhibition relates; 3) dungeons and penitentiaries - hideous places from a closer history where visitors can directly impart ways to process and execution of political and other offenders; 4) cemeteries and other eternal resting places - places that require respect and attract their history, (7) Concentration camps - historical sites and facilities targeted at mass killings (genocide, massacre and other forms of atrocities), and they include various forms of explicit interpretation of death through interactive exhibitions and museum posters (Kesar and Tomac, 2014, p. 67; referenced by Stone, 2006, p. 152).

3. MEMORIAL TOURISM IN THE REPUBLIC OF CROATIA

Many specific forms of tourism are represented in the tourist offer of the Republic of Croatia as well as in the competing countries of the Mediterranean. However, there is still a lot of untapped potential for development and new supply of specific forms of tourism in Croatia (Bartolucci, 2013; 183). One of these forms is a memorial tourism, and recognized localities are Jasenovac, Goli otok, Pakrac, Karlovac and Knin, while from the recent past certainly stands the town of Vukovar in the eastern part of the Republic of Croatia. The town of Vukovar lies at the mouth of Vuka in the Danube on the border with the Republic of Serbia in the western part of Srijem and is the administrative and economic center of the Vukovar-Srijem County. Due to the proclamation of Croatia's independence and separation from the Socialist Federal Republic of Yugoslavia, an open Serbian aggression is coming to Croatia, and most of it to Vukovar. Armed rebellion of the Serb population in Croatia leads to the Homeland War. On August 25, 1991, begins one of the longest and most bloody battles in Croatia's history - the battle for Vukovar, which lasts 87 days. During the 87 days, Vukovar suffered great destruction, murder, massacres and persecution by the Yugoslav People's Army, an SFRY official army that disagreed with proclaiming Croatia's independence. The Croatian army provided a great, intense resistance during this period, however, on November 18, 1991, the city of Vukovar also known as City of Hero fell. After the fall of Vukovar, a large number of destroyed, ruined houses, buildings, was left as well as great pain after the loss of city's defenders and civilians. In the period from August 15, to November 18, 1991, 1000 members of the Armed Forces of the Republic of Croatia and 600 civilians died (Stockinger, 2004). Today, the area and memorial sites of the town of Vukovar represent a good basis for the development of memorial tourism. All the memorial sites are merged into a single unit: Vukovar's Nocturnal. Vukovar's Nocturnal represents seven memorial tourist sites, such as: Vukovar Hospital, Tombs and Memorials of Homeland War, Memorial Cemetery, Homeland War Memorial, Cross at the mouth of Vuka in Dunav, Vukovar Water Tower and Memorial House of Croatian Defenders on Trpinjska street (<http://www.turizamvukovar.hr>). According to the data of the State Bureau of Statistics, it is evident that in the period of five years the number of arrivals and overnight stays of tourists in the city of Vukovar is constantly increasing. Namely, most museums and memorial sites were built after 2011 as the Memorial of Croatian War Veterans' House on Trpinjska street. A large share of domestic visitors can be attributed partly to the Educational Program of the Memorial Center of Vukovar "The Visit of Eighth Class Students", which progresses from year to year. It is scheduled for school year 2018/2019. that Vukovar will be visited by 42,791 pupils and escorts from all elementary schools in the Republic of Croatia. In November, every year, the marking of the fall of the town of Vukovar brings a large number of patriots who pay tribute to the victims of the Vukovar.

Figure following on the next page

Figure 2: Tourist arrivals in Vukovar from 2013 till 2017 (author's interpretation according to Croatian Bureau of Statistics, arrivals and overnight stays)

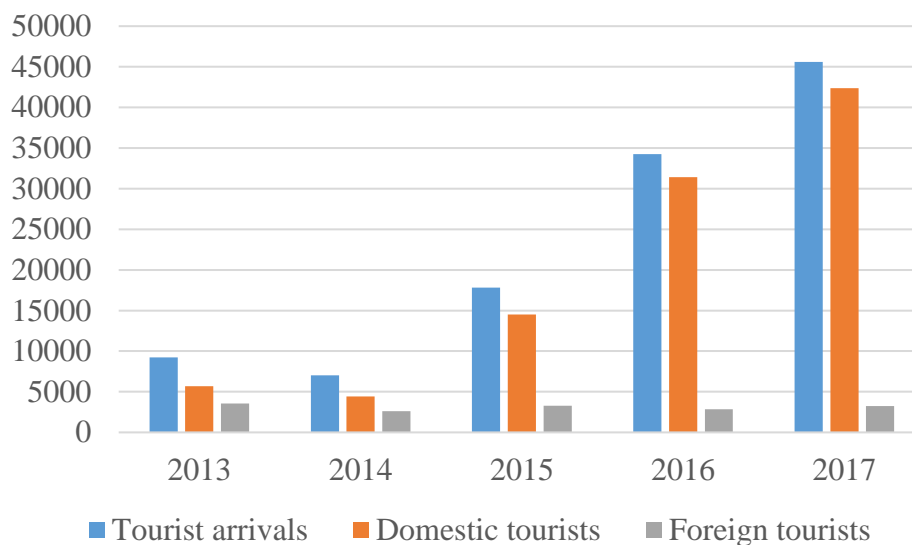
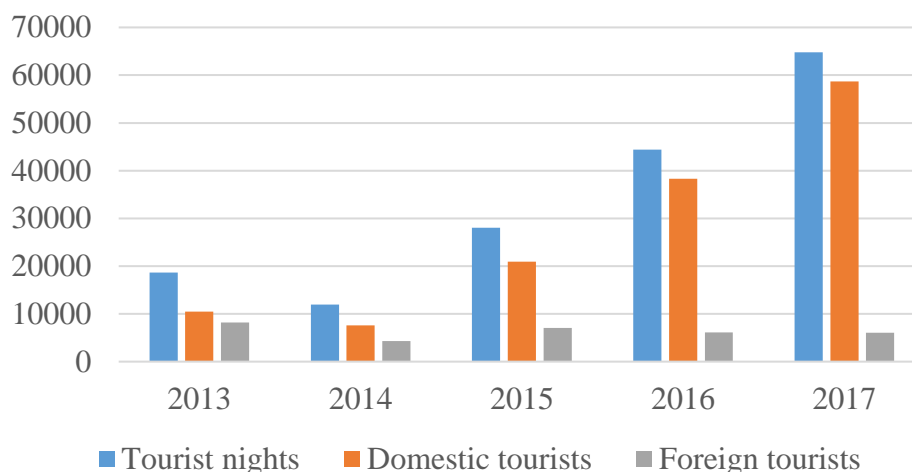


Figure 3: Tourist nights in Vukovar from 2013 till 2017 (author's interpretation according to Croatian Bureau of Statistics, arrivals and overnight stays)



Based on the analysis of tourist arrivals and overnight stays in the city of Vukovar, it can be concluded that the memorial sites and the related tourist offer greatly improved and contributed to the development of memorial tourism in this area. Even 116,596 visitors were recorded in the museum "Memory Places - Vukovar Hospital 1991" in 2017 (Museum Documentation Center, 2017), which still needs to be added to those visitors coming to the city without being summarized by some of the statistical monitoring system. According to data observed it is obvious that the number of tourists in Vukovar is higher than recorded.

4. RESEARCH RESULTS

For the research purposes, a survey was conducted using a questionnaire survey form as part of quantitative research. The research was conducted from May 16 to June 30, 2018 and was completely anonymous. The poll questionnaire was published on social networks and sent to the tourist boards of Vukovar, Vinkovci, Jasenovac, Osijek, Slavonski Brod, Đakovo, the tourist community of Vukovar-Srijem County, Sisak-Moslavina County, Osijek-Baranja County, Požega-Slavonia County and Homeland War Memorial Center.

The survey was attended by Croatian citizens and tourists. The survey contained closed-type questions related to the following areas: demographic issues, issues of visiting memorial sites, personal attitudes of respondents about attractiveness and the development of memorial tourism. The study was conducted on a sample of 176 subjects, of whom 63.6% were women. Most respondents are between the ages of 18 and 25, mostly employed (74.8%). In addition to the age, sex characteristics and the level of education, the following key facts for this research were noted. When asked "What kind of tourism is most appealing to you?" Most respondents are most interested in bathing/vacation, ie mass tourism (71.60%), while memorial tourism for 18.20% respondents is in the fifth place in interest. Behind it are religious tourism (16.50%), nautical (10.7%), adventure (1.1%), rural tourism (0.6%). "Have you ever visited the destination of memorable tourism?" Was the next question that even 68,80% respondents answered affirmatively. Of them 68,80%, even 62,5% visited Vukovar. Water tower is the most visited locality in Vukovar. A total of 52.80% of respondents that visited Vukovar specifically visited Water tower. Second visited site is Memorial Guardian Cemetery (52.30%) and Memorial House of Ovcar with 51.70%. When asked "What was the main motive of visiting memorial tourism sites?", 46,60% of respondents answered that the main motivation of visiting the site is the history of the site, followed by education and training (29,50%), curiosity (27,80%), 16, 50% research and 6.80% nostalgia. The respondents rated on the ladder a grade from 1 to 5 their desire to visit the memorial sites. Evaluation 1 indicates that the respondent is not interested in visiting the memorial destination, while the grade 5 indicates a great deal of interest. As many as 36.9% of respondents rated 4, 26.1% of respondents rated 5, 28.4% grade 3, only 6.8% grade 2, and slight 1.7% grade 1. Also the current offer of tourist product in Eastern Croatia is rated as good by 55.10% respondents, 21.60% rated it with the score very good, 11.90% rated it satisfactory, 0.6% was inadequate and 10.80% was excellent. Respondents believe that Croatia has the potential to develop memorial tourism. Even 97.70% respondents agreed with the statement. The last question referred to the opinion of the respondents about the creation of profits in memorial places due to social sensitivity. Majority of 90.50% of respondents believe that memorial places can become a place to generate profits in tourism regardless of social sensitivity, while 9.70% believe there should not be a place to generate profits.

5. CONCLUSION

One of the most sensitive aspects of the development of memorial tourism is the inevitable promotion of various commercial activities based on the marketing of historically sensitive facts, tragedy and related empathy towards the victims. Despite the negative statements accompanying expressions of death commodification or commodification of empathy, it can be concluded that the commodification of historical facts related to the suffering of people in most cases is a justified and socially accepted activity. By researching and reviewing literature and by reviewing statistical data on tourist nights and arrivals in Vukovar, it is confirmed that the fact that tourism in the Vukovar war period is on a steady growth, however the research results show that the interest of tourists in regards to memorial tourism is estimated by average rating. According to research analysis it can be concluded that respondents are still more interested in mass tourism and traditional forms of tourism (such as bathing/vacation tourism) and are insufficiently recognizing the quality of specific forms of tourism. Following the data from the survey, social resource sensitivity does not affect its development. Most of the respondents responded positively to the question "Due to social sensitivity, do you feel that memorial places can become a place to generate profits in tourism?" confirming the thesis that local people, defenders and families of late defenders do not mind the development of memorial tourism. In fact, the data from the literature sources indicate that the defenders themselves and the families of the victims get involved in various programs of encouraging memorial tourism to preserve

the memory of the victims themselves. Most respondents believe that memorial tourism can contribute to the development of the entire destination. The visit of tourists whose primary motive is to visit the memorial places, by coming to the destination, would also generate consumption in other activities such as trade, catering, souvenir sales, etc. which certainly leads to the development of the destination itself, the increase in the number of employment and thus the better welfare of local population.

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HATE SPEECH ON SOCIAL MEDIA - CROATIAN EXPERIENCE

Mario Tomisa

*University North, Croatia
mario.tomisa@unin.hr*

Marin Milkovic

*University North, Croatia
marin.milkovic@unin.hr*

Damir Vusic

*University North, Croatia
damir.vusic@unin.hr*

Ivona Pavicic

*University North, Croatia
ivpavicic@unin.hr*

ABSTRACT

Freedom of speech is the fundamental right of every man. This right implies seeking, receiving and disseminating information and ideas of every kind. But what if someone decides to abuse his or her rights and cross the border of freedom of expression? The result is hate speech that transcends any boundary of freedom of expression. A speech for which there is no consistent definition. A hate speech often condemns racial, religious, national, gender, ethnic and any other diversity. Hate speech is most widespread on social networks, which constitute the foundations of modern communication. Social networks such as Facebook, Twitter, and YouTube have become a landfill site of hate speech. These may be accessed in a simple and fast way and besides offering a platform for communication, they can be used for downloading and sharing content and information of all types. Moreover, in a matter of few minutes, we can become almost anyone on social networks, or no one under the mask of anonymity. This encourages individuals to write things they would otherwise never dare to speak out loud in real circumstances or in front of real people. The media, although suppressing hatred more and more in the contents that they publish, still do not contribute sufficiently to the suppression of hatred of their users on social networks. The aim of this paper is to examine the hate speech regulation in Croatia.

Keywords: *freedom of speech, hate speech, mass communication, mass media, social networks*

1. INTRODUCTION

The right to freedom of speech is one of fundamental human rights. It implies seeking, receiving and disseminating information, promoting ideas and values, expressing opinions, but also having the right to choose the means with which the individual can exert his/her fundamental right. The means can be oral tradition, a written or printed form, artistic expression or any other means an individual chooses to use. The human right on freedom of expression has also been confirmed by the United Nations Organization in its Universal Declaration of Human Rights of 1948. It states that “everyone has the right to freedom of opinion and expression” (The Universal Declaration of Human Rights, 1948). Besides the UN, this right has been confirmed by the International Covenant on Civil and Political Rights, European Convention on Human Rights and the Constitution of the Republic of Croatia which “guarantees...freedom of opinion and expression of thought. Freedom of expression of thought covers the freedom of press and other means of communication, as well as freedom of speech and public speaking”

(Constitution of the Republic of Croatia, 1990). Why is freedom of speech so significant? “Freedom of speech is significant as it plays a key role in the development and safeguarding of democratic institutions. Representative democracy, as defined by Alexander Meiklejohn, may only work if citizens are free to criticize the government, say to their representatives what they want from them and if they can openly express their opinions on political and social matters” (Kulenović, 2016). Besides, freedom of speech “is the main feature of the importance we assign to the development of critical thinking in education, in listening to both parties in a court proceeding, in journalists’ obligation to present the stances of the opposing sides and in repeated checks of the results of scientific research. The misconception of own infallibility leads to the suppression of freedom of speech” (Kulenović, 2016). In other words, freedom of speech is particularly important as there is no democracy without it. Although the right to freedom of expression is one of fundamental human rights, it is not absolute. Many documents confirm this right to freedom of speech but they also confirm its limits. The Universal Declaration of Human Rights allows for such limitations when it comes to the attacks against “honor and reputation” (The Universal Declaration of Human Rights, 1948), „rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society” (The Universal Declaration of Human Rights, 1948). In the International Covenant on Civil and Political Rights such limitations are allowed in time of “public emergency”, in case of unlawful attacks on “honor and reputation”, to protect “the reputation of others”, and to protect “national security, public order, health or morals” (International Covenant on Civil and Political Rights, 1966). The European Convention on Human Rights mentions in its article on freedom of opinion that this freedom may be legally restricted “in the interests of national security, for the protection of health or morals, reputation or rights of others, for preventing the disclosure of information received in confidence or for maintaining the authority and impartiality of the judiciary” (European Convention on Human Rights, 1950). The Constitution of the Republic of Croatia allows for a similar legal restriction of freedoms and rights, including freedom of speech, “to protect freedom and rights of others and legal order, public morals and health”, as well as in emergency situations such as wars or natural disasters (Constitution of the Republic of Croatia, 1990). Freedom of speech, although one of fundamental rights, ends the moment it endangers the rights of another human being. The right to freedom of speech is often abused, for example, to disseminate hate and foster violent behavior, even war. It is precisely because of such instances of abuse that freedom of speech should be restricted. “Although free speech is important, it is not the only value. Human dignity, equality, freedom to live without harassment and intimidation, social harmony, mutual respect and protection of one’s honor and good name are central to the good life and deserve to be safeguarded. Because these values conflict, either inherently or in particular contexts, they need to be balanced” (Parekh, 2012). Freedom of speech gives no right to belittle others, offend, disseminate hatred and libel. These acts transcend the line of freedom of expression and open up the space for hate speech. It is virtually impossible to determine the exact line where freedom of speech ends and hate speech begins, which is why many a time hate speech remains unsanctioned and takes deep roots in a society for years under the mask of freedom of expression. This has arisen as a particular problem with the development of social networks. In this paper, we shall examine several aspects of this issue.

2. HATE SPEECH

“There is no universal and generally acknowledged definition of hate speech but the Recommendation of the Council of Europe is often mentioned as an introduction to discussions on the content of this concept. According to this document, hate speech covers “all forms of expressions that spread, incite, promote or justify racial hatred, xenophobia, anti-Semitism or other forms of hatred based on intolerance, including intolerance expressed by aggressive

nationalism and ethnocentrism, discrimination and hostility against minorities, migrants and people of immigrant origin". It should be noted that although the concept of "hate speech" in both Croatian and English emphasizes "speech", understood as a form of verbal expression, in this context the concept covers both verbal and non-verbal forms of public expression such as images, signs, symbols, gestures etc." (Munivrana Vajda & Šurina, 2016). Hate speech begins where the borders of freedom of expression of thought, feelings and ideas end. Unfortunately, human beings as narcissistic creatures have the need to verbalize their hatred towards all others who are different than them and the surrounding environment in which they grew up. Hatred towards those who are different has been rooted in the society for centuries, which means that hate speech has also been ingrained in the society since ancient times. "Once it has become rather normal and implied, when its existence has been fully acknowledged, hate speech can difficultly be removed from the public sphere" (Hodžić, 2001). Despite the fact that technology has advanced enormously, so much so that we can talk to someone "face to face" even if we are miles apart, oral communication has been minimized, even threatened, for that matter, due to the rise of social networks. A written word has become more powerful than ever before. Thanks to technology, we can communicate with people we know, but also with those we do not know. We can send someone a message, which will cross the globe in a matter of seconds, we can say what we think about any topic, person, group or event, all this – completely anonymously. Why would anyone then stand before the crowd and express his or her opinion, stances and feelings when they do not know how the crowd will react and if they will be judged for it. A huge number of people therefore prefer communicating "behind the screen". "Since the reaction of a person receiving a written message cannot be seen, this form of communication enables an easier expression of own opinion, disagreement or even humiliation that can be characterized as hate speech directed towards those who are of different color, religious belief, sexual orientation or another feature these persons could not exert an impact on in any manner whatsoever. It is this form of violence, characterized as hate speech on the internet, that is increasingly being mentioned in the media and society in general due to the widespread use of the internet for information, learning and leisure purposes" (Šimenić, 2016). Verbal violence leads to the violation of rights of those members of groups hatred is addressed to. Is then a society in which everyone is entitled to say whatever they wish, even at the expense of belittling the other person who is different, truly a democratic one? What if the other, different one, "is paying the price" for being different? Wherever there is hate speech, there is no democracy. Democracy does not only mean having the freedom over own words and actions. Democracy means accepting, acknowledging and respecting others and different ones. Many crimes have been committed under the false pretense of democracy – large and small, loud and quiet, public and secret. Hating someone just because they have different skin color or political, religious or sexual affiliation is also a crime. Crime for which there is no criminal liability until it grows into a delict. Even then the punishment is often missing. A society that justifies this crime, or tacitly acknowledges its occurrence, becomes nothing but an accomplice. In order to understand democracy better, put yourself in a position of those hatred is directed towards. Do you now feel a full member of a democratic society? Prejudice is part of all human beings. Irrespective of the fact if these stem from gender, age, race, religion, nation, nationality, almost everyone is prone to it. And this is acceptable if it harms no one, but rather determines an individual as a part of certain group. However, prejudice is unfortunately mostly harmful and is accompanied by hate speech. When prejudice is concerned, family also plays a vital role. The Universal Declaration of Human Rights speaks in its Article 7 of the right to "equal protection against any discrimination in violation of this Declaration and against any incitement to such discrimination" (The Universal Declaration of Human Rights, 1948). In its paragraph 1 of Article 21, the Charter of Fundamental Rights of the European Union "prohibits any discrimination based on any ground such as sex, race, color, ethnic or social origin, genetic

features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation” (Official Journal of the European Communities), whereas in its paragraph 2 it prohibits “any discrimination on grounds of nationality within the scope of application of the Treaties and without prejudice to the special provisions of those Treaties” (Charter of Fundamental Rights of the European Union, 2012). Besides legally banning any incitement to war, the International Covenant on Civil and Political Rights also prohibits any “advocacy of national, racial or religious hatred that constitutes incitement to discrimination, hostility or violence” (Constitution of the Republic of Croatia, 1990). In its paragraph (c) of Article 55, the Charter of the United Nations of 1945 obliges all signatories to respect human rights and fundamental freedoms of all, irrespective of race, gender, language or religion. In its Articles 1 and 2, the Universal Declaration of Human Rights of 1948 guarantees to all persons freedom and equality in dignity and rights, irrespective of any differences such as race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or another status. The International Convention on the Elimination of All Forms of Racial Discrimination of 1965 proposes concrete measures to fight racial discrimination and hate speech. The International Covenant on Civil and Political Rights of 1966 orders all signatories to legally ban any war propaganda and any advocacy of national, racial or religious hatred that constitutes incitement to discrimination, hostility or violence. Furthermore, all persons, irrespective of the abovementioned differences, are guaranteed identical legal protection. A general ban on discrimination is underscored by the Protocol 12 of the European Convention on Human Rights of 2000, which ensures that the rights prescribed by law can be enjoyed with no discrimination on grounds of race, sex, color, language or any other provision of Article 14 of the Convention.

3. CROATIAN EXPERIENCE

Despite the fact that all people nowadays enjoy freedom of speech, which is deemed one of fundamental human rights, there are legal regulations that prevent this right from being absolute. Such limitations exist because of the abuse of this right to the detriment of others. Both international and national legislations explicitly ban and legally delimit any type of expression that incites hatred. Pursuant to Article 16 of the Constitution of the Republic of Croatia, “freedoms and rights can be restricted by law only to protect the freedom and rights of other persons, as well as the legal order, public morals and health. Any restriction of freedom or rights must be proportionate to the nature of the need to restrict such freedom of rights in all individual cases” (Constitution of the Republic of Croatia, 1990). Pursuant to Article 39 of the Constitution, it is banned and punishable to summon or incite to war or use of violence, to national, racial or religious hatred or any other form of animosity” (Constitution of the Republic of Croatia, 1990). Article 87 of the Criminal Code says that “a hate crime is a crime committed on grounds of race, color, religious belief, national or ethnic origin, disability, sex, sexual orientation or gender identity of another person. Such action shall be deemed an aggravating circumstance unless this Code explicitly prescribes a more severe form of penalty” (Criminal law, 1997). In its first paragraph, Article 325 of this Code prescribes imprisonment up to three years of duration for all persons who use “the press, radio, television, computer systems or internet, a public gathering or another occasion to publicly incite or to make publicly available leaflets, images or other material inciting to violence or hatred directed towards a group of people or one member of a group on grounds of their racial, religious, national or ethnic affiliation, origin, color, sex, sexual orientation, gender identity, disability or another feature.” (Criminal law, 1997). The second paragraph of Article 325 states that the “penalty referred to in paragraph 1 of this Article shall be applicable to all persons publicly approving, denying or belittling a crime such as genocide, aggression, crimes against humanity or war crimes, directed towards a group of people or one member of a group on grounds of their racial, religious,

national or ethnic affiliation, origin, color, in a manner suitable for incitement to violence or hatred against such group or members of such group.” (Criminal law, 1997). The paragraph 2 of Article 12 of the Electronic Media Act prescribes that “it is prohibited to use audio and/or audiovisual media services to incite, favor incitement and disseminate hatred or discrimination on the grounds of racial or ethnic affiliation or color, sex, language, religion, political or another opinion, national or social origin, property, trade union membership, education, social status, marital or family status, health condition, disability, genetic heritage, gender identity, expression or sexual orientation, as well as anti-Semitism and xenophobia, ideas of fascist, nationalist, communist and other totalitarian regimes” (The electronic media act, 2003). The paragraph 1 of Article 1 of the Anti-discrimination Act “provides for the protection and promotion of equality as the highest value of the constitutional order of the Republic of Croatia, creates prerequisites for the realization of equal opportunities and regulates protection against discrimination on the grounds of race or ethnic affiliation or color, gender, language, religion, political or other belief, national or social origin, property, trade union membership, education, social status, marital or family status, age, health condition, disability, genetic heritage, native identity, expression or sexual orientation” (Croatian Anti-discrimination Act, 2008). In its paragraph 1 of Article 21, the Same-sex Civil Unions Act “prohibits all forms of discrimination, direct and indirect, on grounds of same-sex civil union, as well as on grounds of homosexual orientation”, whereas its paragraph 3 of the same Article defines direct discrimination as “any action which places or has placed a person who is a member of same-sex union in a more unfavorable position by another person in a comparable situation based on the fact that this person is a member of same-sex union” (Same-sex community law, 2003). Discrimination on grounds of sex is also prohibited by the Gender Equality Act. Its paragraph 1 of Article 6 states that discrimination is “any difference, exclusion or restriction made on grounds of gender whose consequence or purpose is the endangerment or disabling of recognition, enjoyment or exertion of human rights and fundamental freedoms in a political, economic, social, cultural, civil or another sphere on grounds of equality between men and women, educational, economic, social, cultural, civil or any other area of life” (Gender Equality Act, 2008). Discrimination is also prohibited by the Act on the Prevention of Disorders at Sports Competitions. Its paragraph 1 of Article 4 prohibits any “attempt to introduce, introduction and flaunting of banners, flags or other objects containing a text, image, sign or another feature that expresses or incites hatred or violence on the grounds of racial, national, regional or religious affiliation”, as well as “the signing of songs or hurling of messages whose content expresses or incites hatred or violence on the grounds of racial, national, regional or religious affiliation” (Prevention of Riots at Sports Competitions Act, 2003).

4. SOCIAL MEDIA

The internet is believed to be a free medium with no time, sex, age, racial, religious, national or any other restriction. This is precisely why the internet is seen as a democratic medium. Through the internet (or, specifically, the world wide web), users may access diverse contents, produce and publish content on their own, communicate to people all over the world, inform themselves on the events in their respective countries and abroad and may also freely express their opinions and stances on persons, events or other matters. This is how internet users may affect and form public opinion. Internet users have become co-creators of public life. However, this brings along many positive but also negative consequences, both for the individual and for the society as a whole. “Over the past years, the internet, as a medium with unprecedented possibilities of interactivity and with a growing number of young users, has become a platform with visible new forms of promotion of animosity towards certain minority groups. Despite all the warnings of owners of internet portals and online journalists that offensive and intolerant content will be automatically removed, this content still remains online for months and years.

We are witnessing politically incorrect language on internet portals, often true hate speech, usually when there are sudden events relative to the tolerance between nations, lives and problems of minorities and events in which persons of different sexual orientation participate” (Vilović, 2011). With the rise of social networks, it has become even more difficult to fight, suppress and prevent hatred. It takes only a few seconds for a message to cross the entire world offending, dishonoring and hurting thus an undoubtedly huge number of people. Social networks are definitely a global communication phenomenon and have been “present for years in the internet’s communication space gathering an enormous number of people who communicate on various topics of interest” (Grbavac & Grbavac, 2014). All humans, being social beings, have the need to communicate with other people and social networks have become the main tool for that nowadays. Besides being able to communicate to other users, users of social networks can make new friends and acquaintances and, of late, these have also embedded journalism in their content. There are few media today that do not have a profile on some social network where they publish and share news previously published on their website. Users of social media have thus the opportunity to comment the published content. The most popular social network in Croatia, which gathers the highest number of users, is undoubtedly Facebook. This social network today counts more than two billion users globally (data from June 2017). It is no wonder then that it is „Facebook that has become the breeding ground for the promotion of the harshest types of expression of hatred” (Vilović, 2011). One can become a Facebook user quite simply. First, one must have a valid email address. Upon their registration, users must read and confirm the Statement of Rights and Responsibilities, which states that users must enter their real names and confirm that they will not create more than one profile. Facebook has limited the age of their users and so persons under the age of 13 are not allowed to create a profile. However, in order to become a user of this social network, you do not have to enter the correct data, which is one of the reasons why hatred is very much present, available and spread on Facebook. The minute the individual experiences the freedom of anonymity, he/she can turn into a hatred propagator. And hate speech then becomes unstoppable.

5. CONCLUSION

“The most significant and hardest consequence of hate speech is its realization. This is most often seen in wars, which are filled with killings, torture, persecution and discrimination of all types. After the war, discrimination remains, particularly the one on the grounds of nation” (Klain, 2003). When there is hatred in a sentence, it is clear nothing good can come out of it and there is no positive consequence. The damage that hate speech can inflict to an individual or a group can be direct or indirect. However, there is no large or small damage. All hate speech is harmful irrespective of its reach. If someone ignores the hate speech that is directed towards him/her, this does not mean that this speech is less detrimental than the one directed towards a person who will be really shaken by it. According to Klain, the realization of hate speech is manifested through revenge, blocking of reconciliation and forgiveness and in terrorism. The feeling of revenge for the sins committed by individuals block reconciliation and forgiveness. “Hate speech is a significant factor in incitement to terrorism and is even more significant in the training and exercise of terrorists. We can safely say that terrorism is one of the gravest dangers of today’s world for two reasons: first, it is unknown when and where terrorist acts will be committed and second, there is no suitable defense against it as terrorists sacrifice their own lives” (Klain, 2003). However, the most devastating consequence of hate speech is definitely the loss of humaneness. Human beings as mental creatures should spread love, care for the weak and disabled, acceptance of diversity of all types and respect for all living beings on this planet. Each individual should be entitled to grow and develop into a person he/she wishes to become, with own attitudes, opinions, ideas and beliefs, all within the scope of wellbeing, rather

than dissemination of hatred and animosity. We cannot but wonder what distinguishes a man who is filled with hatred, who refuses to learn that the beauty of living lies in differences, from animals that are instinctive beings? "Exposure to racist speech may have direct physical (hyperventilation, high blood pressure, headaches and vertigo) and psychological (fears and nightmares) consequences". "Moreover, it may result in long term consequences like psychosomatic diseases, withdrawal from the rest of people, increased level of stress, depression or mental disorder" (Delgado & Stefancic, 2004). Every person should think about consequences before saying anything out of hatred. Hate speech is most widespread on social networks, which constitute the foundations of modern communication. These may be accessed in a simple and fast way and besides offering a platform for communication, they can be used for downloading and sharing content and information of all types. Also, in a matter of few minutes, we can become almost anyone on social networks, or no one under the mask of anonymity. This encourages individuals to write things they would otherwise never dare to speak out loud in real circumstances or in front of real people. The media, although suppressing hatred more and more in the contents that they publish, still do not contribute sufficiently to the suppression of hatred of their users on social networks.

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COORDINATION IN THE AGE OF INDUSTRY 4.0

Lesław Pietrewicz

Institute of Economics, Polish Academy of Sciences, Poland

pietrewi@inepan.waw.pl

ABSTRACT

Coordination, competition and cooperation are the three main types of strategic interactions. Coordination, despite its importance in structuring business interactions and its impact on firm performance, remains an understudied phenomenon, with the bulk of the research on business interactions focusing on competition and cooperation, and, more recently, on their simultaneous use in cooperation. However, growing complexity and specialization of enterprises increase coordination needs and call for renewed academic interest in the topic. Advances in digitalization and the rise of Industry 4.0, predicated on the growing interconnectedness and interdependence of technologies and business organizations, make the topic of coordination more relevant than ever before. The aim of this paper is to present a simplified model of coordination reflecting both the demands of Industry 4.0, and the possibilities it creates. Following the established conceptualizations of coordination, the model has two main components – interdependencies and coordination mechanisms. However, the conventional models presented the relationship as direct and unidirectional, with interdependencies viewed as given and the mechanisms of coordination as organizational responses aimed at achieving coordination. In contrast to the traditional approach, we allow for two-way causality between interdependencies and coordination mechanisms, as the latter not only are set to manage existing interdependencies, but also can elicit specific interdependencies, particularly those connectivity- and communication-related, as these are needed to induce all parties to follow the overall or common goal. ICT plays a central role in the model as mediating in managing interdependencies. Finally, the context of Industry 4.0-related public policy is recognized in the model as capable of affecting business organizations' ability to effectively manage interdependencies.

Keywords: *coordination, fourth industrial revolution, Industry 4.0, interdependency*

1. INTRODUCTION

Coordination is a topic of interest to various disciplines, such as economics, sociology, psychology, political science, organization theory and strategic management. In business settings, coordination has long been recognized as critical to firms' operations and success. For example, Barnard (1938) conceptualized organizations as systems of coordinated activities, Thompson (1967) and Lawrence and Lorsch (1969) – as systems of specialized interrelated behaviors that demand high levels of coordination, and Fayol (1949) listed coordination as one of the five main functions of management. More recently, Beer, Eisenstat, and Spector (1990) related coordination to two other types of strategic interactions – cooperation and competition – arguing that cooperation is a prerequisite of coordination which, in turn, is necessary for competitive success, and Malone and Crowston (1990, p. 2) argued that even competing parties can in some spheres coordinate actions. Coordination can therefore be viewed as pervasive in organizational settings. In fact, it occurs both within and across organizations, and both vertically and horizontally linked individuals, groups and enterprises can coordinate activities. Although early studies focused on coordination among individuals and groups within organizations, recent advances in information and communication technologies (ICT) altering the rules of competition and triggering dramatic changes in interorganizational relationships (Malone and Crowston, 2012, p. 9) make the problem of coordination among organizations more relevant than ever.

The advent of Industry 4.0, predicated on the growing interconnectedness and interdependence of technologies and business organizations (Kagermann, Wahlster and Helbig, 2013) and demanding the simultaneous pursuance of efficiency of integrated value chains and flexibility of networks, puts an extra pressure on coordination, further increasing its importance. The prevalence of coordination does not explain when or how it is achieved. Early studies have found that the need for coordination arises whenever various tasks or resources must be employed together to produce desirable outcomes (Malone and Crowston, 1990), implying that the more complex the tasks and the more people are needed to accomplish them the bigger the coordination needs. The unprecedented pace of technological advancement manifested in the accumulation of digital (e.g. Big Data, cloud, IoT, AI, blockchain) and physical (e.g. 3D printing, nanotechnologies) technological breakthroughs which are growing on each other and coalescing to enable cyber-physical systems (Schwab, 2016), demands widespread cooperation and coordination as knowledge is dispersed and no company is able to advance technologies entirely in-house, without tapping external sources of knowledge (Alcácer, Cantwell and Piscitello, 2016). These new cyber-physical systems (CPSs) fed with data from Internet-of-Things (IoT) and deployed in so-called smart factories are the enabling features of Industry 4.0 (Liao, Deschamps, Lourdes and Ramos, 2017, p. 3618). It can be argued that by their nature, they both demand enhanced coordination within and across organizations, and are themselves deployed to foster coordination, making coordination in the age of Industry 4.0 a particularly timely and challenging endeavor. However, the coordination topic has not yet been systematically addressed in Industry 4.0 studies, with the bulk of research emphasizing the need for coordination without later giving the topic due consideration. The aim of this paper is to partially fill this gap by presenting a simplified model of coordination in the age of Industry 4.0. Despite a long history, the coordination studies remain at the pre-theory stage of development, with simplified frameworks and models used as a way to advance our knowledge (Malone and Crowston 2012, p. 8). The same approach has been adopted in this paper. It models coordination as reflecting both the demands of Industry 4.0, and the possibilities it creates. The model puts digital technologies central stage as mediating in establishing coordination. Moreover, in contrast to the traditional models of coordination, we model two-way causality between these variables, as coordination mechanisms not only manage existing interdependencies, but they can also elicit specific interdependencies, particularly those connectivity- and communication-related, as they are needed for inducing all parties to follow the overall or common goal. Finally, the Industry 4.0-related public policy is viewed as contextualizing the relationship, as certain measures can affect the ability and effectiveness of business organizations in coordinating interdependencies. The paper is structured as follows. The second section provides a coordination literature review, the next one examines the nature of Industry 4.0, and the fourth section develops a simplified model of coordination in the age of Industry 4.0. The fifth section concludes.

2. COORDINATION LITERATURE REVIEW

In social sciences, coordination is typically conceptualized together with cooperation and conflict as three basic types of strategic interactions, defined as interactions in which outcomes of one actor's decision depend on decisions by other actors. In a pure conflict interaction one party gains only at the cost of another, in a coordination interaction each party can gain only if the other also gains, and cooperation interactions involve elements of both conflict and coordination (Hardin, 1990, p. 359). In economics, the topic of coordination, cooperation and conflict is typically addressed in game theoretic models of reaching equilibria by rational decision-makers. In the business context, coordination is typically viewed as a precondition for the achievement of firm objectives (Espinosa, Lerch and Kraut, 2004). Organization and management literature defines coordination as organization of individuals' efforts toward

achieving common and explicitly recognized goals (Blau and Scott, 1962), the combination of parts to achieve the most effective or harmonious results (Thompson, 1967), the act of working together harmoniously (Malone and Crowston, 1990, p. 4), the integration or linking together of different parts of an organization to accomplish a collective set of tasks (Van de Ven, Delbecq and Koenig, 1976), activities required to maintain consistency within a work product or to manage dependencies within the workflow (Curtis, 1989), bringing into a relationship otherwise separate activities or events, typically with the goal of increasing efficiency (Frances, Levacić, Mitchell and Thompson, 1991, p. 3), and managing dependencies among activities (Malone and Crowston, 2012, p. 11). The managerial and organizational definitions of coordination revolve around two components – organization of separate activities and, explicitly or implicitly, orientation at achieving an overall, common or mutually beneficial goal. It implies that the activities must be performed in a way that helps achieve the goal, making their performance interdependent (Malone and Crowston 1990, p. 4). Hence the goal-relevant relationships between activities can be referred to as interdependencies (Crowston, 1994; Malone and Crowston 1990, p. 4; Thompson, 1967), defined as the extent to which outcomes of one unit (activity) are directly controlled by or contingent upon the actions of another unit (activity) (Victor and Blackburn, 1987, p. 490). What follows is that coordination is the act of managing interdependencies – if there is no interdependence, there is nothing to coordinate (Malone and Crowston 1990, p. 5-6; 2012, p. 11). All organizations face coordination problem arising from interdependencies (Malone and Crowston, 1994), which can be both internal (within organization) and external (across organizations), similarly to organizational responses to interdependencies, that is coordination strategies based on mechanisms of coordination. Coordination mechanisms must be chosen in such a way as to effectively address existing interdependencies. As the latter amplify, increasingly powerful coordination mechanisms are needed (e.g. mutual adjustment rather than standardization), alternatively, actions to reduce the degree of interdependency can be taken (McCann and Ferry 1979). Coordination literature categorizes interdependencies in various ways. For example, Malone and Crowston (1990, p. 7) hypothesize (1) prerequisite (output of one activity is required by the next activity), (2) shared resource (resource required by multiple activities), and (3) simultaneity (time at which more than one activity must occur) interdependencies, Thompson (1967, s. 54-55) theorizes three types of interdependencies – pooled (discrete or autonomous contributions to one pool), sequential (output of one unit is necessary for the performance of the next unit), and reciprocal (one agent's output is another agent's input and *vice versa*), and Van de Ven, Delbecq and Koenig (1976) extend Thompson's (1967) framework with the fourth category – team arrangement (tasks are performed jointly). March and Simon (1958) describe two coordination mechanisms – task organization mechanisms and communication (i.e. coordination by feedback), Espinosa, Lerch and Kraut (2004) distinguish explicit (task programming and communicating) and implicit (cognition based on shared knowledge) coordination mechanisms, Fugate, Sahin and Mentzer (2006) analyze price, non-price, and flow coordination mechanisms, whereas Morgan and Hunt (1994) point at norms as playing a key role in coordination. Solidarity, mutuality, restraint in the use of power, concern for reputation, and information sharing are some of the norms discussed in the coordination literature (Fugate, Sahin and Mentzer, 2006). Table 1 summarizes selected generic coordination frameworks presenting theorized patterns of interdependences and corresponding coordination mechanisms.

Table following on the next page

Table1: A summary of selected generic coordination frameworks (based on respective publications indicated in the left column)

Framework's author(s)	Patterns of interdependencies	Coordination mechanisms
Thompson (1967)	<ul style="list-style-type: none"> • Pooled, • Sequential and • Reciprocal 	<ul style="list-style-type: none"> • Standardization, • Plan, • Mutual adjustment
Van de Ven, Delbecq and Koenig (1976)	<ul style="list-style-type: none"> • Pooled, • Sequential, • Reciprocal, • Team arrangement (simultaneous) 	<ul style="list-style-type: none"> • Standardization (rules) (impersonal), • Planning (impersonal), • Exchange of information and adjustment (personal and group mechanisms) • Exchange of information and adjustment (personal and group mechanisms)
Malone and Crowston (1990)	<ul style="list-style-type: none"> • Prerequisite, • Shared resource, • Simultaneity 	<ul style="list-style-type: none"> • Goal decomposition, ordering activities, moving information from one activity to the next; • Allocating resources; • Synchronizing activities
Crowston (1994)	<ul style="list-style-type: none"> • Task-resource, • Common effects • Common preconditions, • Effect of one is precondition of other 	<ul style="list-style-type: none"> • Resource assignment • Negotiation or picking one task to do • Scheduling or acquiring more resources • Managing flow of resources
Espinosa, Lerch and Kraut (2004)*	Task-level, team-level, technology-level, organization-level, synchronicity, collocation vs. dispersion	Explicit (e.g. strategy) and implicit (e.g. shared mental model, task awareness)

Note: coordination mechanisms marked by bullets in the right column correspond to individual patterns of interdependencies marked by respective bullets in the central column.
** in Espinosa, Lerch and Kraut (2004), individual categories of coordination mechanisms in the right column do not correspond to individual types of interdependencies, as – according to these authors – typically a mix of coordination mechanisms is needed to deal with interdependencies. Therefore no bullets are used.*

In the last 20 years coordination literature evolved to emphasize more domain-specific (e.g. supply chain management) approaches to managing interdependencies, as allowing more detailed, context-specific analyses and inferences. Moreover, economic and organizational studies on coordination mechanisms have been complemented by computer science contributions focusing on computational coordination mechanisms in the context of cooperative work settings, particularly on how computer systems can reduce the costs (Malone, Yates and Benjamin, 1987) and complexity of coordinating interdependent cooperative activities (e.g. Schmidt and Simone, 1996). In the age of Industry 4.0 these two disciplinary approaches come together as the interactions are mediated by information technology systems and solutions.

3. INDUSTRY 4.0 AND COORDINATION

The new economic era called Industry 4.0 (e.g. Kagermann et al., 2013), or the fourth industrial revolution (e.g. Schwab, 2016), began roughly in the 2010s (Arthur, 2017), building on previous achievements of digitalization and industrialization. Similarly to the preceding industrial revolutions, its central theme is the transformation of the production system, i.e. manufacturing value chains (Wee, Kelly, Cattell and Breunig, 2015). The fourth industrial revolution has been ushered in by feeding huge amounts of data into manufacturing environment using the IoT (Kagermann et al. 2013, p. 5). The manufacturing environment itself is being transformed by cross-fertilization and coalescing of digital and physical technologies (Kagermann et al. 2013) producing strong technological interdependencies. Although it has long been acknowledged that individual technologies seldom operate in isolation from other technologies, as interoperability is typically required in order to create the intended value (Baden-Fuller and Haefliger, 2013, p. 422), requirements of the Industry 4.0 make the interdependencies between technologies more important than ever. The reason is that bringing advanced digital and physical technologies into integrated cyber-physical systems (CPSs) enable a wealth of value networks (Kagermann et al., 2013, p. 6), where multiple physical systems and applications communicate with each other as a network (Desmet, Maerkedahl and Shi, 2017). Such communication is mediated by CPS platforms, which monitor the physical processes of smart factories and make decentralized decisions (Young, Petutschnigg Barbu, 2017, p. 565). With CPS platforms, the physical systems communicate in real time exchanging huge amounts of data, which are then fed to algorithms to coordinate and manage production processes. Although the scope of Industry 4.0 remains uncertain, comprising – according to various authors – a variety of technologies, applications, processes and business models (Schlund and Baaij, 2018, p. 341), Kagermann et al. (2013) in what is the most widely cited Industry 4.0 reference (Liao, Deschamps, Lourdes and Ramos 2017, p. 3618), present the vision of Industry 4.0 as encompassing dynamic, real-time optimized, self-organizing value chains. IoT and CPS platforms, covering entire manufacturing processes and a dynamic network of companies, play a central role in this vision as enabling three key ICT-based integration features – horizontal integration (both within a company and across companies in inter-firm value networks), vertical integration (at different hierarchical levels, e.g. sensor, production management, corporate planning levels), and end-to-end digital integration (end-to-end integration of the engineering value chain). Achieving the paradigm shift (Kagermann et al., 2013) of combined integration of ICT systems across manufacturing stages and hierarchical levels along entire value chains creates an unprecedented coordination challenge. Moreover, the advent of computerized manufacturing technologies mark a clear departure from the logic of the previous economic era (third industrial revolution (Schwab, 2016), or the second morphing of the digital revolution (Arthur, 2017) in which the advancement and growing complexity of technologies demanded progressing specialization and led to modularization of technologies and fragmentation of value chains (Alcácer, Cantwell and Piscitello, 2016: 505; Langlois, 2002).

Currently, computerized manufacturing technologies allow consolidating intermediate stages in manufacturing processes into fewer stages and enable more integral product architecture, which demands close, detailed coordination of activities (Rezk, Srai and Williamson, 2016). Laplume, Petersen, and Pearce (2016) study one of such technologies – 3D printing – and find that its capacity to consolidate some intermediate phases of production partially reverses the trend towards specialization, fragmentation and dispersion. What follows is that improving coordination capacity is central to the advancement of Industry 4.0 and computerized manufacturing technologies and CPS platforms should be seen as its critical mechanisms.

4. INDUSTRY 4.0 COORDINATION MODEL

Certainly, patterns of interdependencies and coordination mechanisms identified and described in early models of coordination should not be all too eagerly dismissed in the age of Industry 4.0. However, new perspectives on interdependencies and new mechanisms specific to Industry 4.0 can be proposed, reflecting both the possibilities and demands the new era creates. For simplicity, the model developed below expressly addresses the latter, that is specificities of interdependencies and coordination mechanisms that grow out of advancing digitalization and computerized manufacturing technologies indicative of Industry 4.0 manufacturing value chains. Included are also aspects of interdependencies omitted or neglected in previously developed models but which gain prominence in the Industry 4.0 context. In the model, both interdependencies and coordination mechanisms are considered at the activity level, with the overall goal of coordination interpreted as the performance of the entire manufacturing system, regardless of the ownership status of individual units performing activities. Based on Kagermann's et al. (2013) integration features, horizontal, vertical and end-to-end interdependency patterns can be featured. Horizontal interdependencies can be defined as any interdependencies existing either within a company or between companies in the production system (e.g. sequential or related to risk management). Vertical interdependencies are any interdependencies that can be identified between different hierarchical levels (for example, data quality or timeliness-related interdependencies). End-to-end interdependencies can be defined as interdependencies observed in the engineering value chain (e.g. relating product features and production process requirements). However, this categorization seems overly generic, and as such it would have a limited utility in explaining the nature of limitations and demands that interdependencies produce, as well as inferring coordination mechanisms that could address them. Therefore, the model summarized in Table 2 below portrays identified interdependencies that are more specific, easy to interpret and can be easily referred to when conceptualizing types of responses, i.e. mechanisms of coordination. Moreover, rather than focusing on patterns of interdependencies it depicts aspects or dimensions of present-day interdependencies. The reason is that interdependency is a multifaceted phenomenon as two actions or units can be interdependent in several ways. To the best of author's knowledge, in all early models interdependency was viewed as a one-dimensional variable, that is depicted patterns of interdependencies were distinguished from a single point of view. In the more recent model (i.e. Espinosa, Lerch and Kraut, 2004) the portrayal was inconsistent, with majority of patterns distinguished along one dimensions, and remaining ones representing additional aspects. Our model depicts the following aspects (or dimensions) of interdependencies: (1) interoperability, (2) flexibility, (3) adaptability, (4) data-related interdependence patterns (volume, velocity, veracity and security), (5) risk sharing, and (6) intellectual property and know-how protection. Coordination mechanisms characteristic of Industry 4.0 include (1) computerized manufacturing technologies, (2) cyber-physical system platforms, (3) network access and governance, and (4) trust in data and algorithms.

Table2: Dimensions of interdependencies and coordination mechanisms characteristic of Industry

Dimensions of interdependencies	Coordination mechanisms
Interoperability	Computerized manufacturing
Flexibility	technologies
Adaptability	CPS platform, algorithm,
Data-related interdependencies	Rules of access and governance
Risk sharing	Trust in data and algorithms
Intellectual property and know-how protection	

4.1. Dimensions of interdependencies

Interoperability is a dimension of interdependency in which two components of a production system need to exchange and automatically interpret information in order to produce expected value. The same applies to two levels in the production system, e.g. actuator or sensor and production management levels. Flexibility in relations is a characteristic required to establish a dynamic configuration of different aspects of production processes (Kagermann et al., 2013, p. 16). That makes flexibility, that is openness to and acceptance of ad hoc network relations, the second dimension of interdependency, indispensable if Industry 4.0 production systems are to deliver expected value. Adaptability is a dimension emphasizing evolutionary and innovation-driven nature of contemporary production technologies. Advancements in some parts or aspects of manufacturing processes may require adaptation by other components, making them interdependent. Data-related interdependence has four components – volume, velocity, veracity (correctness) and security. Incessant collection, transfer, and feeding of data into CPS platforms and algorithms underpins system-wide production optimization. Algorithms interpreting data and automating processes and, ultimately, decisions (Bughin, Catlin, Hirt and Willmott, 2018) require data of sufficiently high volumes, on time and of consistently high quality, transferred both vertically and horizontally, producing strong multilateral interdependencies. Data security breaches can compromise the whole interconnected system, which can fall victim to industrial espionage despite most of its components being otherwise well protected. Data security issue links data-related interdependence to risk sharing. Risk sharing is a distinct dimension of interdependency in integrated production systems. Mistakes or flaws in one spot can result from and affect operations in another. Technology innovations at both development and commercialization stages often require complementary innovations development and deployment (Adner, 2006), respectively. The more intermediaries must adopt an innovation before it reaches end users and the more complementary innovations are needed, the higher the risk. Risk sharing can also be related to Alter and Hage's (1993) task uncertainty dimension of interdependency, defined as the degree to which tasks have unknowable outcomes. Fusion and coalescing of technologies (Schwab, 2016) make intellectual property (IP) and know-how protection an important dimension of interdependency. End-to-end engineering involving multiple actors cooperating and competing to develop overall best solutions may require network-specific (idiosyncratic) investments and trade-offs between individual members of the network, and sharing sensitive IP and know-how to the common benefit, making this issue an important dimension of interdependency. The above list is not meant to be exhaustive. Rather, it depicts dimensions of interdependencies specific or of increased importance to the Industry 4.0 production systems and their coordination. Thus, for example, the traditional factors of the type of complementarities (Teece, 1986) and frequency and complexity of interactions, are not included despite their indisputable role in shaping interdependencies.

4.2. Coordination mechanisms

Industry 4.0 production systems both demand and enable close coordination. While in the purely digital ecosystems technological modularity allows interdependent components of a product to be produced by different producers, with limited coordination, in the Industry 4.0 production systems computerized manufacturing technologies (e.g. 3D printing) provide close coordination in consolidating intermediate stages in manufacturing processes into fewer stages, thus enabling more integral product architecture and fewer interactions with external partners (Rezk, Srai and Williamson, 2016). These traits make computerized manufacturing technologies a key Industry 4.0 coordination mechanism, addressing particularly interoperability and flexibility dimensions of interdependencies. To operate properly, Industry 4.0 manufacturing systems necessitate CPS platforms able to interact with, and expand the capabilities of the physical production systems (Baheti and Gill, 2011, p. 161). These platforms assure coordination of manufacturing processes through collection, processing, distribution and use of data to monitor the physical processes and make decentralized supply chain decisions (Young, Petutschnigg Barbu, 2017, p. 565). They also take an important part in value-add by designing individualized products based on information exchange with customers and by supporting product and process engineering. CPS platforms and algorithms they operate, provide the concept of interconnectivity with substance. They relate to all the aspects of interdependencies covered in the model, and those connected to data particularly strongly. Industry 4.0 manufacturing systems are similar to digital ecosystems in that their coordination relies on rules of access and governance. Such rules, describing inter alia standards and providing interfaces, are set to provide structure, determine the roles (including control rights) and incentives (Adner, 2017) for owners of activities and processes, thus encouraging engagement and alignment of all the parties. Coordination through rules of access and governance allows the entire manufacturing system to economize on transaction costs. Rules of access and governance are critical coordination mechanisms for designing and actually using new business models which Industry 4.0 is to elicit and support. For example, such rules could enable micropayments, product-as-a-service models, property rights-based models, and data-driven business models (Wee, Kelly, Cattel and Breunig, 2015, p. 8). Rules of access and governance are aimed predominantly at risk sharing and intellectual property and know-how related interdependencies. Industry 4.0 production systems involve endless exchanges – of data, component and product flows as well as financial transactions. For the system to work properly, all these transactions must be trusted. Trust is a powerful coordination mechanism (McEvily, Perrone and Zaheer, 2003) allowing all parties involved to economize on transaction costs. Traditionally, transacting parties extended trust to an institution, typically an intermediary, who guaranteed transaction. Industry 4.0 production systems comprise individual components of the production system incessantly communicating and transacting, both horizontally and vertically. In such systems, trust in institutions as guarantors of transactions is replaced with trust in veracity of data and, above all, in algorithms. One particularly conspicuous coordination mechanism based on this logic is blockchain, which explicitly replaces trust in institutions with trust in algorithms. Thanks to its consensus protocols and advanced cryptography-based verification process and immutability of data it can be used in supply chain management for tracking and payments while dramatically reducing the risks of unauthorized access and compromising data quality. Thus, trust in data and algorithms as a coordination mechanism specifically addresses data-related and risk-sharing interdependencies. Apart from coordination mechanisms described above as characteristic of the Industry 4.0, some more traditional coordination mechanisms are still valid. For example, goals are still decomposed, resources allocated, and the manufacturing value chain leader can set the vision of the whole production and engineering system, enabling its partners to align their investments and find mutually supportive roles.

Finally, the Industry 4.0-relevant institutional environment and infrastructure should be seen as an enabling factor, affecting both the interdependencies and coordination mechanisms. In this vein, Kagermann et al. (2013, p. 6-7) point at the existence of technical standards and common architecture, methods and tools for industry 4.0 engineers to develop planning and explanatory models to manage complexity of products and manufacturing systems, broadband internet infrastructure, safety and security standards concerning, among others, data, labor market and training measures (e.g. lifelong learning), and legislation taking into account Industry 4.0 innovations (e.g. protection of corporate data, liability issues, handling of personal data, model contracts).

5. CONSLUSION

The success of Industry 4.0 manufacturing systems hinges upon effective coordination. The unprecedented pace of technological change, intensified competition and increased customer expectations have created business environment which favors speed and flexibility, which, in turn, demand new forms of organizing value creation embracing new and evolved technological and organizational interdependencies. The paper presents a simplified model of coordination embracing both the demands of Industry 4.0, and the possibilities it creates. The model covers dimensions of interdependencies and mechanisms of coordination specific to Industry 4.0, that is reflecting advances in digital technologies and their integration with physical technologies as well as changes in the nature of interactions such technological advancements enable and demand. Unlike and the traditional models of coordination, the above model depicts coordination as technology mediated. Moreover, in contrast to the traditional models, we allow for two-way causality between these variables, as coordination mechanisms not only manage existing interdependencies, but they can also elicit specific interdependencies, particularly those connectivity- and communication-related, as they are needed for inducing all parties to follow the overall or common goal. Finally, we look at dimensions – and not patterns – of interdependencies in recognition that interdependencies are a multifaceted phenomenon. In contrast to early models, typically prioritizing coordination mechanisms, we see these mechanisms as partial and complementary in their pursuance of coordination.

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SUSTAINABLE DEVELOPMENT AND ACTIVE AGEING IN EU COUNTRIES – BRIDGES AND GAPS

Robertina Zdjelar

*PhD Student of Faculty of organization and Informatics, Varaždin, Croatia
Assembly of Koprivnica-Krizevci County
robertina.zdjelar@kc.t-com.hr*

Nikolina Zajdela Hrustek

*Faculty of Organization and Informatics, Varaždin, Croatia
nikolina.zajdela@foi.hr*

Marijana Sumpor

*City Assembly Member of City of Zagreb
msumpor@gmail.com*

ABSTRACT

The issue of aging nations is a key concern for overall development and is addressed by many international organizations, such as. the United Nations or the European Commission and similar organizations. The research question addressed by the authors in this paper is to what degree can digital literate 54+ people in European Union (EU) member countries influence sustainable development and vice versa? Active aging is a concept that contributes to achieving one of the sustainable development goals (SDGs). Through its research on Digital economy and society, EUROSTAT made available data on the degree of digital literacy of persons over the age of 54+. In order to achieve the SDGs, as well as the goals of the Digital Agenda EU, the demographically old EU member countries need to find ways to raise the rate of digital literacy 54+ in order to contribute to achieving the SDGs. In this paper, the authors present a review of the mentioned theoretical concepts, policies and the practical contributions of active ageing projects and the continual as well as systematic approach to solving identified problems of the digital divide of 54+ citizens are the bridges for solving gaps in the EU.

Keywords: *active ageing, digital literacy, e-inclusion, sustainable development*

1. INTRODUCTION

In the 21st century the Worlds' sustainability is challenged because of limited natural resources. The theories, strategies, facts are determined. The taxonomy of sustainable development was established almost 20 years ago as stressed by Parris and Kates [18]. The politics and policy of United Nations (UN) and European Commission (EC) play a key role in defining the Agenda for Sustainable Development (ASD 2030) [27]. But, what is the next step?! The next step according to Parris and Kates [18] is finding ways how to make ASD 2030 alive, to implement it, to measure the indicators, to measure the progress and manage it. UN member states take the challenge to be a part of that process by setting national, regional, and local strategies, as well as plans to assure goals set in ASD 2030 – taking into account that planned solutions have to be accessible to all people. The EC in its vision counts on digital technologies (DT) as generator of digital transformation and 4th Industrial Revolution. DT play a key role to accelerate access to knowledge, economic growth and job creation, equality defined in ASD 2030. A grounded theory investigation of Sustainable Development (SD) regarding digital literacy (DL) and knowledge society conducted by Sharma et al. [22] concluded the following: firstly, the provision of ICT infrastructure via public-private people partnership will result in DL, and secure digital inclusion and participation and lead to equal opportunities and SD; secondly, SD is a process, which refers also to getting e-included citizens, accordingly, there are no fast

solutions to success. Thirdly, effective adoption of ICT skills for SD follows from the establishment of social capital that rewards innovation, and an open business environment, with education, research and mass media being intervening dimensions [22]. The next specificity of 21st century is a problem of ageing nations. UN especially emphasized the problem of ageing World [30] [31] and in the Development Program of UN is also focus on equality rights [30]. Vincent talks in his article “Older people and sustainable development” [31] about the of the growing number of elderly and presents projections. This fact has implication on, previously mentioned topics, the implementation of ASD 2030, as well as efficient usage of services transformed from usual to digital version. Bridges are built between “ageing nations”, “sustainable development goals” and “digital transformation” but there are further gaps that have to be bridged. Causes and effects in this triangle are very complex so the research about how to solve the e-inclusion of 54+ in the e-society and e-commerce when nations are going to be older and when all aspect of living is going to be digital has many directions. Many authors have analysed the topics related to e-inclusion and raising the rate of digital literacy of 54+ as it is mentioned in references [35] [36], but the rate is still low [20], [9]. Some of important results of EUROSTAT research of digital society and DL of 54+ citizens in EU will be presented in the following chapter. Thereafter, the authors will present the results of the case study on digital literacy of elderly in Croatia and its influence on the SDGs.

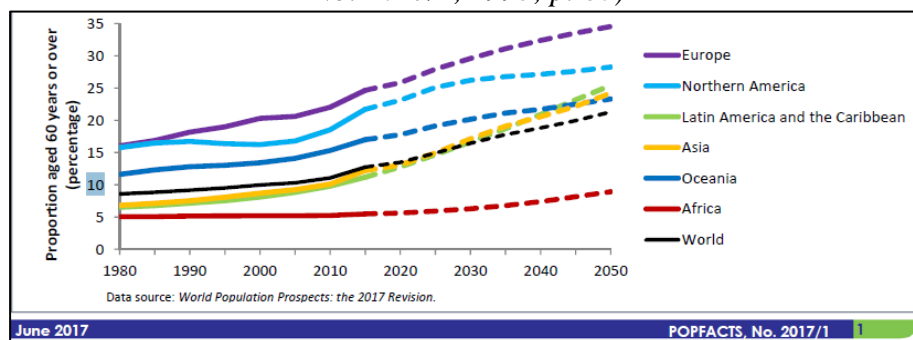
2. ENVIRONMENT OF THE RESEARCH

The demographic issues, digital divide, digital literacy and active ageing policy will be presented in this chapter considered in wider surrounding.

2.1. Demographic issues

The issues related to ageing nations connected with 2030 ASD goals are eradicating poverty, enduring healthy lives and well-being at all ages, promoting gender equality and full and productive employment and decent work for all, reducing inequalities between and within countries, and making cities and human settlements inclusive, safe, resilient and sustainable. The facts about global ageing [29] are presented in Figure 1.

Figure 1: Percentage of the population over 60 years or over, estimated for 1980-2017 and projected to 2050 (United Nations. (2017). Population facts: Population ageing and sustainable development. Department of Economic and Social Affairs, Population Division, No. 2017/1, 1993, p. 80)



According to national Bureau of Statistics in Croatia the percentage of citizens older than 54 in 1953 was 14,6% in whole population, and in 2011 (last official Census) was 31,3%. The situation requires specific measures to be undertaken. The World Health Organization (WHO) considers ageing on healthy ways, age-friendly environment as the factors that will contribute to the SD goals. To set a pathway for solving that kind of challenges of modern societies WHO supports a cross-sectoral approach for ageing processes to be healthy and active [32], [33].

The model of »age-friendly cities«, initiated by WHO, means developing supportive urban communities for older citizens [1], as well as mobility issues like public transport [13], or removing physical barriers [24]. With regard to the needs of older citizens in rural areas, and their equality, alternative solutions are required, such as developing specific e-services supporting the elderly in the use of regular e-services (e-banking, e-commerce, e-health, e-library...). With innovative approaches many barriers can be overcome, especially physical ones (mobility, accessibility), and achievement of autonomy paradigms as observed by Carella and Monachesi [2]. This translates into practical involvement of the elderly into care of other human beings, nature and their active contribution besides the social also to the environmental and economic aspects of sustainable development [8]. This development topic links to the provision of the 2030 ASD “23. People who are vulnerable must be empowered. Those whose needs are reflected in the Agenda include all children, youth, persons with disabilities (of whom more than 80% live in poverty), people living with HIV/AIDS, older persons, indigenous peoples, refugees and internally displaced persons and migrants” [28]. The special edition of that issue was written by Dugarova et al. [5] with the aim to preparing forthcoming generations to know how to be active users of Active Ageing measures for SD. Overall, it can be stated that it is more efficient to e-include the elderly and enable them to use all resources for well-being and for reducing poverty.

2.2. Digital divide, digital literacy and active ageing

Digital technology applied in the human environment plays a key role to support access to knowledge, to support economic activities and economic growth, to assure equality and participation of individuals in social changes, to support institutional accountability, while efficacy of science represents an important precondition for innovation in any societal sector. Digital divide has had a different meaning through time. Initially, the digital divide was observed as a physical isolation from Internet and net services, the “access divide”. When the infrastructure has been developed in a wider sense, the digital divide was considered as the lack of digital skills, the “usage divide”. In literature different terms are used like: digital literacy, digital competence, e-literacy, e-skills, eCompetence, Computer Literacy and Media literacy. While Gallardo-Echenique et al. analysed the levels of digital competence [10]. Kang [17] starts in his article with the statement that ICT plays vital role in social engagement, so if the policy creators want to include elderly in the modern society and economy the story-telling agents are necessary to attract their attention to the way of how to be included and what does it mean for them. The governments in EU are in the process of reshaping the citizen-administration in the way that citizens are engaged in this process, individual or collective, and with the aim of achieving the 2030 ASD goals [15]. The Joint Research Centre of the EC has conducted an exploration of ICT-driven model of e-Government for EU in 2020. The scenarios described the consequences of promising ICT-developments for new e-Government services and models of social, economic, institutional and organizational trends [16]. The physical availability and access to the broadband Internet in EU is in 2017 about 90% in total area, but only 50% in rural areas. That means that 50% of rural citizens are isolated from digital engagement. The research about digital inclusion in rural areas and about challenges faced by people from isolated communities are published by Correa & Pavez [4]. The authors Correa & Pavez set their research on contextual and individual factors for digital engagement. The geographical isolation results with mentality isolation and lack of educational opportunities and both of those phenomena have influence to the attitudes and engagement with technologies. On the other hand, people’s jobs and community activities influenced their motivation and needs towards technologies that also create attitudes.

Figure 2: 30 Mbps coverage in rural areas compared to total coverage in 2017
 (https://www.eca.europa.eu/Lists/ECADocuments/SR18_12/SR_BROADBAND_EN.pdf)

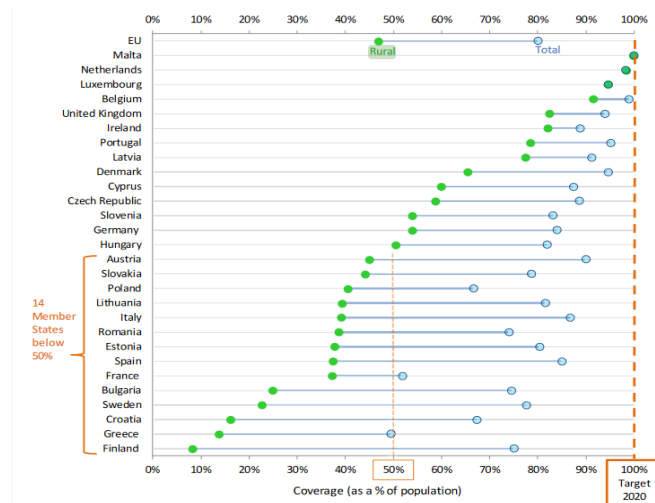


Figure 2. presents the 30 Mbps coverage in rural areas compared to total coverage in 2017 [7]. It can also be clearly seen that 50% of citizens do not have the same possibilities and living commotion. Gray et al. considered the gender issues and the digital divide in Latin America [12]. Consequently, e-inclusion and effectiveness of political activism are in positive correlation, but is gender dependent. The authors [12] also get the result that Internet use is lower altogether in countries with less gender equality. As authors specified in the article men tend to post tweets or engage in more political exchange than woman. Also, the value of services depends on gender and individual personality. Schreurs et al. [21] research on supporting older adults (65+) in the US in their digital literacy requires focus on skills and also on the cognitive and socio-emotional aspects of digital engagements. The sample was small (21 older adults), but the research was conducted through detailed participants' interviews. The "Active ageing" was originally developed by UN and further elaborated by EC and WHO. It means that older people should participate in the labour market (like project iAge [6]) and physical activity, as well as to be able to continue to participate in social, cultural, spiritual, economic and civic matters. The age-friendly environment promoted by WHO is "Health and well-being are determined not only by our genes and personal characteristics but also by the physical and social environments in which we live our lives." [32]. The elderly have defined the meaning of environment as issues that play an important role in determining their physical and mental capacity across a person's life course and into older age and also how well they adjust to loss of function and other forms of adversity that they may experience at different stages of life, and in particular in later years. Both older people and the environments in which they live are diverse, dynamic and changing. According to the Eurostat data [9], extracted in February 2017, about Statistics on rural area in the EU less than two thirds (62 %) of the EU-28 population living in rural areas accessed the internet on a daily basis in 2016; this share rose to 72 % for people living in towns and suburbs and peaked at three quarters (75 %) of the population among city-dwellers. The highest daily use of the Internet in 2016 was recorded in Luxembourg, Denmark, the United Kingdom, the Netherlands, Finland and Sweden. By contrast, the lowest daily use of the internet was recorded in Greece, Poland, Bulgaria and Romania. Belgium, Ireland and Luxembourg were the only EU Member States where people living in rural areas did not record the lowest daily use of the internet. In Lithuania, Portugal and Poland, a relatively low proportion - close to half - of the rural population made use of the internet on a daily basis in 2016, with this share falling to 42 % in Greece, and close to one third of the rural population in Bulgaria and Romania.

Some of these differences in the daily use of the Internet may be attributed to a lack of infrastructure in rural areas, which restricts access to and the availability of digital technologies. There may be a number of other factors that also play a role, including: general levels of literacy, education, computer skills and language skills (in particular English) or cultural factors.

3. E-INCLUSION PROJECTS IN THE EU AND CROATIA AND THEIR CONTRIBUTION TO THE SDGs

The authors Stiakakis, Kariotellis and Vlachopoulou in their article on Digital Divide and Digital Inequalities [25] mentioned that the notion of digital divide is complicated mainly because it mirrors the society's inequalities, so that is the reason why it is difficult for researchers and policy makers to develop a concrete research framework. The focus was on the Greek case; where as a reason for the low rate of digital literacy, high costs of having broadband Internet at home and the education system were mentioned, which was not adequately modernized at the moment of research (2008/2009). Howard [14] has researched the implication of education for SD and one of his final conclusions was that new way of new generation teaching can result in their involvement in the process of elderly e-inclusion. Some similar results were achieved in a project of raising digital literacy of elderly where grandchildren have participated as support in the courses [35]. EC has founded few projects for raising awareness of digital literacy of elderly and LifeLong Learning projects. The project GRANKIT on Cyprus is example of cross generation collaboration in which first and third generation have worked on improving e-skills of elderly [3]. The study of Siren and Grønberg Knudsen [23] results with three main findings. First finding proves that the reasons for digitally excluded primary are lack of skills, interest or confidence in using ICT. Second, as authors said that digital communication did not always successfully assure the users that they were being understood or that they had used the system correctly and this can decrease the motivation to use the digital solution or trust to e-government. The third conclusion is that there are three different groups of older adults relative to ICT use. These groups differed in their actual patterns of ICT use, in their experienced motivation and problems with using ICT and that indicates there is no a unique set of issues for developing e-government. The scepticism of elderly about using electronic services and fears of frauds in cyber space are the causes of low motivation for being e-included. That aspect of the problem was considered on the workshop "Ethics of e-Inclusion of older people" in the period of Slovenian presidency of the European Union in 2008 [19]. The motivation of being e-included is one of parameters in the model recently suggested by Žajdela Hrustek [36]. The research project performed in Slovenia by Trilar et al. has the aims to promote inclusive communication, collaboration and a physically active lifestyle among family members through simple motivational mechanisms [26]. The study results that children and parents mostly use smart phones, while grandparents mostly use regular cell phones. The motivation of research was to include all generations to healthy lifestyle. According to the habits that elderly expressed during research it seems that new application for healthy lifestyle can not be used by elderly because most of them do not use smart phones or other devices connected to the Internet. The contribution of Gabrin Praničević, Petelin and Bučan [11] is in statements that potential of ICT provided to the human benefits are recognized in a number of areas. In order to achieve humanistic goals like improvements of education, provision of social and other services to the public, health and well-being, work-life balance, environmental sustainability. According to the research results the special value of e-services has medical and health care services as well as communication between patients and medical staff. That kind of well communication can reduce the problems of mobility. Regarding implementation of ASD 2030 in Croatia, it is important to say that there are three levels of governance - the state, regional or county level, and local level. The 20 counties and City of Zagreb as a capital city, represent the regional level of governance (NUTS III).

Their roles is defined by the Law on local and regional selfgovernment as well as the Law on regional development, according to which counties are obliged to prepare and implement county development strategies [33]. Also, the counties have a specific role in e-Government and e-services development and promoting digital economy and digital society, as well as public e-services [34].

4. FINDINGS

Based on the theoretical contributions and analysis of national and regional strategic documents, the findings with regard to the identified gaps can be summarized as follows:

- there is no systematic approach to solving the problem of digital divide of elderly, even many projects and researches have been conducted in last decade. Even the most of researches have been classified as scientific and the restrictions are mostly related to the small sample that was researched;
- causes the digital divide and makes complicated the situation is also detected in the content of active ageing measure, because most projects are not recognized the e-inclusion and digital skills as a model of solving problems of isolation, problems of mobility, poverty, loneliness;
- the access divide is still high rate problem in EU countries, especially in the rural areas so the equality between individuals is jeopardised;
- the projects of raising digital literacy founded by high level EU institution mostly are focused on work force and citizens who are active on labour market because of solving problems of poverty, but what about those who are not able to work anymore and live alone and have other disabilities that don't allow them to work? They can be active at home and can be independent if they have e-skills to use e-commerce, e-banking services, to be e-included as active member of e-society. This gap can be called that it is not enough emphasized the digital literacy of elderly in policies.
- the social environment is no enough positive, supportive and motivated for elderly to accept the digital literacy as a practical tool for being active member of society again and to use any kind of digital services that are accessible. The environment have to be enough emphatic for elderly but positive to convince them about advantages they can get by using ICT and digital services.
- the programs of digital literacy courses for elderly are not enough justified with their needs and constrains like physical problems with vision, hearing, hand shaking, perceptivity, concentration and other changes related to ageing process.

According the list of gaps the following research will be focused to find ways how to solve the gaps, by which mechanisms, tools or changing attitudes of politicians and policy makers about importance of digital literacy and e-inclusion of 54+.

5. CONSLUSION

The authors have presented the state of the art in the field of e-inclusion of 54+ and their digital literacy, the projects that have been conducted and the SD policies related with elderly and their active ageing. Follow up between strategic documents of 2030 ASD, UNDP, national, regional and local development strategies is realised. Goals related to the elderly population, whose number is growing year by year in details analysed by Zdjelar and Kelemen [35], are set in numerous of strategies but what about essential focus to solve digital divide problems and gaps in the implementation and monitoring of public policies. Based on referenced articles it could be concluded that active ageing project are planned in strategies and they are conducted mostly by NGO. Mostly, the projects are focused on helping to elderly in housing, recreation for those who are mobile, and handwork.

Regarding the references specified in this article, it can be concluded that bridges between SD and active ageing in EU countries are determined: by institutional support through the strategic documents and by the follow up connections between them according to the level of governance. State, regional and local level of governance have obligation to follow up the general UN and EU policies. With regard to further research, to get answers how are the goals of ASD 2030, especially those related with elderly, implemented in the strategic documents it will be necessary to conduct a content analyse and qualitative analyse of these documents to mark the key terms and their positioning in the cause and effect context in e-inclusion model suggested by Žajdela Hrustek [36]. The most important contribution of that research will be to set the controlling of public policies and to assure feedback to the politicians and policy makers about the achievement of ASD 2030 goals.

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SUSTAINABLE DEVELOPMENT IN MOROCCO: THE GREEN FUTURE

Belyazid Rihab

*National School of Commerce and Management Tangier, Abdelmalek Essaadi University
belyazidrihab@gmail.com*

ABSTRACT

Over the last twenty years, Morocco has embarked on the path of sustainable development in all its strategic sectors by preparing and adopting sectoral plans planned over several years and stages following specific objectives and monitoring indicators. Despite the efforts made and the resources available to Morocco to embark on a successful experience of sustainable development, the results achieved still face difficulties that do not allow them to be at the desired height. For this reason, Morocco and according to the high directives of his majesty King Mohammed 6 has adopted a new strategy of sustainable development favoring the balance between the environmental, economic and social dimensions. The main goal of this strategy is to achieve a vision of a green economy in Morocco by 2030. The kingdom is currently facing significant and complex environmental, social and economic challenges that must be considered exclusively in this new vision. to ensure that it is more inclusive. At present all neighboring African countries and many other developing countries attests to a favorable overall level of development in Morocco in several areas thanks to the wise and solid royal vision. But its limits born in reality have required its redesign, the green key that the old model to miss in its lines is exactly what Morocco today requires. While many countries are depleting their natural resources, Morocco has put them at the heart of its new strategy. This voluntary commitment has resulted in a circuit of reforms, policies and plans that support its path towards greener sustainable development. In this article, we aim to present in a first shot an inventory of the model of sustainable development of Morocco to know the progress of its plans flourish in their entirety. At this stage, several limits have emerged especially after the completion of several sectoral plans already in place. The major anomaly common to a large number of sectors is the neglect of the environmental component, which is perceived today as a need for the effectiveness of countries' sustainable development models. To think of greening it is a revolution for Morocco capable of allowing it to achieve important plowing in the coming decades. This article will answer the following questions:

- *What is the state of play of the sustainable development model in Morocco?*
- *Is the adopted model in crisis?*
- *What approach to green sustainable development in Morocco?*

Keywords: *environment, green economy, sectoral plans, and sustainable development*

1. INTRODUCTION

Qualified "development process that balances environmental, economic, and social and establishes a virtuous circle between these three spheres. It is a development, respectful of the natural resources and the ecosystems, support of the life on earth, which guarantees the economic efficiency but without losing sight of the social ends, which are the fight against poverty, against the inequalities, against the exclusion and the search for equity. A sustainable development strategy must be a winning strategy from this triple point of view, economic, social and environmental " ¹, sustainable development is a strong and voluntary commitment of Morocco illustrating its desire to build a social project capable of creating a better future for

¹ Definition of sustainable development given by the association 4D in "benchmarks for

future generations. In recent years, Morocco has developed in a context of vulnerability and with significant limiting factors. Despite this context and under the leadership of His Majesty King Mohammed 6, the Kingdom has embarked on a dynamic and comprehensive sustainable development strategy while integrating all aspects, economic, social and environmental. In terms of project construction, its implementation has gone through three phases whose goal is to found a more complete and inclusive model. Beginning with the economic and social upgrading, passing the vision declined into sectoral plans while appealing to the constitutional reforms is the trajectory that Morocco has pursued since its participation in the Rio summit in 1992. In several occasions, the government has developed, implemented, modified and evaluated a set of strategies and plans with the aim of providing the necessary preventive and corrective actions for the reintegration of sectors of the Moroccan economy and the protection of the natural environment. From what is happening, it should also be noted that this voluntarist policy of sustainable development began independently as early as the 1960s, in response to the imperatives of development combined with the need to preserve resources, particularly through water policy. , dams, watershed protection and micro-irrigation aimed at saving agricultural water, to arrive at the new energy policy and the development of renewable energies. Regarding the environmental pillar, Morocco is weakly emitting GHGs but vulnerable to climate change. The holding of COP22 in Marrakesh in 2016 reflects Morocco's strong commitment to the environment. For the same reason, this dimension was always present on several occasions in the speeches of His Majesty King Mohammed 6. " Also, let us urge the government to give substance to the main lines of the extended dialogue, aimed at the elaboration of a National Charter for the Protection of the Environment , and Sustainable Development, in an integrated action plan with specific objectives and objectives feasible in all sectors of activity »², to solicit government actors to integrate it into their future policies and strategies. In addition, by committing to sustainable development, Morocco joins the efforts of the international community, but also assumes its responsibility towards its population. The latter is equally responsible; it represents a key player in the success of this project of society through its awareness and commitment to make Morocco today a model in its history towards sustainable development. In this sense, and through this article, we aim to present in a first shot an inventory of the model of sustainable development of Morocco to know the origin of this project that changed the country and its sectoral vision. At this stage, and especially after the completion of several sectoral years, advances and failures have appeared especially in relation to the environmental aspect. Hence the need to think of greening the Moroccan model of sustainable development. This strategic choice is a revolution for Morocco capable of allowing it to achieve important plowing in the decades that show its commitment to the environment.

2. THE STATE OF PLAY OF THE MODEL OF SUSTAINABLE DEVELOPMENT IN MOROCCO

2.1. History of Moroccan sustainable development³

Sustainable development is not a new concept introduced in Morocco's development strategy. Indeed the story began in 1992 when his majesty still Crown Prince at the time, presented at the Rio Summit his "Vision of fundamentals for the construction of a new model of society." Since then, Morocco has begun to introduce the necessary reforms to create a solid basis for sustainable development in order to improve the country's economic, social and environmental conditions. Building a strong model of sustainable development is a commitment to a better future that requires the adoption and change of many strategies and policies. For 20 years, the road to sustainable development has gone through three stages in order to establish a real social

² From the speech of His Majesty King Mohammed VI on the occasion of the Throne Day, July 30, 2010.

³ Report on " NATIONAL SUSTAINABLE DEVELOPMENT STRATEGY", October 2017

project. Initially, and referring to the Structural Adjustment Program, Morocco started with an economic and social upgrade aimed at accelerating the pace of economic and social achievements. This reflects in the adoption of a policy of liberalization of its economy and the reinforcement of certain key industrial sectors for export, strategic for the trade balance, while focusing on switching the economy to service sector. In the same vein, a large part of public investment has been concentrated on large social projects aimed at breaking the isolation of the rural world as a Generalized Rural Electrification Program, the National Rural Roads Program or the Group Supply Program in Drinking Water of Rural Populations. At the level of the financial and monetary sector, important reforms were introduced, marking the opening up of the economy on the international stage, notably the signing of the first free trade agreement with the European Union in 1995. Subsequently, the kingdom saw the implementation of a series of plans to accelerate development in several areas. On the social level, the reform of the family code marked an exceptional revolution in the life of the Moroccan nation, not to mention the implementation of the National Initiative for Human Development has set up a real social engineering. On the economic side, ambitious sectoral strategies have been put in place by the public authorities. This innovative approach aims to ensure strong, sustainable and wealth-creating economic growth, while building on a contractualization and public-private partnership that advocates for increased and concerted private sector participation in sectoral strategy and policy development and financing projects. These plans seek to modernize traditional sectors such as agriculture, fisheries and mines, and others from developing industries such as renewable energy, logistics, automotive, aeronautics and high benefit services, where Morocco offers real competitive advantages. It includes an envelope of plans of different sectors with a predetermined duration, with specific objectives and monitoring indicators. Among these plans is the industrial acceleration plan, which will be spread over the 2014-2020 period, and is part of a new approach based on the establishment of more efficient ecosystems, aiming at the integration of value chains, and the consolidation of local relationships between large companies and SMEs. The Green Morocco Plan strategy is also one of the fundamental strategies of this vision view that the development of agriculture intensive, modern and modernization of smallholder agriculture and the improvements the income of small farmers. There is also the development strategy for the mining sector, which provides for the implementation of several structural pillars affecting the entire mining chain. As well as Morocco Digital 2020, Tourism Vision 2020 and Energy Strategy 2030. This second phase is also characterized by the acceleration of the opening policy with the entry into force of the Free Trade Agreements with the United States of America (2004), the Arab Zone (2005), the Turkey (2006) and the Agadir agreements (2007). The environmental pillar is further strengthened with the adoption of the first major environmental laws such as Law 11-03 on the protection and enhancement of the environment, the Law 12-03 relating to research and development impact of the environment, the Law 13-03 on air pollution, or by strengthening environmental action. The implementation of sustainable development is a project that also calls for constitutional and operational reform. The year 2011 marks an important date in the Moroccan sustainable development project, it has seen significant achievements in advancing the institutionalization of sustainable development in Morocco including the adoption of the National Charter for the Environment and Development. Sustainable Development, the publication of the Framework Law No. 99-12 on the National Charter for the Environment and Sustainable Development and the adoption of the new Constitution of Morocco, consecrates sustainable development and strengthens governance.

2.2. Results of key dimensions of sustainable development strategies

The vision presented in sectoral strategy, launched under the leadership of HM King Mohammed 6, has shown that its strategies are real levers for the development of the Moroccan

economy. They have led to an increase in the productivity of the economy, an increase in public and private investment in the sectors concerned and the creation of employment. These strategic choices have enabled our country to have a solid and stable base capable of consolidating Morocco's position in its relations with foreign countries. The agricultural sector in Morocco is of an important and primordial value in the Moroccan economy, since centuries it represents the source of life of the Moroccan nation, the support of its historical rooting and the wealth of their country, in this sense the Plan Green Morocco was launched in 2008 as a strategy for reviving and modernizing Moroccan agriculture. It revolves around two complementary pillar. The first concerns the accelerated development of modern and competitive agriculture for the national economy, while the second concerns solidarity support for small-scale farming. The expected achievements of the Green Morocco Plan are very important. Indeed, this strategy has allowed a clear improvement in the use of inputs, an increase in the volume of agricultural production, an improvement in food security without forgetting the creation of thousands of permanent jobs. The industry also has its share in the Moroccan sustainable development strategy, with the aim of making the country an attractive area for global industrial companies, an Emergence Plan was launched in 2005 covering a period of ten years as well as the Plan accelerated from 2014 to 2020. The latter is based on a new approach, which is the establishment of more efficient ecosystems, aiming at the integration of value chains and the consolidation of local relations between major players companies and SMEs. Its plan also provides for the importance of matching skills with the needs of businesses, as well as the rental of industrial parks that will be more accessible to operators. It is also necessary to indicate the importance of tourism for the Moroccan economy, which explains the priority and the interest, which have always been granted to it in the governmental policies, and justifies the fact that it is one of the sectors, which have benefited, first, from a strategic plan for 2010. The evaluation of this strategy will yield extremely positive results, such as the increase in the number of tourists as well as increased touristic revenues. However, despite these performances, several constraints remain posed because the sector suffers from a manifest insufficiency of the tourist offer, and lacks the total capacity of the hotel units in Morocco. It is based on a observation that the 2020 vision was presented with the objective of overcoming these constraints by aiming to double the size of the tourism sector. However, these encouraging results should not hide the reality that the effectiveness and efficiency of these strategies are still limited because of certain bottlenecks and limitations of sectoral plans, and the internal and external environment of our economy, including dysfunctions in the coherence and governance of these strategies, the competitiveness of our companies and the upgrading of human resources.

3. THE MODEL ADOPTED IN CRISIS

3.1. Crisis indicators⁴

It is true that Morocco has made remarkable progress reflecting a potential for progress within a favorable climate thanks to the sectoral vision of His Majesty King Mohammed 6, but many challenges of serious gravity have yet to be overcome. It concerns social development, education, health, poverty, unemployment and also environmental issues. These are obstacles to overcome in order for the sustainable development project to be effective and sustainable. The primary sector in Morocco which includes agricultural activity is experiencing a slowdown in activity, one of the main reasons for this result is the rainfall deficit accentuated by a poor spatial and temporal distribution. In addition, the tourism sector is also showing a slowdown in its value added in a context marked by a growing disaffection of tourists from the mainland, especially France. From the perspective of social and human development, Morocco advanced to the 123th Human Development rankings released by UNDP on behalf of the year 2018.

⁴According to the National Survey on Perception of Sustainable Development Measures, www.hcp.ma

Since 2010, the kingdom is stagnating in the category " Average HDI ". On the educational side, its level is alarming, marked by a Moroccan youth who leaves school prematurely with an average duration of schooling that barely touches the 4.4 years. To this must be added that a third of the kingdom's population lives in poverty with precarious jobs and low incomes. In addition, Morocco's education system faces significant obstacles that require strong political will to overcome. Indeed, the coverage of the territory by the education services remains weak, the rate of abandonment and failure is abnormally high and the infrastructures are unsuitable. In addition, the absenteeism of teachers and their inadequate qualification, as well as the increase in the number of pupils per class oblige Moroccans to enroll their children in private institutions and missions something that confirms their mistrust vis-à-vis their education system. As far as the environmental issue is concerned, it should be known that environmental degradation is estimated at billions of dirhams each year and constitutes an uncollectible loss for future generations. Morocco is weakly emitting GHG, but vulnerable the effects of climate change. Fortunately, the country has a strong commitment to sustainable development. The holding of the COP22 in Marrakech and the content of the initiatives that the Kingdom has put on the agenda of the climate negotiations, in particular the issue of water and the adaptation of African agriculture evidence this. In the first place, water has long been forgotten in climate negotiations. The issue of water, highly linked to climate change, is crucial for Morocco, ranked 19th among countries exposed to water stress by 2040. Mobilizing water will therefore be an important element. In the same context, water has become a rarer and more expensive resource and access is problematic almost everywhere in Morocco. In the near future, the country risks a water scarcity with catastrophic consequences if the right decisions are not made. Of the same value, today biodiversity is also threatened: the forest heritage is annually weakened by illegal logging, desertification, clearing and fire. One of the reasons for this environmental disaster is due to socio-economic and geopolitical factors and the overexploitation of fish stocks deprived. Turning next to the AAA initiative, climate change is already effective, and raises the question of adaptation strategies to its effects. Climate change, even below the 2 ° C scenario, poses a serious threat to African agriculture. Nevertheless, funds dedicated to adaptation remain low. The continent claims, however, a significant agricultural potential, land and water mobilized, which can benefit the entire planet. In this context, the AAA initiative launched by Morocco promises to federate African countries in their efforts for agricultural adaptation. Its aim is to put the adaptation of African agriculture at the heart of climate debates and negotiations and to capture a substantial part of the climate funds. The initiative can count, for its deployment, on the dynamics experienced by South-South cooperation today and the rapprochement with the African States of which Morocco has made a priority. To date, it has received the support of 26 African countries and several international organizations.

3.2. The new model⁵

The new model sets out to address the country's many challenges, such as sluggish growth, youth employment, adaptation to climate change, and more. To achieve this, this growth model has three global objectives, namely to ensure the social development of all categories of the population, the most vulnerable in particular (setting up social safety nets), then to ensure the development environmental protection, through the protection of ecosystems and natural resources, and finally ensure the sustainability of economic development, through the establishment of sectoral policies in sectors where Morocco has competitive advantages, the development of innovation and of entrepreneurship. The specific objectives set are, of course, ambitious but likely to allow Morocco to enter the club of emerging countries. On the social level, the objectives are to allow, on the one hand, the increase of the purchasing power of

⁵ Report on " NATIONAL SUSTAINABLE DEVELOPMENT STRATEGY 2030 " Executive Summary, October 2017

households through the increase of the average per capita income of 20%, and to reduce disparities in terms of distribution of revenues, through the improvement of the GINI coefficient, which has been stagnating at around 0.40 for almost 15 years. The contours of this model include several major components. The most important is the need to strengthen and consolidate the country's sectoral policies by orienting them towards sectors of high value to our economy. The energy sector, through the reinforcement of renewable energies, constitutes a major axis of development. As such, it is necessary to change our energy mix, which is now mainly based on non-renewable fossil fuels, towards a new energy mix that is more efficient and less polluting based on non-fossil energy sources (solar, wind, photovoltaic industry in particular). As such, a strategy for the development of the energy sector was adopted in 2009, which sets objectives for improving security in terms of supply, limiting the volume of energy imports, and increasing energy consumption. energy production. Specifically, it is planned to increase the share of renewable energies in total production to 42% by 2020 (14% solar, 14% wind and 14% hydro) and 52% by 2030. In the same , we must know that the opportunities that the renewable energy sector has in our country in terms of creating quality jobs in particular are very important , insisting on the need to develop adequate vocational training policies, on the basis of need to control investment costs in the sector. Other sectors also have important development opportunities, such as the environment (recycling of waste) and eco-construction. Finally, we must not forget the role played by the implementation of support measures specific. Awareness-raising campaigns to respect the natural environment have certainly opened the eyes of Moroccans on their exceptional ecological heritage, but only a strong will of the State combined with solid funding will perhaps draw the contours of a future better. The introduction of an ecological tax system (eco-taxes or carbon tax), provided for in the Act forming the National Charter for Sustainable Development, must ensure that the principles of good tax reform, namely tax fairness, support for negative effects and clarity of objectives, are respected. The aim is to promote the energy transition of companies while not altering their competitiveness, which has already been seriously undermined in recent years. Another accompanying material component is the need for governments to put in place a strategy for innovation which would increase the share of R & D in GDP and increase the number of patents particularly in the renewable energy sector. As such, accompanying measures such as the research tax credit or the creation of a generously endowed innovation support fund for startups would be welcome.

4. GREENING SUSTAINABLE DEVELOPMENT IN MOROCCO

Morocco is working to integrate the climate change component into all public policies and into all development projects. The Kingdom demonstrates its commitment to sustainable development aimed at creating wealth and jobs while preserving resources and reducing the impact on the environment. In addition, this voluntarist sustainable development policy started independently of the climate change thinking and was set up in the 1960s to meet development imperatives combined with the need to conserve resources , especially in through water policy, dams, watershed protection and micro-irrigation aimed at saving agricultural water, to arrive at the new energy policy and the development of renewable energies. Morocco has built the foundations of this new, low-carbon development model by constitutionalizing the principle of sustainable development and developing a national sustainable development strategy focused on integrating green growth into development policies. At the national level, the integration of climate change imperatives into all national public policies and the protection of natural resources. In 2017, Morocco experienced the implementation of the national strategy for sustainable development, which was launched following the directives of the Sovereign who called on the government, in the Speeches of the Throne of 2009 and 2010, to develop a draft of National Charter for the Environment and Sustainable Development and an integrated action

plan formalized in a framework law that should constitute a real reference for the public policies of our country in this area. This strategy is also in line with the 2011 Constitution, which enshrines the right to sustainable development for all citizens. It is thus a translation of the will and commitments of Morocco to operationalize sustainable development. L The National Sustainable Development Strategy is intended to be an operational instrument that will set the policy and strategic framework within which policies, reforms, plans and programs will be integrated. It is a strategic framework that allows coherence and synergy between programs, plans and sectoral policies in a perspective of sustainability. It is also the tool that will enable the Kingdom to face some of the challenges it still faces, such as the negative effects of climate change, the loss of biodiversity, the depletion of natural resources and the widening of social inequalities. It is based on four fundamental principles. The first is international compliance. It is in line with international best practices and takes at least the challenges Morocco has committed to sustainable development, especially the fight against climate change. The second principle on which is based is compliance with the principles of the Framework Law (99-12) on the Charter of the Environment and Sustainable Development. The third principle is the commitment of different stakeholders to achieve common goals that contribute to addressing key sustainability issues. As for the fourth principle, it concerns the operational nature of the strategy. The NSSD aims to achieve a gradual transition to the green economy, taking into account environmental challenges, promoting human development and social cohesion and sustainably consolidating economic competitiveness.⁶ To achieve this objective, seven major issues were identified as pillars of this strategy and were broken down into 31 strategic axes and 137 objectives, with precise indicators, making it a reference tool and convergence tool of the different public policies aimed to sustainable development in Morocco. This strategy aims to achieve the transition to a green economy through seven strategic challenges, namely, the consolidation of sustainable development governance, the successful transition to a green economy, improved management, value for money natural resources and the conservation of biodiversity, the acceleration of the implementation of the national policy to fight against climate change, a particular vigilance to sensitive territories, the promotion of human development and the reduction of social and territorial inequalities and the consolidation of of the culture of sustainable development. Morocco has all the necessary assets for achieving sustainable development, through the consolidation of the legal arsenal in this area, the establishment of the bases of sustainable development, the distinction between economic development and exploitation mass of natural resources, accelerating the transition to the green economy and monitoring the implementation of the strategy. Through this strategy, the government seeks to implement the foundations of a green and inclusive economy by 2030. While most policies include the principle of sustainability, implementation is still not enough. The overall strategy sets the course for all public policies and reviews the governance of sustainable development through the improvement of the capacities of the actors as well as the legislative framework, the control and the effective application of the laws.

5. CONCLUSION

In the era of climate change and the catastrophic damage that e familiar environment, a wave of introducing the concept of sustainable development in economic, social and environmental policies prevailing in several countries. As for Morocco, it suffers a climate injustice that strikes the most precarious and most vulnerable populations, especially farmers who suffer losses in terms of income because of the impact of climate change on agricultural yields (drought, water stress ...) and also the threat to food and health security.

⁶ Mr El Othmani at the first meeting of the Steering Committee for the implementation of the NSSD, held under his chairmanship.

Thus, the current economic and social situation is characterized by many structural evils. On the economic front, our economy is characterized by sluggishness and a slowing pace, a massive increase in unemployment, young graduates in urban areas in particular, and export competitiveness in particular, which is deteriorating and this is despite the fact that the public authorities set up various sectoral recovery plans. On the social front, the situation becomes worrying with the increase in poverty and precariousness that have significantly increased. In this order, the new national strategy in 2030 Sustainable Development proposes to draw up the challenges of our country, to know youth employment and adaptation to climate change. To achieve this, this strategy pursues three overall objectives: firstly, to ensure the social development of all the categories of the population, especially the most vulnerable, then to ensure environmental development, through the protection of ecosystems and natural resources, and finally ensure the sustainability of economic development, through the establishment of sectoral policies in sectors where Morocco has competitive advantages. Finally, our country has always show its commitment and its strong will to make Morocco a country in full sustainable development, certainly failures are still omnipresent but the government under the leadership of his majesty King Mohammed 6 is still showing initiatives to build a stronger sustainable development model.

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ECONOMIC MIND OF THE YOUTH IN A POLY CULTURAL SOCIETY

Ekaterina Zabelina

Chelyabinsk State University, Russia
katya_k@mail.ru

Irina Trushina

Chelyabinsk State University, Russia
trushina_ia@mail.ru

Svetlana Kurnosova

Chelyabinsk State University, Russia
ksa0308@mail.ru

Yulia Chestyunina

Chelyabinsk State University, Russia
chestyunina@list.ru

ABSTRACT

Polyculturalism is a belief system focusing on historical and current interactions, influences, and connections among different ethnic groups. Russian society is historically polycultural as it unites dozens of various peoples. Representatives of different cultures also interact with each other in everyday economic life. However, the question how cultural patterns influence economic mind people in the Russian polycultural society has not been studied enough. The purposes of this research are as followed: (i) explore differences in the life values held by different peoples in a polycultural society; (ii) study the similarities and differences in economic attitudes as the building blocks of ethnos-specific economic mind; (iii) identify how values affect ethnos-specific economic attitudes; (iv) identify how economic attitudes as a part of economic mind are formed in a polycultural society. The results of the comparative analysis (N = 374) demonstrate the differences in the ethnos-specific economic attitudes, with the motivational and value aspects of personality accounting for the bulk of difference. Different life values can produce similar economic attitude in different peoples. Such values as power, benevolence, hedonism, and security show that life values can mediate the shaping of economic attitude in a polycultural society. Recommendations on the obtained results application in the practice of economic and social programs have been formulated.

Keywords: *Economic mind, Polycultural society, Polyculturalism, Youth, Economic attitudes, Life values*

1. INTRODUCTION

Conventionally, humanities interpret a polycultural society as one where more than two large ethnic groups coexist. It is assumed that such ethnic groups must have equal rights and be equal citizens of such society (Identity..., 2002). A polycultural society unites people of different ethnic, religious, racial groups, belonging to different social strata, having different life experiences, being of different professions, age, behavioral types, cognitive types, and disposition, regardless of how long such a society has been running in this or that area, or which specific orientation this or that subgroup has. (Korableva, 2013). Russia is a striking example of a polycultural society, as it has historically been a nation of more than 190 ethnicities living in a single country. Apparently, the economic behavior has some features specific to Russia's polycultural society. On the one hand, the single national economic policy dictates the general laws and market rules.

On the other hand, analysis of such behavior becomes complicated given Russia's polyethnic population and its historically diverse spectrum of cultural, historical, social, and economic traditions, religious and ethical norms that affect the economic behavior. It is therefore imperative to consider the culturally specific economic behavior when drafting national economic development programs. Despite this being a topical issue, there is a lack of research on the economic mind and behavior of people in a polycultural society. This paper is to partially fill the gap.

2. THEORETICAL OVERVIEW

Polyculturalism is calling for ever more urgent an action, as international migration is on the rise, creating new opportunities — and threats. Polyculturalism as a research area encompasses creativity, attitude toward innovation, and to other people. Polyculturalism (the ethos of fostering intercultural interaction) is associated with higher cultural creativity through greater inclusion of foreign ideas (Cho et al., 2018). Different peoples of the same polycultural society may have different views of innovation (Grigoryan et al., 2018). Besides, polyculturalism is associated with less negative and more positive intergroup and policy attitudes (Rosenthal et al., 2015). Polyculturalism is associated with polymentality (Zakharova, 2012), which is seen as a systematic continuity, where individual structures contain qualitative differences in lifestyle, attitudes, worldviews, spiritual values, and codes of conduct of different ethnic and religious communities within a country. Polymentality has been studied in association with economic behavior on a Russian sample. The correlation of mentality and economic behavior of the Russian population, i.e. some manifestations of the Russian polymentality in a person's economic activity, is considered "the economic mentality as a part of the Russian polymentality" (Zakharova, 2012). The author enumerates such manifestations as the psychological features, aspects, and determinants of economic behavior in all social groups, including business people; the system of economic, spiritual, and ethical values held by different population strata; the economic activity, willingness to take economic initiative, and entrepreneurial qualities; the stratum-, profession, and age-specific attitudes towards money, wealth, well-being, the wealthy, poverty, property, entrepreneurship; economic stereotypes and attitudes; specifics of economic socialization, etc. (Zakharova, 2012). Researchers' attention has recently turned to the economic mind rather than behavior, although these phenomena are doubtlessly related (Deyneka, 1999). This is due to the fact that in the today's economic relations, one's behavior is mostly affected by subjective and irrational factors. In the context of market anomalies, a person's economic behavior will apparently depend to a greater extent on the emotional component of his or her mind (Dow, 2010). Economic mind is seen as a set of beliefs, concepts, assessments, attitudes, traditions, and entire theoretical systems instrumental to the economic actors' mastering of economic life (Samsin, 2002). Economic mind reflects a people's centuries-old economic experience (Samsin, 2002). Scientists have collected data on how cultural values affect human economic mind and behavior. The correlation between culture and the behavior that determines economic relations is covered in papers by G. Hofstede (2001), D. Throsby (2001), W.M. Allen, S.N. Hung, D. Leiser (2005), and S. Schwartz (2008). Economic attitudes form an important part of economic mind (Deyneka, Zabelina, 2018). There is a country-specific considerable evidence base of, for instance, attitudes toward cosmetic surgery (Tam et al., 2012), attitudes toward older adults (North and Fiske, 2015), attitudes toward suicide (Stack and Kposowa, 2016), attitudes toward seeking psychological services (Rogers-Sirin et al., 2017), attitudes toward transgender youth (Elischberger et al., 2018), attitudes toward globalization (Rudkin and Erba, 2018), attitudes toward anti-aging medicine (by Omori and Dempsey, 2018), as well as toward innovation attitudes (Grigoryan et al., 2018). The very notion of polyculturalism is somehow interpreted on the basis of attitudes.

For example, polyculturalism explains the unique variance in attitudes toward people from other countries in samples controlled for their national identification degree, social dominance orientation, and extent of positive feelings toward oneself. (Bernardo et al., 2013). These data suggest that in a polycultural society, attitudes can be ethnos-specific. However, the economic mind of different peoples must have something in common, something that will enable economic cooperation. Therefore, this study pursues the following goals: (i) explore differences in the life values held by different peoples in a polycultural society, as values are fundamental to human behavior, including the economic behavior; (ii) study the similarities and differences in economic attitudes as the building blocks of ethnos-specific economic mind; (iii) identify how values affect ethnos-specific economic attitudes; (iv) identify how economic attitudes as a part of economic mind are formed in a polycultural society.

3. METHODS AND SAMPLING

Research has been carried out in three Russian regions: South Ural, the Republic of Bashkortostan, and the Republic of Dagestan. These regions are located quite far away from each other, possibly explaining the differences in the locals' cultural beliefs and values. The study enrolls 374 participants: university students aged 18 to 24 (mean age of 19.8), 13.4% male. Since the young are most susceptible to economic and political change, they are most likely to show the manifestations of the most striking trends in a polycultural society. This is a remote study, where respondents fill online questionnaires. To identify the life values of a polycultural society, the research team uses S. Schwartz's PVQ-R questionnaire adapted by the Higher School of Economics' staff (Schwartz et al., 2012). In Schwartz's concept, personal values are seen as types of motivational goals (Schwartz, 1994). He considers values to be rather subconscious criteria, which one uses to select and assess their actions, other people, and events. According to S. Schwartz, values are a human person's goals and lifestyles that help pursue such goals. Values are organized into a hierarchy, a system of priorities that characterizes individuals and cultures as a whole. In his personal value research methodology, S. Schwartz identifies ten motivation-different types of values. Below are the conceptual definitions of 10 basic values according to their motivational goals (Schwartz, 1994):

- Self-direction - Independent thought and action—choosing, creating, exploring
- Stimulation - Excitement, novelty, and challenge in life
- Hedonism - Pleasure and sensuous gratification for oneself.
- Achievement - Personal success through demonstrating competence according to social standards
- Power - Social status and prestige, control or dominance over people and resources
- Security - Safety, harmony, and stability of society, of relationships, and of self
- Conformity - Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms
- Tradition - Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provides
- Benevolence - Preservation and enhancement of the welfare of people with whom one is in frequent personal contact
- Universalism - Understanding, appreciation, tolerance and protection for the welfare of all people and for nature

To identify the specifics of economic mind in a polycultural society, the research team uses the Economic Attitudes Questionnaire (Deyneka & Zabelina, 2018). The questionnaire is aimed at studying the economic attitudes. In order to comprehensively characterize the field of the individual's economic attitudes, various spheres of economic behavior are included in it: behavior of the owner (attitude to money, property, saving and investment behavior), the

consumer, the entrepreneur, and the employee. The questionnaire confirms its reliability on a student sample (Cronbach $\alpha = 0.736$). To solve the stated problems, the team uses mathematical statistics: descriptive statistics, comparative analysis, regression analysis, and structural modeling. To process the data, SPSS 24.0 statistical suit is used, including IBM SPSS AMOS 22 structural equation processor.

4. RESULTS

At Stage 1, life values in three groups (Russians, Bashkirs, and Daghestanis) are compared to identify value homogeneity in a polycultural society. Table 1 presents the results of such comparison.

Table 1: Comparative analysis of core values in a polycultural society

Indicator	Mean rank			H	p
	Russians	Bashkirs	Daghestanis		
Conformity	137.20	270.27	246.32	106.980	.000
Tradition	140.37	257.33	274.96	98.065	.000
Benevolence	188.52	207.03	303.99	44.595	.000
Universalism	160.77	235.65	288.26	61.058	.000
Self-direction	192.39	202.75	306.98	46.026	.000
Stimulation	153.67	249.25	266.82	66.798	.000
Hedonism	182.07	212.96	302.32	46.446	.000
Achievement	153.47	249.99	265.23	67.066	.000
Power	140.90	285.55	195.43	122.686	.000
Security	173.61	220.19	301.68	52.780	.000

As can be seen in the table, significant difference between the three groups has been identified for all the life values under analysis. The finding is that despite residing in the same country and close social interactions, different ethnicities belonging to the same polycultural space preserve their unique values and culture. Descriptive statistics of the core values in these three groups shows that each ethnos has its own hierarchy of values. The Bashkirs emphasize achievement (personal success), while Russian and Daghestani students rank it 5th and 6th, respectively. In contrast, benevolence (the desire to preserve and improve the well-being of loved ones) is ranked 1st by the Russians and the Daghestanis on average while being mid-rank for the Bashkirs. Judging from the mean values, hedonism (the pursuit of sensual pleasure) is of utmost importance for Russian students, somewhat less important for the Daghestanis, and is the last but one value for the Bashkirs. Power (the pursuit of a high-ranking position, control and dominance over people and resources) is the least priority for the Russians and the Daghestanis, but ranked 4th by the Bashkirs. Security (the pursuit of safety, harmony, and stability in one's life and in the society in general) is mid-ranked by the Russians and the Bashkirs, but is the 2nd most important thing for the Daghestanis. These and other examples show how different the life values may be for peoples in the same polycultural society. Scientists have expansive data on how cultural values determine human consciousness and behavior, which applies to the economy, too (Hofstede, 2001; Throsby, 2001; Allen, et al., 2005; Schwartz, 2008).

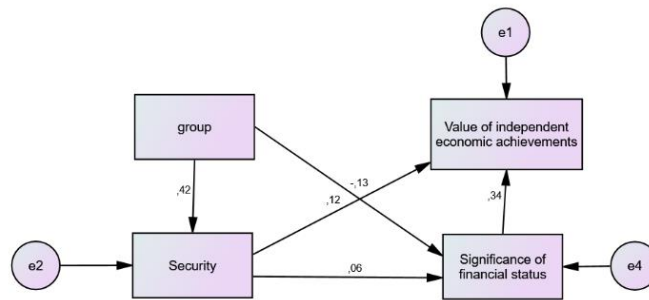
One can therefore rightfully expect the economic mind to be different in peoples residing in the same country. This is why Stage 2 of the analysis is about diagnosing economic attitude to identify the differences in the economic mind of peoples in a polycultural society. Table 2 presents the significant differences in economic attitudes as derived by comparative analysis.

Table 2: Significant differences in economic attitudes in a polycultural society

Indicator	Mean rank			H	p
	Russians	Bashkirs	Daghestanis		
Consumer satisfaction	238.40	195.27	224.84	11.331	.003
Tendency for savings	207.14	202.85	276.00	20.658	.000
Willingness to invest	181.53	253.52	194.56	33.194	.000
Proactivity and rationality in the banking sector	236.25	193.74	234.01	12.513	.002
Value of independent economic achievements	236.21	184.55	259.62	33.506	.000
Negative attitude toward entrepreneurs	207.52	232.57	192.66	6.943	.031
Proactivity in real estate	203.47	239.05	184.02	13.356	.001
Priority of salary over self-realization	195.15	239.28	202.62	12.569	.002
Awareness of consumer irrationality	240.11	189.97	235.58	17.693	.000
Social responsibility of wealth	173.70	227.38	285.18	43.752	.000
Priority of salary over health	215.23	228.09	187.30	5.769	.056

This comparative analysis shows different peoples in a polycultural society have different economic attitudes. Most differences are associated with the motivations and values of economic mind (willingness to forsake health and vocation for money, willingness to make high-risk investments — and own the risks, willingness to save, willingness to do charity, high esteem of one's own economic achievements, mistrust of advertising). Some of the differences are related to the emotional component (consumerist satisfaction, negativity toward business people) and to the conative component of economic mind (real-estate and banking-related proactivity). Therefore, one can assume differences in the economic mind and behavior of young people in a polycultural society may be due to subculture-affected values and attitudes. However, nearly half of the economic attitudes we analyzed does not differ significantly from people to people. Similarly manifesting attitudes include attitude to saving (confidence in future due to savings, desire to save); attitudes related to the self-assessment of knowledge of economics and finance (financial literacy, investment illiteracy), attitudes of different economic activities (consumer activity, cognitive economic activity), wealth-related attitudes (significance of financial status, financial optimism, economic ambitions), and attitudes toward banking. That being said, despite significant differences in life values and some of the economic attitudes, certain patterns of economic behavior are common for all the peoples residing in the same country. We further want to find which values could impact the economic mind and behavior of people in a polycultural society, and whether life values have any general influence

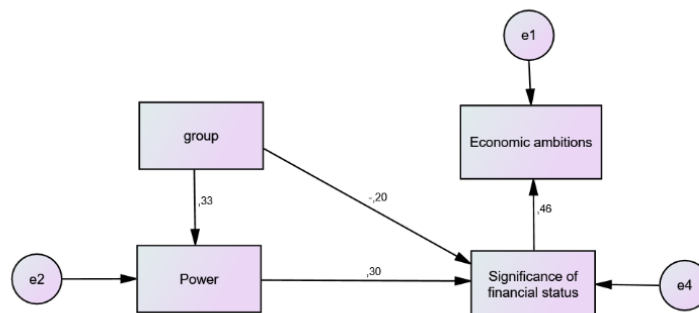
on economic attitudes. To that end, we employed regression analysis in the three samples. Life values were independent variables, while economic attitudes were analyzed as dependent variables. Regression analysis shows that some of the life-value effects on economic attitudes are not people-specific, but most of them are. For the Bashkirs, the most important values from the standpoint of economic attitudes are achievement, self-direction, conformity, benevolence, and stimulation. For the Daghestani and Russian students, the values that contribute the most to their economic attitudes are power and hedonism. The Russians also value benevolence and universalism, while the Daghestanis value traditions. However, there are some general trends, too. The Bashkirs' and the Russians' benevolence contributes to the financial literacy. Perhaps, it is the desire to preserve and improve the loved ones' well-being that drives these people to study financial law and follow the economic trends to better support their loved ones. Value of power affects the economic ambitions and the significance of financial status with the Daghestanis and the Russians. That said, pursuit of ambitious goals in economy is accompanied by the pursuit of a high social rank, the desire to control others and dominate over people and resources. In all three groups, hedonism is associated with investment-related attitudes. Perhaps, the desire to enjoy life right now prevents people from planning their future income and expenses; on the other hand, hedonistic mood make it easier to part with money and take risks. Of interest is the cognitive economic activity (desire to follow economic news and events, to read literature on the subject) in a polycultural society. This attitude is contributed to by the value of achievement in the Bashkirs and the Daghestanis, as well as by conformity in the Bashkirs and in the Russians. The finding is that in some peoples, cognitive economic activity is stimulated by the pursuit of personal success; in others, by the unwillingness to take action that might upset or hurt others, or breach social expectations and codes of conduct. Another exemplary common trend: universalism contributes to the consumerist satisfaction in the Daghestani and in the Russian students alike. It might be the case that gratitude, acceptance, and desire to protect everyone's well-being and nature are fundamental to perceiving oneself as a benevolent consumer or to reducing one's consumerist needs. However, life values as the predictors of economic mind demonstrate significant difference. Thus, the desire to save is due to the value of security for the Bashkirs, but comes from tradition in case of the Daghestanis. In the first case, young people save money to spare themselves and their families financial trouble; in the second case, they do it out of respect for family traditions, i.e. saving for something important, like weddings, education, housing, etc. The willingness to forsake health and vocation for money comes for the value of power (desire to dominate or have a high social rank) for the Russians, from the value of self-direction (in thinking and behavior, associated with desire to take one's own decisions) and achievement (pursuit of personal success) for the Bashkirs, and from the value of hedonism (pursuit of sensual pleasure, desire to enjoy life) for the Daghestanis. Perceiving wealth as obligation to help others and do charity also comes from different core values held by different peoples in the same polycultural society. The Bashkirs' perception of the social responsibility of wealth is based on benevolence and stimulation, while that of the Daghestani students is based on hedonism and conformance. While the former agree that the wealthy must share their wealth with others due to the desire to preserve and enhance the well-being of loved-ones, or to experience new challenges, the latter's perception of charity is built upon the desire to enjoy life, an easy attitude toward material goods, or desire not to hurt other people. The next step is to employ structural modeling to identify how economic attitudes emerge in an polycultural society. The hypothesis is that the economic mind in a polycultural society is influenced by belonging to the cultural group an ethnos represents, as well as by the life values mediating such influence. Let us analyze the four types of values that regression analysis shows have the greatest correlation: power, benevolence, hedonism, and security. The resultant structural models for each value type are proven viable, as their consistency indices match the recommended range, see Figures 1 to 4.



CMIN=1,061; df=1; p=,303; CFI=,999; RMSEA=,013; Pclose=,498

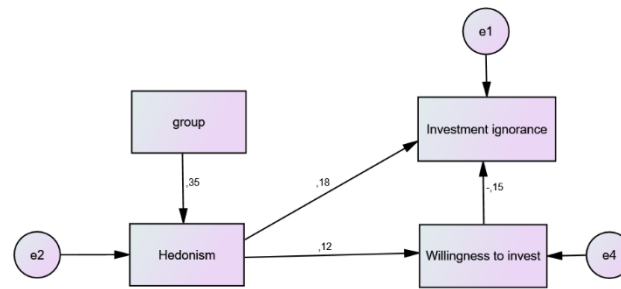
Figure 1: The effect of belonging to a cultural group and the value of security on economic attitudes

The significance or insignificance of financial status in a polycultural society depends on the cultural group an ethnos belongs to, which affects such significance both directly and indirectly (via the value of security). The value of personal economic achievements is influenced by the cultural group and is indirectly determined by the combined effects of the values of security and financial status significance. The pursuit of security for oneself and others, of social harmony and stability mediates the emergency of desire for financial security in a polycultural society. Power as the desire to dominate over people and resources, is another life value that mediates the influence of a cultural group in a polycultural society. The same effects contributes to the perception of the significance of financial status, which further shapes the economic ambitions, see Figure 2. Attitude to investments mediates the values of hedonism, i.e. the pursuit of sensual pleasure and desire to enjoy the today, see Figure 3. The value of benevolence mediates the attitude toward wealth and savings in a polycultural society, see Figure 4.



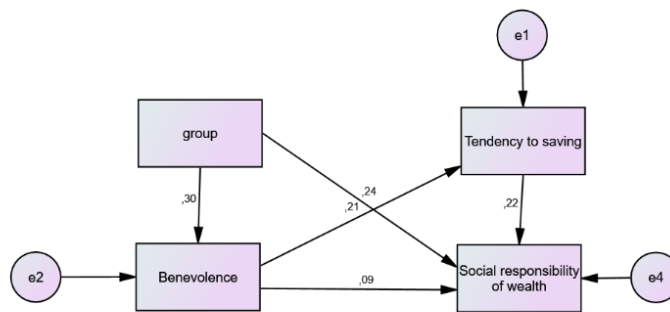
CMIN=4,466; df=2; p=,107; CFI=,985; RMSEA=,057; Pclose=,333

Figure 2: The effect of belonging to a cultural group and the value of power on economic attitudes



CMIN=3,566; df=2; p=,168; CFI=,977; RMSEA=,046; Pclose=,427

Figure 3: The effect of belonging to a cultural group and the value of hedonism on economic attitudes



CMIN=1,842; df=1; p=,175; CFI=,992; RMSEA=,047; Pclose=,359

Figure 4: The effect of belonging to a cultural group and the value of benevolence on economic attitudes

The general conclusion is that despite values manifest differently in individual peoples, the economic behavior can be mediated by the values of power, benevolence, hedonism, and security. In polycultural society, core values can mediate the economic mind and behavior of its members.

5. DISCUSSION

Generally, the results of this study are in line with the studies on the cultural values between the economic behavior phenomena (Hofstede, 2001; Throsby, 2001; Allen et al., 2005; Schwartz, 2008). A novel finding is that the members of a polycultural society demonstrate some differences in economic mind. It is significant that the same economic attitudes can be shaped by different life values in different peoples residing in the same area and in the same legal space that governs their economic behavior.

This result contributes to economic psychology (Deyneka, 1999) and to behavioral economics (Dow, 2010). The discussed effects of the power and security values on the dominance of material attitudes are in line with R. Inglehart's concept (1999). When discussing the correlation between a country's economic and political situation, and the popular values, R. Inglehart emphasizes the values of materialism / post-materialist (or survival and self-expression). He seeks to prove that the population of economically underdeveloped countries (including Russia) will to a greater extent share the values of materialism, while wealthier countries re-focus on post-materialism. According to R. Inglehart, the materialistic values include preference of physical, psychological, and economic security, while post-materialistic values are the importance of belonging to a group, self-expression, and quality of life (including the "intangible" quality). Modernistic values also include a penchant for authoritarianism, reverence to authorities, while post-modernistic values include the diversity of ways to express oneself in all aspects of life, the democracy, high level of tolerance to unusual things/people, etc. (Inglehart 1999). Interpreting the results hereof in the light of this concept leads to a conclusion that the Russian polycultural society is transitioning from modernism to post-modernism. On the other hand, it values power, security, and material aspects of economy; on the other hand, different peoples differ in terms of self-expression and tolerance (priority of gain over vocation, social responsibility of wealth, etc.).

6. CONSLUSION

This study brings about better understanding of economic mind in a polycultural society, with evidence from the Russian youth. Firstly, the research team has identified differences in the ethnos-specific economic attitudes, with the motivational and value aspects of personality accounting for the bulk of difference. Secondly, different life values can produce similar economic attitude in different peoples. Thirdly, such values as power, benevolence, hedonism, and security show that life values can mediate the shaping of economic attitude in a polycultural society. The results can and must be interpreted in the context of socio-political implications for the society. One finding is that even historical, economic, and political closeness of territory-sharing peoples does not prevent their youth from preserving and reproducing a unique cultural identity. However, different life values in a polycultural society may spark social division and conflict in complicated situations that require quick response. The identified differences in economic attitudes and values in a polycultural society must be considered by business people when elaborating a marketing strategy, i.e. targeting the youth in this or that republic. Limitations of the study include gender discrepancy with the male gender being underrepresented in the samples, which might have affected the findings. Future research must use larger samples, including the population of other Russian republics; male representation must be improved as well.

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ATTITUDES OF MANAGMENT STAFF IN REGARD TO MANAGING GENERATIONAL DIVERSITY – EXPERIENCES OF POLISH MANAGERS

Joanna M. Moczydlowska

*Bialystok University of Technology, Poland
joanna@moczydlowska.pl*

Marek Adamski

*PMCONSULTING Sp. z o.o., Poland
adamski@pmconsulting.com.pl*

ABSTRACT

The management of generational differences is aimed at achieving success thanks to synergy stemming from effective cooperation of workers of different age groups. The article implies that applying this concept requires positive attitude of the managerial staff based on knowledge and positive emotions realised through certain behavioural tendencies. In order to diagnose attitudes of Polish managers towards the management of generational differences, 62 narrative interviews with senior staff representatives of business sector were conducted. The received statements were categorized and evaluated in terms of content. The results of the study allowed to formulate a conclusion that Polish managers posses average knowledge of the concept of the management of generational differences. On a declarative level they demonstrate moderately positive attitudes towards the management of generational differences, however on a factual level, they apply them rarely and in a coincidental and intuitive way.

Keywords: *attitudes of managers, management of generational differences*

1. INTRODUCTION

Studies conducted by House of Skills (2019) show that generational diversity is the top item on the list of current challenges connected to the management of people. This subject is also being intensively explored by management science. Attention of researchers is mainly drawn to the specific character of individual generations, the similarities and differences in their behavior within the working environment (Becton, Waker, Jones-Farmer, 2014), with special focus on their expectations in respect to employers, especially in the areas of motivation (Twenge, Campbell, Hoffman, 2010) and loyalty (James, McKechnie, Swanberg, Besen, 2013). There is a search for tools facilitating the management of generational diversity (Amayah, Gedro, 2014). The most often addressed topics also include: stereotypical perception of members of various generations (Maurer, Barbeite, Weiss, Lippstreu, 2008), construction of multigenerational teams, professional mobility and career paths of people of varying ages (Lyons, Schweitzer, Ng, 2015). The problem of the attitudes of management staff toward managing generational diversity is taken on much less frequently. From the perspective of management theory and practice this is an important issue since management's attitudes toward generational diversity may significantly impact the implementation readiness of this concept into management practice and the effectiveness of this process. For this reason the aim of the present article is to diagnose attitudes (defined as the resultant of knowledge, emotions and behavioral inclinations) displayed by Polish management staff in relation to managing generational diversity. To achieve thus defined goal a problem related literature analysis as well as qualitative research (narrative interviews) were conducted with 62 high level managers.

2. THE CONCEPT OF MANAGING GENERATIONAL DIVERSITY

The concept of managing generational diversity was developed at the end of the 1980's as a reaction to the dynamic demographic changes such as population aging and rise in immigration, elevated professional aspirations of women and the revision of family roles as well as growing globalization (Jędrych, Berniak-Woźny, 2017). The notion of diversity can be interpreted in many ways depending on the researchers' object of interest. In relation to employees it is accepted that diversity is the result of all aspects in which people differ. These can be visible, such as age, gender, race, efficiency, or invisible, like education level, knowledge, experience, skills, personality, beliefs, a particular system of values and others. A different classification assumes that there are traditional sources of diversity resulting from demographics or modern sources such as employees' virtuality, inattentiveness or networking (Østergaarda, Timmermans, Kristinsson, 2011). The understanding of existing differences between workers helps an organization to utilize all competencies, potential and abilities which a team possesses and, in the end, allows the achievement of better effects in relation to the quality and outcomes of work which is the result of being more engaged in fulfilling organizational goals (Kooij, de Lange, Jansen, Kanfer, Dijkers, 2011). That is also the reason for the acceptance of the opinion that the diversity of employees may be a source of measurable benefits for a contemporary organization (Kirton, Greene, 2010). Management of diversity is most often associated with counteracting discrimination. The notion that it is necessary to equalize chances of minorities, the excluded or those deprived of access to various spheres of public life such as education, the labor market or authority. In practice this leads to the initiation of various affirmative action practices which, similar to discrimination itself, in the end concern only the individual because it is the individual who is deprived of equal rights and it is the individual who takes advantage of equal opportunity programs. Through this perspective, however, occurs a narrowing of the range of the concept being discussed to include only activities whose purpose is to counteract manifestations of discrimination. This is the so-called adaptational model of managing diversity whose essence relies on observing antidiscrimination laws (Urbaniak, 2014). Appropriate understanding of diversity management is not solely limited to creating preferential conditions or equalizing chances for individual members of some social group but is mainly based on the notion that the broadly understood diversity improves the operating quality of the entire organization and impacts it positively. Through this, the focus is shifted from the individual to the organization or even the entire community. The foundations of such thinking consist of the idea that diversity in and of itself is a value, a factor that improves the functioning of a given community. Treating diversity as a factor beneficial to the development of the organization is based on being able to see, respect and accept the differences which occur between people. In the era of globalization and rising instability within society the significance of the potential benefits which may be gained from diversity is growing while management of diversity has become a part of the business world's strategic plans to deal with the growing diversity of communities, market structures and employees (Kunze, Boehm, Bruch, 2009). In making the attempt to explain the essence of managing diversity it can be assumed that it is a consciously implemented process consisting of an active, future oriented development of an organization founded on values initiated through the acceptance of existing differences and treating them as potential for development which creates added value for the organization (Kirton, Greene, 2010). Management of diversity signifies the development of strategies, policies and programs which are conducive to respect and the utilization of those differences to achieve organizational goals. The main aim of diversity management is the creation of a working environment in which every employee feels respected and appreciated thanks to which he or she can fully use his or her intellectual potential which adds to the success of the organization. Diversity management can be treated as an extended concept of managing knowledge and talents within an organization with special focus on equal opportunity, counteracting social exclusion, employee

integration as well as the ethical and moral dimension of conducting business and social responsibility. According to this concept a human being, his needs and intellectual potential, becomes the central reference point for further actions of the organization (De Meuse, Mlodzik, 2010). Management science provides abundant evidence of benefits for organizations, especially businesses, resulting from diversity management (Cummings, 2004). The implementation of a strategy for diversity can become a significant aspect of building a positive image of the organization, the creation of its brand as an employer of choice and shows it to be socially responsible. Additionally, it is also possible to see a rise in the creativity of employees as well as higher quality of their decisions, better results in terms of gaining and maintaining customers as well as better knowledge flow (Avery, McKay, 2010). Diversity management may also be understood as a process aimed at creating an appropriate work atmosphere facilitating development and full utilization of the potential, including knowledge, of all employees (Peterson, Spiker, 2005). In the systemic approach to diversity management it is suggested that it is considered in the context of five components:

- paradigms of diversity (a set of management's views, their values and beliefs connected with diversity management);
- policies (the organization's aims in relation to managing the diversity of resources);
- programs (a set of formalized activities concerning diversity management within an organization);
- practices (implementation of the organization's programs, experiences connected with the implementation of programs dealing with managing diversity by lower level management and employees).
- climate (impressions perceived and interpreted by employees concerning diversity management and applied practices and programs) (Rakowska, Cichorzewska).

3. RESEARCH METHODOLOGY

The subject of research presented within the present publication includes the attitudes of management staff toward managing generational diversity. An attitude is defined as a constant system of positive or negative assessments and emotions as well as tendencies to behave positively or negatively toward social entities. A similar opinion has been expressed by McGuire (1985) who understands an attitude as a complex structure consisting of cognitive and affective elements as well as of the individual actions of the attitude carrier in relation to its object. That is the reason this study of management staff's attitudes toward managing generational diversity takes under consideration three components making up an attitude: knowledge, emotional approach and the tendency to particular behaviors. On the basis of an analysis of sources and pilot studies conducted on a sample of 10 managers the following research hypothesis has been formulated: On the declarative level management staff displays positive attitudes toward managing generational diversity but on the actual level, in managing behavior, it manifests them to a small degree. Qualitative research has been used to assess the veracity of this hypothesis. Qualitative research can be defined as all empirical research whose basic aim is to produce complex and insightful descriptions and analysis of causes, progress, determinants as well as results of the existence or function of a given object, process or phenomenon under particular conditions and within a specific context. It encompasses studies conducted in the natural environment of a given object within which an effort is made to understand or interpret phenomena (Denzin, Lincoln, 2005). These studies are well suited to precisely define the specific character of phenomena and account for the impact of variables which are immeasurable or difficult to measure on the management process occurring in dynamic organizations (Bansal, Corley, 2011). For the needs of the present article narrative interviews were conducted with 62 managers representing the business sector. The respondents' answers were subjected to categorization and substantive assessment.

4. ATTITUDES OF MANAGERS REGARDING MANAGING GENERATIONAL DIVERSITY – RESEARCH RESULTS ANALYSIS

The assessment of managers' state of knowledge in relation to managing generational diversity leads to the conclusion that one in two representatives of management staff has an average amount of knowledge regarding this subject – he knows the name of the concept, is aware of its correlation with demographic changes occurring in European societies, including Poland, and knows that it concerns the management of human resources of an organization. Nearly one in three (29%) possesses knowledge that is a bit more detailed and understands the potential benefits resulting from the implementation of the concept as well as methods and tools utilized for managing generational diversity.

Table 1: Cognitive aspect of managers' attitudes regarding managing generational diversity (developed by the author)

The cognitive aspect of an attitude, knowledge		
Knowledge related to the concept of managing generational diversity – answer categories	L (n = 62)	%
Considerable familiarity with the concept of managing generational diversity: extensive knowledge regarding the essence aims and tools for the management of generational diversity as well as benefits from its use.	18	29.0
Average familiarity with the concept of managing generational diversity: Incomplete knowledge regarding the essence aims and tools for the management of generational diversity as well as benefits from its use.	31	50.0
Poor familiarity with the concept of managing generational diversity: Fragmentary, disordered knowledge regarding the essence aims and tools for the management of generational diversity as well as benefits from its use.	9	14,5
Lack of knowledge regarding with the concept of managing generational diversity.	4	6,5
Knowledge concerning generational diversity of the team being managed and consequences resulting from that diversity		
Extensive knowledge regarding generation groups as well as their characteristics and specificity.	8	12,9
Average, fragmentary knowledge regarding generation groups and their specificity and characteristics, moderate tendency to stereotype generations.	30	48,4
Poor knowledge regarding the specificity and characteristics of generation groups in the team being managed, high inclination to stereotype generations.	9	14,5
Questioning of the specific character of generation groups within the team being managed.	10	16,1
Lack of generational diversity in the team being managed.	4	6,5

Answers provided by managers suggest four main interpretations of the essence and meaning of the concept of managing generational diversity:

1. identifying managing generational diversity with age management (focusing on activities addressed to mature and older employees),
2. equating managing generational diversity with establishing good inter-generational relations,
3. limiting managing generational diversity to knowledge transfer as part of mentoring,
4. treating managing generational diversity as an activity directed at the youngest group of employees with the goal to attract them to and retain within the organization.

Examples of managers' opinions have been presented below.

Figure 1: Example of managers' opinions

"I consider management of generational diversity to be important. Our team is visibly getting older. We are unable to find successors for positions currently held by 55 and 60-year-olds. Working on a production line, even one that is well automated, is not attractive to young people. This means that, on the one hand, we have to invest in enticing young people and, on the other encourage older employees to, if their health permits it, keep working at the company and not retire early. Our HR department is developing special programs meant to make older people feel as comfortable here as possible".

Production manager, 42-year-old man,
medium sized construction chemicals company

Figure 2: Example of managers' opinions

"I have used management of generational diversity for many years. I have always managed teams consisting of people of varying ages and I know that it is worth the effort to make their cooperation easier (...). That is how I understand the essence of managing generational diversity – orientation of the manager and, most of all, of the organizational culture toward building good relationships between people of various ages. Respect, understanding, courteousness and being aware that we all can learn something from one another".

Manager of the administration and economics department, 51 year-old woman
medium sized food industry company

In their opinions regarding management of generational diversity only a third of participants mentioned economic aspects or the possibility of making the company's activities more effective through generational diversification of its staff. No statistically significant differences in the knowledge levels concerning management of generational diversity and the characteristics of individual generations had been found between women and men but the age of managers turned out to be an important variable. Managers aged 55 and above had the least amount of knowledge concerning the management of generational diversity. From among benefits resulting from the implementation of managing generational diversity managers mainly mentioned expanding the employees' knowledge, enrichment of their experience and development of their skills. During the interviews nearly 70% of all respondents stated that working in a diverse environment provides opportunities to learn from one another and exchange experiences. Younger managers (40 and under) who fell into this group, however, drew attention to the fact that the inter-generational transfer of knowledge can not mean the "domination" of older employees over their younger colleagues. One out of every four study participants confirmed being aware that too intense and one-sided transfer of knowledge limits its diversity. Appreciation of the knowledge, skills and experiences possessed by young employees allows the overcoming of the generally-accepted thought patterns, routine activities and procedures as well as creates more opportunity to develop innovative (more beneficial and effective) solutions as well as the improvement of key competencies thus contributing to a rise in the effectiveness of organizational activity.

Nearly half of the representatives of management staff indicated the establishment of good workplace atmosphere as a benefit resulting from management of generational diversity. In their opinion, the accounting for the diversity of people arising from their age can result in an increase of their organizational engagement, elevation of the level of their motivation and improvement of their work effectiveness. Managers also noticed that managing generational diversity is one of the elements creating the image of the organization as an attractive employer, which allows the reduction of employee fluctuation and draw competent employee candidates from the job market. Nearly one third of respondents expressed the opinion that only a diversified team of employees can fully recognize the expectations of various groups of customers making it easier for the company to meet them. What is interesting is the fact that a considerable portion of respondents (approximately 12%) possesses knowledge regarding management of generational diversity but treats it as a fading fad or a purely theoretical construct which does not have any impact on management practices. This may be an expression of the skepticism of some part of management in regard to management theory or a result of a lack of personal experience in working in a generationally diverse team, characteristic for some fields. An example of one such opinion is presented below.

Figure 3: Example of managers' opinions

"Management of generational diversity must be some sort of a new fad in management. For me it is purely theoretical. The field's specific character is such that we mainly hire young people, 35 or younger, so I don't see any type of real generational conflict, although the truth is that a 25-year-old and a 35-year-old think using completely different categories. I try, regardless of age, to make everyone at the company feel comfortable and want to work here as long as possible and that's how I understand managing generational diversity".

Director of a marketing department, 38-year-old man
medium sized IT company

The research sample also contained a few managers (6.5%) who admitted that the phrase "management of generational diversity" is completely foreign to them or they referred it solely to the fulfillment of diverse needs of various aged customers (an example of such an opinion has been shown below).

Figure 4: Example of managers' opinions

"Management of generational diversity maybe means that our company must research current trends, follow fashion and adapt our products to the needs of customers of varying ages".

Manager of the customer service department, 46-year-old woman
medium sized furniture company

The analysis of the opinions expressed by managers taking part in the study enables the formulation of a conclusion that there is a difference between knowledge about managing generational diversity as a particular concept of management and familiarity with characteristics dictating the specificity of various generational groups within an organization.

Although 29% of participating managers have significant knowledge regarding managing generational diversity, only 12.9% of respondents had a high level of knowledge connected to the characteristics typical to a given generation group and its specificity. The latter portion of participants draws information not only from their personal experience but also from training and articles published in popular science periodicals. Approximately 48% of management staff has average, fragmentary knowledge. Most often members of this group know terms such as "generation X", "generation Y" and, less often, "the generation of Baby Boomers". They can identify some of the characteristics assigned to each generation. They mainly indicate the source of their knowledge regarding the subject as personal observations and experience. The opinions of this portion of management staff also display a certain inclination to stereotyping representatives of various generations. These tendencies have been seen at the same level in participating women and men.

Figure 5: Example of managers' opinions

"Young employees are not very self-reliant, are impatient and, to boot, have very large expectations, especially when it comes to finances. Often they are tactless and rude. They are not very loyal to their employer and often change jobs. It is difficult to communicate with them and even more difficult to understand them".

Manager of a finance department, 49-year-old man
medium sized business from the telecommunication field

Figure 6: Example of managers' opinions

"I urge my colleagues – teach those who are younger than you. Unfortunately, it doesn't work very well. The young don't really want to learn from their elders because for them the Internet is an authority on everything (...). The older employees don't always want to share their knowledge either. They are afraid that they will no longer be needed".

Director of a logistics and procurement department, 55-year-old man
large energy company

As many as 16% of respondents question the differences between generations. In their opinion they have been artificially construed and their significance to the functioning of a professional is definitely overrated. Additionally, managers from this group draw attention to other characteristics of workers which shape their organizational behavior to a greater degree than their age. This mainly includes motivation, their value system and personal predispositions. The emotional approach toward managing generational diversity is yet another element making up the attitudes of managing staff. Psychologists define three important characteristics of emotional processes: expression of emotions (their positive or negative character), intensity of emotions which are reflected in how much they impact the behavior of the individual or the way he thinks, as well as the content of emotions which defines the importance of the stimulus causing the emotions and inclines toward particular activities (Ekman, Davidson, 1994). In essence, the emotional posture as an element of attitudes is deeply subjective and changes in time.

It is also very difficult to measure without analyzing psychophysical indicators such as, for example, the galvanic skin response or changes in the electrical activity within the brain or cardiovascular activity, all of which significantly exceeded the research capabilities of the author. For that reason conclusions regarding the emotional context of managers' attitudes toward managing generational diversity were drawn on the basis of the analysis of the content of their stated opinions as well as the manner in which they were expressed (tone of voice, speed and volume at which they were conveyed). This allows the formulation of the conclusion that a dominant emotion which accompanies managing generational diversity is interest with the concept itself. Majority of participants (54.8%) believe it to be relatively new and think that it is worthwhile to find out more about it. Their attitudes range from moderately positive to indifferent. No cases of explicitly negative emotional reactions connected to managing generational diversity were recorded in regard to this sample. At the same time, approximately 25% of respondents displayed a relatively strong skepticism connected with the implementation of management of generational diversity (opinions such as "at our company we don't pay attention to such things", "priorities at our company are different", "our employees' greatest concern is their earnings with other matters being less important", "we've always had employees at differing ages, which is normal and I don't think it needs any extraordinary, special actions".) As many as 12.9% of managers expressed the opinion that activities connected with managing a company's human capital is the domain of the HR department and, therefore, they do not feel the need to become involved in any way (also emotionally) in activities related to managing generational diversity. Another emotion shaping the attitudes of managers taking part in the study regarding management of generational diversity is the feeling of helplessness. It is a result of the fact that the respondents see the importance and necessity to implement activities connected to managing generational diversity but their concerns are not understood and/or supported by their superiors. Three people even displayed an enthusiastic attitude to the idea of managing generational diversity. These people worked at large international corporations at which generational diversity management solutions are very strongly connected with organizational culture (see opinion below).

Figure 7: Example of managers' opinions

"Management of generational diversity is written into the DNA of our organizational culture. The company was established in Sweden and from the beginnings of its existence emphasized the value and acceptance of diversity and even its utilization to strengthen the company. A few years ago we entered the Polish market. Our Polish managers also had to learn this aspect. And it is not only about age but any type of diversity – its acceptance and use to build a creative team".

Sales department manager, 44-year-old man
large pharmaceutical company

Behaviors or inclinations toward behaviors are the third element shaping attitudes. In this portion of the interview managers were asked to identify particular activities they themselves use to effectively manage generational diversity within their team. Categories of answers to this question are presented in Table 2.

*Table 2: Activities initiated by managers related to managing generational diversity
(developed by the author)*

Behavioral aspects of attitudes, behaviors		
Activities initiated in regard to managing generational diversity – answer categories	L (n = 62)	%
Building of good inter-generational relationships based on effective communication and shared respect, trust and openness.	29	46,8
Acceptance of generational diversity and its promotion within the team.	22	35,5
Building of generationally diverse task teams.	18	29,0
Assignment of tasks adequate to the potential of the employee belonging to a given age group.	18	29,0
Encouragement to inter-generational sharing of knowledge and/or informal mentoring.	16	25,8
Organization of meetings integrating various age groups.	11	17,7
Leading by example – demonstrating respect toward all employees regardless of their age.	9	14,5
Nurturing good inter-generational communication.	9	14,5
Expanding knowledge about diversity – initiating participation of workers in training.	3	4,8
Preventing the "demoralization" of young workers by the older ones.	1	1,6
No activities of this type.	2	3,2

Activities mentioned by the managers taking part in the study as an expression of their activity in the area of managing generational diversity are relatively intuitive and, in the majority of cases, informal. There is a clear lack of connection between these activities and systemic solutions on the level of the entire enterprise. The study has confirmed the key role of inter-generational relationships in the creation of generational intelligence of the organization. Managers most often indicated the creation of these relationships as their managerial activity initiated as part of managing generational diversity. They specified respect, trust and openness as foundations of such relationships (an example of one such opinion has been presented below).

Figure 8: Example of managers' opinions

"I don't believe in some contrived programs or projects. Most important is the everyday connection with people and making sure that in those everyday, natural contacts they knew how to listen to each other and accept differences in their points of view. I try to encourage it and make sure it happens. The most important is that we all respect one another".

Manager of a quality control department, 52-year-old man
large electronics company

To manage generational diversity significant portion of management staff (29%) utilizes building of age-diverse teams and assigning employees tasks according to their age and its impact on their skills and professional abilities.

Figure 9: Example of managers' opinions

"Whenever negotiations with a customer require patience, distance and calm I send an older employee. When creativity or even a bit of nonchalance is important then the youngest will do the best job. Age influences those things at which people are best at but, of course it's not age alone. I think that by taking into consideration the connection of age to a job I do manage generational diversity".

Manager of a marketing department, 33-year-old woman
medium sized Wellness an SPA company

Figure 10: Example of managers' opinions

"It is very important for me that people in my project team represent varying ages (...). I pay special attention to it because I know that every generation has a different way of looking at things, possesses a new, different quality which creates synergy".

Manager of a sales department, 44-year-old man
large pharmaceutical company

Respondents also stressed their own acceptance of diversity and its promotion within a team (35.5%) as well as the significance of giving a good example (17.7). This means that a part of the management staff (unfortunately it cannot be said its majority) understands their significant role in creating respect toward generational diversity and is aware that activities related to it are a point of reference for numerous employees. The analysis of the contents of the interviews allows the formulation of a conclusion that there are no significant differences in management activities concerning managing generational diversity in relation to women and men. The age of respondent also does not differentiate the components of behavioral attitudes of management staff concerning managing generational diversity. However, one variable which does differentiate managers taking part in the study is the size of the company which they represent. Respondents from large companies indicated a more plentiful, more diverse array of managerial activities realized by them as part of managing generational diversity.

5. CONCLUSIONS

The results of the research have allowed the assumption of the hypothesis that on the declarative level Polish managers show positive attitudes toward management of generational diversity, however, in reality, in their true managerial behaviors they demonstrate them to a very low degree. The problem of the practice of managing generational diversity remains open. On account of its practical consequences it clearly requires further, more in-depth study, including the use of methods relating to quantitative research. The extension of the sample by managers representing different cultures also seems to be cognitively interesting.

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PUBLIC RELATIONS AS A TOOL FOR DEVELOPING MEDICAL TOURISM USING THE ISTRA HOTEL IN VARAŽDIN AS AN EXAMPLE

Anica Hunjet

*University North, Varaždin
anica.hunjet@unin.hr*

Dorotea Zerjavic

dorotea.zerjavic@gmail.com

Goran Kozina

*University North, Varaždin
goran.kozina@unin.hr*

ABSTRACT

Over the last decade, medical tourism has proved itself as a powerful driver of tourism traffic, attracting tourists who consider both quality and value when making a purchase decision. Due to its highly favourable geographical location and good transport connections with other parts of the country (and the world), Northwest Croatia is gradually becoming the hotspot for medical tourism in Southeast Europe. The paper explores medical tourism in order to establish how the globalization and the 21st century technological advances have facilitated the development of public relations, thereby enhancing community cohesion, information exchange, communication, and connectivity. In today's environment, public relations have become highly important for further development of medical tourism. The paper focuses on medical tourism and the Istra Hotel. It defines the concept of public relations in practice; investigates the process and activities involved in public relations and marketing; describes the main features and characteristics of medical tourism; analyzes the strategic plan for the development of medical tourism using the Istra Hotel as an example; describes the state of medical tourism in Croatia and looks at the competition; examines the marketing environment; proposes the strategy and manner in which public relations should function; explores consumer behaviour; and identifies target consumer groups. A survey of consumer opinions and attitudes towards hotels and medical tourism has been conducted.

Keywords: *globalization, public relations, medical tourism, Northwest Croatia*

1. INTRODUCTION

The term public relations is thought to have been coined in 1807 by then US President Thomas Jefferson during his address to the Congress. However, it was not until the 20th century that public relations achieved a significant growth. The first seminars on public relations were held in the United States in the early 1920s. Public relations have become a useful tool in the field of medical tourism. Recently, the growth potential of medical tourism has been increasing as evidenced by the steadily rising number of visitors seeking healthcare services. Medical tourism has become one of the most profitable industries in the world. However, it is interesting that statistics parameters for measuring data on medical tourism do not exist as yet. Using public relations at the Istra Hotel and Sveti Nikola Polyclinic as an example, the paper examines the concepts involved in public relations. It has been established that the public relations department cooperates closely with the marketing department, and the authors emphasise the importance of this kind of integration. Furthermore, the paper explores and presents the strategic plan for the development of medical tourism in the Istra Hotel and Sveti Nikola Polyclinic, and defines the concept of medical tourism.

This is achieved by using the following sources of information: university books, textbooks, scientific articles, and various other Internet sources providing information relating to medical tourism and public relations. The research methods used include analysis, synthesis, deduction, induction, comparison, generalization, and description.

2. PUBLIC RELATIONS

Over the past several decades, the civilisation has experienced tremendous development in terms of technology that has been driving globalization and breaking down almost all communication barriers. Image has become a crucial feature of business, regardless of its size. The terms two-way communication and mutual relations emerged after World War II (Tomić, Z., 2012, p. 25). Their definitions used words that were intended to help public relations develop. Over the coming decades, mostly owing to the processes of globalization, integration and liberalization, which have facilitated global connectivity, public relations have been gradually developed all over the world, reinforcing their role in the fields of economy, politics and education. This created the conditions for setting up specialized agencies and associations, and for establishing rules and regulations concerning the profession. The advancement of information and communication technologies has further expanded public relations activities and reinforced their significance in contemporary social trends. It could be argued that public relations have permeated almost all spheres of life and business (Kraljević, Perkov, 2014, p. 187). This relatively new business function is similar to other organizational functions, such as marketing and advertising. However, public relations are multidisciplinary in nature and have a broader scope. Public relations have emerged and developed as a management function. Companies, governments and non-governmental organizations are allocating more and more money for these activities. For this reason, before any public relations activity is planned, a question is raised whether previous ones have produced any results, and if so, whether their goals have been achieved, i.e. if the money was well spent. Public relations have become a vital element of communication between the organization itself and the general public, as well as all its internal structures. In their most developed form, public relations represent the science-based management of problems and organisational change (Kesić, T. 2003, p. 29).

3. MEDICAL TOURISM

Medical tourism can be defined as travelling with a purpose of obtaining medical services (of a higher or lower degree of complexity), such as dental, surgical, rehabilitation or similar services. In the last few years, as the growing number of visitors began to travel beyond the borders of their own country for medical services, medical tourism has become the focus of the media's interest. This has also led to the establishment of a larger number of agencies providing these services, as well as commercial medical service providers catering to tourists from abroad. People travelling for medical reasons do not decide on such a trip purely because of more affordable price, but to improve their health as well. Health tourism is based on the presence of natural healing factors, which include sea, thermal water and climate. The consumer is a tourist, i.e. a hotel guest, who spends a part of the day undergoing doctor-prescribed treatments. Health tourism represents cooperation in the fields of healthcare and tourism, where, on a partnership basis, the stay is organized of persons visiting a destination for its natural healing factors. Under medical supervision, visitors are provided hospital treatment, medical rehabilitation services, active rest, adequate diet, kinesiotherapy and balneotherapy, as well as functional abilities evaluation on admission and end-of-therapy assessment (Bartoluci and Birkić, 2011, p. 57). The most frequent issue encountered in medical tourism is the issue of quality standards. Low medical service prices in most cases mean poorer service quality. Thus, the medical profession should establish common international quality standards to be applied in all countries providing medical tourism services.

Organization for Economic Cooperation and Development (OECD) has developed Healthcare Quality Indicators (HCQI), with the aim of obtaining comparable data across countries and thus determining international quality standards. They take into account the needs of medical service users, the effectiveness of medical services provided, the safety of users, and the degree to which the users' medical service needs are met. When it comes to the quality of medical tourism services provided in Croatia, it is vital to establish the principles of mandatory accreditation and to introduce international certification of renowned medical institutions (Krajnović, Babić and Bosna, 2013, p. 28).

4. DEVELOPMENT STRATEGY

The Istra Hotel was built in 1911. It is conveniently located in the very centre of the city of Varaždin. The Hotel has undergone a significant refurbishment programme in line with the modern hospitality standards. In terms of its equipment and quality, it offers above standard hotel services. The hotel has a total of eleven rooms of which nine are double rooms, one is a single and one is a superior quality double room. All rooms are located on the second floor and can be accessed by stairs or lifts. The hotel's mission is to become the leading provider of medical tourism services in Northwest Croatia. As Sveti Nikola Polyclinic is part of the hotel, there are plans to convert some of its facilities into a spa and wellness centre so that, after undergoing medical procedures, examinations or using other services provided by the polyclinic, patients can stay at the hotel as part of their rehabilitation programme, or as part of team building activities during employer-sponsored general medical examinations. The vision of the hotel is to build a spa to assist in patient recovery process and become the preferred destination of choice for health tourists.

4.1. Marketing environment

The Istra Hotel cooperates with various vendors such as Magma and Kitro. Their seats are also situated in Varaždin, which facilitates the procurement process. One of the great advantages the hotel has over other hotels in Varaždin is the fact that none of the other hotels have a polyclinic. Lack of competition increases the hotel's potential for growth in the context of health tourism (Porter, M.E. p. 49). With its prestigious location in the very centre of the city, overlooking a bustling street filled with many art galleries, surrounded by the baroque palaces, it combines the architecture of the cultural attractions with the elegance of its own interior. The city of Varaždin is located in Northwest Croatia, on the plains along the Drava River, in close proximity to the borders with Slovenia, Austria and Hungary. Varaždin has a strategically important location and is rightly called the "north-western gates of Croatia". The city is located on the insufficiently utilised transport corridor Budapest - Zagreb - Rijeka, with roads coming from the eastern Alps and joining the European transversal corridor. It has a temperate continental climate. It ranks third in the country in terms of GDP per capita which is EUR 6.300. The most developed industries are the food industry (Vindija, Koka), construction (Cesta, which is in bankruptcy; Zagorje-Tehnobeton; Hidroing), textiles (Varteks, VIS), the metal processing industry (MIV) and the wood processing industry (Mundus).

4.2. Internal structure of public relations in the Istra Hotel

Public relations activities in the Istra Hotel are organised as an internal department which is in charge of public relations and marketing affairs. The department employs one person who is responsible for public relations and assisting with marketing affairs. The marketing department also employs one person who works closely with the PR department. The hotel management decided to link the PR and marketing departments more closely; however, they still operate as separate units. The management also realised that the two functions are different as public relations is concerned with the entire business environment of the hotel, while marketing is

focused solely on driving hotel service sales. Both are important communication functions whose efforts must be concerted, i.e. integrated communication must be practiced. Public relations at the hotel involve dealing with the media and journalists and creating positive publicity of the hotel. Each year, a detailed plan is developed with the CEO of the hotel about new ways of placing positive information about the hotel and ideas that would attract the interest of potential guests. Public relations department prepares the managers and department directors how to present the hotel to the public. An annual action plan is developed that includes press releases about actions planned for the next year. Press releases should not focus exclusively on activities organised by the hotel, but should mention important events in the city of Varaždin, such as Špandirfest. Special announcements are issued of hotel refurbishment and renovation efforts or when launching new products (e.g. Sunday buffet lunch, family lunch offers, etc.). Journalists are invited to try out the new services and share their opinions. The hotel keeps up with the latest trends in public relations and their PR staff members attend regular training programmes.

4.3. Consumer behaviour

Studying consumer behaviour is vital for understanding the what, why and how of the purchasing process. Understanding it means becoming aware of various external and internal influences on the consumer's purchase decision. There is no doubt that consumer behaviour is one of the key factors in developing a good marketing plan, whether it is for a product or a service. One of the basic premises of the marketing concept is that organisations exist to meet consumer needs and wants. Consumer behaviour is directly linked to the most fundamental concepts of the economics – the supply and demand. Good understanding of consumer behaviour, consumer segmentation and targeting are central to creating product/service sales. Companies can meet the needs of the consumers only if they have a better understanding of those who buy and use their products and services than their competition. Consumer response is often the ultimate measure of whether a marketing strategy is successful. That is why consumer information is an essential part of any successful marketing plan. Consumer information helps marketing professionals to identify the target market as well as possible threats and opportunities in securing approval/acceptance of products or services by the consumer. Data on consumer behaviour, opinions and attitudes are essential for selecting an adequate strategy for a particular product or service (Kesić, 2006, p. 187). Consumers are categorised into four basic groups:

1. highly dogmatic consumers - consumers who are willing to inspect and try a product out and will come back again if they like it;
2. consumers with a high optimum level of stimulation - consumers who will consider whether a particular product is worth spending money on before buying it;
3. consumers with a strong need for social recognition - this type of consumers will come to a shop, take a selfie, and post it on social media to show where they are, and in so doing promote the product and the shop. This consumer group should be targeted;
4. self-centred consumers - consumers who are willing to spend money on luxuries for the sake of pleasure.

All four groups are equally important because all of them can drive profit and increase the popularity of products and services offered.

5. SURVEY: CONSUMER ATTITUDES TOWARDS HOTELS AND MEDICAL TOURISM

A survey has been conducted of consumer attitudes towards hotels and medical tourism (Žerjavić, D. 2018, p. 41-53). It comprises 25 questions designed to collect information on

consumer behaviour in terms of how often they stay at hotels depending on their gender, employment status, income level, personal preferences, and the importance they attach to the location of the hotel, the vicinity of the restaurant, etc. In order to explore the potential for development of medical tourism which would benefit the Istra Hotel, the survey questions also explored the effect of the location of the hotel, the importance attached to the fact that Sveti Nikola Polyclinic is part of the hotel, and consumer preference with regard to private polyclinics compared to public institutions. The survey also looks into the frequency of employer-sponsored general medical examinations and team building activities, as well as the respondents' preferences. The information collected can be used in developing more successful PR campaigns and improving marketing efforts to further the development of the hotel as well as the polyclinic. The first part of the survey questionnaire is aimed at collecting respondent demographics, while the second part contains questions relating to their behaviour when choosing a hotel. The third part of the survey explores the respondents' opinions about healthcare and its importance, while the final part discusses the conclusions. An online survey was conducted of 313 respondents.

5.1. Research results

The first part of the survey questionnaire comprises demographic questions that provide insight into the respondents' gender, age, etc.

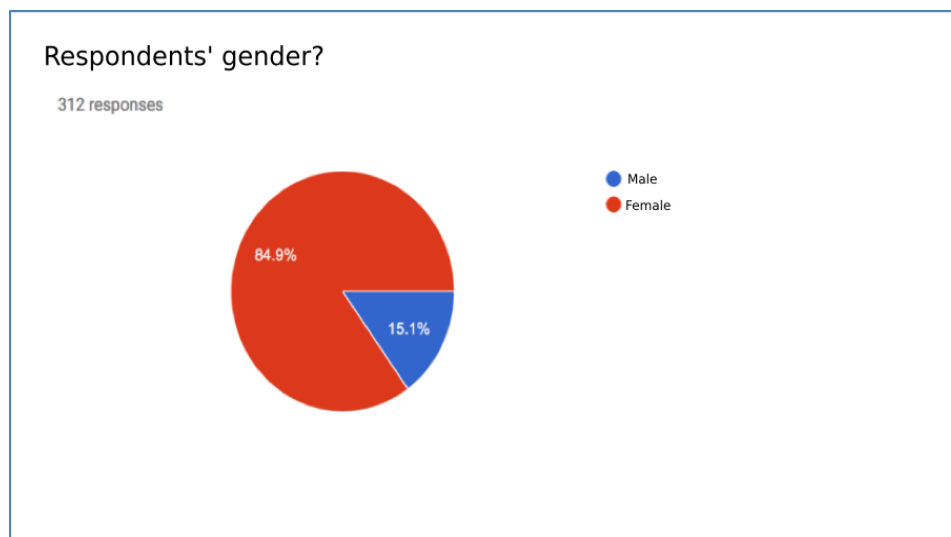


Figure 1: Respondents' gender

Source: Authors' work

The survey results show that the majority of the respondents are female, while only 15 percent are male.

Figure following on the next page

Respondents' age?

313 responses

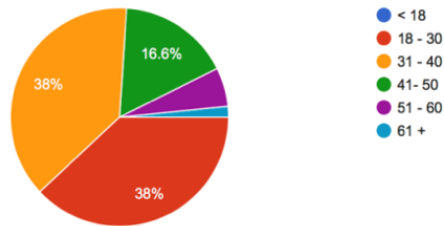
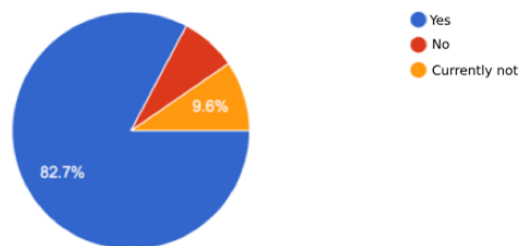
*Figure 2: Respondents' age**Source: Authors' work*

Figure 2 shows that there is an equal number of respondents aged 18-30 and those aged 31-40. The lowest number of respondents is in the group aged 61+.

Employment status

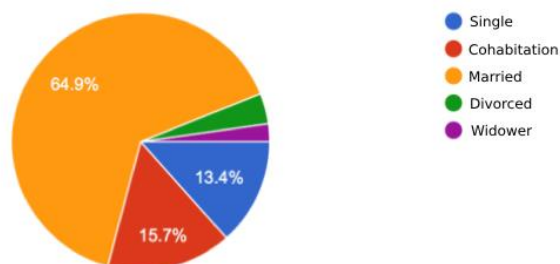
313 responses

*Figure 3: Employment status**Source: Authors' work*

As many as 82.7% of the respondents are employed, while 9.6% are currently out of work (the assumption being that they are looking for a job). This finding is encouraging for the development of tourism.

Respondents' marital status

313 responses

*Figure 4: Respondents' marital status**Source: Authors' work*

As evidenced in Figure 4, as many as 64.9% of the respondents are married. Considering that married couples prefer hotels because of the diverse content offered, these are favourable findings.

Respondents' position in their current job

304 responses

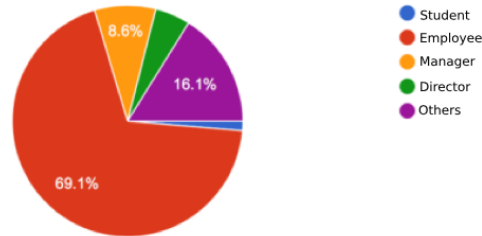


Figure 5: Respondents' position in their current job
Source: Authors' work

Figure 5 shows that 69.1% of the respondents are employed and that their positions in the corporate hierarchy are below or other than that of a manager or director.

Employment sector

310 responses

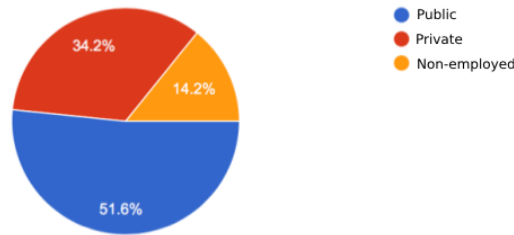


Figure 6: Employment sector
Source: Authors' work

Figure 6 shows that more than 50 percent of the respondents are employed in the private sector, while 34.2 percent work in the public sector.

Travel frequency

311 responses

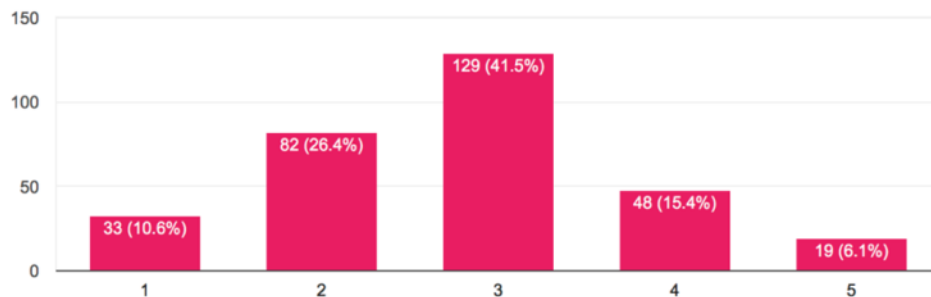


Figure 7: Travel frequency
Source: Authors' work

Figure 7 shows that 129 out of 311 respondents travel sometimes (3). 10% of the respondents travel rarely (1), while 6% of the respondents travel very often (5).

Preferred region for travelling (the Adriatic vs. Continental)

301 responses

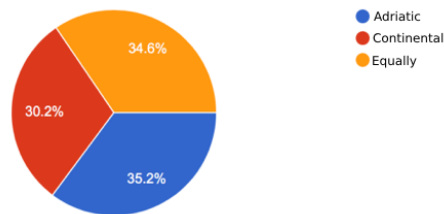


Figure 8: Preferred region for travelling (the Adriatic vs. Continental Croatia)

Source: Authors' work

Figure 8 shows that respondents travel to the Adriatic and Continental Croatia equally frequently.

Frequency of hotel stays

310 responses

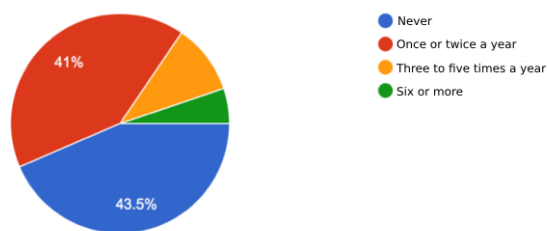


Figure 9: Frequency of hotel stays

Source: Authors' work

Figure 9 shows that as many as 43 percent of the respondents rarely stay at a hotel. The next largest group (41%) are those who visit hotels once or twice a year.

Wish to have team-building events organised by their company

298 responses

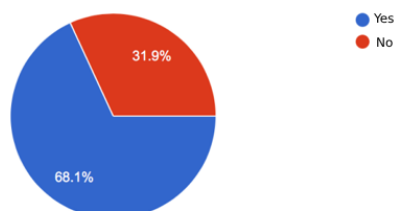


Figure 10: Wish to have team-building events organised by their company

Source: Authors' work

Figure 10 shows that 68.1% of the respondents would like to have team-building events organised by the company they work at. This is an encouraging piece of information.

Team building

298 responses

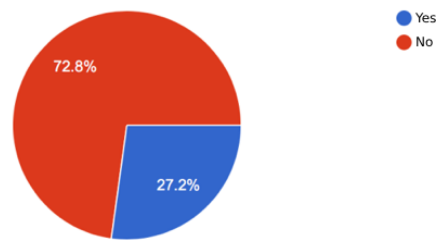
*Figure 11: Team building**Source: Authors' work*

Figure 11 shows that 72.8% of the respondents do not have team-building events organised by the companies they work at. However, considering economic conditions in Croatia, 27 percent is still an indicator of positive changes in the way employers think.

Income Level

301 responses

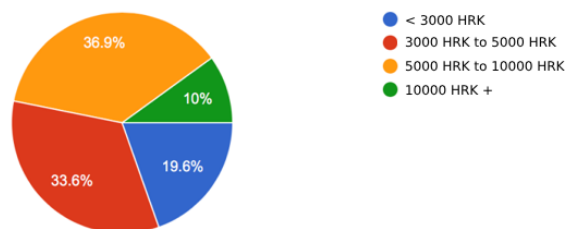
*Figure 12: Income level**Source: Authors' work*

Figure 12 shows that 36.9% of the respondents who have a job receive an income of HRK 5.000- 10.000.

The second part of the survey questionnaire explores the respondents' attitudes towards hotels.

Importance of location when choosing a hotel

307 responses

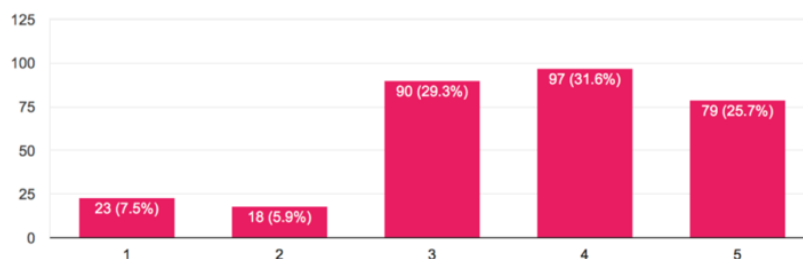
*Figure 13: Importance of location when choosing a hotel**Source: Authors' work*

Figure 13 shows that most of the respondents find the location of the hotel important.

Importance of content when choosing a hotel

304 responses

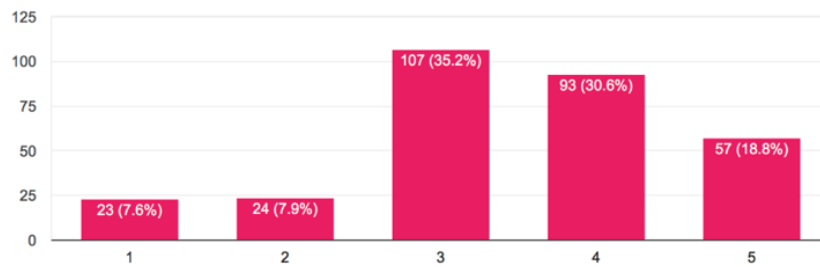


Figure 14: Importance of content when choosing a hotel

Source: Authors' work

Figure 14 shows that the majority of the respondents find that content is moderately important (3) or important (4) when choosing a hotel.

Importance of having a restaurant in the vicinity of the hotel

307 responses

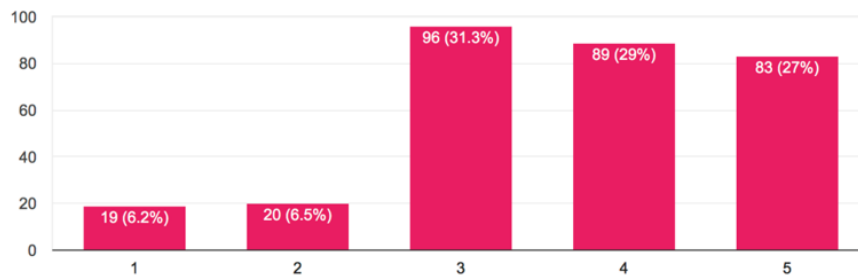


Figure 15: Importance of having a restaurant in the vicinity of the hotel

Source: Authors' work

Figure 15 shows that the majority of the respondents find having a restaurant close by to the hotel is moderately important, important or very important.

Hotel location preference

308 responses

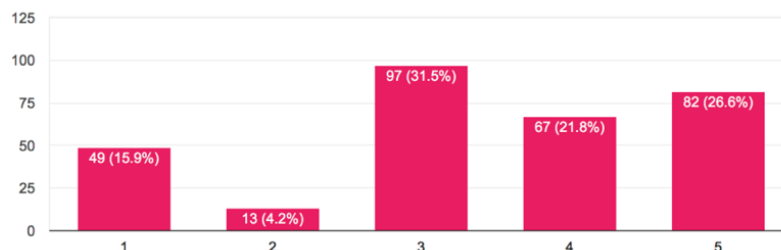


Figure 16: Hotel location preference

Source: Authors' work

Figure 16 shows that most respondents find it moderately important (3) for the hotel to be located in the city centre.

Importance of price when choosing a hotel

304 responses

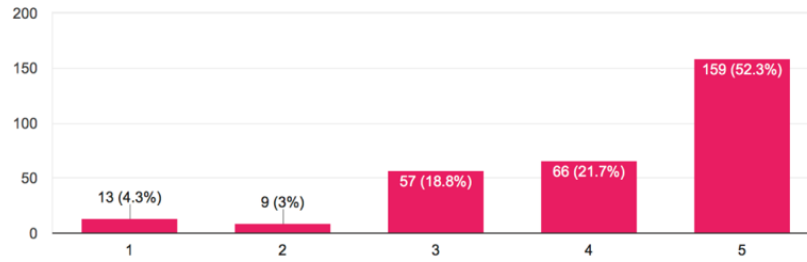


Figure 17: Importance of price when choosing a hotel
Source: Authors' work

Figure 17 shows that for most respondents price is a very important factor when choosing a hotel.

Importance of having a spa at the hotel

308 responses

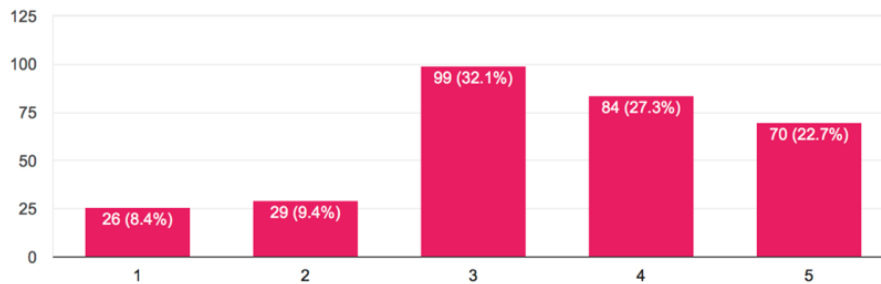


Figure 18: Importance of having a spa at the hotel
Source: Authors' work

Figure 18 shows that the majority of the respondents find it moderately important to have a spa at the hotel.

The third part of the survey questionnaire aims at determining the respondents' attitude towards healthcare providers.

Preferences of healthcare provider

312 responses

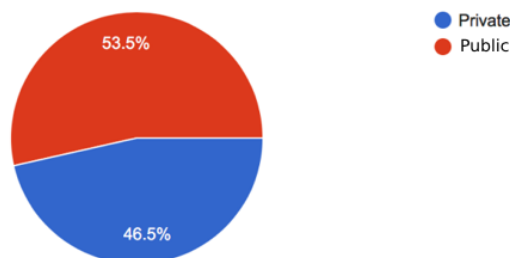


Figure 19: Preferences of healthcare provider
Source: Authors' work

Figure 19 shows that the respondents prefer public hospitals to private polyclinics.

Public vs. private healthcare quality

311 responses

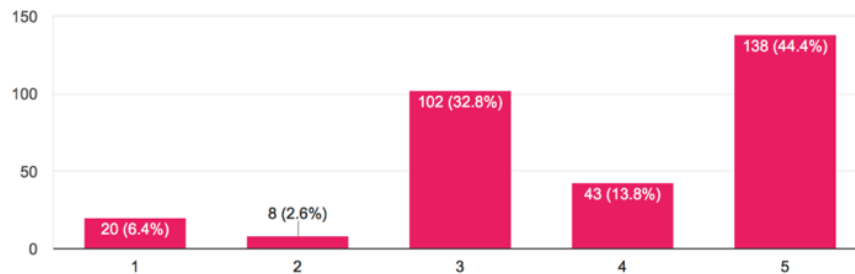


Figure 20: Public vs. private healthcare quality

Source: Authors' work

Figure 20 shows that the respondents believe that the quality of treatment provided in private institutions is higher.

Employee-sponsored general medical examinations

299 responses

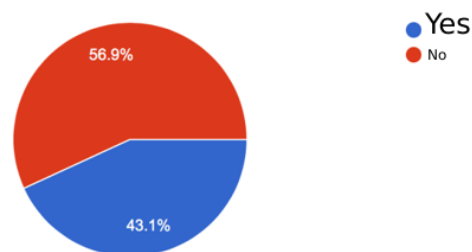


Figure 21: Employee-sponsored general medical examinations

Source: Authors' work

Figure 21 shows that as many as 56.9% of the respondents do not have employee-sponsored general medical examinations.

Figure following on the next page

Preference with regard to private or public healthcare institutions when having a general medical examination

302 responses

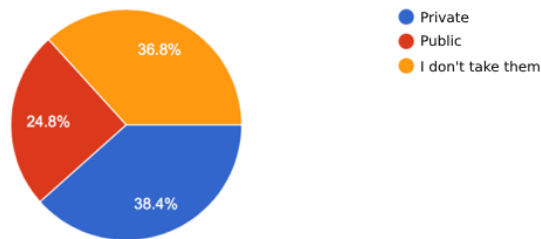


Figure 22: Preference with regard to private or public healthcare institutions when having a general medical examination

Source: Authors' work

As shown in Figure 22, most respondents prefer private healthcare providers to public ones.

Preference of a hotel that has a polyclinic

306 responses

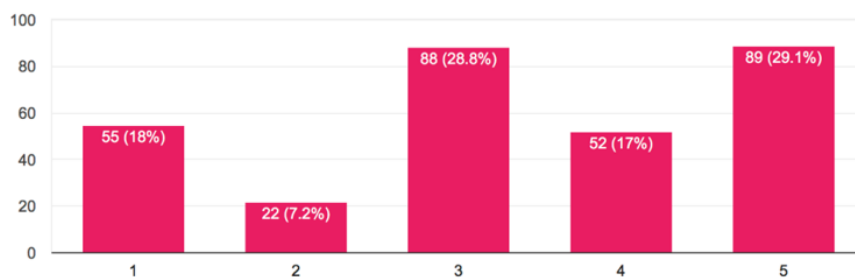


Figure 23: Preference of a hotel that has a polyclinic

Source: Authors' work

Figure 23 shows that most respondents would prefer to have a polyclinic at a hotel.

Importance of having a polyclinic at a hotel

305 responses

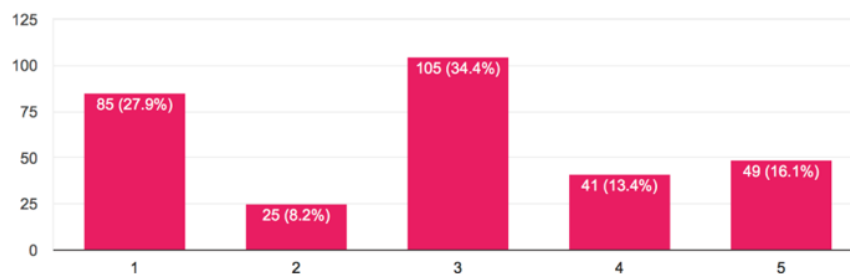


Figure 24: Importance of having a polyclinic at a hotel

Source: Authors' work

Figure 24 has shown that the majority of the respondents find it moderately important that a polyclinic be a part of the hotel.

The fourth part of the survey questionnaire explores which factors the respondents find most important when choosing a hotel.

The most important factor when choosing a hotel

309 responses

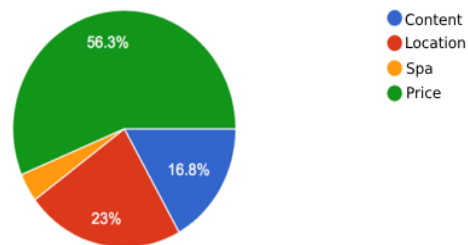


Figure 25: The most important factor when choosing a hotel

Source: Authors' work

Figure 25 shows that for the majority of consumers price is the most important factor when choosing a hotel.

5.2. Discussion

The survey results show that as many as 84.9% of the respondents are female, while 15.1% are male. The majority of the respondents are aged 18-30 and 31-40 years (38% in each age group), while 16.6% are aged 41-50. As many as 82.7% of the respondents have a job, while 9.6% are currently out of work and actively looking for a job, which is encouraging for tourism development. Only 7.7% of the respondents are not employed and/or out of labour force. Furthermore, the results show that 51.6% of the respondents work in the private sector, while 34.2% work in the public sector. 69.1% of those who have a job are employees, 8.6% are managers, while 16.1% chose the option: other. 64.9% of the respondents are married, which is a favourable piece of information, considering that married people, in particular those with children, prefer hotels because of the diverse content offer. When asked "How often do you travel?" on a scale of 1-5, where 1 means never and 5 means very often, 129 respondents chose occasionally (3). They travel to the Adriatic and Continental Croatia equally frequently. 43.5% of the respondents never stay at hotels, while 41% stay at hotels 1-2 times a year. When asked if they wished their company organised team building, 68.1% of the respondents answered positively. 72.8% of those employed do not have team building events organized by the company they work at, while only 27.2% do. 36.9% of the respondents who have a job receive an income of HRK 5.000-10.000. The second part of the survey explores the respondents' attitudes towards hotels and their wishes and expectations in this context. Questions are scored on a linear 1-5 scale. Of 307 responses to the question "On a scale of 1-5, rate the importance of hotel location", 23 respondents rated it with 1; 18 rated it with 2; 90 rated it with 3; 97 rated it with 4; and 79 rated it with 5. This suggests that most of them find the location important or very important. When asked to rank the importance of content offered, 23 respondents rated it with 1; 24 rated it with 2; 107 rated it with 3; 93 rated it with 4; and 57 rated it with 5. When asked to rate the importance of having a restaurant near the hotel, 19 respondents rated it with 1; 20 rated it with 2; 96 rated it with 3; 89 rated it with 4; and 83 rated it with 5. This leads to the conclusion is that the respondents find it important to have a restaurant in the vicinity of the hotel. When asked to indicate the importance of the hotel being located in the city centre on a scale of 1-5, the respondents' replied they would prefer to be in the centre.

When asked to rate the degree to which price affects their hotel choice, where 1 stands for not at all, 2 stands for slightly, 3 stands for moderately, 4 stands for very and 5 stands for extremely, 13 respondents answered 1, 9 chose 2, 57 chose 3, 66 chose 4, while as many as 159 chose 5. The respondents were more or less indifferent when it comes to whether the hotel has a spa or a wellness centre, although they are a little bit more interested in hotels that do have a spa. The third part of the survey questionnaire contains questions about medical tourism. The results show that a slightly higher percentage of respondents prefers public hospitals to private polyclinics (53% compared to 46.5%). However, it has to be emphasized that the next question reveals that they have more confidence in doctors working in private polyclinics. Furthermore, the survey results indicate that as many as 56.9% of the respondents do not have employee-sponsored general medical examinations. Most respondents would prefer to have such examinations performed in private clinics. Also, they would prefer a polyclinic located within the hotel; however, this is not of crucial importance for their decision. The results of the fourth part of the survey questionnaire indicate that price is the most important factor when choosing a hotel. 56.3% of the respondents rated price as the most important factor putting it before all other factors such as content, location, spa, etc.

6. CONCLUSION

Based on the above it can be concluded that public relations is the discipline whose main aims are to look after the reputation (image) of a business or an organization and respond timely to crisis situations. Moreover, it is a communication channel that can be used to affect the opinion, behaviour and attitudes of the public. It is concerned with establishing communication based on mutual understanding between the company and the public as well as educating the public. It should be emphasized that the term public relations is often confused with the term marketing. The difference between the two is that public relations has the aim of creating a positive image of the company and establishing a healthy communication with the public, which sometimes does not think favourably of that company. Marketing is a one-way communication whose main aim is to drive sales or increase demand. Marketing is constrained by time (for the duration of the campaign), while public relations is a continuous activity. Keywords in public relations are positive reaction and emotion, while marketing prefers terms such as price, product, etc. The Istra Hotel in Varaždin has a public relations department which covers the complete business environment of the hotel. The marketing department and the public relations department cooperate closely and practice integrated communication. An important aspect of public relations function is that it provides guidance to the management of the hotel in presenting the hotel in its best light. Today, a company's reputation, which might have taken years to build, can be destroyed in a split second. Knowing that, public relations are becoming more and more important. They are one of the key factors in the development of medical tourism for which favourable conditions exist in Croatia. Other factors include the expertise and professionalism of staff in the field of medical tourism, product and service innovation, equipment (as an important aspect of medical tourism), service quality, and local distinctiveness. All of these conditions exist both at the hotel and in the polyclinic and provide fertile ground for the development of medical tourism.

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SPECIAL ECONOMIC ZONES IN CONTEXT OF FOREIGN INVESTMENT IN POLAND

Monika Kapler

Częstochowa University of Technology, Poland
monika.kapler@wz.pcz.pl

Luiza Piersiala

Częstochowa University of Technology, Poland
luiza.piersiala@wz.pcz.pl

ABSTRACT

The aim of this article is to show the influence of special economic zones on conducting business activities in their area. The performed research has confirmed, that conducting business in these zones is strictly linked with areas that are the most attractive for investors in Poland. In the future, well-educated and qualified employees will be crucial to the attractiveness of the Polish economy, skillfully adapting to changes and the application of new technological solutions in practice.

Keywords: *investment attractiveness, foreign direct investment, special economic zones*

1. INTRODUCTION

Poland remains an attractive destination for foreign investors. In recent years, Poland has been responsible for around 3% of foreign direct investment (FDI) inflow to the European Union. According to the data of the Polish Investment and Trade Agency, in 2017 the value of new FDI in Poland increased by 19% compared to 2016. According to the EY report, new investments announced in 2017 are connected with the creation of a total of 24,000 jobs - 2,000 more than a year earlier (EY's Attractiveness Survey Poland). This level places us in the European lead. The change in the investment attractiveness of Poland in the last dozen or so years is also reflected in our promotion in the rankings of the ease of doing business or economic freedom. Many of the main factors attracting investors looking for cost advantages and economies of scale to Poland were: easy access to EU markets, well-educated and qualified staff, and at the same time relatively low labor costs. An example of this is, among others, the automotive sector and manufacturers of household appliances. The current model of growth of the Polish economy, based largely on low labor and production costs, however, is becoming exhausted. The need for change is caused by unfavorable demographic trends leading to a reduced number of employees and an increase in labor costs as well as an increase in the share in international production chains of economies with low labor costs. Advanced technologies enabling automation and robotization of production processes affect the replacement of some labor-intensive processes and thus allow them to be transferred back to developed economies. The quality of production and services as well as the expansion of the product offer become important more than competing mainly on the basis of price decreases. What can additionally generate an influx of new investments this year and in subsequent years is the creation of the Polish Investment Zone, which will accelerate and simplify the possibilities of encouraging entrepreneurs to invest. The performed research has confirmed, that conducting business in these zones is strictly linked with areas that are the most attractive for investors in Poland.

2. LITERATURE REVIEW

The special economic zones (SEZ) is a worldwide popular form of new economic zones. They have been created on a basis of experience of free trade areas and duty-free zones (Hajduga et al., 2018, p. 82).

Special economic zones are called differently depending on activity region and specialization. However, their common feature is their favoring, consisting of granting the entrepreneurs conducting business on their area special tax reductions and credits, exemptions from customs duties, lowering local taxes, lowering employee expenses. In the subject literature, the privileged business zones are divided into three main kinds: duty-free zones, special industrial zones and special export zones. The duty-free zones were the first zones to be created. Their characteristic features include exemptions from all or most of customs duties for goods introduced to the certain area. They are located on areas from couple to 1600 hectares. In the European Union, it is a zone, which is a part of the EU customs territory, and which is physically divided from it. The duty-free zones situated in Europe, Asia and America also offer tax reductions and property acquisition facilitations. The first free trade areas have been created in South America in 1920. Their quick development occurred in the 1960s and 1970s. In Poland the first duty-free zone was created in 1896 in Gdańsk, and in 1898 in Szczecin (Lizińska, Kisiel, 2012, p. 19). The special industrial zones were created in order to attract foreign investors, to create an area for activity based on knowledge and modern technology. They are also the areas that are supposed to favor the development of certain economic fields, boost the lesser developed areas, reduce unemployment and increase the competitiveness of the economy on international markets. The first industrial parks have been created in 1896 in the area of Manchester - Trafford Park and in 1899 in Chicago - Clearing Industrial District and Central Manufacturing District. As a part of industrial parks, we can distinguish ecological industrial parks, entrepreneurship incubators, innovation centers, business and trade parks, and scientific-technological parks (Lizińska, Kisiel, 2012, pp. 19-23). At the end of the 1950s, the export processing zones have been created. The zones of this type gained great popularity in the 1970s, especially in developing countries. The biggest number of EPZs is in North America (United States and Mexico) and in Asia (mainly in China, Philippines and Indonesia). Those are the privileged zones, which provide many investment incentives, and their business activity focuses on importing resources and exporting processed goods. Their activity area encompasses areas from 10 to 300 hectares (Lizińska, Kisiel, 2012, pp. 23-25). The factor that increases the investment attractiveness of the region, is the activity of special economic zones, that since 1995 represent an instrument of conducting economic policy in Poland. A detailed manner of operations and legal principles, objectives, conditions and the procedure of establishing special economic zones in Poland are regulated by the act (Act, 1994) passed from the initiative of The Economic Committee of Council of Ministers on 20 October 1994, concerning special economic zones (as amended). According to this act: “a special economic zone is a zone distinguished according to the regulations of the act, being an uninhabited part of the territory of the Republic of Poland, on which area it is possible to conduct economic activity on the terms determined by the act”. Since the creation of SEZ in Poland, their rapid development has taken place (Hajduga 2018, pp. 84-85). Regional state aid in the SEZ has a specific character and mechanism of receiving, and thus influencing, a region’s economic and social development (Ambroziak, 2016, p. 259).

3. SIGNIFICANCE OF THE KATOWICE SPECIAL ECONOMIC ZONE IN ATTRACTING FOREIGN INVESTORS

The analysis of the influence of direct foreign investments on Polish economy will be shown on the example of Katowice special economic zone (KSSE S.A.). It was established by a regulation of the Council of Ministers on 18 June 1996, concerning the establishment of the Katowice Special Economic Zone, as amended (Regulation, 1996). Two years after the establishment of KSEZ, the first company started conducting business in it. The KSEZ is located on an area of more than 2614 hectares, is functioning in 45 cities and municipalities on the area of three voivodships: śląskie (most of the investment areas), opolskie and małopolskie

(<http://ksse.com.pl/o-nas,31>). The Katowice Special Economic Zone is a dispersed zone, consisting of four subzones: Gliwice, jastrzębsko-żorska, tyska and sosnowiecko-dąbrowska. One of the biggest advantages of this zone, is a very well developed technical infrastructure. The KSEZ is situated in proximity of international routes: east-west (Lwów-Wrocław-Berlin) and north-south (Gdańsk-Cieszyn-Bratysława) and the A1 and A4 motorways junction, and in the vicinity of the Katowice airport in Pyrzowice and Kraków-Balice, inland port in Gliwice, near the a well-developed railway network and the International Logistics Center in Sławkowo (the wide track terminal – which connects Sławków through Hrubieszów and Lwów with the Ukrainian and Russian railway, and then with the Far East). The main investors are the companies from the automotive industry with foreign capital, dominated by investors from the USA (their worth has exceeded 3,75 billion PLN, which accounted for 22,6% of the total amount of investments in this zone, and close to 43,4% of all American investments in the zones) and Italy (2/3 investors – 13,5%). The KSEZ is not only a place, in which large corporations located their ventures, but also a place of location of many new companies with Polish capital. Among other industries, the ones that are numerously represented are the glass products, metal, plastic, machine, building, chemical and logistics industries. In total, the KSEZ houses companies representing 23 industry branches (<http://ksse.com.pl/inwestorzy>). The biggest foreign investments in the KSEZ is the OPEL car factory of the General Motors corporation. Other major investors are the Italian FCA Powertrain (engine producer) and Japanese NGK Ceramics Polska (producer of ceramic filters used in automotive industry). The group of the biggest Italian investors consisted of: Brembo Poland, Magneti Marelli Poland, Magneti Marelli Suspension Systems Bielsko and Ferroli Poland. The American Guardian invested in the „float” type glassworks. Saint-Gobain Glass Polska in their plant in Dąbrowa Górnicza produces car windows that are two times thinner, making the cars burn less fuel. KSSE S.A. together with InnoCo Sp. z o.o. and Landster Business Development Center has created the Silesia Automotive cluster, which was transformed into the Silesia Automotive & Advanced Manufacturing cluster. The cluster's aim is to promote the śląskie and opolskie voivodship as a central European region of high competence in the automotive industry and other industries that value unique competences. The performer empirical research concerned the influence of special economic zones on the entrepreneurship of business entities investing on their area. The used research method was a questionnaire. The research objects were business entities that declared conducting business activities and possessing appropriate authorization, whose headquarters were located on the area of the KSEZ. The overall research encompassed a number of factors linked with conducting business activity on the area of the SEZ. Due to the length of the article and its subject, we represent the results connected to factors which favored making investments on the area of the KSEZ. Considering the employment criteria, the obtained results indicate a dominant involvement in the group of examined subjects, the companies identified as medium, employing from 50 to 249 employees. This group constitutes more than 41% of the total examined population. The most numerous group of examined companies were the micro level of business entities (employing up to 9 employees), encompassing 11,1% of the examined sample. In the light of performed research, the large companies (more than 250 employees) constituted 28,6% of the examined subjects. The remaining group, the 19% of the sample, were small companies, employing from 10 to 49 people. There are two kinds of instruments that support conducting business activities on the area of the zones: income and expenditure. The income instruments include: tax exemptions and reductions, and reductions of maximum rates in local taxes. The expenditure instruments consist of investments made by local government authorities (mainly in technical infrastructure = availability of infrastructure and price of the investment area, convenient communicational location), and the informational-promotional instruments, such as: conditions for the collaboration with local authorities, economy of the region, local environment, business support institutions (Makieła, 2008, p.21).

The entrepreneur conducting business activities on the area of the zone can benefit from different kinds of forms of support – tax preferences i.e. income tax credits, local tax credits, and a possibility to use other forms of public support: B+R donations, regional support, de minimis support, employment or support in venture capital investments. The most important of them, is a possibility of a tax exemption, which favors locating investments on the privileged area, and the entrepreneur can use the savings from income tax for further investments. It is confirmed by the results of empirical studies. According to the entrepreneurs conducting business activities on the area of the KSEZ, the most important instrument influencing their investment activity in the zone, are the tax incentives, i.e. the income tax reliefs – 77,8% of indications. Then, the factors determining the location of investments on the area of the SEZ were identified. The most essential factors were the investment reliefs and local tax reliefs. The ones that were also highly praised, were: the organization of relations between the sphere of science and the sphere of business practice, development in the area of the region of business support institutions, and investments in technical infrastructure. The next question aimed at canvassing the opinion of the respondents regarding being willing to make new investments in the zone in the next 2-4 years. According to the cross table, the entrepreneurs are optimistic about making new investments on the area of the same zone, or another zone. More than a half of companies plan to make next investments in the zone in the next 2-4 years. The results of the survey question were presented in table 1.

*Table1: Structure of the sample of surveyed companies
(self-study based on the results of the survey)*

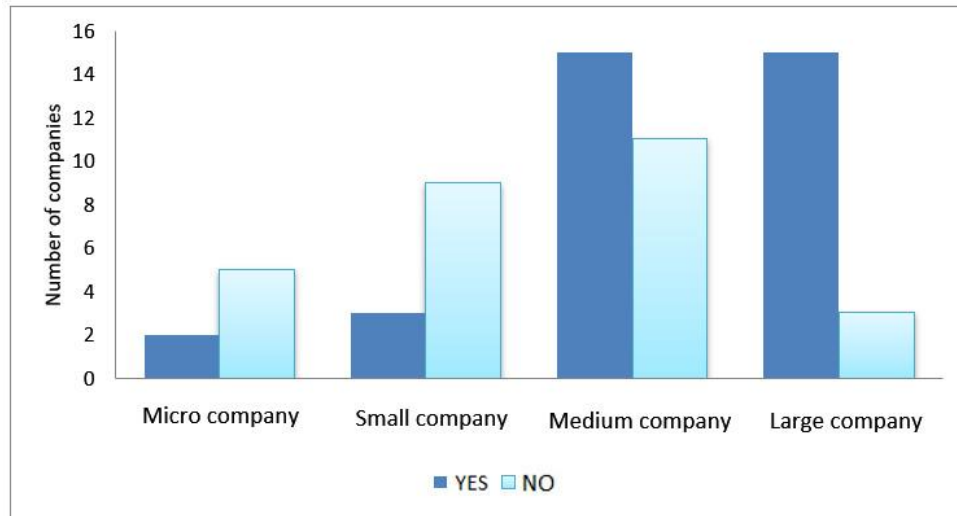
<i>Company size</i>	Are they planning to invest?		Total
	yes	no	
<i>Micro</i>	2	5	7
<i>Small</i>	3	9	12
<i>medium</i>	15	11	26
<i>large</i>	15	3	18
Total	35	28	63
$\chi^2 = 12,275, df=3, p=0,006$			

Then, the correlation between willing to make new investments as a part of the KSEZ, and the size of the company was examined. The obtained results indicate, that with the adopted level of statistical significance being $\alpha=0,05$, the calculated value of the statistic χ^2 (3, N=63)=12,275, $p<0,05$ indicates, that there is a correlation between being willing to make new investments, and the size of the company. The results were presented on the Figure 1.

Figure following on the next page

Figure 1: The investment plans of entrepreneurs depending on the size of the company

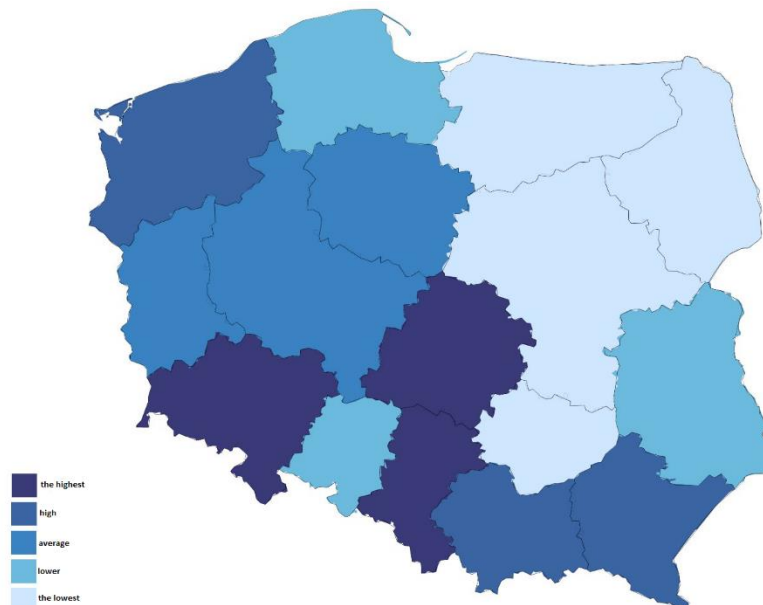
Source: self-study based on the results of the survey



The strength of the correlation of variables measured by the Pearson's contingency coefficient (C) on the level of $C=0,404$ indicates an average measure level of the variable. Medium and large companies want to invest in the nearest future and develop their business activity, and micro and small subjects do not plan new investments on the area of the KSEZ. According to research performed by the Institute for Market Economics in 2016 (Report, 2016, ps. 8-12) the highest level of investment attractiveness for an industrial activity could be assigned to those Polish subregions, which are characterized by long industry traditions. The value of investment outlays on a single created workplace shows a high level of capital intensity of the investment. It confirms the modernity of used production methods, high level of production automation, and highly qualified staff. Considering the industrial character of the chosen business activity in the SEZ, the location of the zones most attractive for investments substantially associates with the subregions of the country most attractive for industrial investments (data presented on Figure 2).

Figure 2: Investment attractiveness of voivodeships for industrial activity in 2016.

Source: „Investment attractiveness of voivodeships and subregions of Poland 2016”, p. 10.



Among the regions with the highest investment attractiveness, there are regions mainly located in the south and south-west part of Poland. The highest level was achieved by subregions located around Upper Silesia: katowicki, rybnicki, bielski and częstochowski, which house the oldest and largest manufacturing plants of the Katowice SEZ, and also the area of Lower Silesia – around Wrocław and Wałbrzych, with the areas of the Wałbrzych SEZ, the “Invest-Park”, and Jelenia Góra with the area of the Kamiennogórska SEZ. This group also consists of the łódzki subregion with the subzones of the łódzka SEZ and the poznański subregion with the subzone of the Kostrzyńsko-Słubicka SEZ, and the bydgosko-toruński subregion with areas in the pomorska SEZ. Among the investments realized on the areas of the SEZ, the investments that are definitely dominant are the investments realized on the area of the dolnośląskie and śląskie voivodeships – close to 53,7% of funds invested by fifteen of the largest investors. In the katowicki region (Gliwice, Siemianowice Śląskie, Dąbrowa Górnicza, Tychy, Czerwona) the best developing is the automotive sector, which specializes in high capital and labor-intensive industrial investments. That region is characterized by a well-developed transport infrastructure and specialized labor market (the qualifications and skills previously obtained by the local population can be fully used in the current structures), and also a well-developed production company sector. As can be seen, the distribution of investments of particular segments of business activity often matches the locations of former industrial plants on the given area. High investment attractiveness of Upper Silesia is also confirmed by the Investment Attractiveness of Regions (2017) report prepared by EY, indicating the high value of GDP created by the region as well as the largest urban complex in Poland.

4. CONCLUSION

It may be said, the functioning of special economic zones in Poland should be evaluated as positive. The SEZ Act will apply in Poland to the end of the year 2026, which will let the entrepreneurs develop further. Even now, there are plans in works to make the whole of Poland a SEZ after the year 2026. The development of SEZ as investment areas will be conducive to the development of clusters, industrial and technological parks, and other forms that encourage investing. The main objective of further functioning of SEZ should be to support new investments compliant with the policy of sustainable development, so a social-economic development, through activities aimed at increasing the competitiveness of Polish economy and creating new workplaces.

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CAPTURE OF FEAR IN THE MOROCCAN FINANCIAL MARKET APPLICATION OF NON-STATIONARY PANEL QUANTILE REGRESSION

Outmane Soussi Noufail

*Laboratory Finance, Entrepreneurship and Development,
Mohammed V-Rabat University,
Faculty of Economic and Social Sciences-Salé, Morocco
outmane.soussi-noufail@um5.ac.ma*

Hicham Baddi

*Laboratory Finance, Entrepreneurship and Development,
Mohammed V-Rabat University,
Faculty of Economic and Social Sciences-Salé, Morocco
prhicham@gmail.com*

ABSTRACT

This paper aims to explain empirically from several linear quantile regressions the impact of returns on the index of the sentiment of investors operating in the Moroccan financial market. Indeed, this methodology allows to give a more detailed description of the relationship sought. Nevertheless, the classical linear regressions which estimate the average of the dependent variable, do not concern itself with the whole of the conditional distribution of this one. This work covers the period from 2011 to 2017, the data used is a panel of 6 actions relating to the banking sector, they are observed during the period of the study, and having a quarterly frequency. The results show that investor sentiment has a negative and significant impact on the yield of the bank shares. The impact is slightly accentuated for the third quantile that measures fear.

Keywords: *Investor Sentiment, Quantile Regression, Non-Stationary Panel, Stock returns*

1. INTRODUCTION

Of all the behavioral events that impact the financial markets, the feeling of "the fear of investing in the market" is a factor that certainly defies the assumption of rationality of investors. Generally, market sentiment is a very sensitive tool proposed by behavioral finance. Indeed, the behaviors observed in the crisis periods refer mainly to the study of the psychology of investors in the financial market. It is therefore natural to try to identify a variable measuring these inclinations and to test its impact on the returns observed on the financial market. The Moroccan banking system has been constantly changing (in terms of prudential rule) for several decades, in order to preserve its liquidity and solvency as well as the balance of its financial structure. According to a survey conducted by Moody's in 2018 on the health of the Moroccan banking sector, the banking sector enjoyed additional benefits in sub-Saharan Africa. According to Moody's, the highest level of profitability with a return on assets of 1.4% in 2017 against an average of 0.9% for the sector. Given this promoter context, it is useful to focus on the behavior and attitudes of Moroccan investors to provide an essential component related to the nature of the returns of securities on the Moroccan stock market. The present work aims to verify and measure the existence of a significant impact of investors' (fear) attitudes on the profitability of securities in the Moroccan financial market. The theories mobilized to answer this problem focus mainly on the assumption of efficiency of the financial markets presented by (Fama, 1960), and the irrational behavior of the investors which can only impact the future variation of the prices (Zhang, 2008). This analytical framework will reveal how the price of an asset can fluctuate independently of fluctuations in the fundamental risk of the security or

its fundamental value. And to see how investor sentiment can have a significant impact on the financial market equilibrium (efficiency) and therefore on investor decisions (behavior) versus asset prices. A positivist posture is mobilized to answer these questions. Indeed, our empirical methodology based on observation of the Moroccan banking sector for a decade will contain judgments about the affirmation or confirmation of our proposals. Our econometric methodology is based on several techniques in line with the nature of the data used (panel). The construction of the market sentiment index will benefit from this methodology by integrating two components to the residuals of the returns of the securities: Bank specific randomness (individual effects) and another specific to time (stationarity analysis in panel). A quantile regression in panel data is then proposed to capture investors' fear in the decision to invest in the Moroccan financial market.

2. THEORETICAL FOUNDATIONS

In this theoretical chapter we will present an overview of the theories explaining the sentiment of the financial market. A second paragraph is reserved for the theoretical measure of fear of investors in the financial market.

2.1. Sentiment of investors versus efficiency of markets

The hypothesis of financial market efficiency as presented by (Fama, 1960), is based on a central concept that characterizes modern financial theory. A market is said to be efficient if no investment strategy can deliver a significant profit. That is, asset prices incorporate all market information at any given time and therefore long-term speculation would be impossible. The formalization of this concept was elaborated by (Fama, 1970). Asset prices follow a stochastic process that can classify efficiency into three distinct forms: The first is characterized by a low efficiency whereby the available information (in $t - k$) is taken into account in asset prices, in this case it corresponds to a random walk. The second is characterized by a semi-strong efficiency whereby available information and public information are taken into account by asset prices. The third is the one that plans to take into account all the available information, public and private, by asset prices. If this assumption is correct, then any long-term change in the price of an asset changes its expected price (futures) on average. This means that investors must rationally consider all available public and private information when making decisions. This impacts the price of the asset. However, classical theory states that the irrational behavior of investors does not impact the future price change (Zhang, 2008) when two hypotheses come together: the first relates to the competitiveness of markets, and the second relates to the presence aggressive arbitrageurs. The presence of arbitrageurs is necessary to eliminate the irrational behavior of investors. In addition they can take advantage of changes in asset prices compared to the initial price. However, the major role of these arbitrageurs is to establish the equilibrium in the short term, they have opportunity (surplus) when the expectation of price variation is positive (negative) following an optimism (pessimism) of the share of investors. The assumption of rationality and the efficiency of the financial markets are seriously questioned following the observed events of the Dow Jones¹ price which lost 22.61% of its value in a single day. Investor sentiment analysis is a potential (empirical) solution to market-related problems. Research in the area of behavioral finance has focused on proposing robust models based on the notion of investor sentiment, against those based on the assumption of market rationality. The concept of investor sentiment has been recently modeled by (Zhang, 2008). It can be interpreted as being the variable that causes investors to misjudge and anticipate an economic variable, and that is due to the subjective aspects that exist when valuing a security.

¹ Fall of the Dow Jones price in one day in October 19, 1987.

It can be defined as the variable that generates the unobserved errors due to the anticipation (subjective that exist during the valuation of the security) of investors towards the price of an asset. The valuation of an asset will therefore be biased if this subjective part is not taken into consideration when estimating its price. Investor sentiment therefore represents the difference between the subjective anticipation of the price of assets and the rational expectations that investors should theoretically have. Investor sentiment generally explains why the value of an asset may deviate from its intrinsic price on the one hand, and how one can explain the variations in the abnormal returns observed in the decision-making process. In a formal way (Zhang, 2008) proposes an equation that models investor sentiment i ($S_{i,t}$) as the difference between the conditional expectation of the future price of an asset at the base subjective expectations $E(P_{t+1}/I_{i,t})$ and the available information of the price of the asset at time $E(P_{t+1}/I_t)$.

$$S_{i,t} = E(P_{t+1}/I_{i,t}) - E(P_{t+1}/I_t)$$

According to this model, (Zhang, 2008) states that sentiment is only a residue that increases investor optimism when $S_{i,t} > 0$ or fear when $S_{i,t} < 0$ to the intrinsic value of the asset and its future returns. When these investors invest in the market, they become "noise traders" (Black, 1986). Because according to this vision, if all the investors act in the same way (following the available information) there would be no actual transactions on the market. The presence of noise traders makes the market more liquid and makes the difference between the price of the asset and its fundamental value significant. This perspective is likely to create profit opportunities for these short-term investors (inefficient market), but it will tend to be efficient over the long term (Merton, 1971). This analytical framework has allowed us to know how the price of an asset can fluctuate independently of fluctuations in the fundamental risk of the security or its fundamental value. In addition, we have shown that investor sentiment can have a significant impact on the financial market equilibrium (efficiency) and therefore on investor decisions (behavior) relative to asset prices.

2.2. The measure of fear on the financial markets

Although the literature offers several variables to detect investor fear, we will propose a distinction between two methodological branches to measure this fear. On the one hand, we can measure investor sentiment either through periodic surveys or on the basis of market data instantly or historically. Both methodologies necessarily have advantages and disadvantages. But, the two are rather complementary. In terms of comparison, the market data has the advantage of the size of the frequencies of the information extracted, in addition they communicate the expectations actually realized. While surveys disseminate cyclical information (usually monthly), they are subject to the risk of sampling bias and inadequate responses. In addition, they measure investors' uncertain expectations of investment decisions. Polls directly measure fear and investor confidence. Some are intended for conducting studies and empirical research that focus on investor sentiment, and others for the construction of composite indices measuring fear or investor confidence in the market. In the US market, the best-known bi-annual sentiment index is the one published by the American Association of Individual Investors² (AAII), it concerns small individual investors in the US market by categorizing them into three classes: optimistic, pessimistic and neutral. Another US biannual index named "Yale School of Management Stock Market Confidence Indexes" developed by (Shiller, 1999) measures respondents' perceptions of four different variables: The expected

² This index is widely used to measure the relationship between investor sentiment and future market returns over the next six months.

return over a one-year horizon, the probability for that the next day's returns will be positive, The probability of a stock market crash over the next six months and the gap between the fundamental stock market value and current prices. In the other markets, a multitude of similar indices exist, notably the Japanese confidence index developed jointly by (Shiller, Fumiko Kon-Ya and Yoshiro Tsutsui, 1991). For a monthly frequency, the University Michigan Consumer Sentiment Index offers an index measuring consumer confidence. It has been used in particular by (Charoenrook, 2005) and (Lemmon and Portniaguina, 2005) as a measure of market sentiment and an indicator of investor sentiment. The objective was to regress this index on a battery of macroeconomic variables to consider residues as a variable that detects investor sentiment. Some indexes use only information entered from experts instead of surveys. They are mainly based on the "average" recommendations of strategists operating on the market. We quote that of "Merrill Lynch Index" and the "Investors Intelligence Sentiment Index". On the other hand, the literature has similarly proposed several measures of the level of investor sentiment based on market data. The most commonly cited is the current interest rate ratio of put options on the outstanding interest of call options outstanding on a market index such as the S & P500 (Lee Song, 2003). Indeed, when the feeling of fear seizes the market, the quantities of put options in circulation should increase more quickly than those of purchase. In other words, this is the ratio measured by the current interest of the put options over the outstanding ones, this aggregate measure of investor sentiment is rationally used as a measure of the abnormal reaction of the financial market and a good signal that interprets the overall trend of the market. Another alternative measure proposed by (Long and Shleifer, 1991) and (Lee, Shleifer and Thaler, 1991) based on the discount or premium on expiring mutual funds that are not subject to the risk of massive withdrawal of the share investors. Conversely, massive withdrawals from standard mutual fund investors magnify the liquidity needs of these funds, forcing managers to sell certain assets they would otherwise have held. Interestingly, the analysis of some research (Qiu and Welch, 2004) indicates that consumer confidence indices appear to be better indicators of market sentiment than discount on expiring mutual funds.

3. THEORETICAL MODEL, DATA AND METHODOLOGY

In this paper, we considered a sample of 6 banks listed on the Casablanca stock exchange, they were observed for 7 years (since 2011) to estimate and evaluate the fear among investors in the Moroccan financial market. The stock market data is mainly collected from the official Moroccan stock exchange (Casablanca Stock Exchange) and the Decypha financial platform. In this research, the following banks are concerned: AttijariWafa, BMCE, BMCI, BCP, CIH and the CMD. Each individual in this sample is observed with a quarterly frequency ($n = 6 \times 7 \times 4 = 168$). The use of Panel data provides information accuracy in terms of quantity and variability. Especially since our analysis focuses on investor behavior and the detection of fear at home. The double dimensionality of the data makes it necessary to formulate two fundamental hypotheses specific to this study. The theoretical model is based on a fundamental assumption related to behavioral finance. This hypothesis states that the financial market evolves according to a random walk. This means that the financial series (profitability, volatility, etc.) measuring the sentiment of investors in the market are non-stationary because of the real environment. This undoubtedly impacts the probability distribution of series that are now assumed to be non-normal. However, the theory suggests that differentiation is a basic solution when the source of non-stationarity is due to the volatility of the series. In formal terms, we can illustrate a random walk of order one with an arithmetic progression as follows, with p_t is the price at time t :

$$\varepsilon_t = p_t - p_{t-1} \quad \text{Equ. 1}$$

We can use a random walk of order one with a geometric progression to take into account the nature of the returns of a title, with p_t is the price at time t :

$$\varepsilon_t = Rendement_t = \frac{p_t - p_{t-1}}{p_{t-1}} \quad \text{Equ. 2}$$

After linearization (logarithmic transformation) of this equation, we can write:

$$\Delta r_t = \text{Log}(1 + Rendement_t) = \text{Log}(p_t) - \text{Log}(p_{t-1}) \quad \text{Equ. 3}$$

So $r_t \sim N(m, \delta)$ and therefore $(1 + Rendement_t)$ follows a log-normal law.

Another hypothesis is relative to the individual dimension of the data is taken into consideration. Indeed, taking into account the price variations for each individual used makes it possible to better study the structure of the variance of the observations (banks), when the variables are apprehended at level, in predominance of the inter-individual disparities. The objective is therefore to eliminate the individual effects θ_i of each bank. Our model can be written as follows:

$$\Delta r_t - \theta_i = f(X_{it}) \quad \text{Equ. 4}$$

With $f(X_{it})$ is a linear function that groups all the explanatory variables of our model. Several variables are used in this research as a measure of investor sentiment. The GFK Index³ is an index that measures consumer confidence in Morocco. The construction of this index is based on a sample of 3,000 urban and rural households. This index shows consumers' expectations and their views on general economic conditions, employment, personal finances and savings, investment and purchase intentions. Admittedly, it is an indirect measure of feeling, for this reason it is necessary to construct another composite index called Sentiment Index. Based on the adjusted price for each stock stock action (end of period), the index-weighted GFK index (adjusted price index) is calculated relative to the chosen reference date⁴. The following formula is used:

$$Sent_Index_{it} = \frac{GFK\ Index_t}{Cours\ Index_{it}} \quad \text{Equ. 5}$$

Two control variables are used. A first variable is used to derive the effect of the banking sector, and another to derive the effect of the financial market. This is an index composed of all quoted "bank" values, it is calculated on the basis of the cumulative price of the shares compared to the reference date (first quarter of 2010). The second variable is the MASI index, it is composed of all the listed securities and it is the main Moroccan stock index. The global model can be formulated as follows:

$$\Delta r_t - \theta_i = f(Sent_Index_{it}; Sect_Index_{it}; MASI_{it}) \quad \text{Equ. 6}$$

The econometric specification is given by:

$$\Delta r_t = \theta_i + \alpha_{it} + \beta_1 Sent_Index_{it} + \beta_2 Sect_Index_{it} + \beta_3 MASI_{it} + \varepsilon_t \quad \text{Equ. 7}$$

³ The index is calculated as an average of seven measures: past and future perspectives of standard of living; unemployment prospects; opportunity to purchase durable goods; past, current and future perspectives of the financial situation.

⁴ The reference date chosen is the first quarter of 2010.

Several estimation methods are used for this purpose. Considering both the temporal and the individual dimensions of our collapsed data set, suggests a combined use of several econometric methodologies. The first step is testing the quality of the panel, examining the heterogeneity (or the existence of the individual effects) and the test is that these effects are fixed⁵ or random. The econometric literature proposes three estimators (within, between, pooling) that originate from the ordinary least squares method. The panel non-stationarity test is performed through two categories of unit root tests. In addition, this battery of tests follows the same procedure as the usual parametric tests (ADF), that is to say a strategy consisting in successively testing the three models⁶ : M_3 , M_2 and M_1 . The purpose of the Levin-lin-Chu Test is to test the null hypothesis which assumes a common unit root process, its t statistic follows a standard⁷ law that must be tabulated by a simulation method (Bootstrap method for example). One of the main limitations of the Levin and Lin test is the alternative hypothesis of their test which assumes that ρ_i is different from 1, that is to say, it does not make it possible to ensure the hypothesis of homogeneity of the unitary root, but it takes the same value for all individuals. (Im, Pesaran and Shin, 2003) exceed this limit by proposing a new test while retaining the same model of Levin and Lin. Henceforth, the test accepts a heterogeneous autoregressive unit root, and also a heterogeneity in the possible presence of a unit root in the panel data. The test of (Maddala and Wu, 1999) takes the approach of (Im, Pesaran and Shin, 2003) by combining Fisher's p -values of individual tests instead of reciprocal ADF statistics. The test of Maddala and Wu assumes that the statistics of each individual are independent. In addition, in opposition to the test proposed by Levin and Lin, this test does not maintain the alternative hypothesis of the autoregressive coefficient. Another approach is used based on the quantile regression in Panel data. This combination is currently very much in demand in applied and theoretical research. (Koenker, 2004) proposed the following estimator for q quantiles:

$$(\check{\theta}, \{\check{\alpha}\}_{i=1}^n \equiv \arg \min_{(\theta, \{\alpha\}_{i=1}^n} \sum_{k=1}^q \sum_{i=1}^n \sum_{t=1}^T \rho_{\tau_k} [Y_{it} - X'_{it} \theta(\tau_k) - \alpha_i] + \lambda \sum_{i=1}^n |\alpha_i| \quad \text{Equ. 8}$$

where $\rho_{\tau}(u) = u [\tau - I(u < 0)]$, $I(\cdot)$ designates the indicator function and $\lambda \geq 0$ is a penalization parameter which reduces the common value $\check{\alpha}$ s. The resolution of the above equation can be computationally demanding when n is large (even when $\lambda = 0$) and has a complication involved in the choice of λ . (Lamarche, 2010) proposes a method for choosing λ under the additional hypothesis that α_i and X_i are independent. (Galvao, 2008) extends this idea to dynamic panels. Finally, there is related literature on non-separable panel data models. These models are suitably flexible to detect the effects of quantiles (see, for example, Chernozhukov et al., 2010, and Graham and Powell, 2010). The components of the asymptotic variance in the equation (Cf. Equ. 8) can be estimated using identical samples. The expressions below correspond to the case where $\check{\theta}_i$ is in the covariance estimator Kernel ψ_{il} established by the Bootstrap method by the following equation:

$$\frac{1}{B} \sum_{j=1}^B (\hat{\theta}_j^*(\tau) - \bar{\theta}^*(\tau)) (\hat{\theta}_j^*(\tau) - \bar{\theta}^*(\tau))' \quad \text{Equ. 9}$$

⁵ It is interesting to know that the sampling method is somehow responsible for determining the differences in the variance of group or time error.

⁶ Model with trend and constant, Model without tendency and with constant, Model without tendency and without constant.

⁷ Pesaran and Shin (1997) show that under the null hypothesis of non-stationarity, the statistic t has a normal distribution. In practice, the choice of the number of delays in the individual ADF regressions is based on the significance of the last delay starting from a maximum number equal to 3.

Where $\bar{\theta}^*(\tau) = \frac{1}{B} \sum_{j=1}^B \hat{\theta}_j^*(\tau)$. The resulting estimator of these simulations can be expressed after convergence at $1 - \alpha$ percentile interval:

$$Q_n(\tau) = \left[q_n^* \left(\frac{\alpha}{2}, \tau \right), q_n^* \left(\frac{1-\alpha}{2}, \tau \right) \right] \quad \text{Equ. 10}$$

4. EMPIRICAL RESULTS

The Table 13 presents the results of the tests on the control of the heterogeneity of the actions relating to the banks on the Moroccan financial market. These tests are applied to the variable Returns, Masi, Sentiment index, Sector index. All these variables are expressed in real value. The test procedure takes place in three distinct phases. In the first step, the overall homogeneity denoted H_0^1 is tested. It is a question of validating the hypothesis of equality of the coefficients β_i and constants α_i between all the individuals. Then, we test the hypothesis of equality of the β_i coefficients associated with the explanatory variables $H_0^2: \beta_i = \beta$. It remains to check if the heterogeneity comes from the constants α_i . It is the object of the third step which consists in testing the hypothesis H_0^3 of equality of the individual constants α_i .

Table 13 : Specification tests of the panel model

Dependent variable	Hypothesis	Test Statistics	p-value
Rendements	$H_0^1: \beta_i = \beta \quad \alpha_i = \alpha$	F1=50,70019	0,0000***
	$H_0^2: \beta_i = \beta$	F1=96,98877	0,0000***
	$H_0^3: \alpha_i = \alpha$	F1=61,86010	0,0000***
Hausman test	H_0 : Random Effects Vs Fixed Effects	Chi deux =24,47	0,0000***

*, ** and *** represent the significance of 10%, 5% and 1%.

The results of the specification tests allow us to specify the modeling technique to adopt to estimate the initial equation. The result of the β equality test suggests rejecting the panel structure and opting for simple stacking of the data to make a cross-sectional estimate (pooled model). However, as long as the H_0^3 test is independent of the previous test, it is necessary to introduce fixed individual effects in the model, confirmed by the Hausman specification test, which makes it possible to arbitrate between the choice of a fixed effects or random effects model. We will apply unit root tests on panel data to determine the order of series integration and the possible existence of a unit root for the series considered. The tests of Levin, Lin and Chu (LLC), Breitung, Im, Pesaran and Shin (IPS) and Maddala and Wu (ADF Fisher). The number of offsets is determined according to the Schwarz criterion in the context of an estimation retaining a constant and a trend. The Newey-West procedure is used with a quadratic spectral estimate. The tests are performed using the software (E-Views 8).

Table following on the next page

Table 14 : Stationarity tests in panel data

Models		LLC t^*		PP-Ficher Chi2		IPS w-stat		ADF-Fisher Chi2	
		Level	1st Diff	Level	1st Diff	Level	1st Diff	Level	1st Diff
r_t	3	1.93	1,15	18,34	120,2***	2,15	-3,25***	8,19	31,0***
	2	-0.17	-0,15	22,49*	119,5***	-0,49	-3,32***	18,8	31,8***
	1	-0.59	-6,88***	12,01	163,1***	-	-	11,68	60,9***
Sentiment	3	2.02	3,66	28,63	113,4***	-0,9	-2,98***	16,39	28,38***
	2	0.74	0,95	17,78	126,4***	0,04	-4,8***	10,26	45,3***
	1	0.59	-8,0***	5,59	175,1***	-	-	6,85	76,05***
Masi	3	0.52	-2,72	1,77	58,8***	2,99	-2,14***	1,15	21,4***
	2	2.06	-2,96	9,78	49,41***	1,20	-1,82***	4,01	18,7
	1	0.55	-5,5***	6,03	83,8***	-	-	3,53	43,6***
Secteur	3	4.42	15,8	2,49	132,5***	4,45	-3,41***	0,35	31,1***
	2	6.91	2,8	1,02	121,2***	5,63	-2,59***	0,15	24,6***
	1	2.78	-5,95***	1,95	161,1***	-	-	0,86	47,8***

Notes: M1 (model with individual constant) M2 (model with individual constant and trend) and M3 (model without constant and without trend).

*, ** and *** represent the significance of 10%, 5% and 1%.

The logic is to judge the stationarity of the endogenous variable r_t through the results of the different tests. These tests are grouped into two families: the test that assumes a common unit root in the stochastic process (LLC). And tests that assume an individual unit root in the stochastic process (see Table 14). In terms of conclusion, we can affirm that the dependent variable "Yield" is stationary after differentiation with regard to the different tests which are mainly significant which suggests to accept the null hypotheses of the existence of a unit root (common and individual) in the series of returns. Similarly, the tests of the presence of a unit root for each variable taken into consideration in the theoretical model show that the series represent a random walk without drift. Therefore it should be concluded that the explanatory variables are stationary after differentiation. The model can be in the following form:

$$\Delta r_t = \theta_i + \alpha_{it} + \beta_1 \Delta \text{Sent_Index}_{it} + \beta_2 \Delta \text{Sect_Index}_{it} + \beta_1 \Delta \text{MASI}_{it} + \varepsilon_t \quad \text{Equ. 11}$$

On the other hand, from linear estimates on panel data, we retained the individual effects of each individual (bank) in our sample. The results are shown in the following table.

Table 15 : Capturing individual effects (LSDV regression⁸)

Individual	Effect
ATTIJARIWafa BANK	0,214634
BMCE BANK	0,008393
BMOI BANK	0,004535
BCP BANK	-0,243625
CIH BANK	0,003722
CMD BANK	0,012341

The final model can be expressed by the following equation.

$$\Delta r_t - \theta_i = \alpha_{it} + \beta_1 \Delta \text{Sent_Index}_{it} + \beta_2 \Delta \text{Sect_Index}_{it} + \beta_1 \Delta \text{MASI}_{it} + \varepsilon_t \quad \text{Equ. 12}$$

⁸ La régression LSDV est effectuée sur données non transformées en incluant les dummies individuelles et temporelles.

This equation expresses both the expected fear and confidence observed among Moroccan investors after eliminating the specific characteristics of each bank and the impact of time variations on the investment decision. The fear of investing in the Moroccan financial market is calculated from the quantile regression. The estimation of this equation will allow us to describe the way in which the conditional distributions change according to the variables retained. This method can easily give predictions of the first quantile (confidence), the second quartile (normal or median behavior) and the third quartile (fear). By formalizing this observation, we can write:

$$Q_{\tau}(\Delta r_{it} - \theta_i) = \inf\{d: F_{(\Delta r_{it} - \theta_i)}(X_{it}) \geq \tau\} \quad \text{Equ. 13}$$

Where $F_{(\Delta r_{it} - \theta_i)} = \mathbb{P}(\Delta r_{it} - \theta_i) \leq X_{it}$ is the distribution function of $(\Delta r_{it} - \theta_i)$. We take note that : $Q_{0,5}(\Delta r_{it} - \theta_i)$ is the median of $(\Delta r_{it} - \theta_i)$, $Q_{0,25}(\Delta r_{it} - \theta_i)$ is the first quartile of $(\Delta r_{it} - \theta_i)$, $Q_{0,75}(\Delta r_{it} - \theta_i)$ is the third quartile $(\Delta r_{it} - \theta_i)$, and $Q_{0,75-0,25}(\Delta r_{it} - \theta_i)$ is the interquartile range of $(\Delta r_{it} - \theta_i)$ which measures 50% of the information around the median.

Table 16 : *Quantile regression of parameters*

	$Q_{0,75}(\Delta r_{it} - \theta_i)$		$Q_{0,5}(\Delta r_{it} - \theta_i)$		$Q_{0,25}(\Delta r_{it} - \theta_i)$	
	Parameter	T-Stat	Parameter	T-Stat	Parameter	T-Stat
Constant	0,020***	2,897924	-0,011***	-2,149965	-0,040***	-5,949253
Sentiment	-0,005***	-10,32049	-0,005***	-10,68220	-0,005***	-10,79322
Secteur	0,002***	1,973599	0,001	1,248931	0,0020	1,008341
Masi	-0,0004	-0,342279	0,0001	0,113649	-0,001	-0,833650
Pseudo R-squared		0,132		0,179017		0,117649
Adjusted R-squared		0,115		0,163429		0,100895
Sparsity		0,194		0,129739		0,171993
Prob(Quasi-LR stat)		0,0000		0,000000		0,000000

*, ** and *** represent the significance of 10%, 5% and 1%.

5. CONSLUSION

This work examines the existence of a significant impact of investor attitudes on the Moroccan financial market. Our empirical analysis aims to present an empirical methodology by which an investor sentiment index can be constructed based on two categories of market data (temporal and longitudinal) that form panel data. Indeed, rare studies are adopting panel data. The second objective is related to the measure of fear among Moroccan investors by applying a quantile approach. This regression is widely discussed by the empirical literature of its robustness and best conclusions. This research is of interest primarily to the Moroccan equity market. The historical context of low interest rates on the bond market favors arbitrage in favor of this market. The introduction of the dirham flexibility system is changing the approach of investors in the bond market. Second, our choice of the banking sector is based on the ability of Moroccan banks to cancel out against shocks from macroeconomic conditions. In fact, the stress tests carried out by the banks confirm this observation. In addition, these analyzes confirmed the absence of risk of contagion, a bank mobilizes more than 40% of expected trade in the Moroccan money market. The variables used are mainly constructed indices. The interest variable measures the performance of the bank shares. The explanatory variables are the investor sentiment index, the index capturing the effect of the banking sector, and the index of the Casablanca stock exchange which captures the effect of the Casablanca stock market. Our sample consists of six banks listed on the Casablanca Stock Exchange. The chosen period covers a period with a quarterly frequency from 2011 to 2017. Taking into consideration the panel structure, we have to perform several econometric tests.

First it was necessary to establish the test of the panel structure. This test confirms that the data contains effects and these effects are fixed. Considering the temporal nature, we have to conduct stationarity tests as a panel. These tests confirmed that each variable used in the global model follows a random walk without drift. This result is taken into consideration in the final equation. The detection of fear (considered as a residual of the variations of the returns) is carried out after isolating the stationary returns (in first differences) of the banking actions of the individual effects of each bank. By quantile $Q_{0.75}$, we came to detect the effect of the feeling of fear on Moroccan investors. The results of the quantile regression indicate that the impact of investor sentiment is negative and significant. This means that changes in investor attitudes have a negative impact on changes in the yields of bank stock prices. In addition, in comparison with the median position (benchmark) the coefficient on the feeling of fear is slightly higher than that of the sentiment coefficient among Moroccan investors.

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APPENDIX

Quantile Process Estimates

Equation: EQ01

Specification: DREND_EFF C DSENT_INDEX

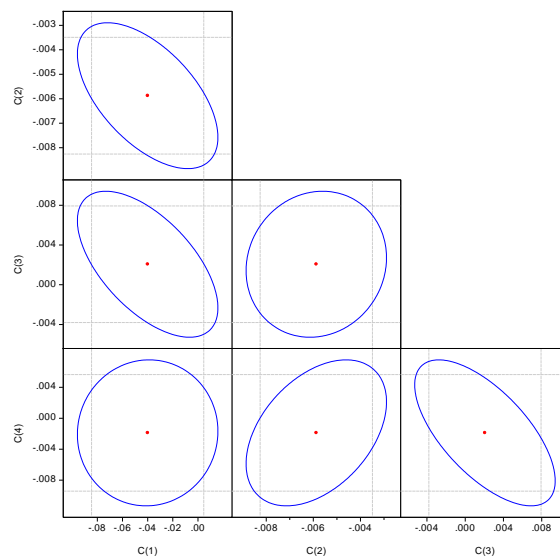
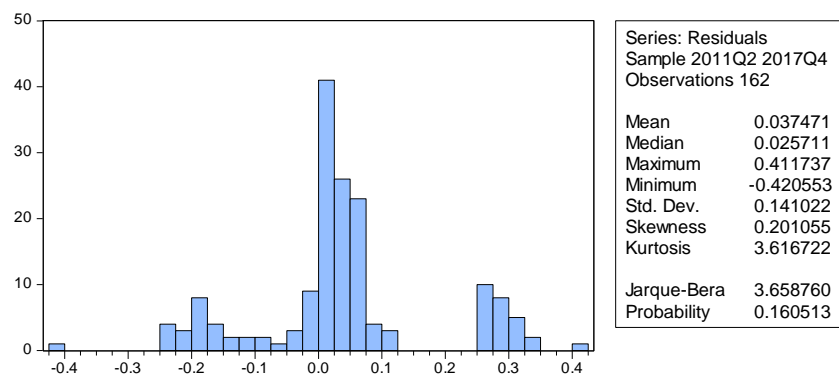
DSECTOR_INDEX DMASI

Estimated equation quantile tau = 0.25

Number of process quantiles: 4

Display all coefficients

	Quantile	Coefficient	Std. Error	t-Statistic	Prob.
C	0.250	-0.040006	0.022606	-1.769667	0.0787
	0.500	-0.011102	0.004795	-2.315377	0.0219
	0.750	0.020149	0.019865	1.014298	0.3120
DSENT_INDEX	0.250	-0.005875	0.001206	-4.869878	0.0000
	0.500	-0.005410	0.000476	-11.37001	0.0000
	0.750	-0.005301	0.000842	-6.292604	0.0000
DSECTOR_INDEX	0.250	0.002066	0.002975	0.694221	0.4886
	0.500	0.001513	0.001273	1.188818	0.2363
	0.750	0.002920	0.002400	1.216694	0.2255
DMASI	0.250	-0.001888	0.003818	-0.494671	0.6215
	0.500	0.000146	0.001337	0.109544	0.9129
	0.750	-0.000470	0.002696	-0.174291	0.8619



BOKO HARAM INSURGENCY AND EDUCATIONAL DEVELOPMENT IN NORTHEAST NIGERIA

Bulama Kagu

University of Maiduguri, Department of Education

Ayuba A. Aminu

University of Maiduguri, Department of Business Administration

Yahaya Yunusa Malgwi

University of Maiduguri, Bursary Department

Ibrahim Abubakar Njodi

University of Maiduguri, Department of Health Education

ABSTRACT

The paper examined Boko Haram insurgency and educational development in Northeast Nigeria. Consequently, the paper traced the genesis of the dreaded organization from inception to date was discussed. With the philosophy that seeks to translate strict fundamentalist interpretation of the Quran and vehement opposition to western form of education and democracy, Boko Haram since the year 2008 plunged the entire region into catastrophic conditions. A condition that led to the lost of so many lives and properties, schools and other public buildings including churches and mosques were destroyed, school children were abducted and thousands of people are being displaced. The paper also presented specifically how the activities of Boko Haram insurgency affected school enrolment and attendance, education infrastructure (classrooms, water, sanitation and hygiene, and furniture), teaching and learning materials and teaching and non teaching staff in the Northeast region of Nigeria. Based on the existing findings, some recommendations are suggested.

Keywords: *Boko Haram, Educational development, Northeast Nigeria*

1. INTRODUCTION

The emergence of Boko Haram insurgency in the Northeastern part of Nigeria since the year 2008 plunged the region into unprecedented catastrophe. Within a decade of its activities, virtually all aspects of human endeavour are negatively affected. Hundred of lives are lost and properties worth millions of USD dollars are destroyed. In the early wake of the insurgency, schools and worshipping places were heavily attacked including Police stations and other public places. As the insurgency quickly spread, many communities were dislocated resulting to mass displacement of people in the region and beyond. In this regard, Shuaibu, Salleh and Shehu (2005) agreed that Boko Haram insurgency in North East Nigeria over the years has claimed a lot of lives and properties compounded with food and nutrition, insecurity, spread of infectious diseases, denied millions of children and youths access to education, increased the number of internally displaced persons with dire needs of shelter and has caused people to live in constant fear and anxiety. It is against this background that the paper attempted to discuss educational development in North-East Nigeria as the consequence midst of Boko Haram insurgency.

2. GENESIS OF BOKO HARAM INSURGENCY

The term Boko Haram is derived from the Hausa words one of the sub-saharan language meaning “Western education is forbidden” The group is called in Arabic “Jama’atu Ahlis-Sunnah Lidda Awati wal Jihad” simply translated to read “The Congregation of the people of

tradition for proselytism and Jihad". The group was founded in 2001 by a young Islamic cleric Mohammed Yusuf in Maiduguri, the Borno State capital of Nigeria. Yusuf received most of his education in and around Maiduguri and was known for his intelligence and power of his speech. Yusuf has a strict fundamentalist interpretation of the Quran and believed that the creation of Nigeria by the British colonialists had imposed a western and un-Islamic way of life on Muslims. He was deeply opposed to any western form of democracy and cited the education system, put in place by the Christian British during the colonial rule, as the wellspring of corruption and social ills (Awortu, 2015). By the early 2000, Yusuf had found a place as a leader of the youth wing of a Salafist group at Maiduguri popular Alhaji Muhammadu Indimi Mosque. Later, he set up a religious complex which included a mosque and an Islamic School in which many Muslims families across Nigeria as well as neighbouring countries enrolled their children at the school. Between 2005 and 2009, his followership grew geometrically most of whom were unemployed and impoverished local Islamic scholars students, Clerics, University students and others, who are at the initial stage non-violent and interested more in practicing and preaching an austere form of Salafism. However, on 20th February, 2009, a disagreement between a convoy escorting Yusuf and local police turned violent, leading to deaths of several members of the group. In the subsequent months, events quickly escalated with police raiding Yusuf's farm and the sect headquarters in the Ibn Taymiyyah Mosque. In response the group took to the streets killing any policeman and soldiers they found on their way as well as scores of civilians. This act led to the involvement of the military and the confrontation lasted for about three days. At the end, Yusuf was captured and handed over to the police who summarily executed him in front of a Police Station and a group of Journalists who captured the event on Camera. The group scattered and went into hiding but emerged in 2011 under the new leadership of Abubakar Shakau, who was Yusuf's second in command. Since then they were able to evolved from the remnants of a radical sect to a full pledged terrorist group. They attacked so many communities, killed so many lives and displaced millions of people, significant number of schools and other public buildings including churches and mosques were destroyed, several school children were abducted and host of other negative consequences (Hassan, 2014). Although, the war is far from over, the Nigerian Military along with their Multi-National Joint Task Force were able to overran hotspots of the Boko Haram bases resulting to recovery of captured territories and some abducted individuals. As the insurgency is gradually coming to an end, government and Non-governmental organizations are putting in place so many post-insurgency programmes, such as, re-settlement, rehabilitation and re-construction.

3. CAUSES OF BOKO HARAM INSURGENCY

A lot of factors have been attributed to the causes of Boko Haram insurgency in Nigeria. Some of these factors include social, economic, political and religious (Liolio, 2013). Olojo (2013) contends that one significant factor that has stimulated the drive towards violent extremism, recruitment and support for Boko Haram are economic deprivation. Several scholars believed that poverty and longstanding economic disparities in the North east part of the country made the youth to join the sect. similarly Adesoji (2010) lamented that, in Nigeria, the marginalization and imbalance, distribution or implementation of the resources made some radicalized scholars to preach against the government and democratic setting, which later gave birth to the present Boko Haram insurgency. The increasing rate of unemployed youth in the region, who were economically deprived, mostly was the recruiting target of Boko Haram. Socially, some scholars stressed the connection between poverty, illiteracy and terrorism and explained that huge number of young people living on the margins of Nigeria society intensified these linkages (Olojo, 2013). From the inception, majority of the Muslims in the region expressed skepticism about the western culture which conflicts with the norms, values and

customs of the host community. The secular nature of the Nigerian society as enshrined in the constitution of the Federal Republic of Nigeria has not gone down well to the radicalized clerics especially, Mohammed Yusuf. Accordingly, Islam has clearly spelt out its own political system contrary to the democratic forms of governance. Hence, democracy, rule of law and human rights have their limitations in Islam. Members of the group uphold the notion that constitutions are unIslamic, national anthem should be disobeyed and other institutional structures should be discountenance. The fact that Yusuf himself was an adherent of Salafist doctrine so also the teeming majority of his followers who believed in the strict enforcement of Islamic principles. That is why they choose to be known as the ‘Jama’atu Ahlus – Sunnah Lidda Awati wal Jihad” meaning “The congregation of the People of Tradition for Proselytism and Jihad” Therefore, the only way to actualized this philosophy is to take up arms against the state which they ultimately did.

4. CONSEQUENCES OF BOKO HARAM INSURGENCY ON EDUCATIONAL DEVELOPMENT

In the last one decade or so, education in Northeastern Nigeria is confronted with the challenges of Boko Haram insurgency. According to ACAPS (2017) report, the eight years of insurgency by armed groups and the subsequent counter insurgency by the Nigerian military has affected over 14 million people, with 1.7 million currently displaced (predominantly in the North-eastern states of Borno, Yobe and Adamawa). The insurgency which targeted schools and other facilities has disrupted livelihoods for millions of households leaving over 7 million people in need of humanitarian assistance. More than 50% of those affected are children, including many unaccompanied minors or children orphaned by the crises (Ocha, 2017). According to UNICEF (2017) an estimated one million children have been displaced and three million are in need of emergency education support as a result of the Boko Haram insurgency which began in 2009. Over 2,295 teachers have been killed and 19,000 others displaced in Borno, Yobe and Adamawa states in the last eight years. With almost 1,400 schools destroyed, damaged or looted, the crisis has further devastated an already bad education system characterized by a severe lack of infrastructure, learning and teaching materials and overcrowded classrooms (Plan International, 2017). Schools and other learning spaces continue to be targeted, some are being used as shelter by IDP’s this negatively impacting the safety of students and their teachers, students were also kidnapped and forcibly conscripted by Boko Haram in all the three states (HRW, 2016). Since 2013, over 600,000 children have lost access to education and an estimated 943 of the 1,627 schools in Borno state remain closed for children and teachers remained displaced, vulnerable and in need of psychosocial support (HRW, 2016). The absence of qualified teachers means that those still working are over burdened with the workload of overpopulated classrooms. They are also hampered by the lack of scholastic materials and equipment as such items was destroyed during attacks on the schools (ACAPS, 2017). With access to livelihood constrained, a growing number of parents are unable to meet the cost of education. This coupled with the high level of food insecurity and children having to fend for themselves and adopt negative coping mechanism, including early marriage for girls to survive, all contributing to the increasing numbers of out of school children.

5. ENROLMENT AND ATTENDANCE

According to ACAPS (2017) that there were significant numbers of out of school children in northeast Nigeria and that those who do attend school will often attend Islamic schools either instead of government institutions or they attend both. Enrolment by gender is roughly even across primary schools and junior secondary school level boys significantly outnumber girls at the Senior Secondary School level as presented in the table below.

Table 1: Enrolment/Attendance of students by Gender (State)

	KG		Primary		JSS		SSS		Total	
State	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Borno	53%	47%	51%	49%	46%	54%	30%	70%	49%	51%
Adamawa	50%	50%	48%	52%	51%	49%	43%	57%	48%	52%
Yobe	47%	53%	50%	50%	53%	47%	0%	100%	47%	53%
Total	52%	48%	50%	50%	48%	52%	30%	70%	48%	52%

Source: ACAPS (2017)

6. INFRASTRUCTURE

Indications from secondary data reported the extent and severity of the impact the crises had on educational infrastructure in the North-East Nigeria. (ACAPS, 2017). The Recovery and Peace Building Assessment (RPBA) for Northeast Nigeria gives a total figure for damage to education infrastructure within the three states of Adamawa, Borno and Yobe at 249 Million US\$ (Mriam, 2016). Field visits conducted by ACAPS (2017) indicated that climatic conditions were also contributing to the deterioration of infrastructure with school tents hard hit.

7. CLASSROOMS

One third of all schools are holding classes outside with primary schools being the worst affected. Many of the classrooms being used are in very bad state of repair and some may well pose a safety risk to children as shown in the table below.

Table 2: Classrooms in very bad state of repair that may well pose a safety risk to children

State	Schools Visited	No. of Classrooms Destroyed	Avg. No. of Classroom Destroyed per school
Adamawa	122	180	1.48
Borno	190	278	1.46
Yobe	20	39	1.95
Total	332	497	1.50

Source: ACAPS (2017)

7.1. Water, Sanitation and Hygiene

The state of water and sanitation services within the schools across all the three states is worrisome. For example, only 34% of the schools sampled have clean drinking water available and nearly one third of the schools (35%) have no latrine facilities at all (ACAPS, 2017).

7.2. Furniture

Almost 50% of the schools sampled by ACAPS (2017) had no or almost no school furniture (desks, chairs, mats, etc) Many assessment teams reported children sitting on rocks tree trunks or the floor as was the case for most of the classes taking place outside.

7.3. Blackboard and Chalks

Blackboards and chalk are the basic teaching materials used throughout the education system in the Northeast. Even with this, less than two thirds of all schools had functional blackboards for all their classrooms. Even the most basic materials of all, chalk is in short supply.

7.4. Teaching and Learning Materials

In a survey conducted by ACAPS (2017) 43% of the sampled schools reported none or only a few children have adequate teaching and learning materials. As these materials are the responsibility of the pupil or parents and the high level of poverty in the region, the statistics

may not be surprising. Significant percentage of teachers had no textbooks for teaching and having access to basic audio-visual materials.

7.5. Teaching and Non-Teaching Staff

In the wake of the crisis, so many teachers lost their lives and many more were displaced. The displaced teachers are exposed to more difficult and challenging conditions at work as they deal with troubled children and over populated classrooms in temporary sites. According to UNICEF, a total of 2,295 teachers have been killed, and a further 19,000 displaced during the crisis. In addition, most of the teachers and other education personnel are demoralized because of low salaries, poor conditions of service, lack of respect from the society and absence of other incentives have all taken their toll. However, in terms of strengthening teacher professional capacity development there are periodic workshops and seminars conducted by the respective states' Universal basic Education Boards (SUBEBs) and Universal Basic Education Commission (UBEC) a federal government agency. Similarly, other bodies, federal, state and Non-Governmental organizations including World Bank and UNICEF conducts periodic training (Bayan, 2018).

8. RECOMMENDATIONS

Based on the discussions above, the following recommendations are suggested:

1. In order to avert outbreaks of cholera and other diseases, the authorities concerned should provide sanitation facilities (adequate latrines and hand washing facilities).
2. The federal and state governments should as a matter of priority procure and distribute teaching and learning materials (textbook, audio-visual aids, writing materials, etc) to all public schools.
3. With the education sector as the target of many of the insurgent attacks, government should provide adequate security and other safety measures in all vulnerable schools.
4. In order to overcome infrastructural deficit, government should formulate a strategic plan (short, medium, and long) with a view to construct, renovate and rehabilitate classrooms, staff offices, etc in addition, clean drinking water and furniture should be provided.
5. To move education forward in the Northeast, teachers needs to be better supported and reasonably compensated in terms of their salaries and allowances, promotions and other general conditions of service.
6. There is need for emergency curriculum and wider education opportunities to cater for large number of children/youths outside the school system in the areas of psychosocial support, peace building, life skill, etc.
7. In view of the gender disparity in enrolment and attendance, especially at the senior secondary school level, government should embark on sensitization and mobilization campaigns on the importance of girl-child education.

9. CONCLUSION

Boko Haram as a terrorist group which erupted in the year 2008, no doubt, has devastating consequences to the lives and people of Northeast Nigeria. The violent movement in the last one decade had dealt a severe blow to all aspects of formal education system including killing and displacement of many teachers, burning of classrooms and other school facilities, abducting of school children, closure of schools among others. This ugly trend has far reaching implications to school enrolment and attendance, education infrastructural development (classrooms, water, sanitation and hygiene, furniture), teaching and learning materials and teaching and non-teaching staff. The paper finally concludes with some recommendations that would reinvigorate and revitalize the education sub-sector in the region.

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EXCHANGE RATE REGIMES AND FISCAL PROCYCLICALITY

Hicham Baddi

*Research Professor, Laboratory Finance, Entrepreneurship and Development,
Mohammed V-Rabat University,
Faculty of Economic and Social Legal Sciences – Salé, Morocco
prhicham@gmail.com*

Outmane Soussi Noufail

*Research Professor, Laboratory Finance, Entrepreneurship and Development,
Mohammed V-Rabat University,
Faculty of Economic and Social Legal Sciences – Salé, Morocco
outmane.soussi-noufail@um5.ac.ma*

ABSTRACT

While many empirical studies have focused in recent years on the impact of financial constraints, politico-economy factors, and income inequality on the cyclicity of fiscal policy in both developed and developing countries, few are researchers examined the relationship between exchange rate regimes and fiscal procyclicality. This paper investigates the impact of exchange rate regime on the cyclicity of fiscal policy. More specifically, the objective is to investigate the type of exchange rate regime that could amplify or reduce the degree of procyclicality. Based on an empirical study of a sample of 110 developed and developing countries over the period from 1980 to 2015 and using the dynamic generalized moments method (GMM), it appears that flexible exchange rate allows developed and developing countries to conduct a less fiscally procyclicality. The fixed and intermediate exchange rate regimes have, nevertheless, no effect on the cyclical behavior of their fiscal policies.

Keywords: *Fiscal Policy, Economic Cycle, Quality of institutions, Internal and external funding constraints, exchange rate regimes, GMM*

1. INTRODUCTION

Empirical work on the fiscal policy response to the business cycle indicates that fiscal policy tends to be acyclical or countercyclical in developed countries, but procyclical in developing countries. Based on this result, a theoretical and empirical literature has indeed been developed to examine the factors likely to determine fiscal cyclicity. The results of this work show that internal and external financing constraints, the quality of institutions and income inequalities are the main factors that may explain fiscal cyclicity in developed and developing countries. For example, some studies point out that those financing constraints can be the source of procyclical policy. They indicate that countries that are struggling to borrow at a time of adverse economic conditions are led to cut public spending and raise tax rates so as not to aggravate fiscal imbalances (Gavin and Perroti, 1997; Caballero and Krishnamurthy, 2004; Alberola and Montero, 2007). Other studies highlight the impact of the quality of institutions on the cyclical behavior of fiscal policy. They reveal that countries with strong institutions are able to conduct a counter-cyclical fiscal policy. However, those with weak institutions generally adopt a more procyclical one. (Mackiewicz, M, 2008; Frankel, Végh and Vuletin, 2011; Calderón, Duncan, and Schmidt Hebbel, 2012). With regard to the relationship between income inequality and fiscal cyclicity, Woo (2009) shows that social polarization measured by income inequality or education inequality positively affects the procyclicality and therefore negatively affects economic growth. As for the effect of the exchange rate regime on fiscal cyclicity, the results of some empirical studies confirm the hypothesis that the adoption of a fixed or intermediate exchange rate regime amplifies fiscal procyclicality, while the introduction of a flexible regime

allows countries to conduct a less procyclical or countercyclical fiscal policy. (Ghosh, Ostry and Tsangarides, 2010; Amadou, 2016). The purpose of this paper is therefore to assess the impact of the type of exchange rate regime on the cyclical behavior of fiscal policy. It is, more specifically, a question of the type of exchange rate regime that could amplify or reduce the degree of procyclicality. To do this, an empirical study of a sample of 110 developed and developing countries will be conducted using the dynamic panel Generalized Method of Moments (GMM). Thus, this paper will be divided into three sections. The first section will focus on the empirical literature on the determinants of fiscal cyclicity. The second will present the empirical methodology adopted. While the third will synthesize the main results of the empirical study.

2. REVIEW OF LITERATURE

Empirical studies on the determinants of cyclical fiscal policy indicate that factors related to the quality of institutions, funding constraints, income inequality, the adoption of a fiscal rule and the type of exchange may be at the origin of the adoption of a countercyclical, acyclic or procyclical fiscal policy. One of the pioneering studies in this field is that of Gavin and Perroti (1997). The latter examined the issue that international financial constraints can be the source of procyclical fiscal policy in developing countries, particularly in Latin American countries. The results of their study indicate that the inability of these countries to adopt countercyclical fiscal policies is attributable to limited access to international financial markets during periods of recession. These results are corroborated by those of Kaminsky, Reinhart and Végh (2004) and Alesina and Tabellini (2008) who emphasize that capital flows are procyclical to developing countries. Furthermore, Caballero and Krishnamurthy (2004) point out that the lack of financial depth seems to be a determining factor in the cyclical behavior of fiscal policy in emerging countries during recessions. Other studies analyze the relationship between indebtedness and fiscal cyclicity. Ballabriga and Martinez (2002) show that debt is strongly associated with increased procyclicality in the EMU countries over the period 1979-1998. Similarly, Alberola and Montero (2006) emphasize that debt sustainability could be seen as a determinant of fiscal cyclicity. They prove, through an empirical study of a sample of nine Latin American countries, that procyclicality in these countries is closely linked to the perception of the sustainability of the public debt. Another study conducted by the IMF (2009) on Sub-Saharan African countries reveals that fiscal policy tends to be more procyclical in the most indebted countries. It also shows that the results concerning the depth of the financial system are less conclusive. This is explained by the fact that countries with a deeper financial market may face the volatility of international capital markets and therefore would be forced into procyclical fiscal policy. While the studies cited above highlight the effect of internal and external financing constraints on fiscal cyclicity, others examine the impact of political and institutional factors on procyclicality. Thus, Alesina and Talebani (2008) show, through an empirical study of a sample of 83 developed and developing countries, that there is a strong relationship between the fight against corruption and the cyclicity of fiscal policy. Indeed, the results of their study indicate that countries whose governments are democratic and less corrupt may adopt a countercyclical fiscal policy. However, this assumption is not confirmed in some OECD countries. In an empirical study aimed at examining the determinants of the cyclicity of fiscal surpluses in OECD countries over the period 1980-2005, Mackiewicz. M (2008) shows that corruption and income inequality do not explain fiscal cyclicity in these countries. Additionally, he points out that countries with weak institutions and high debt to GDP ratios tend to adopt procyclical fiscal policies. The hypothesis of Alesina and Talebani (2008) is also reviewed by Håvard and Michael (2011). In a sample of 85 industrialized and developing countries including Morocco, the authors show that the procyclicality in developing countries is primarily determined by corruption as well as by the level of democracy.

They also point out that the effect of income inequality and net external debt seems ambiguous. As for Calderon and Schmidt-Hebbel (2008), they examine, through a sample of 136 industrial and developing countries, the relationship between the quality of institutions and the cyclicity of fiscal policy and also the role that can be played by internal and external financing in the determination of this cyclicity. Their study reveals that countries with strong institutions and easy access to domestic and international credit markets are able to conduct a countercyclical fiscal policy¹. It also shows that the quality of institutions as well as the financial depth explains the difference in fiscal cyclicity between countries, while financial openness explains only a negligible part of this difference. Other studies have examined the extent to which improving the quality of institutions would enable countries adopting a procyclical fiscal policy to pursue a countercyclical policy. In a sample of 21 developed countries and 73 developing countries including Morocco and using data covering the period 1960-2009, Frankel, Végh and Vuletin (2011) show that developing countries that have strengthened the quality of their institutions have been able to lead, in the period 2000-2009, a countercyclical fiscal policy instead of a procyclical policy before that. While countries that have not improved the quality of their institutions have pursued a procyclical fiscal policy. Thus, the authors show that the more the quality of institutions, the less procyclicality of fiscal policy. Similarly, Calderón and Schmidt-Hebbel (2012) reveal that fiscal policy is generally countercyclical in countries with strong institutions, while it is procyclical in countries with weak institutions. They also show that the threshold of the quality of the institutions above which the country is able to conduct a countercyclical fiscal policy is about 67 points. In addition to that, Yehenew. E (2012) indicates that the impact of the quality of institutions on fiscal cyclicity varies according to the phases of the economic cycle. In a sample of 109 countries (including 83 developing countries) over the period 1985-2009, he shows that the low quality of the institutions explains the procyclical behavior of fiscal policy when the economy is expanding, while financial openness determines it during a recession. Therefore, he concludes that integrating the economy into the financial system and strengthening the quality of institutions are two factors that can enable a country to conduct a countercyclical fiscal policy. Other empirical studies reveal that social polarization and the adoption of a fiscal rule can also be considered as determinants of fiscal cyclicity. Thus, Woo (2009) uses data from 96 countries over the period 1960-2003 to test the theoretical hypothesis that social polarization is a determinant of fiscal cyclicity. The results of this study confirm this hypothesis and emphasize that social polarization measured by income inequalities or inequalities in education has a positive effect on the procyclicality and therefore has a negative impact on economic growth. Manasse (2006) shows that the presence of fiscal rules could reduce the budget deficit and strengthen the cyclical behavior of fiscal policy². Also, other authors (Gali and Perotti, 2003; Annett, 2006; Golinelli and Momigliano, 2006; Wyplosz, 2006; Turrini, 2008; Leigh and Stehn, 2009; Afonso and Claey, 2008) indicate that the implementation of these rules has no effect on fiscal procyclicality. Nevertheless, their conclusions do not confirm that these policies have become clearly countercyclical. However, Schick (2003) and Marinheiro (2007) show that the introduction of the fiscal rules of the Stability and Growth Pact could lead to procyclical policies. Regarding the relationship between fiscal discipline and exchange rate regimes, studies show that a fixed exchange rate regime induces more fiscal discipline (Giavazzi and Pagano 1988; Goldstein and Masson 1991; Tornell and Velasco 2000; Ghosh and al. 2010). Other studies examining the impact of exchange rate regimes on fiscal cyclicity emphasize that fiscal policy is more procyclical in countries with a fixed exchange rate, whereas it is countercyclical in those adopting a flexible

¹ Calderón, César and Klaus Schmidt-Hebbel (2008). Business Cycles and Fiscal Policies: The Role of Institutions and Financial Markets. Central Bank of Chile Working Paper N° 481.p :21.

² Manasse (2006) introduces budget rules into its study as a dummy variable to explain the primary deficit, output gap, government debt versus GDP, and other control variables.

regime. Using a sample of 34 African countries over the period 1980-2012, Amadou (2016) shows that the adoption of a fixed or intermediate exchange rate regime amplifies fiscal procyclicality; however, the introduction of a flexible regime allows countries to conduct a less procyclical or countercyclical fiscal policy. Based on a sample of 118 developing countries over the period 1993-2007, Sow (2015) moreover finds that fiscal policy is less procyclical in countries with fixed exchange rate regimes.

3. EMPIRICAL METHODOLOGY

The objective of this empirical study is to investigate to what extent the type of exchange rate regime could amplify or reduce fiscal procyclicality. We equally test the relevance of the assumption that the procyclicality could be explained mainly by institutional factors as well as by internal and external financing constraints. To do this, we use a sample of 110 developed and developing countries over the period 1980-2015. To study these questions, we estimate the following model:

$$\Delta DEP_{it} = \alpha + \alpha_0 CYCLE_{it} + \alpha_1 CYCLE_{it} \times RC_{it} + \alpha_2 CYCLE_{it} \times INS_{it} + \alpha_3 CYCLE_{it} \times PF_{it} + \alpha_4 CYCLE_{it} \times IF_{it} + \alpha_5 CYCLE_{it} \times INEG_{it} + \alpha_6 CYCLE_{it} \times RP_{it} + \gamma DEP_{it-1} + v_{it}$$

While DEP_{it} is the log of total public expenditures in real terms. The variable $CYCLE_{it}$ is the output gap at its potential level. The Variable RC_{it} describes the type of exchange rate regime. It is represented by a binary variable, its value is 1 if the country adopts a regime of exchange (fixed, intermediate or flexible), while 0 if otherwise. This variable is taken from the classification of exchange rate regimes developed by Ilzetzki, Reinhart and Rogoff (2017). The variable INS_{it} represents the quality of institutions. It is represented by the Political Risk Index of the International Country Risk Guide (ICRG). This index is scored on the basis of 100 points and includes twelve elements namely the stability of the government, the socio-economic conditions, the quality of the investment, the internal and external conflicts, the corruption, the participation of the military forces or of the military in politics, religious tensions, respect for the law as well as the strength and impartiality of the judicial system, democratic accountability and bureaucratic quality. The variable PF_{it} expresses the level of depth of the financial system. It is measured by domestic credit provided to the private sector as a percentage of GDP. The variable IF_{it} corresponds to the external financing constraints to which the country is subjected. It is represented by the financial opening rate calculated from Lane and Milesi-Ferretti's database (2007) on stocks of foreign assets and liabilities. This ratio is considered as the sum of FDI stocks, portfolio investments, debt and derivatives, relative to GDP. The variable $INEG_{it}$ expresses the level of income inequality. It is measured by the coefficient of GINI. The variable RP_{it} designates the nature of the political regime. It is represented by the index of autocracy and democracy of the Polity IV database. This is an index that ranges from -10 (autocratic) to +10 (democratic)³. As for the variable DEP_{it-1} , it represents the debt ratio. To estimate this equation, we employ the system Generalized Method of Moments (sys-GMM) as developed by Blundell and Bond (1998). This method makes it possible to correct the endogeneity bias that may exist during the estimation of the model. Indeed, three factors can be at the origin of this bias in our empirical work. First, it is impossible to identify all the variables that can be included in the model as determinants of fiscal cyclicity, and therefore omitting

³ This index is taken from the Polity IV database (Marshall and Jaggers, 2010). It is defined as the difference between the index of democracy (rated from 0 to 10) and the index of autocracy (noted from 0 to 10).

some of the variables in the estimate may lead to biased results. Second, the presence of simultaneity between the budget variable and the business cycle can also lead to biased coefficients. Finally, measurement errors related to the presence of certain variables in the qualitative model such as the variables that describe the quality of institutions and the nature of the political regime can also lead to this problem of endogeneity. Similarly, the presence of the delayed dependent variable as an explanatory variable may also justify the use of the generalized GMM method.

4. RESULTS AND INTERPRETATION

4.1. Procyclicality by Country Group

Before presenting the main results of the empirical estimates of the impact of the type of exchange rate regime on fiscal cyclicity, it is necessary to analyze the correlations between the cyclical component of real government expenditure and that of real GDP in three groups of countries namely countries with a fixed exchange rate regime, countries with intermediate regimes, and those adopting a flexible regime. The analysis of the correlation results shows that the correlation coefficient is positive and significant in countries adopting a fixed exchange rate regime, which indicates that fiscal policy is procyclical in these countries. While it is insignificant in the case of countries with an intermediate or flexible regime, which means that fiscal policy is acyclic in these countries (see Table 1). It appears that the adoption of a fixed exchange rate regime amplifies fiscal procyclicality, while the establishment of an intermediate or flexible regime allows countries to conduct an acyclic fiscal policy.

Table 1: Cyclicity of Fiscal Policy and Exchange Rate Regimes

Group of countries	Correlation between the cyclical components of real public expenditures and of real GDP
Fixed exchange rate regime	0.2944*
Intermediate exchange rate regime	-0.0274
Flexible exchange rate regime	0.0126
* Significance levels at 10%	

Source: Authors' calculations

In addition to this analysis, we have assessed the extent of fiscal procyclicality in other groups of countries based on other criteria of choice namely the level of quality of institutions, that of income inequalities, the degree of depth and financial openness. Indeed, the analysis of the results shows that fiscal policy is acyclic in countries with good institutions, while it is procyclical in countries with weak institutions. On the other hand, it is more procyclical in the most unequal countries and less procyclical in countries with deeper internal financial systems, in the most financially integrated ones as well as in egalitarian and unequal countries (see Table 2).

Table following on the next page

Table 2: Cyclical Policy by Country Groups

Group of countries	Correlation between the cyclical components of real public expenditures and of real GDP
High quality institutions ¹	-0.0058
Low quality institutions	0.1833*
Deeper financial system ²	0.1379*
Shallowest financial systems	0.1784*
More Financially Integrated ³	0.1376*
Less financially integrated	0.3504*
Egalitarian countries ⁴	-0.2967*
The unequal countries	0.1612*
The most egalitarian countries	0.5501*

¹ Countries with higher quality institutions are those for which the quality index of institutions is higher than 70, those with an index below 70 have low quality institutions.

² Countries with deeper financial systems are those with a ratio of credit to private sector to GDP above 30%; those with a ratio below 21% have a shallower financial system.

³ The most financially integrated countries are those for which the index of international financial integration is greater than 60%; for the least financially integrated countries this index is less than 60%.

⁴ Egalitarian countries are those for which the coefficient of GINI is less than 0.3, for unequal countries, this coefficient varies between 0.3 and 0.6, and for the most unequal countries this coefficient is greater than 0.6.

*Significance levels at 10%

Source: Authors' calculations

From the analysis of the correlation results, it appears that particularly the quality of the institutions and the depth of the internal financial system determine the degree of fiscal procyclicality while results concern the correlation between the coefficient of fiscal cyclicity and external financing constraints or income inequalities are inconclusive.

4.2. Results of Empirical Estimates

Table 3 presents the results of the estimates of three models using the GMM method in the Blundell and Bond (1998) system. In the first model, we explain the cyclical policy through the adoption of a fixed exchange rate regime, the quality of institutions, the depth of the internal financial system, external financing constraints and income inequalities. Whereas in the second and third ones, we replace the fixed exchange rate with the intermediate and flexible. Through the results of the first model, it appears that the coefficient associated with the variable economic growth is positive and significantly different from zero, thus indicating that the fiscal policy is procyclical. Moreover, the coefficient related to the interaction variable between the adoption of the fixed exchange rate regime and economic growth is positive but not significant; which means that this regime does not impact the degree of fiscal procyclicality. As for the coefficient of the interaction variable between the quality of institutions and economic growth, it is negative and significant showing that the quality of institutions reduces the degree of fiscal procyclicality. Similarly, the one associated with the interaction variable between income inequality and economic growth is negative and significant; indicating that income inequality negatively affects fiscal procyclicality. Other coefficients such as the lagged budget variable, the interaction variable between internal and external financing constraints and the business cycle and that of the interaction variable between the nature of the political regime and economic growth are not equally significant. While the control variable, which is the delayed debt ratio, has a significant and negative effect on the change in public spending. These results thus reveal that fiscal policy is more procyclical in countries with low quality institutions and those with less inequality.

Moreover, they show that the adoption of a fixed exchange rate regime, the depth of the internal financial system as well as the external financing constraints do not explain the procyclicality. In other words, the quality of institutions is the main determinant of the cyclicity of fiscal policy in these countries.

Table 3: Fiscal Procyclicality and Exchange Rate Regimes

	Dependent variable: Total expenditures (In $\Delta \log$)		
	Model I	Model II	Model III
Delayed budget variable	-0.005	-0.017	-0.0163
RGDP (In $\Delta \log$)	23.572**	24.058**	27.254**
Interaction variable between the cycle and the fixed exchange rate	1.066	-	-
Interaction variable between the cycle and the intermediate exchange rate	-	0.471	-
Interaction variable between the cycle and the flexible exchange rate	-	-	-3.281***
Variable of interaction between the cycle and the quality of the institutions	-0.163**	-0.170**	-0.170**
Interaction variable between the cycle and the depth of the financial system	-0.755	-0.843	-0.272
Interaction variable between cycle and external financing constraints	0.260	0.236	0.201
Variable of interaction between the cycle and income inequalities	-0.309**	-0.309**	-0.325**
Variable of interaction between cycle and democracy	0.053	0.028	0.086****
Delayed debt ratio	-0.001*	-0.001*	-0.001*
Constant	0.129	0.208	0.183
AR(1)	0.010	0.012	0.009
AR(2)	0.175	0.174	0.830
Sargantest	0.403	0.435	0.317
Hansen test	0.110	0.148	0.146
Number of Instruments	18	18	18

- Notes: Significance levels* 1%, ** 5%, *** 10% .

- The instruments are valid if the added value of the Sargan test and the Hausman test are greater than 0.05. In addition, the hypothesis of second-order autocorrelation (AR2) is rejected if the surplus value of the test AR (2) is greater than 0.05.

Regarding the results of the second estimate, the coefficients related to the variables of the model have the same signs as in the first one. This suggests that countries with intermediate exchange rate regimes cannot lead less procyclical fiscal policies. Similarly, with the exception of the coefficient of the interaction variable between the adoption of the flexible exchange rate regime and economic growth that is negative and significant, the other results resemble those of the first two models. It appears then that the adoption of a flexible exchange rate regime allows countries to conduct a less procyclical fiscal policy. Thus, the results of our estimates do not generally support the assumption that the adoption of a fixed or intermediate exchange rate regime increases fiscal procyclicality; whereas the introduction of a flexible regime allows countries to conduct a less procyclical or counter-cyclical fiscal policy. They reveal, however, that the exchange rate regime only affects fiscal procyclicality if it is flexible. In addition, they show that improving the quality of institutions as well as income inequality are factors that can enable countries to conduct less procyclical fiscal policies.

5. CONCLUSION

The aim of this work is to study the relationship between the type of exchange rate regime and the cyclicity of fiscal policy in a sample of 110 developed and developing countries over the

period 1980-2015. To do this, we employ the system Generalized Method of Moments (sys-GMM) as developed by Blundell and Bond (1998). This method makes it possible to correct the endogeneity bias that may exist during the estimation of the model. The results of empirical estimates show that fixed and intermediate exchange rate regimes do not explain fiscal cyclicity. In other words, the adoption of these two regimes can neither reduce nor amplify fiscal procyclicality. This result is explained by the fact that countries under these two regimes are forced to achieve lower budget deficits which limits their ability to adopt contracyclical fiscal policies. On the contrary, flexible countries adopt less procyclical fiscal behavior. This result corroborates that of some empirical studies according to which the flexibility of the exchange rate makes it possible to reduce the degree of fiscal procyclicality. In addition, the results show that the quality of institutions is a determining factor in the cyclicity of fiscal policy. Indeed, they indicate that countries with strong institutions and inequalities are able to conduct less procyclical fiscal policies. They also show that income inequality has a negative effect on fiscal procyclicality. However, this last result is in contradiction with that of empirical studies according to which fiscal policy seems more procyclical in the most unequal countries (Woo, 2009). Moreover, they show that the internal and external financing constraints and the level of democracy do not make it possible to reduce the degree of fiscal procyclicality in these countries. Indeed, the results of this work are closely linked to the choice of dependent and explanatory variables. Thus, the use of disaggregated budget expenditures, other indicators that measure the quality of institutions, income inequalities, or internal and external funding constraints can enhance our empirical work. Improving this empirical work can also be done through the use of a set of determinants that are not yet exploited by the empirical literature such as indicators that measure budget transparency, budget control and other measures of the position of the economy in the cycle. The distinction between the factors that explain the fiscal cyclicity in the expansion phases and those that determine it in the phases of fiscal turmoil could also improve our empirical estimates.

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ECONOMIC AND MONETARY INTEGRATION: A DYNAMIC STUDY OF THE TWO FRANC ZONES

Dembele Boua Siriki

*Faculty of Law, Economics and Social Sciences Sale,
Laboratory of applied economies,
Mohammed V University in Rabat, Morocco
demben1960@yahoo.fr*

Mustapha Machrafi

*Professor at Faculty of Law, Economics and Social Sciences Sale,
Mohammed V University in Rabat, Morocco
machrafiea@yahoo.fr*

Hissein Brahim Tidei

*Faculty of Law, Economics and Social Sciences Agdal,
Laboratory of applied economies,
Mohammed V University in Rabat, Morocco
hisseintidei@gmail.com*

Adil El-Marhoum

*Professor at Faculty of Law, Economics and Social Sciences Agdal,
Mohammed V University in Rabat, Morocco
adil.elmerhoum@gmail.com*

ABSTRACT

Since the late seventies (70) Economic and regional integration (IER) between the states of the same geographical area has grown considerably in an increasingly globalized world. For some authors (Mathilde and al.2007) between 1970 and 2000, thanks to globalization and economic liberalization, 10 and 20 respectively multiplied the values of GDP and world trade. Based on this observation, the constitution of the IERs is becoming a key strategy for all states in addressing the challenges of the global, both for the least developed countries (LDCs) and for developed countries. In Africa, this desire for economic integration between the states of the continent was born in June 1990 by the Abuja Treaty, which provided for the creation of a continent-wide African economic community by 2027. This treaty notably promotes the creation of several regional economic communities, which will have to lay the necessary foundations for the eventual realization of the Economic and Monetary Union of Africa. Since its signing, Africa has no less than seven Economic and Regional Integration Zones (IER), which are UMA, COMESA, EAC, CEEAC, CEDEAO, SACU and SADC, and including two economic and monetary zones, which are CEMAC and UEMOA. This paper will attempt to assess the state of economic and monetary integration of the franc zone, namely CEMAC and UEMOA. Therefore, it is a question of analyzing initially the rate of opening of the two zones. Moreover, in a second time, the degree of intensity of intra-zone trade. This in a comparison objective of two areas on the basis of their degrees of economic and commercial integration.

Keywords: CEMAC, Franc zone, Trade exchange, Regional intégrations, Trade exchange, UEMOA

1. INTRODUCTION

The euphoria inherent in economic integration caused the emergence of the economic poles throughout the world. With the extension of the economy of the market and the trade

negotiations which take place by the means of the World Trade Organization (WTO), economic integration becomes a requirement with the nations. The as well preached virtues of such an integration, seem more as ever obvious: optimal allowance of their sources, facilitation of the exchanges, the displacement of the goods and the capital which reinforces the increase in the international exchanges. These virtues are supposed to make it possible the economies under development to benefit from the opportunities offered by the news gives international economy which is globalization. It is justified by the fact that the coordination of the economic policies on the scale under regional would mitigate the external vulnerability whose these economies are victims, would stimulate the possibilities of internal growth, would increase their weight in the international negotiations and would lead to an extension of the national markets via the economies of scale. The CEMAC and the UEMOA, following the example of the other regional units, have difficulty making economic integration, a use full instrument to cope with the challenges and challenges of globalization in order to sit the bases of a durable economic growth in the member countries. Their characteristic is that they are two monetary unions concludes with France at the following day as of independences. These cooperation agreements give access unlimited to currencies, guaranteeing a maintenance of the parity of CFA franc with respect to the euro (after being attached to the French franc). It is the second great monetary union in the world behind European union monetarists. It gathers today France and fifteen African States: Benin, Burkina Faso, Cote d'Ivoire, Guinea Bissau, Mali, Niger, Senegal and Togo in West Africa, gathered within the economic and monetary Union West African(UEMOA) and Cameroon, Central Africa, Congo, Gabon, Equatorial Guinea and Chad in central Africa, gathered within the Economic community and monetarist of central Africa (CEMAC). All two placed under the authority of two distinct institutions power station of emission: the Bank of the States of central Africa (BEAC) and the Central bank of the States of West Africa (BCEAO). Each one of these two institutions enjoy the statute international public corporation. The review of literature on the matter, considers that the installation of an economic and monetary union is the phase most thorough of an economic integration after the free exchange zone, the customs union and of the Common Market. For the theorists of optimal monetary integration, Mundell (1961) and Mc Kinno (1963), the creation of an economic and monetary union makes it possible to reduce the costs of transactions, the suppression of uncertainties relating to the variations of the ratios of exchange and to strongly integrate the exchanges between these members. Many work thereafter showed a positive link between the division of a common currency and the commercial intensity. According to work of Rose (2000), the States having a common currency tend to trade 3 times more than those not belonging to a monetary union. Other work confirms the results of Rose with a more moderate and moderate effect (Nitch 2002, Frankel and Rose 2002, Glick and Rose 2002, Tsangarides et al. 2006, Barro and Tenreyro 2007), with a lower multiplying coefficient around 2. For Frankel and Rose (2002), the effects of a monetary union imply, beyond the increase in bilateral commerce, an increase in the total rate of opening, that is to say a clear creation of trade. Tsangarides, Ewencyk and Hulej (2006) abound in the same direction when they indicate that the monetary unions induce a clear creation of trade and a stability of the exchanges. What confirms the analysis of Carrière (2004) on the free zone (CEMAC and the UEMOA), the member countries of these two unions trades 3 times between them more. For Glick and Rose (2016) the installation of the euro zone increased the bilateral commerce of the member countries of 50%. Other work such as those Coulibaly (2007), the EAC (2008) and Afersorgbor and Bergeijk (2011) found that the zones of integration in Sub-Saharan Africa increased commercial flows between member countries. In other words, the latter were at the origin of a creation of trade. For example, the work of Afersorgbor and Bergeijk (2011), which is based on a model of gravity, were applied to 35 countries between 1995 and 1996 to analyse the effect of the ACR of CEDEAO and the SADC on the bilateral exchanges.

This effect is considered to be relatively more significant than that resulting from agreements UE-ACP. On the other hand, certain studies showed that the regional trade agreements in Africa were not at the origin of an increase in commercial exchanges (Elbadawi (1997), Yeats (1999). Work of Gunning(2001), ECA (2004), Yang and Gupta (2005) and Chacha (2008) confirms this assertion according to which the ACR in Sub-Saharan Africa did not improve the exchanges between member countries because of the absence of complementary products, the insufficiency of the infrastructures for the facilitation of the exchanges, a tiny differentiation of the products, it not incentive to import because of high costs, small of the market and lack of a strong constant political commitment. More especially as Tavlas (1994), and Agbodji(2007) do not note any significant impact of the monetary union on the trade between these countries which shares CFA franc. In reference to this debate, the contribution of the ACR on regional integration and under regional in Africa remains still discussed. In the same way, the arguments provided to explain these divergent results are also varied to prove the effects of a monetary union on the commercial exchanges, our present article aims at evaluating the state the economic integration and monetarist of the free zone to knowing the CEMAC and the UEMOA. So It is question of initially analysing the rate of opening of the two zones. And in the second time the degree of intensity of the commercial exchanges in intra-zone. It in an objective of comparison of two zones on the basis of their degree of economic integration and commercial. The continuation of our article is organized in the following way. The second section presents the methodology of analysis of the economic integration of the free zone. In the third section we will have our results, as well as the analyses of our got results.

2. METHODOLOGY

The principal goal of this study is to seek to evaluate the importance relative of the commercial exchanges and their dynamic to the centres of two only monetary unions on the African continent, and then to compare their evolutions over the recent periods. The measurement of the importance relative of the commercial exchanges and their dynamic can be carried out through the construction of the indicators of commercial intensities (IIC) to export and the importation. These measurements can be obtained thanks to the indicator builds rather by B. Balassa (1965), called “revelead comparative advantages” (RCA), allowing measured advantage relative of a given country or its preference exported a product towards an unspecified market. It is calculated as follows:

$$RCA_{ij}^x = \frac{\frac{X_{ij}}{X_{iW}}}{\frac{X_{Wj}}{X_{WW}}} \quad (1)$$

Where X_{ij} , represents exports of the country in product j, X_{iW} total exports of the country i toward the world, X_{Wj} exports of the world in product J, and finally X_{WW} total exports of the world.

Of this formula (1), we can derived an allowing indicator from measured the degree from intensity of the exchanges will intra of it zone in each zone and for each country with its zone. Like Haninkand Owusu (1998) to understand the evolution of the trade intra-zone of CEDEAO over the period 1973 and 1993, or more recently Madariaga (2010) for a study similar to ours in the two free zones CFA, but over one older period (1980-2008). The indices of commercial intensities (IIC) can calculates follows:

$$TII_{ij}^X = \frac{\frac{X_{i,j}}{X_{iw}}}{\frac{X_{wj}}{X_{ww}}} \quad (2)$$

Where $X_{i,j}$, represents exports of the country or the economy i toward the market or the country j , X_{iw} total exports of the country i toward the world X_{wj} exports of the world towards the market or country j , and finally X_{ww} total exports of the world. The value thus obtained of this index is compared to 1 (as in Balassa, 1965), if the $TII_{ij}^X > 1$ is higher than the country i have an private interest with export for the country or market j , in other term the economy i have a preference relatively marked to export towards this market or importing country. Conversely one ($TII_{ij}^X < 1$), means that the export of economy i is sensitive or has a weak preference for the market or the economy j .

Same manner, we can deduce the advantage from an economy i , for these imports coming from an economy J compared to other market.

$$TII_{ij}^M = \frac{\frac{M_{i,j}}{M_{iw}}}{\frac{M_{wj}}{M_{ww}}} \quad (3)$$

With $M_{i,j}$ which represents the imports from the country or economy i towards the market or the country j , M_{iw} the total imports from country i towards the world, M_{wj} the imports of the world towards the market or country j , and finally M_{ww} the total imports of the world. Reciprocally at the rate of intensity to export, if ($TII_{ij}^M > 1$), we can say that country i imports relatively more j than moreover world. And if ($TII_{ij}^M < 1$), on the contrary country i have a relatively weak preference for the market j , in importation. Calculations of the IIC thus require relative data export and with the importation of all: member countries of the two unions, aggregate data of the two unions, and those of the principal partners and signatory of the trade agreements with the two unions. Moreover we will use other data such as the GDP, in order to build additional indicators to make analyses complementary to commercial integration in intra-zone or with the world. The data are is aggregate for each zone or individual by country. They all come from the base of data unctadstat¹. The study period east defines over the period 1995-2017.

3. RESULTS AND ANALYSES

3.1. Analysis of the commercial opening

Before approaching the analysis of the indicators of commercial intensity which will enable us to know the degree of commercial intensity and its dynamics for each zone, an analysis of the commercial opening of the studied zones makes it possible to provide the foundations necessary as for the comprehension of the commercial integration of each one of these economies in the sphere trade international. For this reason some indicators hold our attention, it is mainly the rates total openings each zone and the levels of exports with the world and in intra-zones. These indicators can not only tell us to which levels the economies studied are open towards outside, but they release also an idea on the dependence degree with respect to outside, and thus the vulnerability of these economies, when negative shocks are carried out on the external request

¹ the base of the data of the United Nations Conference on Trade and Development (UNCTADSTAT).

(world). Thus, to appreciate the degree of opening of the savings in each zone with the world, initially the analysis is focused on the average of the ratio of opening towards the outside over each period five years, indeed we divided the sample of the data into five subsets of which we calculate the average (not mobile) to see how evolves the ratios thus obtained in time (see table)². This reveals that the economy of zone CEMAC opened much towards the outside since the end of 1990, because its ratio average over five years which was hardly 24% over the period 1995-1999, saw a triplet (73%) at the end of the first decade of the year 2000. This same ratio oscillates on average between 55 and 70%, since the end of this same first decade. At first sight, that would support the argument according to which this area one of the areas of the world is integrated into the trade international. The analysis of the average evolution of the rate of opening of the CEMAC in worms its own zone contrasts with the total opening of its economy, indeed the average evolution this rate remained very limited, it hardly exceeds the 2% on the whole of under periods, synonymous with a zone whose economy is very extrovert. Such an extraversion of the economy in worms the world rather than its own zone is explained by the fact that the economies which constitute this zones are industrialized little and their incomes strongly depends on exports of the raw materials such as oil, iron, diamonds, manganese etc the analysis of the degree of opening of these economies can be supplemented with the various ratios obtained starting from exports. Thus the average ratio of the total exports brought back to the GDP on the whole of under period evolves in the same direction as the rate of total opening, this ratio passes from 14% over period 1995-1999 and reached almost 50% of the GDP, the fall of this ratio over the last under-period is explained by the exchange rate fall of the raw material over the same period (since 2014), in particular the price barrel of the oil whose strongly exports depend on five of the six Convention countries³. On the other hand the average share of exports of the zone towards itself reported to the whole of these export exceeds the threshold of 3% with difficulty, although this ratio increased on the whole of the under-periods except the light retreat recorded on under period 2000-2004, it remains enough limited and shows that the exchanges in intra-zones are too weak in link with the world taken overall. As for the UEMOA, it shows characteristics slightly different from that of the CEMAC, it adopts almost the same path of evolution in term of commercial opening as zone CEMAC on the whole of the periods, since that its rate of average opening did not cease increased, passing from close 30% in the end the Nineties with more than 60% at the end of the study period. Any time the UEMOA which seemed to be relatively a little more open than the CEMAC during the first under-period (1995-1999) loses its place in as well zone more turned towards the foreign trade as the CEMAC, since on the whole of under periods it remains slightly in lower part in term of average evolution of rate of opening that the latter. But it remains that with same an area of the world most open. However, the rate of opening in intra-zone seems to be higher than that of zone CEMAC during all the study period, and did not cease increasing on the whole of the period, this expressed as a percentage rate of the GDP passes from 3% on average over the first under-period to 7, % at end of the first decade of the years 2000. That supposes that the efforts of integration produce results, since this measurement indicates increase in the preference for its own market and an intensification of the commercial exchanges in intra-zone. However, this ratio still remains very low compared to that displayed with the rest of the world. The rate of export of the UEMOA expressed as a percentage of the GDP seems to adopt a linear trend in time, its increase is more gradual than the rate of total opening, since this last literally exploded over all the period, whereas the first stable rest during a good part of the study period (goshawks of 14%) then to increase up to 27%, and to remain then in bottom of this figure. What carries to believe that during the study period its exporting intensity proportionally did not believe in that in importation, a sign that it is rather that dependence of the supplies coming from the external

² We recall that the whole of the period studied (1995-2017) except over the last period 2013-2017

³ the Central African Republic is to date the only Convention country which does not produce oil.

one which increased. In parallel exports with destinations of its own market, measured by the ratio obtained by bringing back exports towards its own zone to the sum of this export (expressed as a percentage, tableau1), indicates a stable ratio around 14% during all under period, although it exceeds that of the CEMAC (with difficulty of 3%) by showing a share of export largely higher, synonymous with integration more succeeds that the CEMAC, it remains which has even low and almost does not evolve

Table 1: the opening rate⁴

Zones	Indicators	Average of each period				
		1995-1999	2000-2004	2005-2009	2010-2014	2013-2017
CEMAC	TOCM (% of gdp)	24,14	29,01	59,59	73,52	54,38
	TOCC (% of gdp)	0,67	0,76	2,09	2,99	2,27
	Xcm /Pib (% of gdp)	14,99	19,03	41,41	45,45	30,21
	Xcc/Xcm	2,08	1,72	2,35	2,95	3,37
UEMOA	TOUM (% of gdp)	29,50	29,96	50,27	61,15	54,01
	TOUU (% of Pib)	3,20	3,92	5,92	7,00	6,56
	Xum/Pib (% of gdp)	14,32	14,37	21,88	27,11	23,66
	Xuu/Xum	12,51	14,50	14,34	13,39	14,40

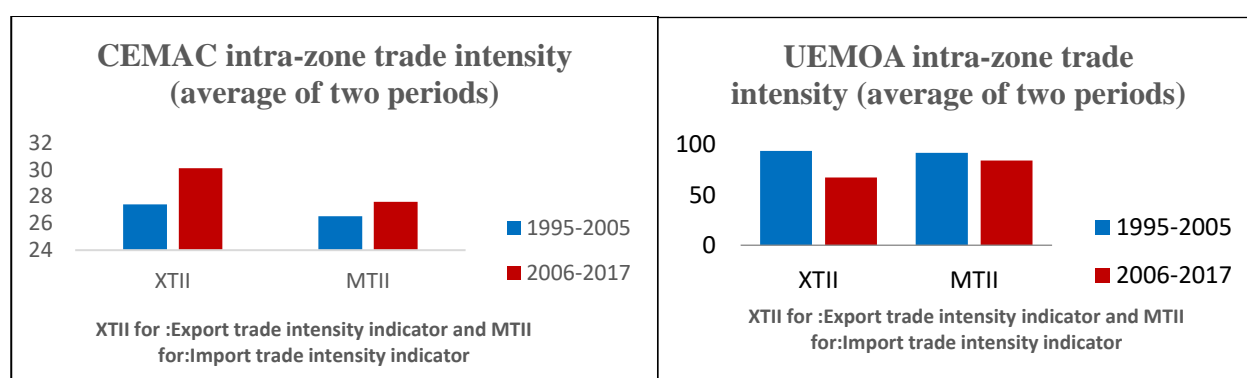
3.2. Analysis of the indicator of commercial intensity in the two zones

Taking into consideration result of figure 1 below, which shows us the average evolution of the commercial intensity within the two zones in two pennies period (1995-2005 and 2006-2017). The indices of commercial intensities (IIC) release from the results rather satisfactory, they are largely higher than the unit for each zone. In terms of intensity of the commercial exchanges, the two free zones would thus exchange strongly in intra-zones. Thus zone CEMAC displays on the last under period (2006-2017) of the indicators of intensity commercial raised enough, on average over this period it would trade nearly 30 times in export and 27 times in importation with its own market that relatively with the rest of the world. In the same way the UEMOA compared has also a preference pronounced for its own market compared to world, since its IIC with export and in importation are respectively of 67 and 84, to the CEMAC are very high indices. Whereas the two zones display rates of export and importation in very low intra-zone, this result lets believe that the exporting intensity and importer in intra-zone balanced by their weights in the world commerce are rather important. One of surprising results in this work is evolution of TII with importation and with export from two zones, whereas certain studies (Madariaga 2010) find that these indicators tend dropped for the CEMAC and increased for the UEMOA since the Nineties until the first decade of the years 2000, we get results opposed, especially over the last period. Firstly, we observe that the exporting and importing intensity of the UEMOA drops on average over the last period (2006-2017) respectively from 93.76 to 67.39 and 91.78 to 84.30, whereas these indicators, taken annually, were with their higher level towards the end of the first decade of the years 2000. And what still remarkable, the TII is accompanied with the fall by the rate by total opening by the economy over the same period, all occurs as if the fall of this last indicator does not have to benefit the first. It could be that is to explain by the political crises which this monetary area had to pass during this period. Since the Ivory Coast which is with Senegal one of the two great economies in this zone, with known a great political crisis post electoral in 2011, thereafter Mali and Burkina Faso plunge in their turns respectively in 2012 and 2014 in political crises having sedentary consequences. These events perhaps had negative impacts on the trade intra-zone. Secondly, TII of the CEMAC (although inferiors those of the UEMOA) increase on average with the export and the importation respectively from 27.40 to 30.11 and 26.53 to 27.61.

⁴ TOCM: CEMAC opening rate with the world; TOCC: intra-zone opening rate; Xcm: total export of CEMAC to the world; Xcc: total intra-zone export; TOUM: UEMOA opening rate with the world; TOUU: intra-zone opening rate; Xum: total export of WAEMU to the world; Xuu: total intra-zone export;

The Characteristic of this result lies in the recent evolutions of the indices of commercial intensities for the three last years strongly increased passing from 31.37 in 2015 to 37.81 in 2016, then he leaps up of 56.58; when this same index with the importation it has also knew the same path of evolution for values of 33.41 in 2015, 38.40 in 2016 and in the end of 42.85 in 2017. These values never reached such levels over the 23 years of study (the TIIX and the TIIM were respectively of 23.13 and 16.70 in 2014). With believing of them these indices, the falloff the courses of the raw materials since 2014, particularly the drastic fall of the price of barrel of oil whose majority of the countries of the CEMAC are exporters and largely depend their economies on them, had certainly negative effects on the state of the economy of the zone, but it had also positive effects on the trade intra-zone. Indeed, the commercial intensity started to grow right one period (2015) after the crisis of the raw materials, in addition this increase is also concomitant downwards vertiginous rate of average opening over the period 2013-2017 of the zone (see table 1), strange coincidence. Would that mean, that this sudden negative shock by the zone reduced its dependence with respect to outside, and that at the same time supported the intra-zone exchanges, by reorienting the preferences geographical inexport and importation towards its own market?

Figure 1: TII in intra-zone exports and imports of CEMAC and UEMOA (1995-2006 and 2006-2017)



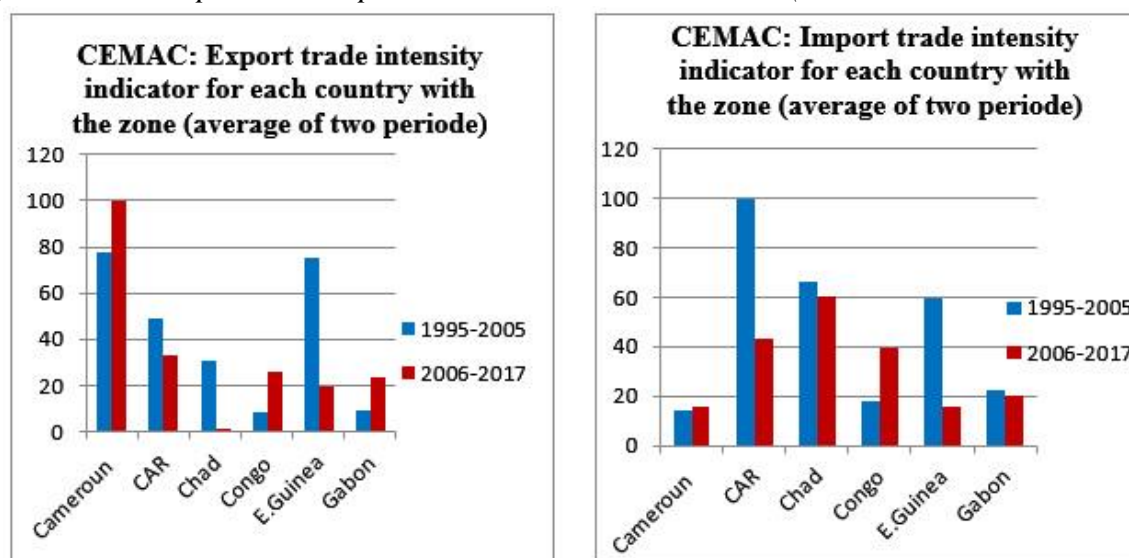
3.3. Analysis of the indicator of commercial intensity by country of each zone

3.3.1. The indicator of commercial intensity by Country zones CEMAC

All the economies of zone CEMAC display a preference revealed of their own market compared to rest of the world (TII all superiors with the unit). However, the intensities of the commercial exchanges within the CEMAC are very disparate, that is in exporting or importing intensity, or on the average of two pennies periods. Thus, in exporting intensity during the first period, Cameroon, Guinea equatorial and the Central African Republic is the countries which export more towards their own market. Particularly, Cameroon positions with the first partner during the two periods with a variation TIIC with export in front of the two others of 60 unit. It seems a central business Partner for these countries, since he is by far the member exporting most intensively towards the CEMAC. Guinea equatorial and Chad see their rate export strongly decreasing towards the CEMAC during the second period, of with these oil discovery in these countries. The Central African Republic as for it is maintained behind Cameroon, like the second exporting member of the zone in spite of a fall of 17 unit, during the second period, this fall of intensity is perhaps due to the various civil wars which it lived since end of the Nineties. In addition, Congo and Gabon, although they display low indices compared to others, saw their exporting intensities increased over the second period. As regards importation it is the Central African Republic and Chad which import more compared to the other members of the CEMAC.

These two countries seem to exchange advantages with their partners of the CEMAC at the same time to satisfy their inner demand and to reach a commercial port, since they are the only countries of the monetary area which do not have not emerged maritime. It is noticed that the Cameroon who exports much towards the zone, imports other members little intensively. The TII with the importation of Cameroon and Congo towards the CEMAC increase slightly during the second period. Equatorial Guinea is the only one to display an important fall of its imports coming from the CEMAC, its TII with the importation knows a negative variation of order 44, whereas the initial level is close to 60. This country, knows an important geographical reorientation of these trade preferences, which is diverted Common Market for other markets in the world.

Figure 2: TII in exports and imports between CEMAC countries (1995-2006 and 2006-2017)

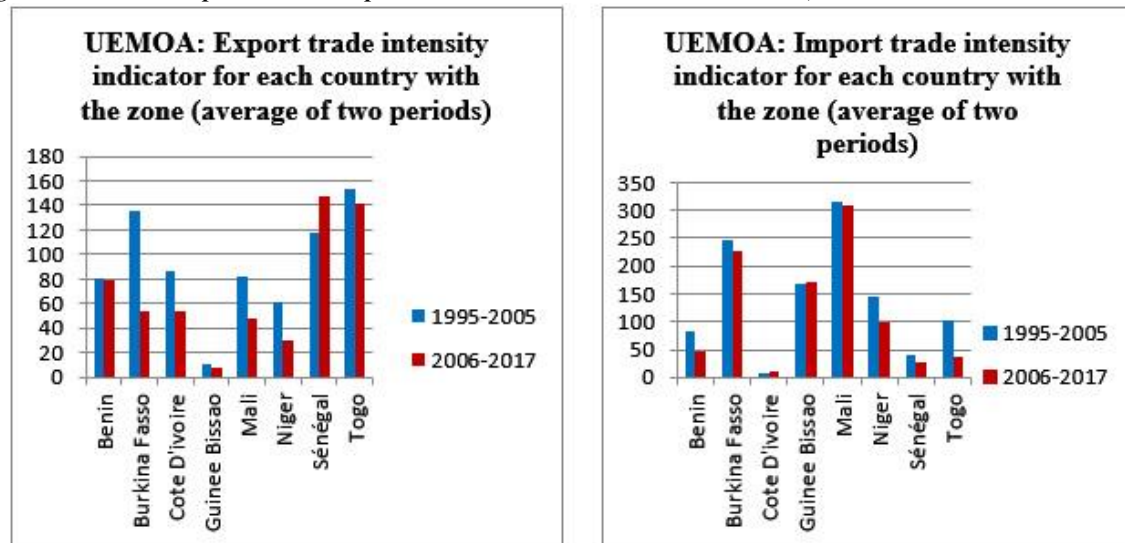


3.3.2. The indicator of commercial intensity by Country zones UEMOA

the intensity of the commercial exchanges in the UEMOA are very strong, generally the indices exceed the thresholds of 50 (TII > 1 for all the countries), which shows a participation intense of the economies members in the union in the Common Market, in spite of low rates of export will intra zone of it (table 1). However, in a particular way the economies members show heterogeneous characteristics as for their degrees of intensity in the displayed trade relations, certain groups of the countries are exporting and importing, and others display relations opposed, whereas others still are range between the two groups. Thus, by category of exporting intensity Senegal, Togo and Burkina Faso position as the countries which export intensely towards the Common Market (TIIX higher than 140), comes then a second category of the countries of which Benin, Cote d'Ivoire, Mali and Niger who export intensely towards the UEMOA but largely less than the first category with TIIX lower than 100, Guinea-Bissau is the only country displayed an intensity inferior or equal 10. On the other hand the directions of variations on average over the two periods of the TIIX strongly fell for Burkina Faso, Cote d'Ivoire, Mali and Niger, an average fall of the TIIX of about 30 for these countries. Only Senegal saw its TIIX increased over the two periods. In importing intensity in the UEMOA, in fact the exporting countries import more in intra-zone, except Burkina Faso, with the latter these are Mali, Niger and Guinea Bissau which import UEMOA intensely. The majority of these countries are landlocked countries, that would explain can be their strong commercial integrations. On the other hand more the share of the economies members see the intensities importer with the union dropping (except for Guinea Bissau and Cote d'Ivoire), this fall is particularly marked in Togo, Niger and Benin. In addition, the TII of Cote d'Ivoire dimension

surprise us little, since it is the only economy with Senegal, industrialized better (partially) and dominant, but which display subscripts than the average, but especially too weak in importing intensity.

Figure 3: *TII in exports and imports between WAEMU countries (1995-2006 and 2005-2017)*



4. CONCLUSION

It was a question of evaluating and understanding the dynamics of the commercial integration of the only two monetary zones in Africa, in this case CFA franc zones. We have been particularly interested in the dynamic of intra-zone trade over recent periods in both zones, since over the study period these areas have undergone many structural changes in their economies through changes in productive structure or reforms initiated for the area. In addition, we are allowed on the basis of the results obtained to make comparisons on the degrees of commercial integration of these currency areas. Thus, although the weight of Africa and particularly of these two areas are minimal in the world trade, the results obtained indicate that the two zones trade intensively in intra-zone relatively with the rest of the world. Overall levels of commercial integration is satisfactory. In comparison, based on the indices of market intensities revealed in this study, the UEMOA zone seems to be more successful in integrating than the CEMAC zone. However, by analyzing the average dynamics of IIC over sub-periods, the CEMAC zone seems to be experiencing a positive dynamic while the UEMOA is losing its commercial intensity. The results by country show that trade links are globally disparate in both zones, there are strong asymmetries in import intensity and exports within unions, these are very pronounced in the CEMAC zone. This allows us to say that despite the revelation of fairly high indices, the two zones do not exploit to the maximum the commercial potential offered by a monetary union. Moreover, by making the links between, on the one hand, the different events that the two zones had to go through and the existing infrastructure levels, and on the other hand the evolution of commercial integration in the two zones, for better exploit the potential levels of their businesses both areas must provide a lot of effort in some areas. Among which we mention some, in the first place the fragility of the public and political institutions on which the security on the borders of the countries depends, and indirectly the intra-zone trade. Second, infrastructure levels (paved road, bridge, railroad voice, etc.) that are sorely lacking or are in poor shape are factors that hinder better integration. Finally, the industrialization levels of the economies of the two zones are very low, taken together, there are only three out of 14 that are partially industrialized (Cameroon, Cote d'Ivoire, and Senegal). Endowed with extremely varied natural resources (timber, oil, gold, uranium and phosphates etc.) whose local

processing, will certainly increase the weight of these areas in international trade and reduce the strong dependencies of their economies abroad and will lead to better integration and result in better integrations.

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HRM PRACTICES AND CORPORATE STRATEGY: THE IMPACT ON ORGANIZATIONAL PERFORMANCE OF THE SMES

Meryem Harmaz

*Research laboratory on enterprise and local development,
Faculty of economic and social legal sciences, FES
Professor at the Higher Institute of Engineering and Business, FES, Morocco
meryem.harmaz@isga.ma; meryemrh85@gmail.com*

ABSTRACT

This study is part of the theme of management challenges related to Human Resources Management in small and medium enterprises, also aims to better understand the contribution and influence on organizational performance of SMEs in Morocco. Our project is structured around three main objectives. The first aims to contribute from a theoretical point of view to the advancement of knowledge in the context of human resources management. As for the second objective, it consists of verifying the strategic influence of human resources management practices on performance. Otherwise, we implicitly postulate that the strategy as an organizational contingency factor makes it possible to increase this performance in coherence with the HRM system. For the third, it aims to contribute empirically to testing the contribution and the link between human resource management and organizational performance. On a theoretical level and as part of a contingency approach, we will base our thinking on theoretical models of reference, with the aim to understand the different dimensions of the subject by placing it in the Moroccan context. As for the empirical plan, the present study was carried out on a sample of 117 SMEs, attempts to validate the influence of HRM practices on organizational performance, as well as the mediating effect of the strategy pursued by the company on this relationship of influence in the context of SMEs.

Keywords: *Corporate strategy, Human Resource Management, HRM practices, Organizational Performance, Small and medium enterprise*

1. INTRODUCTION

In a context of globalization marked by shortages and socio-economic changes, Businesses need to think about new ways of organizing that make it both easier and more efficient for both financial resources and human resources to achieve their performance. But for most companies, it is not enough to exist, it is necessary to perform, otherwise, they must ensure their survival and development in this ever-changing environment challenging a revaluation of the place to book in human capital. It is worth mentioning that special attention is being given to the human resources professions, since it proceeds with a set of methods and tools developed specific to the company whose HR function has, to carry out and ensure its tasks. in order to adapt to future developments and lead to the efficiency of the organization. Generally speaking, there are no universal practices in human resource management. Successful practices are those that, adapted to the context, help meet the challenges that a company faces (JMPeretti, 2013, pp 1). These practices implement logics of response. These last induced by the internal and external constraints gradually permeate for twenty-five years the HR practices in the various national contexts. On the other hand, a day, the performance of enterp rises is an imperative for organizations that they are public or private, large or small, for profit and without purpose. This research consists in trying to identify HRM practices likely to influence organizational performance. However, we will come back to the specificities of HRM in SMEs in general, and its link with the per formance of the business, this part is dedicated to the exhibition of an analysis of HRM in the SME and the different s links between these two variables as a reading Miss gri.

Then we will present the empirical case study on SMEs and the different characteristics that enabled them to achieve performance through HRM. For better performance, human resource management practices need to be adapted to the organizational context. This vision states that human resource management practices are closely linked, hence a contingent approach to HRM is required. To do this, it seems crucial to us to develop a problem that best meets our research purpose such as "To what extent do HRM practices influence the organizational performance of SMEs?". To answer the question, we will come back to the different theoretical grids that have dealt with HRM in SMEs.

2. CONCEPTUAL FRAME

2.1. The contingency approach

Management research on the relationship between HRM and performance has given rise to two perspectives: the one-dimensional perspective and the multidimensional perspective. In this study, we opt for the multidimensional perspective. We justify the choice of this perspective by the fact that it has experienced the development of three different models. The human resources management literature identifies three broad perspectives in the strategic model. Using the terminology presented by Jackson et al. (1989), Brewster (1995, 1999) and Delery and Doty (1996), we practically have the universalist perspective, the contingent perspective, the perspective configuration daughter. These theoretical approaches to strategic HRM are composed as follows: The first is based on the concept that there is a "better way" to manage human resources to improve business performance; While, the second focuses on the need to align employment policies and practices with the requirements of the corporate strategy to ensure that it is achieved and business is successful. Thirdly, it consists in grouping HRM practices under a coherent work system to achieve better performance levels; Fourth, a more recent approach to strategic HRM stems from the resource-based vision of the enterprise and the perceived value of human capital. Our research is built around the contingency perspective to better onstrate m i m pact of HRM practices on organizational performance through the company's strategy. However, the contingency approach is defined as the alignment of HRM practices with the organizational strategy, the objective of this alignment being to achieve a higher organizational performance. Proponents of this approach view HRM as an instrumental variable whose purpose is to encourage and reinforce the type of behavior desired by the organization's strategic needs (L.Lemire, E.Charest, G.Martel, J. Lariviere,, 2011, p p 276). This alignment is done on the organizational strategy and refers to the concept of vertical integration. The contingency approach thus makes explicit the links that exist between the HRM system and the expected organizational performance. For many researchers and practitioners, HRM cannot be considered strategic without the consideration of contingency (vertical alignment).

2.2. Synthesis of the main empirical studies of the contingency approach

The contingent model relied on the theoretical foundations derived essentially from the behavioral theory of human resources and the theory of the agency. According to Porter (1996), the strategy mobilizes all other organizational factors to increase the value created by the company. It is therefore the adjustment of HR decisions to the strategy that is a source of performance (Ndao 2012, Carrière and Barrette 2005, Maybe et al 2004, Arcand 2000, Delery and Doty 1996). The pratiqu es human resources are only useful if they s' align organizational contingency factors including the rule amounts to the "strategy" factor (Ndao, 2012) by (Sanaâ KARIM, Abdellatif KOMA T, 2015, pp 7) Of course, different empirical studies s' support fo r this approach to try to explain how HR practices can interact with the eStrategi the organization fo r increase the company's performance.

These studies questioned the universal influence of the most recent practices:

- The study by Baldegger and Arcand (2003), conducted on a sample of 46 Canadian financial cooperatives, examines whether the relationship between HR practices and organizational performance is contingent on the type of organizational strategy adopted by the firm;
- The study of Carrière and Barrette (2005), conducted among 175 high-capital-intensive firms in Quebec and Ontario, aims to verify to what extent the HR practices prescribed by the two theoretical models, contingent and configurational, predict perceived organizational performance of the companies studied;
- The study of Fabi et al. (2010), conducted with 182 Canadian SMEs and from a perspective based on the contingent approach, reveals that the development of HRM skills enables firms to improve their productivity.

3. HRM PRACTICES IN SMES

Researchers and human resource managers have long argued that the human resource management function plays an important role in business performance (Barney, JB & Wright, PM, 1997, pp 3). In fact, most companies' annual reports show that human capital is their most important asset. Many organizational decisions suggest relatively low priority for both human resources and their development. In addition, even when business leaders value their people, they may not value HR. Today, there is a multitude of expressions that aim to describe the role of human resources within companies. If we think of the concept of human capital in this new era of the knowledge economy, then it can be defined as the body of knowledge, skills, abilities and attitudes of employees within an organization (Patric Rivard, Martin Lauzier, 2013, pp 7).

3.1. The problem of defining SMEs

That is what distinguishes a SME to a large company? It does not exist at the present consensus among researchers in this field. Indeed, a standard and universal definition of the SME has been the subject of many attempts and researches but has nevertheless been quickly abandoned in favor of definitions specific to each country. The SME seems to be an object of study whose definition is self-evident. As soon as one wishes to specify the field covered, one encounters many difficulties. Julien and Marchesnay (1988) point out that the definition of SMEs is fully influenced by a wide variety of SME characteristics. For such companies the personal influence of the owner-manager is outstanding at this level, also adding the weight of his decision-making autonomy, property, the influence of the environment, the market share etc. In Morocco, small and medium-sized enterprises are the nerve center of the economy with 40% of production and 31% of exports. They are present in all sectors of Moroccan economic activity: agriculture, industry, crafts, building and public works, and finally services that include tourism, communications, transport and financial services (Ethical Council of Securities, 2011). The SME is then apprehended in a qualitative way which gives rise to a first difficulty which is that of the availability of the indicators making it possible to identify them statistically (B. Belletante, N. Levrato, B. Paraque, 2001, pp 24). Currently the SME is considered as a major and not a residual player in economic life. In addition, the evolution of new technologies encourages the emergence of new professions and new ways of organizing work specifically adapted to this type of business. The SME is therefore everywhere destined for a good future whose role is becoming more and more important.

3.2. HRM in SMEs: Absence of formalization

The absence of formalization does not mean the absence of HRM practices or the lack of interest of managers in HRM and does not reflect the complexity of SMEs. As a result, Boislandelle, (1993) joins Garand, (1990) to confirm that other evaluation criteria for HRM in SMEs have been developed and take into consideration the manager, his entrepreneurial vision, and the

development strategy (Igalens, Jacques, Abdenbi Louitri, and Doha Sahraoui, 2011, pp 87). These criteria are diversity, sophistication and generalization:

- Diversity: a criterion aimed at understanding the variety of HRM practices. It determines whether these practices are limited to certain areas such as recruitment or extend to others, such as training.
- The sophistication of practices: criterion that concerns the practices themselves and the use of different HRM tools for the same practice. For example, in the context of remuneration, sophistication will make it possible to verify whether HRM is limited to pay or is extended to profit-sharing.
- The generalization of practices: a criterion which tries to determine to which categories of employees HRM practices are applied, whether they are limited to management or are extended to all staff, or if they are limited to one service or extended to all services.

4. A MULTITUDE OF LINKS

4.1. HRM and strategy

Jean-Claude Tarondeau and Christian Huttin, consider that the strategy concerns "the question and control of resources and skills allowing a firm to differentiate itself from its competitors, to deploy its activities, to innovate or to have sufficient flexibility to adapt to changes in the environment and the strategies of its competitors. "However, the general strategy of any company goes through a main phase: the elaboration or the formulation, but before this step, there is the phase of diagnosis that allows defining the strengths and weaknesses of the organization vis-à-vis its environment and its mission. To do this, this diagnosis must answer questions both internal (HR, commercial, technical and financial) and external (supply, competition, demand). By using strategic approaches in the field of HRM, it is necessary to distinguish between process and content. Indeed, the strategy process refers to the way in which a strategy intervenes, while the content concerns the "what" of a strategy. The field of human resources management and strategy produces a number of causal links which we present most strongly in the literature (Jaap PAAUWE, 2004, p: 29):

- Administrative Liaison: reflects the traditional and administrative role of the people management function, with difficulty in establishing a relationship between the strategic direction of the company and HRM policies and practices
- One-way link. Once the strategy is formulated, the staff function manager will be involved in designing policies and practices to help implement the strategy. Personnel management the function itself does not participate in the formulation strategy process.
- Bi-directional link. The relationship between corporate strategy and HRM is balanced and reciprocal. There is mutual influence, and the people management function really contributes to the strategy formulation process.
- Integrative link. The relationship between corporate strategy and HRM is characterized by a high degree of interaction, both formal and informal

The robustness of the links between the commercial strategy and the human resources management strategy and their impact on the performance of individuals, teams and companies is closely linked to the short and long-term issues.

4.2. Human Resources and Performance

The search for performance is the second key concept in our topic related to the strategic contribution of human resources management. Traditionally, the performance of the enterprise aims, on the one hand, to measure the harmony between the strategic objectives initially determined and the results formally achieved (effectiveness) and, on the other hand, the harmony between the results and the results. the means employed (efficiency). In order to

analyze the problem of what is exactly "efficient", more precisely what organization or system or network or policy is analyzed? But what is meant by "performance"? What are the components of "performance"? Are these simply "results"? (Colin Talbot, 2010, p: 33). In the same concept and starting from a notion of value, with a homogeneous sample as well for a public company, family businesses, or non-profit organizations, the performance is a multidimensional concept, which allows the creation of value according to different dimensions (Steers 1975, Dess and Robinson 1984, Cameron 1986, Murphy et al. The overall performance of a company can not be limited to a financial perspective. Currently, it is clear that it includes beyond this perspective, social and environmental dimensions (Judith Saghroun, Jean-Yves Eglem, 2008, p: 94). However, economics and management literature recognizes many concepts and variables to measure performance. Which distinguishes between financial and non-financial measures of performance. Many of these different measures are correlated. However, in empirical studies, the choice of performance measurement is often limited by the availability of data. Productivity, Employment, Profitability, Salaries, Turnover, Executive satisfaction... Human resources, or human capital in general, have a key role in driving business success. This role has been recognized since the first reflections on the place of human capital in the economies of the industrialized countries. In addition, the role of human resources has evolved and changed according to the importance they have acquired as a result of economic and technological developments in the environment. According to the research conducted to date, a dual purpose appears in the context of HRM's contribution to the company's performance, firstly to detect a link between people management practices and organizational performance, and in a second objective to evaluate is the way people are managed affect the results? otherwise what particular policies and practices lead to high performance?

5. METHODOLOGY

As part of this research project, we first proposed a literature review on the HRM-strategy link in SMEs, in particular. We will then seek to shed light on the contribution and the impact of this relationship on the organizational performance of SMEs, according to a specific methodology. Our empirical research being quantitative, the collection of information was done through a questionnaire in order to obtain a high amount of information. Following our research problematic, we can now detect a large number of relationships linking all of our research variables namely: Between the independent variable (HRM practices) and the dependent variable (Organizational Performance): By In relation to HRM practices, they were apprehended from the six dimensions of HRM such as: recruitment, training, remuneration, evaluation, communication and involvement. Indeed, we expect a positive relationship between these HRM practices and the performance indicators selected.

5.1. Assumptions

This research is to try to identify HRM practices may influence in organizational performance. Moreover, a review of literature on human resources management practices, has led us to retain a set of practices such as recruitment, compensation, training, performance Evaluati it. Ultimately, c A s we have noted above, the contingency theory of human resources, offers solid assumptions our problematic about the sustainability of HRM-performance relationship, we propose a central hypothesis to validate this approach:

□ **H = HRM practices positively influence the organizational performance of SMEs**

In order to test our hypothesis previously developed, we have chosen as an empirical validation context for our research, small and medium-sized companies in the FES-MEKNES region. Indeed, opting for small and medium-sized enterprises is not a coincidence. but this is a concept

where research is abundant in Morocco, where most doctoral research on HRM practices has been carried out at the level of large entities.

5.2. Results

For the verification of our main hypothesis, our search strategy will be based on a sample. This survey was conducted on a representative sample of 117 SMEs. The surveys were conducted in the form of questionnaires, face-to-face interviews with HR managers, owners and managers of companies. Of this total, and 87 of them wanted to receive our questionnaire only 60 companies that agreed to participate, representing a participation rate of 70%.

5.2.1. The descriptive analysis

They consist in knowing the conception of the practices and the prevailing performance within the Moroccan SME. From the tables below, we summarize as follows:

Table 1: Most Adopted HRM Practices

		Frequency	Percentage%	Percentage valid%	Cumulative percentage%
Valid	Evaluation	10	16,3	16,7	16,7
	Recruitment	15	24,5	24,5	41,2
	Rémunération	12	19,6	19,6	60,8
	Training	9	14,7	14,7	75,5
	Communication	6	9,8	9,8	85,3
	Training	9	14,7	14,7	100,0
Total		60	100,0		

16% of surveyed companies announce that they are adopting the practice of performance appraisal ; 24% of the companies surveyed carry out a recruitment policy ; nearly 20% of the companies surveyed having the practice of remuneration in their policies ; 14.7% say they have a training and involvement policy for staff ; lately only 9.8% who work with a communication policy within their companies. All in all, according to these statistics we can recapitulate that the rate of practices adopted does not even reach 30% in the companies in our sample, which refers to a formalization and average implementation practices in SMEs. The dependent variable constitutes organizational performance, in order to measure it, it was crucial to focus on a certain number of economic or social indicators, in order to measure the increase of this variable such as: organizational commitment, absenteeism rate, customer satisfaction, productivity, market share.

Table 2: The performance indicators for the company

		Frequency	Percentage%	Percentage valid%	Cumulative percentage%
Valid	Sales growth	22	36,07	36,07	36,07
	Number of new products	11	18,04	18,04	54,11
	Market share	10	16,4	16,4	70,51
	Number of customer complaints	5	8,2	8,2	78,71
	Customer satisfaction	13	21,3	21,3	100,0
Total		60	100,0		

Regarding the perception of organizational performance indicators among all respondents, 36% of whom say that performance is measured by sales growth, 21% of respondents point out that the customer satisfaction that makes the performance, while between 18 % and 16% ensure that

the number of new products and the market share successively increase the performance of the company, in a last time the number of complaints from customers with a lean rate of 8% which does not reflect too much the performance and which was not taken into consideration when collecting this variable. The results show that in 57% of companies the performance indicators have no link with the developed strategy of the company, on the other hand an average of 40% of the companies that determine the performance indicators in advance development of their strategic plan.

5.2.2. The causality: Student test

Table 3: The causality: Student test

			Parameter estimation	STANDARD ERROR	STUDENT T	PP	label
organizational performance	<---	Recruitment	0,438	0,12	3,642	***	Accepted
organizational performance	<---	Remuneration	0,668	0,146	4,583	***	Accepted
organizational performance	<---	Evaluation	-0,138	0,058	-2,38	0,017	Accepted
organizational performance	<---	Training	-0,031	0,039	-0,797	0,426	Rejected
organizational performance	<---	Communication	0,272	0,087	3,138	0,002	Accepted
organizational performance	<---	Involvement	0,044	0,12	0,368	0,713	Rejected
organizational performance	<---	Strategy and Positioning	-0,156	0,045	-3,444	***	Accepted

The Recruitment variable has a positive and significant impact on the Organizational Performance variable (Reg = 0.438, Student's T = 3.642, p-value = 0.000). (H1 / accepted). The Compensation variable has a positive and significant impact on the Organizational Performance variable (Reg = 0.668, Student's T = 4.583, p-value = 0.000). (H2 / accepted). The Evaluation variable has a negative and significant impact on the Organizational Performance variable (Reg = -0.138, Student's T = -2.38, p-value = 0.017). (H3 / accepted). Training has a negative but not significant impact on the Organizational Performance variable (Reg = -0.031, Student's T = -0.797, p-value = 0.426). (H4 / rejected). The Communication variable has a positive and significant impact on the Organizational Performance variable (Reg = 0.272, Student's T = 3.138, p-value = 0.002). (H5 / accepted). The Involvement variable has a positive but not significant impact on the Organizational Performance variable (Reg = 0.044, Student's T = 0.368, p-value = 0.713). (H6 / rejected). The Strategy and Positioning variable has a negative and significant impact on the Organizational Performance variable (Reg = -0.156, Student's T = -3.444, p-value = 0.000).(impact accepted).

6. CONCLUSION

Through this work we have tried to approach a structural problem that has so far attracted little attention from Moroccan researchers in the field of SMEs. This is HRM and its contribution to organizational performance as a lever of success on which an SME can base its competitive strategy in the medium and long term. To do this we have studied the effects of six HRM practices the performance indicators, later, we have highlighted the contingency approach of the GRH and performance relationship and through the application of the student test to verify our central hypothesis. The assumption of our work, wanting which human resources management practices positively influence the performance of Moroccan companies, especially

SMEs, is supported by our results. Or, there are two practices that have positive and negative effects. not significant on various performance indicators ie Training and involvement. Generally, training and development do a good job of increasing productivity, but the question is how much? it is even difficult to disclose and define a causal link between HR development and organizational performance. This is the case for training and variable involvement for which estimates obtained are negative sign or a positive sign but not significant nonzero hence sub assumptions are not confirmed in this direction. Compared to the "evaluation" practice, since this practice is strongly correlated with training and communication at the same time as training results or training needs can be detected right after the annual evaluation process. which produces a strong interaction between the two s. On the light of the causal results of HRM practices - recruitment, training, remuneration, evaluation communication and involvement with organizational performance indicators - we confirm that the effects of HRM practices are not at all similar for all performance indicators, in addition, we can observe that this influence is achieved by the majority of the practices, hence the impact on the performance of SMEs is certainly very large.

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AUTOMOBILE INSURANCE: ANALYSIS OF THE IMPACT OF A RATE CHANGE ON THE BEHAVIOR OF INSURED AT THE TIME OF SUBSCRIPTION AND TERMINATION

Zakaria Rouaine

*Faculty of Economic and Social Sciences
Ibn Tofail University, Kenitra, Morocco
rouainezakaria@gmail.com*

Mounir Jerry

*Faculty of Economic and Social Sciences
Ibn Tofail University, Kenitra, Morocco*

Ahlam Qafas

*Faculty of Economic and Social Sciences
Ibn Tofail University, Kenitra, Morocco*

ABSTRACT

The act of subscribing to an insurance contract allows an individual to take precautions against the repercussions of hazards and fortuitous events affecting their person or property. In return for this insurance policy, the insured pays a contribution at the beginning of the coverage period, while the insurer may have to provide a service if a certain type of damage occurs during the period in question. Therefore, the insurance contract is an agreement in which a part guarantees a risk in exchange for the payment of a premium. Besides these two elements of the insurance contract, there is a third impersonal component, which is the market. The market acts both on the insured by being able to induce him to terminate his insurance contract, in the case of excessive prices to those of other insurers, and on the insurer by forcing him to a certain extent to make his insurance premiums tolerable. It therefore appears that the insurance premium risk threatens the competitiveness of insurers on the insurance market and the termination of policyholders at the end of the contract term. By choosing to work on automobile insurance market, which is becoming increasingly competitive, as precise premium pricing is a major challenge for each insurer. In this economic context, the price sensitivity of policyholders seems to be decisive information for an insurance company in order to adjust its rates as effectively as possible. Price sensitivity, which varies greatly from one policyholder to another, has an impact on the subscription and termination rates of a contract as on the profitability of the insurance portfolio. The objective of this work is to study the sensitivity of insured persons to changes in automobile insurance premiums. The aim is to model the impact of rate.

Keywords: *Automobile insurance, Customer behavior, Generalized linear model, Logistic regression probability of termination, Sensitivity to insurance premium variations*

1. INTRODUCTION

The act of subscribing to an insurance contract allows an individual to take precautions against the repercussions of hazards and fortuitous events affecting their person or property. In return for this insurance policy, the insured pays a contribution at the beginning of the coverage period, while the insurer may have to provide a service if a certain type of damage occurs during the period in question. Therefore, the insurance contract is an agreement in which a part guarantees a risk in exchange for the payment of a premium. Besides these two elements of the insurance contract, there is a third impersonal component, which is the market. The market acts both on the insured and the insurer, by being able to induce the former to terminate his insurance

contract, in the case of excessive prices compared to those of other insurers, and on the insurer by forcing him to a certain extent to bring down his insurance premiums to a reasonable proportion. It therefore appears that the insurance premium risk threatens the competitiveness of insurers on the insurance market and the termination of policyholders at the end of the period. Competitiveness in the insurance market is a barrier for insurers to charge high prices for insurance coverage. Indeed, the insurance premium is calculated according to the specific characteristics of the insured and the insurable property. While the insured is tempted to terminate his insurance contract with the initial insurer if he can negotiate a cheaper contract elsewhere with equivalent coverage. Very little work has been done on why and when exchange relationships end (Tähtinen and Havila, 2004) [1]. In some services, when customers terminate a relationship, the company can incur high costs. Keaveney (1995) [2] reveals that when companies lose a customer, not only they lose future receipts but they also incur costs to find new subscribers. He also announces that customer loyalty makes him less price-sensitive and less expensive. Keaveney and Parthasarathy (2001) [3] find that consumers' changing behavior in service markets can be particularly serious in the case of continuous service, such as insurance. A premature end of the relationship would mean that customers end up costing the company more than they contribute. Customers become intolerant of incoherence or mediocrity and can dissolve the relationship as soon as a problem arises, when they can access information and make the best choices (Roos 2002) [4]. Two aptitudes can also be distinguished in terms of how consumers perceive the price of a product or service. The first argues that a high price is a good quality argument and vice versa (Dodds & al. 1991 [5], Teas & Agarwal 2000 [6]), while the second suggests that a low-price level can be seen as a sign of good value for money (Kirmani & Rao 2000) [7]. Also, a low price can be perceived as a synonym for poor quality, or high price is considered abusive. When the price is felt to be unfair, the consumer tends to change his supplier (Campbell 1999 [8], Homburg & al. 2005 [9]). According to Keaveney (1995), consumers willingly change their suppliers when they are dissatisfied with the prices paid. Athanassopoulos (2000) [10] and Bansal et al (2005) [11] agree with Keaveney (1995), and suggest that one of the reasons consumers may change their supplier is excessive pricing. (Wathne & al., 2001) [12], argue that being informed by market opportunities, and the possibility of savings, can become a reason for an immediate replacement of supplier. The work of Bland & al (1997), and Kelsey & al (1998) [13] shows that the termination rate decreases over time. This means that the longer the insured remains in the portfolio, the lower the probability of termination. Termination depends largely on the insured's price flexibility. This price sensitivity depends on the psychological nature of the prices in the first place. In this context, Weber-Fechner's psychophysical law specifies that sensation varies as does the logarithm of excitation. Its transcription in terms of price sensitivity leads us to believe that a successive price increase leads to fewer terminations than a sudden and single price increase. Otherwise, a successive price decrease should encourage the renewal of contracts rather than a single price decrease. By choosing to work on non-life insurance, the large collection of insurance premiums in this branch is mainly due to the strong presence of automobile insurance, which will be the subject of our study concerning the Rabat - Sale - Kenitra region. The automobile insurance sector has the lion's share and amounts to a turnover of approximately 10,527 million dirhams in 2017, with a growth rate of 5.8% compared to 2016, which reached 9,953.8 million dirhams, and has become the leading market with a 48.40% contribution in the non-life insurance sector, and a 27% contribution to overall insurance turnover in Morocco, as evidenced by the figures of the Moroccan Federation of Insurance and Reinsurance Companies.

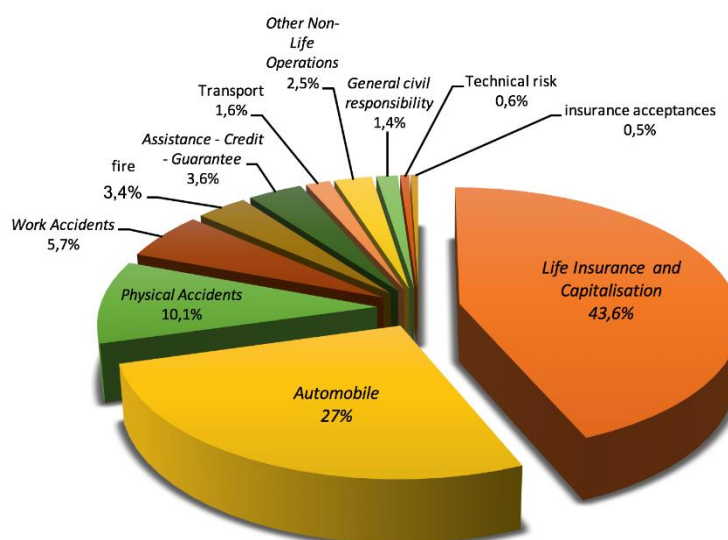
Table following on the next page

Table 1: Total revenues in million dirhams and the evolution of the non-life insurance branch

	2015	2016	2017	2016/2017
Non-Life Insurance	19 862,9	20 806,1	21 981,5	5,6%
–Physical Accidents	3 359,5	3 652,8	3 922,5	7,4%
–Work Accidents	2 090,9	2 174,1	2 223,0	2,2%
– Automobile	9 514,2	9 953,8	10 527,0	5,8%
–General civil responsibility	544,4	550,2	549,0	-0,2%
–Fire	1 312,1	1 318,4	1 331,7	1,0%
–Technical risk	393,7	329,4	242,3	-26,4%
–Transport	552,3	578,0	604,9	4,7%
–Other Non-Life Operations	701,2	734,5	979,4	33,3%
–Assistance - Credit - Guarantee	1 183,2	1 331,1	1 415,1	6,3%
–Non-Life Acceptances	211,5	183,8	186,5	1,5%

Source: Moroccan Federation of Insurance and Reinsurance Companies

Graph 1: Structure of the turnover of the Moroccan insurance sector in 2017



(Source: Moroccan Federation of Insurance and Reinsurance Companies)

The automobile insurance market is becoming increasingly competitive, and accurate premium pricing is a major issue for every insurer. Despite the importance of this market, it is as competitive as it is not easy for an insurer to develop and attract customers while keeping its original policyholders. In this economic context, the price sensitivity of policyholders seems to be a decisive information for an insurance company in order to adjust its rates as effectively as possible. A price that is too high compared to the competition will be an obstacle to subscription or an incentive to terminate it. Consumer's behavior is more difficult to predict because it varies from one individual to another owing to many criteria. Price sensitivity, which varies greatly from one policyholder to another, has an impact on the subscription and termination rates of contracts as well as on the profitability of the insurance portfolio. The objective of this work is to study the sensitivity of insured persons to changes in automobile insurance premiums. In other words, how important is it for the insured to take the market premium increase into account when deciding whether or not to renew his insurance contract with his current insurer? The aim is therefore to model the impact of rate variations on the insured's behavior at the end of the contract. This study will try to answer the following hypothesis: Changes in insurance premiums have a positive impact on policyholders' intentions to terminate their automobile

insurance contracts. Termination models are based on statistical regression models, the most well-known of which is the logistic model, which is part of the large class of generalized linear models introduced by John Nelder and Robert Wedderburn (1972) [14]. Logistic Regression is a modeling technique that, in its most frequent version, aims to predict and explain the values of a binary or dichotomous categorical variable (such as the presence or absence of an event) Y (variable to predict, explained variable, dependent variable, class attribute, endogenous variable) from a collection of continuous or binary X variables (predictive variables, explanatory variables, independent variables, descriptors, exogenous variables). Logistic regression has therefore become an increasingly useful statistical tool, especially over the last two decades, as evidenced by the work of Oommen, Baise and Vogel (2011) [15], although its originals can be dated to the 19th century (see Cramer, 2002) [16]. It is widely considered to be the statistic of situations in which the occurrence of a binary (dichotomous) result must be predicted (see Hosmer & Lemeshow, 2000) [17]; (King and Zeng, 2001) [18].

2. THE PROPOSED METHOD

Given that the general form of logistic model is:

$$\text{logit}(\pi_i) = \ln \left(\frac{\pi_i}{1 - \pi_i} \right) = \sum_{i=0}^p \beta_k x_{ik}, \text{ where } i = 1, 2, \dots, N \quad (1)$$

By logit transformation, we have from Equation (1) that:

$$\frac{\pi_i}{1 - \pi_i} = \exp \left(\sum_{i=0}^p \beta_k x_{ik} \right) \quad (2)$$

We evaluate Equation (2) to obtain (π_i) and $(1 - \pi_i)$ as:

$$\pi_i = \exp \left(\sum_{i=0}^p \beta_k x_{ik} \right) - \pi_i \exp \left(\sum_{k=0}^p \beta_k x_{ik} \right) \quad (3)$$

$$\pi_i + \pi_i \exp \left(\sum_{k=0}^p \beta_k x_{ik} \right) = \exp \left(\sum_{i=0}^p \beta_k x_{ik} \right) \quad (4)$$

$$\pi_i \left(1 + \exp \left(\sum_{k=0}^p \beta_k x_{ik} \right) \right) = \exp \left(\sum_{k=0}^p \beta_k x_{ik} \right) \quad (5)$$

$$\pi_i = \frac{\exp \left(\sum_{k=0}^p \beta_k x_{ik} \right)}{1 + \exp \left(\sum_{k=0}^p \beta_k x_{ik} \right)} \quad (6)$$

$$\pi_i = \frac{1}{1 + \exp \left(- \sum_{k=0}^p \beta_k x_{ik} \right)} \quad (7)$$

$$(8)$$

Similarly,

$$1 - \pi_i = 1 - \frac{1}{1 + \exp(-\sum_{i=0}^p \beta_i x_{ik})} = \frac{1}{1 + \exp(\sum_{i=0}^p \beta_i x_{ik})} = \frac{\exp(-\sum_{i=0}^p \beta_i x_{ik})}{1 + \exp(-\sum_{i=0}^p \beta_i x_{ik})}$$

3. OBTAINED PARAMETERS OF NON-LINEAR EQUATIONS FROM BINOMIAL DISTRIBUTION USING MAXIMUM LIKELIHOOD ESTIMATION (MLE)

Here, we estimated the P+1 unknown parameters β using MLE as:

$$f(Y|\beta) = \prod_{i=1}^N \pi_i^{y_i} (1 - \pi_i)^{n_i - y_i}$$

Where β is incorporated as a regression coefficient in the general form for the binary logistic model. In the equation below the value of \mathbf{Y} as a function of known, fixed values for β .

$$L(\beta|Y) = \prod_{i=1}^N \pi_i^{y_i} (1 - \pi_i)^{n_i - y_i}$$

We here find the maximum likelihood estimates which are the values for β required.

$$L(\beta|Y) = \prod_{i=1}^N \pi_i^{y_i} (1 - \pi_i)^{n_i - y_i} = \prod_{i=1}^N \left(\frac{\pi_i}{1 - \pi_i} \right)^{y_i} (1 - \pi_i)^{n_i},$$

Substituting Equation (2) for the first term and Equation (6) for the second term, to obtain

$$L(\beta|Y) = \prod_{i=1}^N \left(\exp\left(\sum_{k=0}^p x_{ik}\beta_k\right) \right)^{y_i} \left(1 - \frac{\exp\left(\sum_{k=0}^p x_{ik}\beta_k\right)}{1 + \exp\left(\sum_{k=0}^p x_{ik}\beta_k\right)} \right)^{n_i}$$

But:

$$\frac{\pi_i}{1 - \pi_i} = \exp\left(\sum_{k=0}^p x_{ik}\beta_k\right) \text{ and } 1 - \pi_i = 1 - \frac{\exp\left(\sum_{k=0}^p x_{ik}\beta_k\right)}{1 + \exp\left(\sum_{k=0}^p x_{ik}\beta_k\right)}$$

$$L(\beta|Y) = \prod_{i=1}^N \left(\exp\left(y_i \sum_{k=0}^p x_{ik}\beta_k\right) \right) \left(1 + \exp\left(\sum_{k=0}^p x_{ik}\beta_k\right) \right)^{-n_i}$$

$$l(\beta) = \sum_{i=1}^N y_i \left(\sum_{k=0}^p x_{ik}\beta_k \right) - n_i \cdot \log \left(1 + \exp \sum_{i=0}^p x_{ik}\beta_k \right)$$

In differentiating the last equation, note that:

$$\frac{\partial}{\partial \beta_k} \sum_{k=0}^p x_{ik} \beta_k = x_{ik}$$

$$\frac{\partial l(\beta)}{\partial \beta_k} = \sum_{i=1}^N y_i x_{ik} - n_i \cdot \frac{1}{1 + \exp(\sum_{k=0}^p x_{ik} \beta_k)} \cdot \frac{\partial}{\partial \beta_k} \left(1 + \exp(\sum_{k=0}^p x_{ik} \beta_k) \right) \quad (9)$$

$$= \sum_{i=1}^N y_i x_{ik} - n_i \cdot \frac{1}{1 + \exp \sum_{k=0}^p x_{ik} \beta_k} \cdot \exp(\sum_{k=0}^p x_{ik} \beta_k) \cdot \frac{\partial}{\partial \beta_k} \sum_{k=0}^p x_{ik} \beta_k \quad (10)$$

$$= \sum_{i=1}^N y_i x_{ik} - n_i \cdot \frac{1}{1 + \exp(\sum_{k=0}^p x_{ik} \beta_k)} \cdot \exp(\sum_{k=0}^p x_{ik} \beta_k x_{ik}) \quad (11)$$

$$\text{Since } \pi_i = \frac{\exp(\sum_{k=0}^p x_{ik} \beta_k)}{1 + \exp(\sum_{k=0}^p x_{ik} \beta_k)} \text{ and } \frac{\partial l(\beta)}{\partial \beta_k} = l'(\beta) = \sum_{i=1}^N y_i x_{ik} - n_i \cdot \pi_i \cdot x_{ik}$$

Therefore:

$$\frac{\partial^2 l(\beta)}{\partial \beta_k \partial \beta_{k'}} = \frac{\partial}{\partial \beta_{k'}} \sum_{i=1}^N y_i x_{ik} - n_i x_{ik} \pi_i \quad (12)$$

$$= \frac{\partial}{\partial \beta_{k'}} \sum_{i=1}^N -n_i \cdot x_{ik} \pi_i \quad (13)$$

$$= - \sum_{i=1}^N n_i \cdot x_{ik} \cdot \frac{\partial}{\partial \beta_{k'}} \left(\frac{\exp(\sum_{k=0}^p x_{ik} \beta_k)}{1 + \sum_{k=0}^p x_{ik} \beta_k} \right) \quad (14)$$

$$\text{Where } \pi_i = \frac{\exp(\sum_{k=0}^p x_{ik} \beta_k)}{1 + \exp(\sum_{k=0}^p x_{ik} \beta_k)} = \frac{1}{1 + \exp(\sum_{k=0}^p x_{ik} \beta_k)}$$

To solve this equation, we will make use for exponential functions and the rule for quotient two functions so as to obtain:

$$\frac{d}{dx} \frac{e^{u(x)}}{1 + e^{u(x)}} = \frac{(1 + e^{u(x)}) \cdot e^{u(x)} \frac{d}{dx} u(x) - e^{u(x)} \cdot e^{u(x)} \frac{d}{dx} u(x)}{(1 + e^{u(x)})^2} \quad (15)$$

$$= \frac{e^{u(x)} \frac{d}{dx} u(x) + (e^{u(x)})^2 \frac{d}{dx} u(x) - (e^{u(x)})^2 \frac{d}{dx} u(x)}{(1 + e^{u(x)})^2} \quad (16)$$

$$= \frac{e^{u(x)} \frac{d}{dx} u(x)}{(1 + e^{u(x)})^2} \quad (17)$$

$$= \frac{e^{u(x)}}{(1 + e^{u(x)})^2} \frac{d}{dx} u(x) = \frac{e^{u(x)}}{1 + e^{u(x)}} \cdot \frac{1}{1 + e^{u(x)}} \cdot \frac{d}{dx} u(x) \quad (18)$$

Since:

$$\frac{du(x)}{dx} = \frac{d}{dx} \sum_{k=0}^p x_{ik} \beta_k = x_{ik'}$$

While (π_i) and $(1 - \pi_i)$ are clearly defined. Thus, Equation (13) can now be written as:

$$l''(\beta) = - \sum_{i=1}^N n_i \cdot x_{ik} \cdot \pi_i (1 - \pi_i) x_{ik'}$$

4. NEWTON-RAPHSON ITERATION PROCEDURE

In finding the roots of Equation (10) using Newton-Raphson method, we generalize the method to a system of $P+1$ equations. This is done by expressing each step of the Newton- Raphson (NR) algorithm through letting β old or (β_0) represent the vector of initial approximations for each β_k so that the result of this algorithm in matrix notation gives:

$$\beta^{new} = \beta^{old} + [-l''(\beta^{old})]^{-1} \cdot l'(\beta^{old})$$

Substituting the values of $l_0()$ and $l_{00}()$ above simplifies the equation to a matrix form given as:

$$\beta^{new} = \beta^{old} + [X^T W X]^{-1} \cdot X^T (Y - \mu) \quad (19)$$

$$\beta^{new} = (X^T W X)^{-1} X^T W (X \beta^{old} + W^{-1} (Y - \mu)) \quad (20)$$

$$\beta^{new} = (X^T W X)^{-1} X^T W Z \text{ where } Z = (X \beta^{old} + W^{-1} (Y - \mu)). \quad (21)$$

Where:

$$Z = X \beta^{old} + W^{-1} (Y - \mu)$$

Is a vector and W is the diagonal weight vector with entries $\pi_i (1 - \pi_i)$.

The last equation is called the weighted least square regression which finds the best least-squares solution to the equation. The equation is called recursive weighted least squares because at each step, the weight vector W keeps changing. Now, we can write:

$$\beta^{(1)} = \beta^{(0)} + [X^T W X]^{-1} \cdot X^T (Y - \mu)$$

The idea is continuing applying this equation until a defined condition which is in our case the norm of the gradient is less than a small number, example 10^{-05} . Having obtained the two derivatives of the log likelihood function, we now establish the general form for Newton-Raphson approach which is an iterative algorithm method for obtaining the roots of non-linear equations. It converges to a unique maximum of the likelihood function.

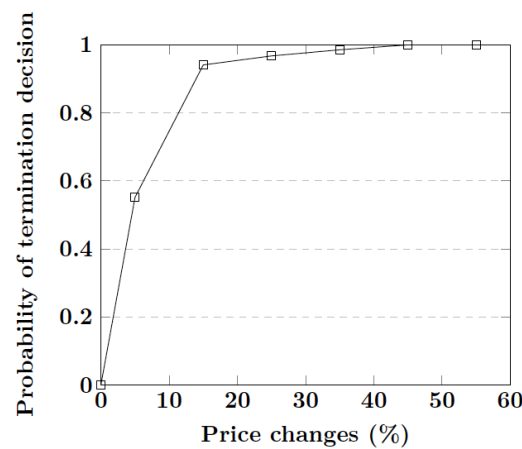
5. RESULT AND DISCUSSION

Here we present the data table and the graph of termination probability by price changes:

Table 2: The study datasets

Price Changes	Center	Terminations	Frequency	Cumulative Frequency
[00%-00%[	0	0	0	0
[00%-10%[	0,05	1870	0,5516	0,5516
[10%-20%[	0,15	1320	0,3893	0,9409
[20%-30%[	0,25	90	0,0265	0,9674
[30%-40%[	0,35	60	0,0176	0,9850
[40%-50%[	0,45	50	0,0147	0,9998

Graph 2: Termination decision by price changes



We notice that the probability of termination of automobile insurance contracts at the end of their term increases as the insurance premium increases. The curve is joined to 1 (probability of termination decision) as soon as the variation in the premium exceeds 10%. This explains the sensitivity of the insured sample to the increase in the insurance premium.

Table 3: Case processing summary

Unweighted cases		N	Percent
Selected cases	Included in analysis	3390	100
	Missing cases	0	0
	Total	3390	100
Unselcted cases		0	0
Total		3390	100

The Case Processing Summary simply tells us about how many cases are included in our analysis. The second row indicates that there are no missing participants, so the 3390 cases will be integrated in the analysis.

Table 4: Dependent variable encoding

Original value	Internal value
No	0
Yes	1

The Dependent Variable Encoding reminds us how our outcome variable is encoded: "0" for "no" (do not terminate the automobile insurance contract at the end of its term), and "1" for "yes" (terminate the automobile insurance contract at the end of its term).

Table 5: Cronbach alpha reliability test

	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's Alpha if item deleted
[00% - 10%[	4,885	0,286	0,239	0,766
[10% - 20%[	4,496	0,434	0,550	0,378
[20% - 30%[	4,469	0,486	0,578	0,409
[30% - 40%[	4,451	0,556	0,501	0,477
[40% - 50%[	4,442	0,608	0,390	0,525

Table 6: Reliability statistics

Cronbach's Alpha	N of items
0,549	5

Table 7: Cronbach alpha reliability test

	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's Alpha if item deleted
[10% - 20%[	3,944	0,124	0,636	0,743
[20% - 30%[	3,917	0,147	0,787	0,616
[30% - 40%[	3,900	0,197	0,690	0,684
[40% - 50%[	3,891	0,240	0,535	0,751

Table 8: Reliability statistics

Cronbach's Alpha	N of items
0,766	4

We can see that removal of any item, except the first one ([00% - 10% [), would result in a lower Cronbach's alpha. Therefore, we would not want to remove these items. Removal of the first item, would lead to a small improvement in Cronbach's alpha, and we can also see that the "Corrected Item-Total Correlation" value was low (0.239) for this item. This might lead us to consider whether we should remove this item. From our example, we can see that Cronbach's alpha becomes $0.766 > 0.70$ (Nunnally, 1978), after deleting the first item of the analysis, which indicates a high level of internal consistency for our scale.

Table 9: Classification Tables

	Observed		Predicted		
			0	1	Percentage correct
[00% - 10%[	Termination decision	0	0	1520	0
		1	0	1870	100
Overall percentage					55,2

	Observed		Predicted		
			0	1	Percentage correct
[10% - 20%[	Termination decision	0	0	200	0
		1	0	3190	100
Overall percentage					94,1

	Observed		Predicted		
			0	1	Percentage correct
[20% - 30%[	Termination decision	0	0	110	0
		1	0	3280	100
Overall percentage					96,8

	Observed		Predicted		
			0	1	Percentage correct
[30% -40%[	Termination decision	0	0	50	0
		1	0	3340	100
Overall percentage					98,5

	Observed		Predicted		
			0	1	Percentage correct
[40% -50%[	Termination decision	0	0	20	0
		1	0	3370	100
Overall percentage					99,4

This set of tables describes the baseline model – that is a model that does not include our explanatory variables. The predictions of this baseline model are made purely on whichever category occurred most often in our dataset, given the base rates of the two decision options. For example, for the second item, $(3190/3390 = 94.1\%$ decided to stop the car insurance contract, and $200/3390 = 5.89\%$ decided to renew it).

Table 10: Variables in the equation (step:0)

Price variation	β_0	E.S.	Wald	df	Sig.	Exp(β_0)
[00%-10%[	,207	,109	3,601	1	,058	1,230
[10%-20%[	2,769	,231	144,348	1	0,000	15,950
[20%-30%[	3,395	,307	122,681	1	0,000	29,818
[30%-40%[	4,202	,451	86,97	1	0,000	66,800
[40%-50%[	5,127	,709	52,261	1	0,000	168,500

The Variables in the Equation table shows us the coefficient for the constant 0. This table is not particularly important but we've highlighted the significance level to illustrate a cautionary tale. According to this table the model with just the constant is a statistically significant predictor of the outcome when the $p < 0.001$. However, it is only significant starting from the second item ([10%-20% [) until the last premium variation ([40%-50% [) where $p = 0,000$. The reason we can be so confident that our baseline model has some predictive power.

Table 11: Omnibus Tests of Coefficients and Model Summary

		Chi-square	df	Sig
[00%-10%[	Step	23,878	1	0,000
	Bloc	23,878	1	0,000
	Model	23,878	1	0,000
[10%-20%[	Step	162,470	1	0,000
	Bloc	162,470	1	0,000
	Model	162,470	1	0,000
[20%-30%[	Step	228,859	1	0,000
	Bloc	228,859	1	0,000
	Model	228,859	1	0,000
[30%-40%[	Step	309,643	1	0,000
	Bloc	309,643	1	0,000
	Model	309,643	1	0,000
[40%-50%[	Step	379,704	1	0,000
	Bloc	379,704	1	0,000
	Model	379,704	1	0,000

The Omnibus Tests of Model Coefficients is used to check that the new model (with explanatory variables included) is an improvement over the baseline model. It uses chi-square tests to see if there is a significant difference between the Log-Likelihoods of the baseline model and the new model. If the new model has a significantly reduced -2LL compared to the baseline then it suggests that the new model is explaining more of the variance in the outcome and is an improvement. In our case, the second item for example, the chi-square is highly significant (chi-square=162,470, df=1, $p=0,000 < 0,001$) so our new model is significantly better. To make things clear, there are three different versions; Step, Block and Model. The Model row always compares the new model to the baseline. The Step and Block rows are only important if we are adding the explanatory variables to the model in a stepwise or hierarchical manner. If we were building the model up in stages then these rows would compare the -2LLs of the newest model with the previous version to ascertain whether or not each new set of explanatory variables were causing improvements. In our case, we added a single explanatory variable in a single block. This means that the chi-square values are the same for the step, block and model. For all cases, $p=0.000 < 0.001$, indicating that the model accuracy improves when we add our explanatory variables.

Table 12: Model Summary

Price variation	-2LL	Cox & Snell R-Square	Nagelkerke R-Square	-2LL initial
[00%-10%[	446,076	0,068	0,091	469,954
[10%-20%[	307,484	0,381	0,508	469,954
[20%-30%[	241,094	0,491	0,655	469,954
[30%-40%[	160,311	0,599	0,798	469,954
[40%-50%[	90,249	0,674	0,898	469,954

The Model Summary provides the -2LL and pseudo-R² values for the full model. For example, the -2LL value for the second item in this model (307,484) is compared to the -2LL for the previous null model (469,95) in the ‘omnibus test of model coefficients’ which told us there was a significant decrease in the -2LL, i.e. that our new model (with explanatory variable) is significantly better fit than the null model. The R² values tell us approximately how much variation in the outcome is explained by the model (like in linear regression analysis).

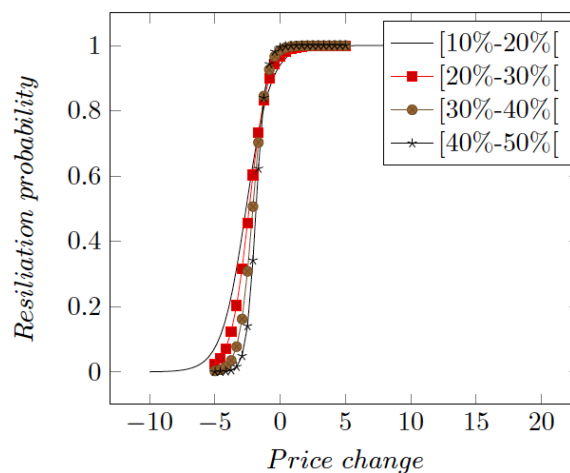
We prefer to use the Nagelkerke's R², which suggests that the model explains for example, roughly 50,8% of the variation in the outcome as we see in the second item. We notice that the two versions (Cox Snell and Nagelkerke) are different, this proves that these R² values are approximations and should not be overemphasized.

Table 13: Variables in the equation (step:1)

Price variation	B	E.S	Wald	df	Sig.	Exp(B)	C.I 95% pour EXP(B)	
							inf.	sup.
[00%-10%[	-0,318	0,068	21,882	1	0,000	0,728	0,637	0,831
[10%-20%[	1,059	0,105	102,417	1	0,000	2,884	2,349	3,541
[20%-30%[	1,428	0,132	117,848	1	0,000	4,169	3,222	5,395
[30%-40%[	2,004	0,185	116,711	1	0,000	7,418	5,157	10,671
[40%-50%[	2,775	0,284	95,39	1	0,000	16,044	9,193	28,003

This table provides the regression coefficient (B), the Wald statistic (to test the statistical significance), the all important Odds Ratio (Exp (B)) for each variable category, and their confidence intervals (CI). Looking first at the results in "The table of the variable in the equations (step:1)", there is a highly significant overall effect for all the items according to the Wald test, ($p=0.000$). The B coefficients for all items, are significant and positive except the first one which is negative $B=-0,318$, indicates that the increase in the insurance premium directly influences the decision of termination automobile insurance contracts at the end of their term. The Exp(B) column (the odds ratio) indicates that insureds are for example, four (4.169) times more likely to terminate their automobile insurance contract, in the event of an increase in insurance premiums between [20% - 30% [. According to our study, we realize that the more the variation in the insurance premium increases, the more the insureds terminates their contract, for example, an increase between [30% - 40% [of the premium will generate seven (7.418) times the possibility of termination than to renew their insurance contract, while a decrease in the premium will result in a decrease in the termination rate.

Graph 3: Logistic functions



In these results, the equation is written as the probability of a success. The response value of 1 on the y-axis represents a success. The plot shows that the probability of a success increases as the insurance premium increases. When the variation in the automobile insurance premium exceeds 10%, the function is joined to 1 (probability of termination decision), which explains the very high sensitivity of the insured sample to the increase in the insurance premium, while

the reduction in the insurance premium will generate a logistical function that tends towards 0, which means a high probability of renewal of the insurance contract.

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IS CIRCULAR ECONOMY GOING TO REDUCE WASTE AND CREATE JOBS IN THE EUROPEAN UNION?

Maria-Floriana Popescu

The Bucharest University of Economic Studies, Romania

maria.popescu@rei.ase.ro

ABSTRACT

The circular economy encourages the transformation of a consumption-based economy into a sustainable one, aiming to diminish the greenhouse gas effects and to preserve world's resources, while creating new jobs (especially local and regional ones) and generating competitive advantages throughout the European Union. From a circular economy perspective, countries from EU (and not only) should endeavour to reduce the amount of resources they need and use, followed by their reuse and recycle. There are several factors that have to be taken into account when calculating the progress towards achieving a circular economy in Member States, such as how much garbage and food waste is produced, how much of the waste is recycled, and furthermore how much of that recycled material is actually reused. In this article, the EU countries will be ranked taking into account several key metrics proposed by the European Commission to monitor progress on its goal to reduce waste, boost recycling and encourage reuse. The findings indicate that there are differences among countries and there is need for collaboration between Member States in order for the goals to be achieved. Moreover, a special attention will be given to analysing the impact the circular economy had until now on the creation of jobs and which are the goals set to be fulfilled until 2030 by the European Union in this field. The findings show that the circular economy jobs that are being created are largely low-paid and low-skilled ones, and include over half a million people working in waste collection, rather than qualified workforce with specific and even new skills required.

Keywords: *circular economy, recycle, reuse, waste*

1. INTRODUCTION

The concept of circular economy has recently gained and is still gaining importance on the agendas of policymakers and researchers (Brennan, Tennant, & Blomsma, 2015). This becomes evident in the official releases of the European Union's authorities as in the documents "Closing the Loop - an EU Action Plan for the Circular Economy" (European Commission, 2015a) or the "A European Strategy for Plastics in a Circular Economy" (European Commission, 2018) or the Circular Economy Promotion Law of the People's Republic of China Law (Chung & Zhang, 2011). The circular economy has also become an important field of academic research with an increase in the number of articles and journals covering this topic during the last decade. Along with the general public, private entities are also increasingly aware of the opportunities promised by the model encompassed within the circular economy. Many researchers define circular economy with a strong focus on how material resources are managed, such as "The circular economy represents a development strategy that maximises resource efficiency and minimises waste production, within the context of sustainable economic and social development" (Hislop & Hill, 2011). Also, "A 'circular economy' (CE) is an approach that would transform the function of resources in the economy. Waste from factories would become a valuable input to another process – and products could be repaired, reused or upgraded instead of thrown away." (Preston, 2012). If the scholars argue about waste and resources as central aspects of the circular economy concept, then "circular economy advocates the need for a 'functional service' model in which manufacturers or retailers increasingly retain the ownership of their products and, where possible, act as service Providers – selling the use of products, not their one-way consumption" (Ellen MacArthur Foundation, 2013).

Some researchers have outstepped the idea of resource management related to circular economy to tackle the economic dimension it encompasses. “The circular economy would provide multiple value-creation mechanisms decoupled from the consumption of finite resources. The concept rests on three principles: preserve and enhance natural capital, optimize yields from resources in use, and foster system effectiveness (minimize negative externalities).” (Ellen MacArthur Foundation & McKinsey Center for Business and Environment, 2015) The European Commission defined the concept as “a development strategy that entails economic growth without increasing consumption of resources, deeply transform production chains and consumption habits and redesign industrial systems at the system level. It relies on innovation being it technological, social and organisational. It requires a new portfolio skills and knowledge as well as new financial instruments, multistakeholders’ involvement. In terms of actions, it may be supported by demonstration, market uptake, awareness, dissemination and internationalisation” (European Commission, 2014). Therefore, the circular economy is a production and consumption model that involves sharing, reusing, repairing, renovating and recycling the existing materials and products as much as possible. In this way, the life cycle of products is expanded. In practice, this involves minimizing waste. When a product reaches the end of its lifetime, the materials it is made of are kept in the economy whenever possible. They can be used again and again, creating additional value. The circular economy deviates from the traditional, linear economic model, which is based on a take-make-consume-throw away pattern. This model is based on large amounts of cheap and easily accessible materials and energy (Figure 1). Also, part of this model is wear planning - designing a product to have a limited lifetime to encourage consumers to buy a new one. World population is rising, so does the demand for raw materials. However, the supply of critical raw materials is limited. The current world population is expected to reach 8.6 billion in 2030, 9.8 billion in 2050 and 11.2 billion in 2100, according to a United Nations report launched in 2017. (United Nations, 2017) Finished supplies mean that some EU countries depend on other countries raw materials. In addition, the extraction and use of raw materials have a major impact on the environment. They also increase energy consumption and CO₂ emissions. Smarter use of raw materials can reduce CO₂ emissions.

Figure following on the next page

OUTLINE OF A CIRCULAR ECONOMY

PRINCIPLE

1

Preserve and enhance natural capital by controlling finite stocks and balancing renewable resource flows
ReSOLVE levers: regenerate, virtualise, exchange

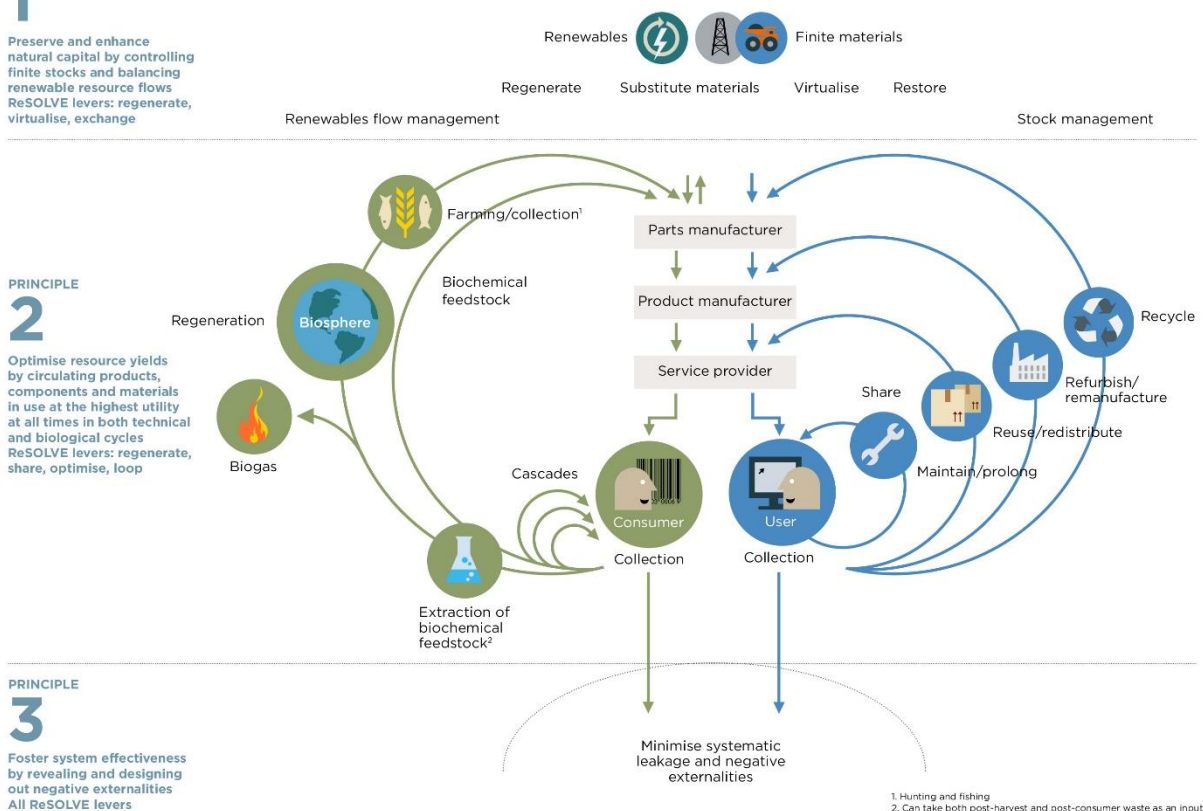


Figure 1: Outline of a circular economy (Ellen MacArthur Foundation, 2017)¹

2. CIRCULAR ECONOMY – PROBLEMS AND SOLUTIONS

A circular economy has the benefit of delivering innovative solutions. Though, for example, many of the metals can be recycled almost without end, the increase in the demand for such raw materials will not be covered by recycling only and producing raw materials will remain a necessity for the future as well with the continuous increase in demand. Apart from this, there will also be raw materials that do not have the ability to be recycled because of various reasons such as they are used industrially or by the consumer, or as they are integrated in the product that is manufactured and they cannot be separated anymore for recycling. Moreover, the use of rare raw earth elements² that are difficult to recover and recycle might happen more often nowadays as they can be found in various products only in small quantities and they cannot be recycled and reused afterwards. Therefore, a model based only on recycling is not reliable for supporting the supply market chain because if products are in use, the recycling process cannot take place. Consequently, to meet the current and future demand, a combined approach is demanded: investing in the circular economy while underlying the importance of raw materials for the European Union's production chain. Measures such as waste prevention, ecodesign, re-use and similar measures could bring net savings of €600 billion – 8% of annual turnover – for businesses in the EU, while reducing total annual greenhouse gas emissions by 2-4 %

¹ The Ellen MacArthur foundation was established in 2010 by Dame Ellen MacArthur with the aim of accelerating the transition to a regenerative circular economy. The idea promoted by this foundation is “to shift from a linear model of resource consumption that follows a ‘take- make- dispose’ pattern, to an industrial economy that is ‘restorative’ by intention” (Ellen MacArthur Foundation, 2013)

² “Rare earths” are a group of 17 chemically similar elements crucial to the manufacture of many hi-tech products. Despite their name, most are abundant in nature but are hazardous to extract. They are critical to high technology like computers and MRIs, green technology like energy efficient light bulbs and wind turbines, and defense technology like jet fighter engines and smart bombs, because of their unique chemical, magnetic, electrical, and luminescence characteristics. (Meyer & Bras, 2011)

(European Commission, 2015b). Moving towards a more circular economy could bring benefits such as reducing environmental pressure, improving security of raw materials supply, increasing competitiveness, boosting innovation, boosting growth, creating jobs (more than 580,000 jobs are expected to be created only in the EU) (European Commission, 2015a). Consumers will also benefit from more sustainable and innovative products that will improve the quality of life and help them save money in the long run. The United Nations' Food and Agriculture Organization (FAO) estimates that one third of the food produced in the world for human consumption every year is lost³ or wasted⁴, and this waste could feed annually 2 billion people (Food and Agriculture Organization, 2011). On one hand, food waste and food loss are experienced in developing countries mainly at early stages of the food value chain and be associated with various limitations in terms of technical, managerial or financial faults in the harvesting process but also in the storage or refrigeration phases. Investments done in infrastructure or transportation can reduce the amount of food waste and loss but also, they can give incentives to farmers and can lead to the increase of the food industry in that country. On the other hand, food waste and food loss are experienced in medium and high-income countries in later stages of the food value chain as the consumers' behaviour plays an important role in these countries. As the infrastructure and transportation facilities are among the best, the investments in these countries have to be made in raising awareness among consumers in terms of finding beneficial use for food and decreasing the amount of food losses and wastes. In the EU, around 88 million tonnes of food waste are generated annually with associated costs estimated at 143 billion euros (FUSIONS, 2016).

3. THE CIRCULAR ECONOMY IN THE EUROPEAN UNION

The European Union is more aware and involved in the transformation of its economy into a sustainable one and is keen to implement the ambitious Circular Economy Action Plan. Therefore, in January 2018 the European Commission adopted a set of measures aimed to facilitate its goals (European Commission, 2019):

- A Europe-wide EU Strategy for Plastics in the Circular Economy – meant to transform the way plastics and plastics products are designed, produced, used and recycled. By 2030, all plastics packaging should be recyclable. To achieve its ambitious vision, the Strategy foresees actions to improve the economics and quality of plastic recycling; to curb plastic waste and littering; to drive investments and innovation; and to harness global action.
- A Communication on options to address the interface between chemical, product and waste legislation that assesses how the rules on waste, products and chemicals relate to each other.
- A Monitoring Framework on progress towards a circular economy at EU and national level.
- A Report on Critical Raw Materials and the circular economy that highlights the potential to make the use of the 27 critical materials in our economy more circular.

In a circular economy, the products can last as long as possible, and when they have to be removed from the market, they are recycled and the materials are reused. Therefore, for the analysis, there were chosen indicators that are related to each stage of consumption and post-

³ "Food loss" refers to any food that is lost in the supply chain between the producer and the market. This may be the result of pre-harvest problems, such as pest infestations, or problems in harvesting, handling, storage, packing or transportation. Some of the underlying causes of food loss include the inadequacy of infrastructure, markets, price mechanisms or even the lack of legal frameworks. Tomatoes crushed during transport because of improper packaging is one example of food loss. (Food and Agriculture Organization, 2019)

⁴ "Food waste", on the other hand, refers to the discarding or alternative (non-food) use of food that is safe and nutritious for human consumption. Food can be wasted in many ways: fresh product that deviates from what is considered optimal in terms of shape, size and color, for example is often removed from the supply chain during sorting operations; foods that are close to, at or beyond the "best-before" date are often discarded by retailers and consumers; large quantities of wholesome edible food are often unused or left over and discarded from household kitchens and eating establishments. (Food and Agriculture Organization, 2019)

consumption process (Table 1). Among these, there were selected the amount of garbage and food waste produced, the amount of waste that is recycled and how much of the recycled material is reused. Also, there were included the number of patents recorded in relation to the circular economy and how many jobs are created in the circular economy dominated sectors (in terms of investments conducted, mainly related to repair and maintenance). Considering the data provided by the indicators, the countries with the highest circular economy scores are Germany, France, Italy and the United Kingdom, and it is commonly known they have efficient recycling systems and developed innovations happening in the circular economy related sectors. For example, these four countries were in 2016 top ranked in terms of plastic waste collected in the European Union among the 28 countries: Germany – 18.7%, United Kingdom – 13.9%, Italy – 12.7% and France – 12.6% (PlasticsEurope, 2018). Though, apart from these four countries that are not a surprise for the top, the Czech Republic came first in the overall ranking, a biased position due to the lack of information related to investments done in the circular economy related sectors. But, during the past two years, some changes happened in the policy area from the Czech Republic, a few new programs aimed to finance innovation and development being opened, and more initiatives appeared to support eco-innovation and circular economy among different stakeholders within this country. Other developed countries also had higher circular economy scores (Netherlands, Belgium or Austria), mostly since they have larger economies with more private investments and patents.

Table following on the next page

Table 1: The Circular Economy Ranking (Eurostat, 2019; European Parliament, 2017)

	Food waste ⁵ (kg per person) 2010	Municipal waste ⁶ (kg per capita) 2017	Municipal recycling rate ⁷ (%) 2017	Material reuse rate ⁸ (% of total material use) 2016	Patents related to circular economy ⁹ 2000-2014	Investment in circular economy sectors ¹⁰ (million euros) 2016	Overall ranking based on the 6 previous indicators	EPI ¹¹ 2018
Austria	209	570	57.7	10.6	148.81	2,926.4	9	8
Belgium	345	409	53.7	18.9	118.4	539.1	9	15
Bulgaria	105	435	34.6	4.3	10.66	3,705.5	15	30
Croatia	91	416	23.6	4.4	3.89	568.4	24	41
Cyprus	327	637	16.1	2.3	4.04	162.1	28	24
Czech Republic	81	344	34.1	7.6	81.4	-	1	33
Denmark	146	781	46.3	8.2	65.04	2,319.6	16	3
Estonia	265	390	28.4	11.8	6.67	240.4	26	48
Finland	189	510	40.5	5.3	131.87	2,025.6	20	10
France	136	513	42.9	19.5	671.46	19,466.3	3	2
Germany	149	633	67.6	11.4	1389.89	31,246.3	2	13
Greece	80	504	18.9	1.4**	4.64	616.8	20	22
Hungary	175	385	35	6.4	38.8	1,040.2	12	43
Ireland	216	581*	40.7*	1.7	40.72	-	18	9
Italy	179	489	47.7	17.1	330.23	18,019.7	4	16
Latvia	110	438	23.3	3.9	10.83	251.4	27	37
Lithuania	119	455	48.1	4.5	18.73	406.5	19	29
Luxembourg	175	607	48.3	6.5	33.4	-	11	7
Malta	76	604	6.4	5.2	1.64	-	23	4
Netherlands	541	513	54.2	29	202.92	5,614.4	7	18
Poland	247	315	33.8	10.2	321.93	4,830	6	50
Portugal	132	487	28.4	2.1	22.43	1,413.2	24	26
Romania	76	272	13.9	1.5	39.39	1,280.9	16	45
Slovakia	111	378	29.8	4.9	10.4	623.5	22	28
Slovenia	72	471	57.8	8.5	10.99	529.5	7	34
Spain	135	462	33.5	8.2	10.4	11,464.3	13	12
Sweden	212	452	46.8	7.1	10.99	4,110.3	13	5
United Kingdom	236	468	43.8	17.2	332.27	29,030.8	5	6

* Data from 2016; ** Data from 2014

Though, considering the ranking resulted by aggregating the six indicators used, the top ranked countries are not the greenest ones as can be seen comparing the 2018 Environmental

⁵ The estimates are from a report of the European Parliament. (European Parliament, 2017)

⁶ The indicator measures the waste collected by or on behalf of municipal authorities and disposed of through the waste management system. It consists to a large extent of waste generated by households, though similar wastes from sources such as commerce, offices and public institutions may be included. (Eurostat, 2019a)

⁷ The indicator measures the share of recycled municipal waste in the total municipal waste generation. Recycling includes material recycling, composting and anaerobic digestion. The ratio is expressed in percent (%) as both terms are measured in the same unit, namely tonnes. (Eurostat, 2019b)

⁸ The indicator measures the share of material recovered and fed back into the economy - thus saving extraction of primary raw materials - in overall material use. (Eurostat, 2019c)

⁹ The indicator measures the number of patents related to recycling and secondary raw materials. The term “patents” refers to patent families, which include all documents relevant to a distinct invention (e.g. applications to multiple authorities), thus preventing multiple counting. A fraction of the family is allocated to each applicant and relevant technology. (Eurostat, 2019d)

¹⁰ The indicator includes “Gross investment in tangible goods”, “Number of persons employed” and “Value added at factor costs” in the following three sectors: the recycling sector, repair and reuse sector and rental and leasing sector. (Eurostat, 2019e)

¹¹ The 2018 Environmental Performance Index (EPI) scores 180 countries on 24 performance indicators across ten issue categories covering environmental health and ecosystem vitality. These metrics are aggregated into a hierarchy beginning with ten issue categories: Air Quality, Water & Sanitation, Heavy Metals, Biodiversity & Habitat, Forests, Fisheries, Climate & Energy, Air Pollution, Water Resources, and Agriculture. (Yale Center for Environmental Law & Policy, Yale University & Center for International Earth Science Information Network, Columbia University, 2018)

Performance Index with the ranking resulted by using the indicators provided by Eurostat. That is resulted from the fact that investing in sustainability and a healthy environment does not necessarily lead to a circular economy and the development of it. For example, some countries burn waste to produce energy, but this is not a practice that boosts the recycling and reuse process, therefore one measure taken in one field does not influence positively the other. Considering the rankings, it can be observed that countries such as Sweden, Denmark or the Netherlands, even if they are doing investments in the circular economy related sectors or they have good recycling rates, their overall ranking is diminished by high levels of municipal waste and food waste. The top ten countries that are producing the least waste are coming from Central and Eastern European, even though the investments and the innovations done in the field rank them among the last countries in the European Union.

4. CONCLUSION

In a world where population grows and resources diminish, the European Union aims to transform into reality a vision in which we live well within the ecological limits of the planet. To get there, we must limit our environmental impact while improving our economic well-being. Making the transition to a circular economy requires us to strengthen the link between waste reduction and resource efficiency, learning to appreciate waste as a resource, and apply the lessons given to us by nature, where nothing is wasted. Above all, it will mean moving away from the current approach where we extract the limited raw materials from the ground, we only use them once to manufacture a product and then throw them away, burying them back into the ground. In 2015, the Commission has set out a single global strategy, the “Circular Economy Package” (revamped in 2018), aimed at closing the resource bubble by introducing measures covering the whole life cycle of products and materials – from production and consumption to waste management and their reuse as raw materials in the economy. Suggested measures also address climate change with energy savings and reducing greenhouse gas emissions and include the first European strategy for plastics. A circular economy is part of the modernization and transformation needed to make the EU the world’s first major economy and become climate-neutral by 2050, in line with the long-term strategy proposed by the Commission in November 2018. In addition, the Commission reflects currently to measures needed to make Europe more sustainable. The fundamental change entails moving away from “procurement, production, consumption and disposal” way of doing business and moving towards a “reuse, repair, recondition and recycle” model. The Commission’s proposals to achieve this goal vary widely and include new waste targets and new indicators to monitor resource efficiency, policies to stimulate recycling and make life-cycle products more sustainable, as well as initiatives to create green jobs and support eco-entrepreneurship. The circular economy consists in one of the most important legislative packages related to environment, a regenerative system in which resources, waste, emissions and energy losses are minimized by reinstating in the economic circuit of the materials already in use.

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CRITICAL ANALYSIS OF THE MEASUREMENT OF POVERTY: THE CASE OF EMERGING COUNTRIES

Abdelhamid Nechad
ESCA School of management

Tarik Kasbaoui
ENCG of Casablanca

ABSTRACT

Inventors of quantitative estimation of national income, which received much attention, attempted to explain that their ultimate and main interest was the wealth of human existence, although what impressed were their indices, rather than their motivations. Yet, such deep and underlying motivation has often been ignored in economic analysis where means of existence are the centre and fruit of research. It is, however, important not to confuse the means and ends. Therefore, one should not focus on the intrinsic importance of income, but rather assess it depending on what it builds, particularly lives that are worthy of living. Having a decent income helps to avoid early death. Such an enterprise depends also on other characteristics, namely the organization of society, including public health, medical care, the nature of education and educational system, the scope of social cohesion and harmony, etc. Considering only means of existence or directly observing the type of life people lead constitutes a real difference.¹ These observations and findings reveal a contrast between the approaches based on utility and resources and the approach based on capabilities, of which the initiator is Amartya Sen (Nobel Prize of economics in 1998). The capabilities approach, therefore, attempts to put things right by focusing on the possibility of effective ends concrete freedom of attaining reasoned ends, rather than focusing on means. The present paper falls into two parts. The first part will try to highlight the imperfection of traditional monetary indicators as well as the difficulties to measure the different dimensions of poverty, particularly in emerging countries, such as Morocco. We argue that poverty is not merely an idea of inadequacy of economic means of an individual, but rather a fundamental shortage that deprivation entails_ minimum adequate capability. The second part deals with a reorientation towards capabilities in order to explain the extent to which the latter (the capabilities approach) could serve as a basis for the assessment of the level of deprivation and not that of resources, which focuses on income and wealth.

Keywords: *Critical analysis, Emerging countries, Poverty*

1. INTRODUCTION

The nature of real existence has always been of interest to social thinkers over the centuries. If the current criteria of economic progress, reflected by a swarm of “turnkey” statistics, focused on growth of inanimate “comfort objects” (such as GNP and GDP at the heart of innumerable economic studies on development), this focus can only be justified, if at all, by the impact of the said objects on human lives that they directly or indirectly affect.. The interest of replacing them by direct indicators of the quality of life, wellness and freedom that human lives enjoy is more and more recognized. Even inventors of quantitative estimation of national income which attracted much attention and adherence tried to make it clear that the ultimate interest was the richness of human existence, although it is their indices, rather than their motivations which had a great impact.

¹ SUDHIR A. and RAVALLION M (1993), “Human Development in poor countries: On the Role of Private Incomes and Public Services” *Journal of Economic Perspectives*, vol. 7.

William Petty, for example, the pioneer of the measure of national income in 17th Century (He suggested means to assess it so much through the 'income' method as through that of expenses, as is said today) formulated his intention as follows: to examine whether « the subjects of the kind » lived « in as bad a condition as that of discontented people ». Based on this, he explained the different determinants of people's conditions, including « common safety» and « the particular happiness of every man»². This underlying motivation was often ignored in economic analysis where means of existence were the centre and fruit of research. It is, however, important not to confuse the means and ends. Therefore, one should not focus on the intrinsic importance of income, but rather assess it depending on what it builds, particularly lives that are worthy of living. Having a decent income helps to avoid early death. Such an enterprise depends also on other characteristics, namely the organization of society, including public health, medical care, the nature of education and educational system, the scope of social cohesion and harmony, etc. Considering only means of existence or directly observing the type of life people lead constitutes a real difference. These observations and findings reveal a contrast between the approaches based on utility and resources and the approach based on capabilities, of which the initiator is Amartya Sen (Nobel Prize of economics in 1998). In his work entitled « A New Economic Model», Sen suggests that focus on means of existence should be abandoned in favor of concrete possibilities to live. This also results in a change with regard to means-oriented assessment methods, namely those laying emphasis on what John Rawls refers to as the « primary goods », which are general means, such as income, wealth, powers and prerogatives of functions, social bases for self-respect., etc. The capabilities approach, therefore, attempts to put things right by focusing on the possibility of effective ends and on concrete freedom of attaining reasoned ends, rather than focusing on means. Thus, the present paper is divided into two parts. The first part will try to highlight the imperfection of traditional monetary indicators as well as the difficulties to measure the different dimensions of poverty, particularly in emerging countries, such as Morocco. We argue that poverty is not merely an idea of inadequacy of economic means of an individual, but rather a fundamental shortage that deprivation entails_ minimum adequate capability. The second part deals with a reorientation towards capabilities in order to explain the extent to which the latter (the capabilities approach) could serve as a basis for the assessment of the level of deprivation and not that of resources, which focuses on income and wealth.

2. ANTINOMIES OF TRADITIONAL INDICATORS

After World War II, economic growth was the centre in the fight against poverty. In fact, growth was considered as a means to achieve development. Thus, the growth of the GDP per capita became the only measure of poverty. Pigou was the first to rely on income to measure prosperity and welfare. He described economic prosperity as the measurable part of human wellness, the part that can be compared to money standard or benchmark. However, the production and distribution process impacts the income of individuals and households. Income is, then, is also an indicator of economic activity. Income nationwide, GNP, as it was referred to, was transformed into a measure of the activity of the total mass of produced goods and services, weighted by their respective quantities and prices, rather than a measure of individual welfare. GNP per capita is obtained by dividing GNP by the country's number of inhabitants. Consequently, a country's GNP may increase from one year to another, and its GNP per capita may decrease if the population of this country increases more rapidly than its production. For OECD (Organisation for Economic Cooperation and Development) countries, international trade relations are such that it was necessary to replace GNP by GDP, which is the sum of added values created within the borders, whatever the nationality of the people who create them. It is the criteria of residence that is prioritized.

²HUL C.H. (1899), *The Economic Writings of Sir William Petty*, Cambridge, Cambridge University Press,

It should be noted that GNP or GDP indicate a « production » and not « a living standard ». According to certain stakeholders, in order to obtain a country's standard of living depending on its GNP, it is necessary to apply coefficients ranging from minus three to five as per the weight of capital accumulated in the past, the country's political and economic systems, its geographical and climatic elements, the value of the currency and the weight of the informal sector. In any event, there exists a certain correlation between poverty and low income. Income is the source of purchasing or spending power, access to consumption and saving. In societies where market values are dominant, « a low income restricts access to the market and can determine a less valorized social status; it is a factor of a more or less marked exclusion »³. Nevertheless, one cannot put forward that there exists a high causality between a low GNP per capita and poverty. One cannot claim that a person dependent on a low income is automatically considered poor. On the one hand, income is but the monetary element of the allocation of each individual's resources. Various elements can intensify or attenuate the consequences of low income: self-subsistence, reciprocal counter-services, existence of property, constitution of family or extra-family solidarity networks, etc. On the other hand, income is not a necessarily determining component of a poverty condition. From the « resources », point of view, income level at a given time has no indication as to prospects of future income, which would undoubtedly be more legitimate. Moreover, as Amartya Sen, in his book « A New Economic Model » shows, the same income can have different meanings depending on age, status, aspirations, etc. The calculation of GNP per capita is subject to many statistical difficulties. In his work « Towards a new measuring system », elaborated jointly with Sen and Jean Paul Fitoussi, Joseph Stiglitz raises the following question: « What significance does the calculation of the importance of a physical production flow take on if account is taken of the conditions of its production and distribution between the concerned persons? »⁴. It is, thus, necessary to underline the problem of distribution of national wealth poses major difficulties. In fact, a growth rate of the GNP per capita can give a flattering image on effective development and ultimately on the poverty combatting strategies. Added to this is the fact that the contradiction between national health and human wellness is very striking. It is apparent in countries where income arising from exports increased significantly due to the rise in oil prices since 2003. For many Arab countries, GNP abruptly increases to levels superior to those of the richest of Western States. However, these same countries sometimes have the poorest communities worldwide. For Joan Robinson, « Economic growth, when it occurred, rarely solved urgent social problems and, most often, did not cover mass population of emerging countries. By making economic inequalities worse and not solving problems, such as unemployment, malnutrition, diseases and housing deficiency, economic growth always exacerbated social problems and tensions »⁵. In their work, « Ruins of development » Wolfgang Sachs and Gustavo Esteva support the same point of view. According to them, « Since the rise of proletariat and, later in the welfare state, poverty was interpreted as lack in purchasing power, which should be eliminated by economic growth. Under the banner of combatting poverty, forcible transformation into money economies can be conducted as a moral crusade, which could give way to a so justified appeal to economic expansion »⁶. Besides inequalities concealed by measuring poverty based on GNP per capita, the latter includes all the goods and services produced and marketed, including harmful and noxious products that pollute the atmosphere and affect health. GNP per capita measures production, but provides little information on populations. If deterioration of the environment causes diseases, thus leading to an increase in health expenses and, subsequently, in GNP, such a GNP decrease will be interpreted as a sign

³ MILANO S. (1988), *La pauvreté absolue*, Paris, Hachette.

⁴ STIGLITZ J., SEN A., FITOUSSI J-P. (2009), *Vers un nouveau système de mesure*, Paris, Odile Jacob.

⁵ ROBINSON J. (1980), *Development and underdevelopment* Paris, Economica.

⁶ WOLFGANG S. and GUSTAVO E. (1996), *Ruins of development*, Montréal, Ecosociété.

of growth and, therefore a drop in poverty, when in fact the population's real conditions and their environment have deteriorated. According to the 2010 world report on human development, there were many attempts to recalculate the figures of national income taking into account the natural capital depreciation. One of the first studies carried out to this effect, in Costa Rica, shows that from 1970 to 1990, cumulative depreciation of its forests and oil reserves amounted to over \$ 5billion. , i.e., about 6% of Costa Rica's total GNP for that period. In the case of Indonesia, the same report shows that during the period between 1971 and 1984, cumulative depreciation of forests, soils and oil resources amounted to \$96 billion, i.e., 9% of its GNP for the same period. It is, therefore, commonly accepted that the income-based monetary approach to poverty rests on a narrow idea of welfare or wellness and, because it is indirect, limits our understanding of this phenomenon to what individuals have and what they do not have. Poverty is a larger phenomenon that is apparent in different domains as various forms of deprivation and unsatisfied needs that prevent individuals from leading a normal and decent life or take part in the ordinary activities of society. (Dickes, 1989 ; Alcock, 2006 ; UNDP, 1997). For this reason, it was concluded that adopting multidimensional and direct approaches can prove more satisfactory as to how to perceive poverty, for they have a much broader objective. At this level, it is necessary to distinguish two approaches. First, the approach of situated poverty, which focuses on the prevalence of social construction of poverty since, contrary to what utilitarians pretend, we cannot isolate a phenomenon, such as deprivation, of the environment in which it occurred and developed. This broader concept, which is applied, as a priority, to developing countries, makes it possible to integrate certain dimensions that are not used by Townsend (1979) in the assessment of poverty, such as culture, beliefs and social capital. The second trend derives from the works of Amartya Sen(1980) on the capabilities approach, and which served as the basis for the elaboration by the UNDP of concepts of human development and human poverty. In this case, poverty is defined as a shortfall or deficiency in terms of basic capabilities likely to make it possible for a person to reach what Sen has called fulfilment or achievements. Amartya Sen's aim is to question the relevance of the « income» variable in the assessment of poverty. This critical examination holds true for all the different measures which , sharing this vision, perceive poverty in terms of weak or low income.

3. SITUATED POVERTY

In order to better understand situations like that of deprivation, we started with the following questions: Can we limit ourselves to the standard market model to understand the underlying nature of poverty? Several times, the determinism of Bretton-Wood's strategies of institutions met with the complexity of the studied fields and facts, a fact which translates into wide poverty in the poorest countries of the globe. Suffice it to remember that Amartya Sen's works confirm the reductionism of the utilitarian idea of the market as to the way of dealing of the nature and causes of the prosperity of nations. Initially, all development policies had as slogan the following slogan: « in the name of combatting poverty as slogan»⁷. For Hassan Zaoual, poverty is understood in a simplistic way. For experts of Breton-Woods' institutions, the concern is a simple « economic category» that can be calculated from the « income» parameter ». However, in an investigation we conducted in the region of Sefrou (Morocco), we came up with the conclusion that poverty is multidimensional by its very nature. The assessment and analysis of poverty requires adaptation to the diversity of the studied individuals and populations. This is incidentally the reason why we have introduced the concept of « situated poverty». Amartya Sen paid special attention to the principle of diversity, as is clear from its recurrence in his arguments.

⁷ ZAOUAL H. (2000), « La pensée économique plurielle: une révolution scientifique en marche» , *Séminaire de culture de développement*, DEA Changement social, Université des Sciences et Technologies de Lille.

He began his work « Rethinking Inequality» by the following formula: « Human beings are different from each other. We are distinguished from each other by characteristics that are not only external (inherited wealth, the natural and social environment where we live), but also personal (age, gender, vulnerability to diseases, physical and intellectual aptitudes). To determine what equality requires, it is necessary to take into account this human diversity»⁸. The remarks of Ibn Khaldoun, « the father of history», clarify this point. This great historian of the 14th century, through a comparative analysis between the eating habits of the populations of Hijaz (Saudi Arabia) and those of Shanhajjas, veiled people of the South of the Maghreb, puts forward that famine is a blessing for the life of the former so much from the physical as on the mental point of view. According to Majid Rahnema « In general, Ibn Khaldoun argues, people who lack grains and condiments and live in the deserts are in better health than the inhabitants of the plains and heights who lead an easy life: their complexions are purer, their bodies healthier, their human types better proportioned and more beautiful, their behaviour not disproportionate, their faculties more receptive and more perceptive in knowledge. It is a remark that has been confirmed for generations»⁹. This justifies the point of view of the sitologi approach to poverty, according to which, poverty cannot come down to a general and universal formula where only the « income» variable intervenes, to be later interpreted as a sign of deprivation. It is the individual's life and environment that should be taken into consideration. It is, therefore, necessary to adapt economic analysis of poverty to the context of each location. According to its « soft relativism» principle, the situated poverty approach states that each location or site, while open to changes, exhibits peculiarities that impregnate people's individual and collective behavior within a given location.. « Development policies made numerous « site errors» in so far as they tend to be dropped on from the summit to the base instead of favouring listening to and free participation of concerned populations »¹⁰. The 2010 world report on human development stresses that: « the sectors of media, information and leisure, which, thanks to their considerable means, are present worldwide, can powerfully help eradicate or, at least, reduce poverty. They shape not only information, but also new culture and values. We need values that tolerate cultural diversity and respect dignity of the poor so as to reinforce their solidarity and mobilize individuals and communities, companies and others against poverty»¹¹. It equally stipulates that « Well-focused strategies are necessary so that the growth model could be beneficial for the poor and so that generated resources could be invested in human potentials. Growth is not enough. La croissance ne suffit pas. On its own, it can be without regards (the losers find themselves in grinding poverty), without jobs (almost no job is created), without participation (individuals are not associated to decision-making processes), with no future (the environment of future generations is destroyed) and without roots (history and cultural traditions die out ». Like Amartya Sen, Hassan Zaoual assumes that it is necessary that the poor have an area of freedom so that they can better act, since the crowding out (l'effet d'éviction) will sooner or later end up recurring in the form of non participation which is detrimental to economic performance and local accumulation of skills through economic projects meant to respond to the causes of poverty. According to the same author, the assumed skills of « experts » sustain the site stakeholders' unskillfulness. The poor, thus, are not citizens, but rather customers of institutions and social security. The latter use their expertise without solving the problems that justify their existence. Therefore, there is a new tendency based on the awareness of the role that local cultures and beliefs can play in combatting poverty, a fact which proves to be a first step towards a new concept of combatting poverty and which claims to be situated and

⁸ SEN A. (2000), *Repenser l'inégalité*, Paris, Seuil.

⁹ RAHNEMA M. (1991), La pauvreté globale: Une invention qui s'en prend aux pauvres, *Revue Interculture*, Volume XXIV, N° 2.

¹⁰ ZAOUAL. H. (2002), « La pensée économique peut-elle être flexible », in Granier R. et Robert R (sous la dir.), *Culture et structures économiques. Vers une économie de la diversité ?*, Paris, Economica.

¹¹ PNUD (2011), *Rapport mondial sur le développement humain 2010*, Paris, Economica.

therefore open on new anthropological and cultural dimensions of the concerned location. This confirms the contributions of the capabilities for which a better analysis of deprivation assumes a better understanding of the area and populations studied.

4. CAPABILITIES APPROACH

During the last few years, there has emerged a growing interest in the idea of « *capabilities* » introduced by Amartya Sen (1980, 1985, 2000, and 2003). If the Nobel Prize that Sen obtained in 1998 is a symbolic proof, it is certainly the more and more widespread use of this approach among researchers and institutions in their understanding of questions related to wellness, poverty and inequalities that is better evidence for this. The capabilities approach is based on ethical concerns related to social equity. In fact, at the beginning of his reasoning, Amartya Sen poses the question of what attribute a society should equalize to achieve social equity. Starting from a thorough and well-founded criticism to the proposals of the two dominating ethical approaches at the time, i.e., utilitarianism (Bentham, 1789) and Rawlsian theory of equity (Rawls, 1971), he suggested a space of functionings and capabilities, such as adequate assessment of questions related to welfare, poverty and inequalities. Thus, in the field of social equity, this approach constitutes a new paradigm and a real alternative to utilitarian orthodoxy. The capabilities approach is an expanded and normative framework for the assessment of issues related to individuals' welfare, social arrangements, policy implementation and societal changes based on individuals' actual ability to do or to be something and the scope of freedom they enjoy to promote and achieve their objectives. This approach starts from the simple remark that an individual's living standard is directly related to the different states and acts they can accomplish or achieve. Sen makes use of the term "functionings" or achievements to refer to these states and acts that individuals effectively attain. For Sen, « the thesis is that functionings are constituents of the person's existence and that the assessment of their welfare should necessarily be a judgment of these components »¹². The ability to function constitutes all the real opportunities the individual is offered and represents the various combinations of functionings (states and actions) that the individual can accomplish. Capability is, therefore, a set of vectors of functionings which indicate that an individual is free to lead this or that type of life. Thus, on the conceptual level, the main innovation of the capabilities approach is the adoption of an expanded informational space, wider than that of the traditional approach, to deal with a set of normative questions (Farvaque, 2003). As is stressed by Robeyns (2005), the two focal points of this approach are the focus on the distinctions between means and ends, on the one hand, and between real freedom (capabilities) and functionings (outcomes), on the other. Resources are goods and services (commodities), be they mercantile or not, that the individual has at their disposal, as, for instance, food or a bike. These goods have an instrumental value rather than an intrinsic or inherent value, for what really matters is the way we can use them. Also, like Gorman (1956) and Lancaster (1966), Sen (1985a) draws a line between resources and their characteristics which constitute their desirable properties and determine the uses to which the good can be put. It is these functionings that constitute the intrinsic value. A bike enables its owner to move; food does not only make it possible to satisfy hunger, but also brings the pleasure to eat and to create a social support through the organization of meals (Sen 1985). Therefore, the characteristics of goods (bike) provide individuals with the possibility to implement the related functioning (movement). However, Sen (2003, 150) points out that there is nothing automatic, permanent or inevitable about the relationship between income (and other resources), on the one hand, and individual achievements and freedoms, on the other. In fact, owning a good is different from the ability to benefit from its characteristics. It is not enough to know the quantity of food an individual has to judge the way they are fed.

¹² Sen A. (1999), *L'économie est une science morale*, Paris, La Découverte.

Sen's well-known example is that of an individual suffering from a parasitic disease that makes the digestion of food difficult. This person can suffer from malnutrition, even if they have at their disposal a quantity of food that would enable an individual without such disease to be well fed. Thus, information of goods ownership proves insufficient to judge someone's living standard or welfare, for it does not take into account of the relationship between goods and functionings. To be able to take account of such contingent relationship, Sen introduces, at the heart of his approach, a set of internal and external conversion factors, which determine the possibility to convert the characteristics of resources into functionings. First of all, such transformation will be influenced by personal conversion factors related to the individual's internal characteristics (physical, intellectual aptitudes, metabolism, etc.). A person suffering from physical disability will not be able to achieve the characteristic « movement » that the good has « bike ». In the case of food, metabolism, age, gender, activity level or health conditions are conditions that will influence the way the individual will indeed convert resources (food) into functionings (to be well-fed). Besides, age and gender determine specific needs that income does not take account of (young children, old people, maternity, family obligations). The other conversion factors are external and highlight the influence of social characteristics (politics, social norms, power relationships) and environmental characteristics (climates, infrastructures, public goods) may exert. A country's social rules and traditions may constrain women's behavior, thus reducing all their potential functionings. Likewise, riding a bike may depend on climatic conditions and usability of a country's roads, the ability to be well-fed may depend on drought or flood problems and the ability to be in good health depends on risks of contagious diseases in the region of residence. Therefore, taking account of these different conversion factors will make it possible to consider interpersonal variations, which enables individuals with identical resources may have two different living standards. This last point is particularly important within the framework of the elaboration and assessment of public policies aiming at reducing poverty (Sen, 2003). In the course of Sen's reasoning, it is important to understand the distinction between functioning and capabilities. Functionings are individuals' different states and acts. They form what a person, given a set of conversion factors, can do or be. They can be elementary (i.e., to be well-fed and in good health) or complex, such as the ability to take part in community life, take a rest, be respected, have self-esteem, etc. Assessment of welfare, therefore, takes the form of an assessment of functioning vectors (i.e., individuals' valued states and acts). Reference to functionings makes Sen's approach a direct and multidimensional one. Indeed, although he considers that an individual's welfare should depend deeply on the nature of their existence, that (i.e., accomplished functionings), at the heart of his approach, he places capabilities rather than functionings. As is highlighted by Robeyns (2003), while a functioning is an achievement, a capability represents the possibility of achievement and refers to all potential functionings. Consequently, Sen's emphasis is not on what people have or do, but on what they have the choice to do or do not have the choice to do. Based on all the characteristics of the resources at their disposal and on the conversion factors, an individual can determine vectors of potential functionings that represent the different combinations of potential functionings they can achieve. This set represents all the individual's capabilities and gives an image of the scope of the choices at their disposal. It, therefore, precedes all functionings which constitute all the states and acts that an individual achieves. Moving from the space of capabilities to that of functionings is shown by the individual's real choice, which, in turn, depends on the individual's history as well as on the mechanisms of preferences; these mechanisms themselves depend on the social context. In Sen's view, functionings are more related to living standards, whereas capabilities result in a dimension of freedom and choice. In fact, capabilities refer to an individual's real freedom and real opportunities, and the freedom, in the positive sense of the term, which an individual has to promote or achieve a functioning they would like to enhance.

To illustrate the importance of the difference between capability and functioning, we can cite the example of two people who cannot sufficiently provide for their needs in terms of food. However, one is a person suffering from famine where as the other is a person who has chosen to be on hunger strike as a sign of protest. Regarding the good “food”, both people realize the functioning of being “malnourished”, but not through the same path.; while one of them was forced into such a situation, the other one has made a choice. The notion of choice is not easy to understand. One finds the same questions asked in works on deprivation an which involve determining whether choices are forced or deliberate. Based on these considerations, Sen suggests a distinction between living standard, welfare and « agency». For him, the living standard is the broadest notion and is connected with information related solely to the individual. The difference between the living standard and welfare emerges from the possible influence of external sources on a person’s welfare. Thus, pain (joy) caused by sorrow (happiness) of a relative reduces (increases) welfare, but does not affect the living standard. Agency is much broader and rests on the idea that an individual can have objectives and values other than the search of their personal comfort. An example is a person’s commitment towards the issues of their community through the participation to anti-globalization protests, being persuaded that this globalization has harmful effects (Robeyns, 2003). These various concepts constitute the backbone of the capabilities approach, of which the use, as a framework of thought, is very wide and is confined to studies of poverty. The capabilities approach to poverty constitutes a way to move from the analysis of means to the analysis of ends. In this context, Sen (2003, 36) considers that « it is just to consider poverty as deprivation of the basic capabilities, rather than merely a low of income». This definition of poverty refers to a shortfall or deficiency of basic capabilities. The latter constitute a subset of the set of “capabilities” and refer to the freedom to achieve basic things that are necessary to survive and to avoid or escape poverty. Thus, while capabilities can cover a vast and varied field, basic capabilities refer precisely to the real possibility to avoid poverty. They concern the ability to satisfy minimum and adequate levels of certain crucial functionings. The identification of these minimum and acceptable levels constitutes the basis of Sen’s approach to poverty. For Robeyns (2005, 101), basic capabilities are crucial to analyze poverty and, in more generally, to study the welfare of the majority of the population in a developing country, whereas in rich countries, welfare focuses rather on capabilities that are more or less necessary for physical survival. Therefore, from the outset, this definition is broader than given by....., but it is more subtle and delicate to make operating. The capabilities approach is the development paradigm that is underlying the concepts of human development and poverty introduced by the UNDP (1990, 1997). One of the major changes that this new paradigm offers is the possibility of analyzing the different questions regarding poor countries and individuals within a flexible framework, rather than imposing political or other prescriptions in the name of a rigid neoliberal orthodoxy (Fukuda-Parr, 2003). Within the framework of this approach, human development is geared towards the expansion of capabilities, whereas human poverty reduction involves ensuring that individuals who should have to primary resources have a set of basic capabilities likely to help them achieve these resources. The main difference between the concepts of human development and human poverty is that the former focuses on the living conditions of all individuals in society while the latter lays emphasis on those of poor individuals. Thus, as part of the overall view of human development, the disadvantages of the poorest people can, in an aggregated level, be made up for by the gains of the well-to-do ones. The concept of human poverty and poverty indices were introduced in order to focus on the situation of the most underprivileged people. In this case, lack of progress in the reduction of disadvantages of people in deprivation cannot be made up for by the significant progress of the well-to-do. Subsequently, Anand and Sen (1997) consider that the two approaches are useful for understanding the development process, and that they are not exchangeable.

The human poverty approach was introduced by the UNDP's 1997 Human Development Report. This report seeks to focus on the challenges of poverty eradication in the world with a view towards human development.. For this purpose, it does not simply focus on poverty, in the monetary sense of the term, but rather on a multidimensional approach to poverty. (Anand and Sen, 1997). It draws its inspiration, to a large extent, from Sen's capabilities approach, as is shown by the introductory phrase of the first chapter of the 1997 Human Development Report., which stipulates that « It is the deprivation lives that people may lead that poverty can be seen. Poverty implies not only low income or deficiency in elements necessary to well being, but also denial of and deprivation in opportunities and basic choices for living a tolerable life”. These choices and opportunities refer to basic capabilities. This means that, in this approach, poverty is not merely a state of deprivation currently lived by an individual, but also the absence of real opportunities, due to social constraints or to personal characteristics, for living a life that they reasons to valorize. Nevertheless, with poverty being a state that everyone one wishes to avoid, it may be said that its study can disregard this notion of freedom and focus on the individual's real functionings. This approach largely exceeds the physiological model of deprivation, for « capabilities » mean, « to be in good health, have access to knowledge, have access to resources necessary to have a decent standard of living and be able to take part in the community's social life » (PNUD, 2001). From a political point of view, the objective is, therefore, the « removal of obstacles in what one can do in life, obstacles such as illiteracy, diseases, insufficient access to resources, or insufficient political and civic rights » (Fukuda-Parr, 2003). Fukuda-Parr (2003) evokes a five-point strategy for development and poverty reduction: (1) give priority to social development with a spread of opportunities of education and health care., (2) economic growth creating resources for multidimensional human development, (3) social and political reforms in view of establishing a democratic governance to secure all people's rights, (4) foster equality in the three preceding points, namely for the poorest people (5) global political and institutional reforms to create an economic environment where access to markets, technology and information would be easier for poor countries. Within these diverse components, one can notice the rise of the concept of empowerment (World bank, 2000 ; Narayan, 2002) and the increasingly accrued taking into account of questions related to gender equality. The capabilities approach has led to clear conceptual advances in the field of poverty studies, both as to the debate on the absolute or relative aspect of poverty and as to its role in the appearance of the concept of human poverty. These conceptual advances are nevertheless are confronted with important operationalization problems, which are partly due to the scope of this approach.

5. OPERATIONALIZATION OF THE CAPABILITIES APPROACH

The great riches and complexity of Sen's approach are not easy to express empirically, for the capabilities approach is much more demanding on the informational and methodological level than on the monetary level of poverty. If for some people, the problems facing this approach seem to be insuperable, for others they are simply a reflection of the intrinsic and irreducible complexity of the concepts it makes possible to understand. Such is Chiappero Marinetti's (2000) point of view, who stresses that the empirical applications of the capabilities approach require an adequate space for the evaluation of capabilities (or functioning), a pertinent list of capabilities and functionings, a set of indicators for each of the dimensions of wellness taken into account, the way, if necessary, to combine the elementary indicators to obtain an assessment on each dimension of wellness and the way to add information on the different dimensions and achieve a comprehensive assessment of wellness. Assessment of capabilities requires that, on the one hand, valuable items be selected and, on the other hand, the value of these items be determined (Sen, 2000). In fact, beyond the preceding, there emerges the problem of the list of elements to consider and their relative importance.

This question is related to the horizontal imprecision of the capabilities approach. Sen's reference to the different states and acts, which a person has reasons to valorize suggests that this approach is inherently multidimensional and refers to a multitude of functionings/capabilities, which can impact individuals' wellness. In the case of the study of poverty, confining oneself to a set of basic functionings makes it possible to limit their number. However, even at the level of basic functionings, Sen's capabilities approach does not provide a list of functionings/ dimensions, nor does it provide a clearly defined selection method. This question is of paramount importance and is recursively at the heart of the current debates on the operationalization of this approach (Robeyns, 2005). Indeed, although Sen's theory is theoretically attractive, as long as one does not have clearly defined criteria for the selection of value functionings, one will face a series of criticisms. In particular, the absence of a list makes Sen's approach is not fully specified. Absence of a list makes Sen's approach not completely specified. For some researchers, this incompleteness poses a problem. Nussbaum (2003) considers that as long as Sen has not explicitly determined a list, his approach will lack percussion. Alkire (2001, 2002) shares the same point of view. She considers that lack of a procedure for the identification of pertinent capabilities (dimensions) makes the implementation of this approach difficult. These two authors agree that, in this case, the approach may be not understood and may give free reins to all sorts of deviations. In fact, without a list or a transparent selection method, numerous works aligning themselves with this theory may adopt different approaches or steps, which will lead to more confusion than clarity. Other authors leveled stronger criticisms. Townsend (1985, 667), for instance, argues that the absence of scientific criteria for the selection of dimensions is « scientifically unacceptable ». For him, « one should consider the question of knowing how capabilities are selected and in what way they are absolute ». In the same vein, Sugden (1993) raises the following question: «given the large number of functioning that Sen considers as pertinent, given the scope of disagreement between reasonable people as to the nature of what is a descent life and given the unsolved problem of the way in which sets should be assessed, it is natural to raise the question of knowing the extent to which Sen's framework of analysis is operational ». In reply to these criticisms, Sen admitted that it is necessary not only to identify the capabilities and classify them into the most central ones and the most trivial ones, but also to assess their relative weight. However, he thinks that any subsequent specification on his part would be controversial. In fact, while he is not averse to the idea of determining that, in some specific cases, certain capabilities are more important than others, he refuses to endorse the a predetermined and definite list of capabilities. The reason for this is that the capabilities approach is not confined to a sole objective. It was elaborated as abroad framework of thought. Consequently, Sen believes that each application necessarily depends on its context and it for this reason that his approach was deliberately incomplete. The selection of capabilities should therefore be geographically contextualized. Thus, from a methodological point of view, « they are applications to specific questions, context-sensitive and limited by data, which can give birth to a pertinent list » (Farvaque, 2003). Besides, the elaboration of the list pertains to a value judgment that should be explicitly made through a democratic and participative method. It is not the work of a theorist. It is, therefore, clear that if the malleability of this approach makes it evasive in the eyes of certain people, Sen considers it as an asset and thinks that this approach cannot be made more specific without carrying out a universal assessment, which will make it possible to choose the valuable items and their relative weight. Thus, while this incompleteness is the point which leaves this approach wide open to the most ferocious criticisms, it is one of the reasons of its success. If he refuses to give a list of basic functionings, Sen nevertheless lays tracks that will help understand the scope he intends to give to his approach.

These tracks are in the form of domains that one can take into consideration and the form of two selection criteria, based on consensus, which will make it possible to select the set of pertinent, basic capabilities without having recourse to value judgments.

6. CONCLUSION

In spite of incompleteness that Ammatya Sen's approach exhibits, it should be nevertheless admitted that any poverty reduction policy that does not take into consideration the capabilities of individuals or groups of population increases deprivation. In other words, any person's emancipation and « well being » depends on their capability to change their situation. Increase in income does not automatically lead to the improvement of « well being » when the individual as well as their environment are not able to develop relying on their endogenous capabilities. Therefore, the problem lies in the inadequacy and not the lowness of income. Having an adequate income does not mean having an income that is inferior to a poverty threshold set from outside. Instead, it is having an income lower to what a person should have to ensure a specific level of capability. This means that, to analyse poverty, one should not confine oneself to data on income¹³; it is necessary to pay particular attention to the diversity of environments and social phenomena. According to Sen, « An analysis of poverty based solely on income will only say half the truth ».

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HUNGARY OR MAGYARORSZÁG: WHICH 'BRAND NAME' IS BETTER FOR COUNTRY BRANDING?

Arpad Ferenc Papp-Vary

Budapest Metropolitan University, Hungary
apappvary@metropolitan.hu

ABSTRACT

“What's in a name? That which we call a rose by any other word would smell as sweet,” writes Shakespeare. But he is wrong: a rose by any other name would not be as fragrant. Moreover, blind tests (where people do not know what they smell) have proved that some flowers are much more fragrant than roses. Marketers (and, in many cases, consumers) are well aware of this from the world of branded products: a cleverly chosen brand name can significantly increase the value of a lesser quality product, while a poor brand name may hinder the sales of a quality product. It might be strange, but this analogy is also valid for countries. In many cases, we judge a country or nation by its name if we do not know anything about it. Therefore it is quite a dilemma to decide which name Hungary shall use in each country as far as it is possible to choose any of them, because the adjective “hun” of the country name “Hungary” refers to Huns and their ruler, Attila. Huns were considered barbarians who ravaged Europe, and therefore their successors may be seen in the same light. The other, perhaps less known and popular opinion is that “Huns” were not only vandals but a strong nation – the same that Hungary wants to be seen now, although in a more modern sense. Therefore it is possible that in certain cases the country should use the name Magyarország, or they should use it in combination with Hungary. The study attempts to resolve this dilemma and makes suggestions, while other countries (and their names) are also discussed. Of course this is all just some play with names in many respects, and the primary reason for including many examples with brand names and country names is to provide a practical background. Therefore the study is written in the style of edutainment to draw attention to an exciting issue discussed by few, with the hope that this will possibly induce empirical research in the future.

Keywords: brand name, country branding, nation branding, Hungary, Magyarország

1. INTRODUCTION: THE KEY ROLE OF NAMES

“What's in a name? That which we call a rose by any other word would smell as sweet,” writes Shakespeare in *Romeo and Juliet*. But Shakespeare is wrong: a rose by any other name would not be as fragrant. Moreover, according to blind tests (when the eyes of the interviewees are covered) gardenia and frangipani have a better fragrance than rose. However, their sales is nowhere near as high as that of roses. (BOGUSKY - WINSOR 2009: 119.) Or can we imagine Seal's song “Kiss from a Rose”, with the title “Kiss from a Gardenia” or “Kiss from a Frangipani”? And we have not even mentioned “*Romeo and Juliet*”. If Shakespeare was right regarding the rose, then why did not he entitle his play “Everyone dies?” After all, the work is about this topic. Moreover, the whole play is about the idea that if Romeo was not a Montague, an enemy of the Capulets, the young lovers could live happily. If names are not important, how is it possible that future parents spend weeks or months thinking about the name of their unborn child, sometimes even reading several books on first names to find the answer? Or how is that companies are ready to pay millions of dollars in order to find a good name? We must admit that names have a huge impact on us. Let us consider the situation when we are introduced to someone – we immediately make assumptions according to his/her first name and surname. This is also justified by scientific research. Researchers at Tulane University showed men the pictures of equally beautiful women – and these men found them equally attractive, at least before they got to know their names.

However, when the names of the ladies were well-known, the trio of names such as Kathy, Jennifer and Christine was much more appreciated than Ethel, Harriet and Gertrude. In another case, “the photos of two beautiful women were shown to a group of men who were asked which woman was more beautiful. The vote was equally split. Then the researcher wrote that the first woman’s name was Elizabeth and second woman’s name was Gertrude. Now the vote was 80 percent in favor of Elizabeth.” (KOTLER 2000: 85.). The situation of students is somewhat similar. When they asked teachers to grade essays titled “What I did last Saturday”, essays with authors called David or Michael received a higher score than the same papers handed in with student names Hubert or Elmer. Researchers found out that the teachers’ earlier experiences suggested that people called Hubert or Elmer are losers (RIES - TROUT 1997: 76.). Or let us go even further. Studies by psychologist DAVID SHEPPARD show that people who do not even have acquaintances called Cyril or John expect Cyrils to be sneaky and Johns trustworthy (RIES - TROUT 1997: 76.). Research also proves that people with names evoking positive associations get along better in life just because they receive positive feedback right from the beginning. As WISEMAN writes (2009: 276.), teachers have a better opinion of essays with authors called Rose than the same essays submitted by students called Short, Little or Bent. But what are the best first names of the 21st century? 6,000 people voted in Great Britain, providing the following conclusion (WISEMAN 2009: 277.):

- Royal associations such as James or Elizabeth enable people to look more successful and intelligent.
- The most attractive female names (for example, the names Lucy and Sophie) sound soft, and their ending is pronounced ‘ee’ in English.
- The sexiest male names (such as Jack and Ryan), however, are short and often sound ‘tough’.

Nevertheless, first names can mostly be interpreted altogether with surnames, and even monograms play a very important role. (WISEMAN 2009: 277.):

- Males with a positive monogram (for example, ACE, HUG, or JOY) live four and a half years longer than the average.
- However, people die three years earlier than the average if their monogram is negative, for example PIG, BUM or DIE.

Considering that names play such a significant role in people’s lives, it is no wonder that they are also important in the case of brands. As most experts agree:

- “A good name that’s easy to remember has a running start. A bad name can be an enormous problem.” (TROUT, see RIVKIN - SUTHERLAND 2004: ix.)
- “Name is the basis of any marketing program. You can’t build a brand with a weak name. It’s like building a house on sand.” (RIES - RIES 2009: 18.)
- “There is only negative equity in a bad name. When the name is bad, things tend to get worse.” (RIES - TROUT 1997: 80.)
- “The wrong name can cost millions, even billions, in workarounds and lost income over the lifetime of the brand.” (NEUMEIER 2006: 82.)
- The smaller the company, the more its name is a question of life and death. (RIES - RIES 2004a: 192.)
- “If your brand name is bad, you can spend millions, still your market will not remember, and is not going to like it.” (WOLF 2012)
- Nothing can be successful in marketing until the name is not good. The best company, the best product, the best packaging, the best marketing in the world will not work out if the name is not good. (RIES - RIES 2004a: 183.)

There are many examples that demonstrate the importance of names: What was the first MP3 player? Was it iPod? No, it was not – the name of the first player was Creative Nomad Jukebox. Although it was of a better quality, the 7-syllable long, complicated name was not much of a help. 2-syllable, simple and distinguishing iPod defeated it, although the company at least received a payment from Apple for the license of the technology (RIES - RIES 2009: 66-67.). We could also mention the case of the first car. Was it Ford? No, it was not. The first American company to manufacture gasoline automobiles was Duryea – but is it any wonder that they could not get into minds with such a peculiar name? However, Ford has also had its failures. Experts consider Ford Edsel as one of the greatest marketing failures besides New Coke (HAIG 2003). Although the model itself was not perfect, RIES and TROUT (1997: 76.) point out that "Edsel was a loser name before Ford introduced the Edsel car. And the name contributed to the marketing disaster." Another example from the car industry: Geo Prizm, a model by General Motors and Toyota Corolla are basically the same as they were manufactured on the same production line. Still, Toyota sold 200,000 cars between 1990 and 1994 at a price of USD 11,000. GM, however, could not sell more than 80 thousand – although it was 300 dollars cheaper (RANDALL 2000: 32.). Or what would someone say to a drink called Krating Daeng? Would the reader of this article drink it? Actually, it is nothing but the original Thailand version of Red Bull, which was basically taken over by the Austrian company, which repackaged it according to global tastes, and, of course, renamed it. And what would someone say to an American beer with the brand name Yuengling? Actually, it was the first (though not very successful) brewery in the United States (RIES - RIES 2004a: 183.). But bad names are not only a problem in the case of a specific brand; they can also be a challenge for a whole product category. How does cardio-pneumo-psychograph sound? Well, with that original name it would have probably remained uninteresting for the general public, but it became well-known with the name 'lie detector' (RIES - RIES 2009: 69.). Or has the reader heard about Chinese gooseberry? New Zealand farmers renamed their popular fruit in the fifties to kiwi, hoping that export would also increase this way – and as we can see, kiwi has become a world success (TROUT - RIVKIN 2000: 17.). Thus, while a bad name may cause several problems, a good name can bring about many positive consequences:

- "When the name is good, things tend to get better." (RIES - TROUT 1997: 80.)
- If a brand gets an apt name, the marketing and branding activities surrounding it also become much simpler. (HEALEY 2009: 86.)
- "If you have a good brand name ... all your marketing activities are easier, cheaper and more effective." (WOLF 2012)
- The best product and company names require the least advertisement. These are advertisements in themselves. (The website of Igor, a San Fransisco based naming agency, quoted by HEALEY 2009: 86.)
- "The single most important decision in the marketing of perfume is the name." (CHEVERTON 2005: 134.)
- "In the age of positioning, choosing the right brand name is the most important marketing decision you can make." (RIES - RIES 2009: 215.)
- "What you must look for is a name that begins the positioning process. A name that tells the prospect what the product's major benefit is." (RIES - TROUT 1997: 69.)
- "The heart of a good marketing program is a great name." (RIES - RIES 2004b: 5.)
- "A better name can mean millions of dollars of difference in sales." (RIES - TROUT 1997: 72.)
- With a truly effective brand name we may well affect emotions and the heart, and open wallets more easily. (OLINS 2004: 12.)

As we can see, not only brands, but also brand names have real value, that is, goodwill in a financial sense. MAURICE KANBAR, the father of Quad Cinema multiplex cinema and Skyy Vodka goes as far as to say that "if I had a great name for a product, I'd build a business around the name" (KANBAR 2002). Many examples demonstrate the usefulness of good brand names:

- When Intasys Corp. was renamed Mamma.com Inc. in January 2004, its share price doubled within only two months. (RIVKIN - SUTHERLAND 2004: 9.)
- One of the islands in the Caribbeans did not know for a long time what to do with its branding. Although the area was as beautiful as the Paradise, its name deterred tourists and investors as well. Hog Island was then renamed Paradise Island, and they live happily ever since so much that the most expensive hotel room in the Caribbeans is located here. We should not wonder why – the current name of the island suggests that this is Paradise, the Garden of Eden. (RIES - RIES 2004a: 189.)

Of course it is not always that easy to find the appropriate name. Lee Iacocca, former CEO of Ford and Chrysler explains this in his book *An Autobiography*: "The name is often the toughest part of the car to get right. It's easier to design doors and roofs than to come up with a name, because the choice is inevitably subjective." (IACOCCA 1988: 98.)

2. COUNTRY NAMES AS BRAND NAMES

However strange it may seem, country names can also be interpreted as brand names because an image appears in people's minds when they are mentioned. What is the most interesting is that this may even be true if people have not heard of that country before. An obvious example that has happened to most Hungarians abroad is the conversation "Where do you come from?" "Hungary." "What? Are you hungry?" But Poles also reported similar cases, suggesting that they seem to have a weaker country brand than the Netherlands. The typical conversation in their case, especially in the early nineties, was "Where do you come from?" "Poland!" "Ah, Holland!" And we can find numerous other examples around: there are jokes related to the names of almost all countries. Turkey is a good example: if we type this country name in Google Images, the first hits are not maps or beautiful landscapes, but poultry. We may also mention a conversation that appears on the Internet again and again as a joke ridiculing six country names:

- "I am hungary.
- Maybe you should czech the fridge...
- I'm russian to the kitchen!
- Is there any turkey?
- We have some, but it's covered with a layer of greece.
- Ew, there is norway you can eat that."

This does not necessarily mean that there is a problem with those names. But sometimes there really is, as a problematic name may result in disadvantages – the number of tourists visiting the country is less than it would be expected according to the attractions of the country, less investment arrives, or less people buy the products of the country. In the case of a product brand the replacement of the product name could solve this problem, but it is not that easy in the case of countries. The names of geographical locations usually have long historical roots, be it mountain peaks, lakes, seas, cities, and especially countries. These names are strongly connected to the life of local people who have got used to them.

3. OWN NAME INSTEAD OF A COLONY NAME

Although changing the name of a country is definitely a complicated issue, there are examples that can be analyzed from a branding perspective, too. In some cases the new brand name or country name is meant to symbolise a new beginning.

For example, when colonies claimed their independence, the first thing to do was to create a new name for the country. In some cases, the name of the coloniser had previously been a part of the country name, but was later omitted from it:

- New Spain – Mexico (1821)
- Spanish East Indies – Philippines (1898)
- Dutch East Indies – Indonesia (1945)
- French Sudan – Mali (1960)
- French Togoland – Togo (1960)
- British Guiana – Guyana (1966)
- Spanish Guinea – Equatorial Guinea (1968)
- British Honduras – Belize (1973)
- Dutch Guiana – Suriname (1975)
- Portuguese Guinea – Guinea-Bissau (1979)

In other cases the country name did not include any clear reference to the name of the colonising country, but the name change was meant to indicate something important:

- Siam – Thailand (1949)
- Gold Coast – Ghana (1957)
- Northern Rhodesia – Zambia (1964)
- Nyasaland – Malawi (1964)
- Basutoland – Lesotho (1966)
- Bechuanaland – Botswana (1966)
- East Pakistan – Bangladesh (1971)
- Ceylon – Sri Lanka (1972)
- Dahomey – Benin (1975)
- Ellice Islands – Tuvalu (1978)
- Gilbert Islands – Kiribati (1979)
- New Hebrides – Vanuatu (1980)
- Upper Volta – Burkina Faso (1984)

Sometimes the name was changed not only once but multiple times:

- German South-West Africa (1884) – South-West Africa (1915) – Namibia (1990)
- Southern Rhodesia-Rhodesia (1965) – Zimbabwe-Rhodesia (1979) – Zimbabwe (1980)
- Congo Free State (1884) – Belgian Congo (1908) – Republic of the Congo (1960) – Democratic Republic of the Congo (1964) – Republic of Zaire (1971) – Democratic Republic of the Congo (1977)
- French Somaliland – Afars and the Issas (1967) – Djibouti (1977)

As a result of these name changes the countries' new beginning did not only involve their stamps, but many other aspects, too. Sometimes it was not just a restart, but a start from scratch. Therefore, they explored (and sometimes invented) their own historical heritage, similarly to their predecessors in 19th century Europe. For example, ancient Zimbabwe was a somewhat mythical African empire covering more or less the same area as today's Zimbabwe. To be honest, the historical relationship between ancient Zimbabwe and contemporary Zimbabwe is rather negligible, but the emotional relationship is important for the people living there. (OLINS 2004). The latest name change is associated with Swaziland. In 2018 the King decided that the country should be renamed to its historical name, eSwatini, celebrating the 50th anniversary of their independence. It is also possible that the King's name (Mswati III) played a role in the selection of the name.

The news allegedly made Swiss people happy, as the names of the two countries (Switzerland and Swaziland) had often been mixed up with each other on online forms.

4. BRANDING DIFFICULTIES OF SUCCESSOR STATES

The other wave of new “brand names” and “brands” could be seen in the early nineties, when successor states gained independence after the breakup of the Soviet Union. Some of these countries have a historical past with long traditions. For example, Georgia started to use its current country name considering the heritage of Saint George – as opposed to Gruzija, which was the name of the country as a member state of the USSR. On the other hand, other successor states such as the five Middle-Asian “stans” (Uzbekistan, Kyrgyzstan, Turkmenistan, Kazakhstan and Tajikistan) had never existed as sovereign states before the breakup of the Soviet Union. In the meantime, Czechoslovakia also split into two countries, the Czech Republic and Slovakia – although not all people are aware of this. The author of this article also experienced this: a scholar from a renowned university in London held a presentation in Budapest in 2008, still referring to the country as “Czechoslovakia”... The situation is no less complex if we consider the two successor states separately. The problem of the Czechs was that they found the official international name of their country (Czech Republic) rather long, but academics, branding experts and government figures have agreed that the form of government is an unimportant element regarding the commonly used version of country names. It is true that tourists usually do not travel to the “Spanish Kingdom”, or the “Commonwealth of Australia” for the vacation, but prefer to use the short names of the countries, not to mention Hong Kong, whose official name is “Hong Kong Special Administrative Region of the People’s Republic of China”. However, the Czech Republic only had this official name, and there was no short version in English. Therefore the experts mentioned above recommended the name “Czechia” instead of “The Czech Republic”. Then a new problem occurred, quite similarly to the name of another country, Chechnya. (It is also true that the latter “brand” has not been recognised by any states around the world.) On the other hand, several people in the Czech Republic would have preferred to use the names “Bohemia” and/or “Moravia”. This might be historically correct, but using these names would probably be wrong from a branding perspective, because average cosmopolitans are not so well educated in Central European history, and would not understand where the Czechs are from. (THE ECONOMIST 2004). In the end, the idea of renewing the country name that emerged in the early 2000s was shelved for about a decade. Finally, in 2013, Czech president Miloš Zeman recommended the wider official use of Czechia, and on 14 April 2016, the country's political leadership agreed to make Czechia the official short name. The new name was published in the United Nations UNTERM and UNGEGN country name databases on 5 July 2016. “In October 2016, six months after the name Czechia was adopted, The Guardian reported that the new name is hardly in use, even on official Czech government websites. Still, it seems that the acceptance of the new name finally increased in 2017:

- Google replaced the Czech Republic with Czechia on Google Maps on 18 January 2017. The CIA World Factbook and U.S. State Department both use Czechia instead of the Czech Republic as the short name of the country.
- On 22 May 2017 a Forbes contributor released an opinion blog saying that “Czechia has won the Czech Republic name debate” and that “If you’re feeling petulant, it’s the Czech Republic. If you want to be cool, it’s Czechia” in a reference to the significant progress that has been made for the short name in the recent year.
- The geographical department of the Faculty of Sciences, Charles University in Prague organised a special conference on 1 June 2017, assessing how successful the process of adopting the name Czechia had been so far.
- In June 2017, the English Style Guide and Country Compendium of the European Commission introduced Czechia for optional use with the recommendation that it be used

in informal contexts where it is not necessary to use the full political name, such as at sports events, in advertising, etc.

- Škoda Auto, the largest Czech automobile manufacturer, began using Czechia in their advertisements in 2017.
- The Pilsner Urquell brewery began using Czechia on bottles, cans and the brewery logo in summer 2017.” (WIKIPEDIA 2017, Name of the Czech Republic)

But let us return to former Czechoslovakia, that is, its other part, Slovakia. The situation of Slovakian citizens is not any easier as they are often confused with Slovenians, which also has linguistic reasons: the official name of Slovakia is "Slovenská Republika". Having mentioned Slavic peoples, their greatest problem is how the words Slav and Slavic are pronounced internationally. Less educated people pronounce the term "Slav" just like the word "slave", and they draw the conclusion that Yugoslavia is the country of slaves – or at least it used to be as long as it used that name. Now there are six independent countries on the area of former Yugoslavia: Serbia, Montenegro, Croatia, Slovenia, Macedonia, and Bosnia and Herzegovina. We could also include Kosovo in the list, although many countries have not yet recognized Kosovo's independence.

5. NAME CHANGE CAMPAIGNS

Regarding brand names, the most interesting example from the former Yugoslavian successor states is that of Macedonia. The country was required to use the odd-sounding name Former Yugoslav Republic of Macedonia (or even worse, its abbreviation, F.Y.R.O.M.) officially after its secession from Yugoslavia. Although there was no reference to Yugoslavia in their constitution, they had to use this name in international diplomacy. Or an interesting example: the singers/bands from the country were presented using this country name in the Eurovision Song Contest. The reason was that the Greek government declared that Macedonia – as a geographical area – is much larger than the newly declared Republic of Macedonia, and most of it belongs to Greece. The insistence of the Greek may not look nice, but it can be understood from a branding point of view: they would like people to relate Alexander the Great and his heritage to Greece and not to the Republic of Macedonia, also affecting the number of tourist visits to the country. On the other hand, it is also understandable that the people of the new state wish to use their original name, and they even launched a campaign to this end: "Don't you F.Y.R.O.M. me. Say Macedonia." and "Call me by my name. Say Macedonia." The debate that had lasted since 1991 was finally resolved in 2018: the Macedonian and Greek Prime Ministers took part in an event where the foreign ministers of the two countries signed an agreement about the official name of the area: North Macedonia. In addition, the North Macedonian government made significant gestures. They changed the name of the capital airport: the aerodrome named after Alexander the Great was renamed International Airport Skopje. They also decided that the highway connecting the Macedonian-Serbian border with the Macedonian-Greek border would be renamed (from Alexander the Great to Friendship Highway). It is an interesting fact that they also considered the country names Upper Macedonia, New Macedonia and Elijah's Day Macedonia during the name debate. Elijah's Day (also called Republic Day), that is, 2 August is a national and religious holiday in the country. It commemorates the so-called Ilinden Uprising in 1903, when revolutionaries organized a revolt against the Ottoman Empire, resulting in the creation of the short-lived Kruševo Republic, which only existed for ten days. On the very same day in 1944, the Anti-fascist Assembly for the National Liberation of Macedonia was formed. Interestingly, another – seemingly more prominent – brand, a country with a more positive image also considered changing its name. Great Britain experienced that the perception of the country in former colonies was negative in many respects, and the word "Great" in the name of the country sounded somewhat imperial.

Although the name of the country was not replaced, most of its image materials only used its shorter name (that is, Britain) for some time. This was not the first major name change considering the history of Great Britain. It is known all around the world that the royal house of the United Kingdom is called the House of Windsor. However, that name has only been used since 1917, when a proclamation by King George V declared that the use of the name Saxe-Coburg and Gotha would be discontinued – the German implication and origins of the latter names have become inconvenient for them in World War I. Another interesting case was that of Estonia. The country tried to avoid using this English version of the country name and use Estland instead for some time (see, for example: SZONDI 2007) as certain studies claimed that the name Estonia would remind people of a tragic accident in 1994, when a ferry called Estonia sank between Tallinn and Stockholm, claiming 852 lives. Some years later a thriller titled “Baltic Storm” starring Donald Sutherland was also based on the events, but the “baltic storm” finally subsided, and the country kept the name Estonia. Changing the English name of the country became an issue again in the early 2000s. The proposed new version was “E-stonia” (meaning “E-Estonia”), suggesting the outstanding development of Estonian information technology. Estonia was the first country in Europe to introduce the electronic identity card, and it was the first place to allow people vote for their parliamentary representatives online. E-Estonia was also successful as a vision: its citizens knew they had to work hard in order to make their country competitive. It is also interesting that Lithuania, another Baltic state, was also thinking about changing its name in 2008 (REUTERS 2008). The government spokesman said that “Lithuania's transcription in English is difficult to pronounce and remember for non-native English speakers”. As a result of the citizens’ opposition and criticism by the media, the country name was never changed, but they created a slogan for the country: “Lithuania – A brave country”). Another ‘playful’ suggestion to change the name of a country (in this case, Guatemala) was made by AL RIES, one of the ‘fathers’ of positioning, co-author of “Positioning – The battle for your mind”. According to him, the Central American country could best differentiate itself if it highlighted that it was once the centre of the Maya empire, and, in order to shape its image that way, the country should use letter y instead of the letter l in its name, making it Guatemaya. The local people could find their historical roots in this name, and it would also be a clear signal for tourists (RIES - RIES 2002)

6. HUN OR MAGYAR?

Sometimes it happens that a country has several names, even in the same language. The Czech Republic is a good example with two official names in English: Czech Republic and Czechia. The United States of America itself is also an excellent example: sometimes it is called United States, sometimes it is referred to simply as America, and there are cases when it is used in its abbreviated form, USA. This is four versions of the same country name altogether. There are also examples when a country has an ancient name in its own language, and another name used internationally. In such cases, it is a political and marketing dilemma to decide which one to use, or maybe use both at the same time. The simultaneous use of Wales and Cymru is a good example of this. Regarding the latter, Welsh people have long been defined by their language (Cymraeg) which is one of the oldest living languages in Europe (WILLIAMS 1985). So around the millennium the Welsh Tourism Board felt that it should be prouder of its Welshness and be broader in its use of Welshness. Now we can see a bilingual logo and the word Cymru appearing more often in marketing materials than it used to. (See the case study by PRITCHARD and MORGAN (2001): „Culture, identity and tourism representation: marketing Cymru or Wales?”) There is a similar situation regarding Sweden and Finland using dual names: Sweden also uses the name Sverige, and Finland also uses the name Suomi in their communications materials and country logos. The situation of Hungary is interesting in the sense that the country has different names in various European countries.

This would not be a unique case in itself, but these names are quite different indeed. Based on the beginning of the names, these can be classified into four groups: Hun-, Ung-, Veng- and Magyar- (TÓZSA 2016).

Table 1: The beginning of Hungary's country name in various languages

<i>Hun-</i>	<i>Ung-</i>	<i>Veng-</i>	<i>Magyar-</i>
Albanian, Arab, Armenian, Dutch, English, French, Greek, Hebrew, Latin (scientific), Portuguese, Spanish	Bulgarian, Danish, Estonian, Finnish, Georgian, German, Irish, Italian, Latvian, Macedonian, Norwegian, Romanian, Swedish, Ukrainian	Belarusian, Kyrgyz, Lithuanian, Polish, Russian, Turkmen	Azeri, Croatian, Czech, Kazakh, Kurdish, Mongolian, Persian, Serbian, Slovak, Slovenian, Tajik, Tatar, Turkish, Uzbek

Source: TÓZSA, István (2016): Hungarikumok, nemzeti örökségvédelem – Egyetemi jegyzet ("Hungaricums, the protection of the national heritage – University textbook")

Why is this important? Because everything indicates that in the case of names beginning with "Hun-" a stereotype is fundamentally "coded" in the name, which refers to nothing else than Huns and their ruler Attila. These "vandals" wreaked havoc in a barbaric way in half of contemporary Europe in the 5th century, as often mentioned in history books. Therefore in countries where the country's name is Hungary, Ungarn, Hongrie, Ungheria, Hungria, and the name of the people is Hungarian, Ungarisch, Hongrois, Ungherese, Húngaro, the words themselves evoke certain negative associations (TÓZSA 2016). A similar association exists regarding Turkey and Turks, who occupied Hungary for 150 years (1541-1686). Most Hungarian history books refer to the Ottoman Empire using these two words, although Turks tend to refer to this period as the Ottoman Empire, not Turkey and Turks. Getting back to Hungary, of course, the inclusion of the syllable "hun" is no coincidence. The source of references to the Hun heritage of Hungarians was the idea that the Hungarians' arrival in the Carpathian Basin, the former Pannonia (the so-called "honfoglalás") should not be depicted by the kings of the Árpád dynasty (997-1301) as a conquest, but as a return to the ancient (Hun) homeland, which was the centre of the Hun empire, their "ancestors" in the 5th century. According to some assumptions, Hun roots can also be noticed in the name of the Hungarian capital, Budapest: ruler Buda (Bleda) was the brother of Attila the Hun. However, according to other theories, Hungarians are not the descendants of Huns, but a member of the Finno-Ugric group of peoples and languages – thus Hungarians are related to Finnish and Estonian people, and arrived in the Carpathian Basin at the end of the 9th century (and not the 5th century). To be honest it has little importance in a country marketing / country branding sense: its relevance is that people who do not know much about the country associate Hungarians with Huns, and words beginning with "hun-" may have negative connotations. As the table above indicates, there are several such examples. Countries that name Hungary in their own language using the "magyar" affix (and not "hun") are usually bordering, neighbouring countries (except Austria and Romania), or countries in Eastern Europe, Asia Minor and Central Asia. It is also important that besides country names including "hun" (and its variations "ung" and "veng") ones derived

from the original word "magyar" are usually present in countries located south and east of Hungary. Nevertheless, most European languages name Hungarians using the "hun" affix. In a sense this has a pejorative country association in the social consciousness of Western, Northern and Southern European countries (TÓZSA 2016). The other, perhaps less popular opinion is that "Huns" were not only vandals but a strong nation – the same that Hungary wants to be seen now, although in a more modern sense.

7. CONCLUSION, LESSONS REGARDING HUNGARY'S BRANDING

What do the aspects discussed above mean in terms of country branding or geopolitics? How do they affect potential tourists, businesspeople wishing to invest in Hungary, or those considering the purchase of Hungarian products? They might have an effect in the sense that Hungary starts with a handicap in certain countries, while its name involves some advantage in others. According to TÓZSA (2016) English, French, Spanish, Portuguese, Hebrew, Arabic language areas are especially "tough", and there is also "a lot to do" in German, Ukrainian, Italian, Russian and Polish language areas. If we consider examples featuring the word "magyar", and suppose that the word does not carry stereotypes (as in the case of Huns), then we get an extremely exciting result. In that sense, and rather paradoxically, Turkey (a country often considered an "enemy" of Hungary for the abovementioned historical reasons) may be one of the most accepting and important potential supporter / ally of Hungary (TÓZSA 2016). It can probably be a ground to build on as Turkish people usually like Hungarians very much, even if this is not so much true the other way round as a result of the 150-year Ottoman rule in Hungary (1541-1686). Of course, this view is simplistic in the sense that it supposes that the adjective "hun" evokes significantly negative stereotypes, or Attila, which is still quite a common first name for children in Hungary, is often identified with Satan in Western Europe and America. However, the opinion about Huns is not so one-dimensional: many people respect them for their actions, military and organizational qualities, and say that Hungarians should be proud of this. In another respect, the word "magyar" does not necessarily sound positive in all countries. In the case of Slovakia, "Madarsko" does not really suggest friendship, but oppression for some people, and the sometimes bloody and cruel Serbian-Hungarian relations in the 18th - 20th centuries do not put the name "Madarska" in a very friendly context, either (TÓZSA 2016). But then what could be the solution? Well, maybe it is the method used by Wales, Sweden or Finland, that is, displaying the English name of the country (or the target country) together with its original name on most of their marketing materials: "Wales – Cymru", "Sweden – Sverige", "Finland – Suomi". We could also follow this trend using the combination "Hungary – Magyarország". In this context, marketing materials are to be understood in a broad sense: they include country image films, airport billboards, diplomatic documents, shirts of national teams, the names of the national Facebook/YouTube/Instagram channels, and so on. Last, but not least, it is important to point out that countries are rarely judged merely by their name. If a country makes an effort for acknowledgement, and has unique qualities, then they will also be known for the public – be it its tourist attractions, cultural heritage, export products, people living there, or government policies. Of course, the judgment of these can also be positive or negative – but in that case there is much more to it than pigeonholing a country merely by its name. This is all just some play with names in this regard – even if this play may gain great importance from time to time.

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GENDER AS A DETERMINANT OF TOURISM ACTIVITY OF THE INHABITANTS OF EUROPEAN COUNTRIES

Renata Seweryn

Cracow University of Economics, Faculty of Management, Poland

Researcher ID: W-8204-2018

renata.seweryn@uek.krakow.pl

Agata Niemczyk

Cracow University of Economics, Faculty of Management, Poland

Researcher ID: C-8756-2019

agata.niemczyk@uek.krakow.pl

Agnieszka Smalec

University of Szczecin, Faculty of Management and Economics of Services, Poland

Researcher ID: L-3863-2018

agnieszka.smalec@wzieu.pl

ABSTRACT

The article is an attempt at answering a question if gender differentiates tourism activity. On the basis of subject literature the term 'tourism activity' was clarified, factors determining this activity were indicated and selected results of research into the role of gender on tourism market conducted in different countries were presented. The following measures were used in the empirical part: (1) the number of inhabitants of individual countries pursuing at least one tourist trip during a year with a minimum of one overnight stay; (2) net tourism activity index measured as a percentage of the population of individual countries participating in tourism in a given year; (3) total number of trips with a minimum of one overnight stay pursued by the inhabitants of individual countries in a given year; (4) gross tourism activity index measured as the total number of trips pursued by the inhabitants of individual countries in a given year with respect to the populations of these countries; (5) the percentage of the inhabitants of individual countries not pursuing tourism activity for particular reasons. Using the information from Eurostat two research hypotheses were verified:

- *H1A: Women travel for tourism more often than men.*
- *H1B: The main barrier to men's tourism activity is the lack of free time due to work.*

The analysis covered 26 European countries in 2017 and 28 in 2016. The obtained results show that only in seven out of 26 studied countries (France, Ireland, Poland, Slovenia, Estonia, Greece and Cyprus) women are more active in tourism than men. If they do not travel, it is not because they have no time due to family commitments, but due to financial (analogically to men) or health reasons and limited mobility (unlike men, who are simply not interested in pursuing tourism).

Keywords: *European Union, gender, gross tourism activity, net tourism activity*

1. INTRODUCTION

The beginning of the 21st century is a period of widespread changes in socio-economic life. In addition to progressive globalization, universal access to the Internet and other information and communication technologies, consumerism, presumption or home-centralization, one of the determinants, and at the same time one of the effects of these changes is the dynamic development of tourism. The latter has now become one of the three greatest fields of the global economy – after fuel and chemical industries (World Tourism Organization, 2016, p. 16) – and

a significant component of modern culture. An improvement in the standard of living and increase in the opportunities of free movement have contributed to the fact that millions of tourists travel – 1,326 million total international tourism arrivals in 2017 (World Tourism Organization, 2018, p. 2). Tourism activity has become a significant component of managing free time reflecting and also influencing the standard and style of living of the modern human being. The level of such activity is dependent on a number of macro and micro factors, economic and non-economic factors, and internal and external factors. The article is a theoretical and analytical study which aims at determining the impact of one of these factors, i.e. gender on the size of tourism activity of the inhabitants of selected European countries.

2. TOURISM VS. GENDER

2.1. Tourism activity and gender – terminology

In broad terms, tourism activity means all activities and actions related to the participation of individuals in tourisms. Unfortunately, tourism activity understood in this way is not possible to be investigated on the basis of available statistical data (Alejziak, 2009, p. 17-18, 26). Therefore, this work focused on the analysis of tourist activity in the narrow sense, i.e. defined as the participation of individuals in any trips outside the place of permanent residence, work or study, for purposes recognized as tourism (health, business, recreational or other personal) – with no intention of starting work earning or settling down (Seweryn, 2016, p. 591). The level of tourism activity is dependent on many interrelated and intertwined factors. They may be divided i.al. in the following groups (Seweryn, 2004, p. 16):

1. macroeconomic and social (including the system, level of socio-economic and cultural development, condition of natural environment, state policy – financial, social, tourist etc.),
2. microeconomic and psychological:
 - external (progress in broad communication, size and meaning of free time, quantity, quality, price and availability of tourism goods and services, impact of mass media, fashion etc.),
 - internal – of i.al. economic and non-economic character (psychological, demographical, socio-professional, and even natural or environmental).

Macro determinants only create the framework within which tourism activity of particular individuals (and households) is diversified by micro factors. The latter group includes demographical features, including gender. Despite many publications in this respect, the topic seems still open. This is the result of the fact that the world is constantly changing and the products that until recently were considered suitable for both men and women, nowadays "do not match" both groups of buyers. On the one hand, there is a trend towards equality and homogenization, unification and similarity of consumption models, but on the other, there is heterogenization resulting from the striving to stand out from the crowd (Niemczyk, Seweryn, 2014, p. 209). Talking of gender two aspects must be distinguished biological – sex, and cultural – gender. The first one is treated as biological aspect of human life, i.e. distinguishing whether the person is anatomically a man or a woman. On the other hand, cultural gender is defined as a set of attributes, features, attitudes, social roles and behaviors created by the society and broad culture attributed to a man or a woman (Jucan, Jucan, 2013, p. 438). Subject literature on tourism also perceives gender in various ways. E.g. Davis (1991, p. 65) identifies gender as an individual (by studying how men and women behave, what are their beliefs and attitudes, how is gender identity shaped), but he also refers it to the social structure (i.e. men and women professions, diversification of social activity) giving it symbolic of "masculinity" and "femininity".

2.2. Gender in tourism – review of the results of published research

There are many publications on the subject of gender in tourism. According to the subject literature, the first of them was a book edited by Kinnaird and Hall (1994). It presents the dual role of gender in the tourism market, on the one hand treating gender – the individual as a participant of tourist traffic, and on the other – as a person working for tourist service sector. Some of the later works proved that women, unlike men, are more interested in different types of trips, and therefore more often pursue tourism (Górka, 2010, Łaciak, 2013). They treat trips as freedom, break from duties, escape from everyday life (Andreu, Kozac, Avci, Cifter, 2005). Nonetheless, the motives of women's trips may vary, e.g. depending on nationality. And so, for instance, the Chinese travel for prestige, while Chinese women – to gain knowledge, but also for the relaxation. The latter are also particularly sensitive to cultural and natural attractions and, what is important, they value personal security, hygiene standards and quality of services higher than men (Zhang, 2006). Another research problem was the restrictions to tourism consumption of women and men. It occurred that for men, professional work is the main barrier to pursue travel (entertainment), whilst for women – family commitments (Khan, 2011). It is worth highlighting that currently women are an important target market for the tourism industry. Certain facts prove it, i.e.: 80% of global expenses are made by women, 65% of "museum friends" are women, 70% of tourist magazine readers are women. Moreover, the following circumstances determine the growing role of women in the market of consumer goods and services, including tourism ones (Figueroa, Segovia, 2011; Niemczyk, Seweryn, 2011, p. 104-106):

- change in the social role of women in the 21st century (professional activity, electoral law),
- active role of women as a decision-maker in family trips,
- the use of a rich set of online and offline information channels by women,
- in relation to e-commerce, women are the fastest growing segment of the market.

Subject literature review also allows us to state that the perception of a tourism product (trip) and its assessment varies depending on the gender, knowledge and perception of the individual, who play the male and female roles in society (Ryan, Henley, Soutar, 1998, p. 2308). The complement to these theses is the statement that the role of gender in shaping tourism activity depends on many issues, including the place of residence of the tourist. Therefore, an analysis was taken aiming at determining the impact of gender on the participation in tourist traffic of the inhabitants of selected European Union countries.

3. METHODOLOGY

In order to determine whether men and women are characterized by a varied level of tourism activity, the latest data collected by the Statistical Office of Europe EUROSTAT was used (i.e. for 2017¹). The analysis covered 26 countries². Based on the obtained information, two research hypotheses specified on the basis of the subject literature were verified:

- H1A: Women travel for tourism more frequently than men.
- H1B: The main barrier for male tourism activity is no time due to work (or study) commitments.

The first hypothesis was verified by the following measures:

1. the number of males and females from individual countries pursuing at least one tourist trip during a year with a minimum of one overnight stay,

¹ At the time of this article being prepared data for 2018 were not available yet.

² The selection of countries arises from the full availability of information about the participation of their inhabitants in tourism in the year of the research.

2. net tourism activity index measured as a percentage of the male and female population of individual countries participating in tourism in a given year,
3. total number of trips with a minimum of one overnight stay pursued by males and females of individual countries in a given year,
4. gross tourism activity index measured as the total number of trips pursued by males and females from individual countries in a given year with respect to the male and female populations of these countries.

The other hypothesis was verified by the declarations of the inhabitants of individual European countries in 2016 referring to the reasons for non-participation in tourism. The respondents had the following responses to choose:

- financial reasons (no money available for holiday trips, cannot afford to go on holiday),
- prefer to stay at home, no motivation to travel,
- lack of free time due to family commitments,
- lack of free time due to work or study commitments,
- health reasons or reduced mobility,
- safety,
- other reasons.

Due to the fact that lack of participation in tourism might have been caused by more than one factor, the share of particular responses exceeded 100%.

4. TOURISM ACTIVITY OF MALES AND FEMALES FROM THE EUROPEAN COUNTRIES

4.1. Participation in tourism in 2017

The analysis of data collected by EUROSTAT allows stating, which is a well-known fact that the largest number of travelers are from Germany (Figure 1) – nearly 52 million people in 2017.

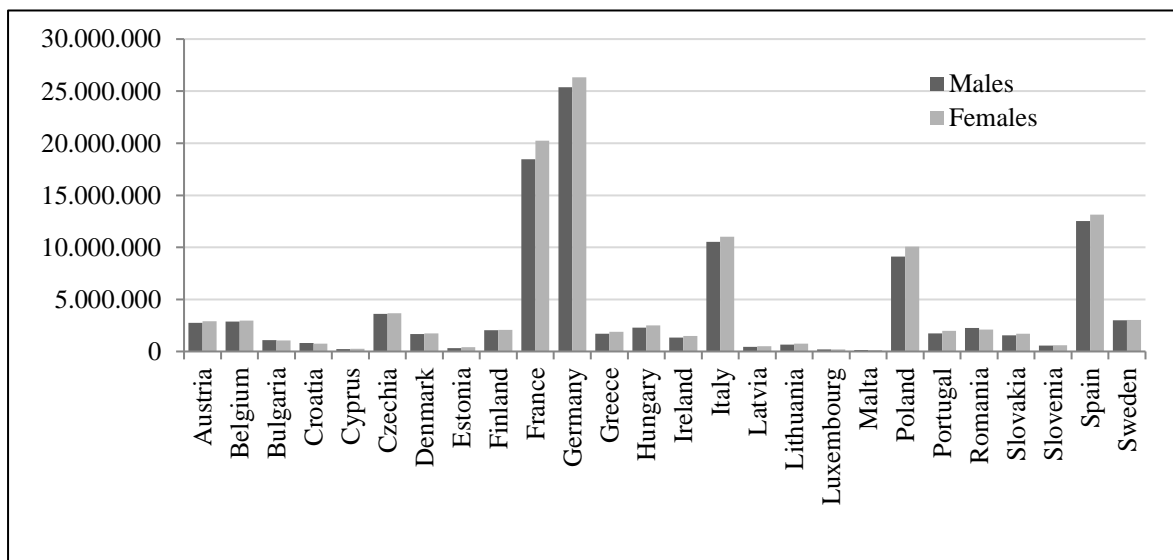


Figure 1: The number of males and females from selected European countries participating in tourism in 2017 (Eurostat Database, 2019)

The runner-up is France (close to 39 million people) followed by Spain (nearly 26 million), Italy (nearly 22 million) and Poland (over 19 million). The smallest number of travelers come from Malta (just over 0.25 million), Luxembourg (about 0.40 million) and Cyprus (about 0.49 million).

Considering the significance of gender, it has to be noted that in 22 analyzed countries more women than men participate in tourism, which in case of these countries preliminarily verifies positively H1A hypothesis. In 2017, the largest difference was recorded in relation to France (nearly 1.8 million), and Germany and Poland (about 0.93 million people each). Taking into account the relative values, the biggest advantage referred to Estonia (25% more female than male travelers), Lithuania (around 17%), Portugal and Latvia (about 16% more each). Only in four of the surveyed countries, i.e. Malta, Bulgaria, Croatia and Romania, the H1A hypothesis was not empirically confirmed – in these countries more men than women participate in tourism (respectively by more than 9k, by nearly 32k, by over 36k and over 150k people). More accurate information is provided by the analysis of the size of the second measure, i.e. net tourism activity (Figure 2). In this perspective, i.e. in terms of the percentage of the population participating in tourism, the leaders are not Germany, France or Spain, but Finland (over 74%), Czechia (nearly 69%) and Luxembourg (close to 68%). On the other hand, the lowest value of the net tourism activity index appears in relation to Romania (only approximately 22%), Bulgaria (approximately 30%) and Greece (approximately 33%).

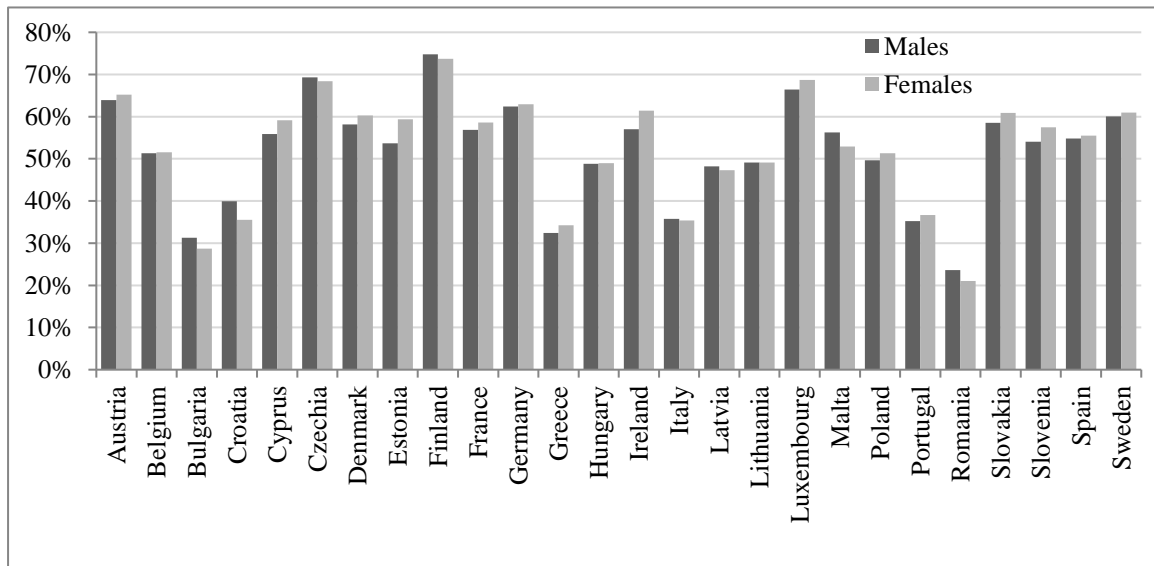


Figure 2: The percentage of male and female population from selected European countries participating in tourism in 2017 (Own calculation based on: Eurostat Database, 2019)

The analysis of the size of this measure with regard to gender allows observing that H1A hypothesis is verified positively only in 17 countries. The highest predominance of the net tourism index of women in relation to men in 2017 was observed in the case of Estonia (by nearly 6 pp), Ireland (by more than 4 pp), Slovenia and Cyprus (by ca. 3 pp each). The most balanced values of the net tourism activity index concerned Hungary and Lithuania, whilst the latter country has already recorded minimum dominance of men. Women were characterized by a lower participation rate in tourism also in such countries as Italy (by 0.41 pp), Latvia (by 0.89 pp), Czechia (by 0.93 pp), Finland (by 1.09 pp), Romania (by 2.53 pp), Bulgaria (by 2.60 pp), Malta (by 3.34 pp) and Croatia (by 4.36 pp). For these countries, H1A hypothesis should therefore be rejected. On the basis of the results of hitherto analyses three groups of European countries may be distinguished:

1. countries with dominating male tourism activity over female activity (Romania, Bulgaria, Malta and Croatia),
2. countries with dominating female travelers, yet with a higher index of net tourism activity for men (Italy, Lithuania, Latvia, Czechia and Finland),

3. countries with dominating female tourism activity over male activity (Estonia, Ireland, Slovenia, Cyprus, Slovakia, Luxembourg, Denmark, Greece, France, Poland, Portugal, Austria, Sweden, Spain, Germany, Belgium and Hungary).

In terms of the next measure, i.e. the number of tourist trips, as in the case of the number of travelers, Germany is the leader among the analyzed countries (Figure 3) – almost 244 million journeys in 2017. Next places are taken by France (nearly 221 million trips), Spain (nearly 153 million), Sweden (nearly 60 million), Poland (nearly 58 million) and Italy (over 56 million). The smallest number of tourist trips during the year are pursued by the inhabitants of Malta (about 0.8 million in 2017), Luxembourg (about 1.8 million) and Cyprus (about 2.8 million).

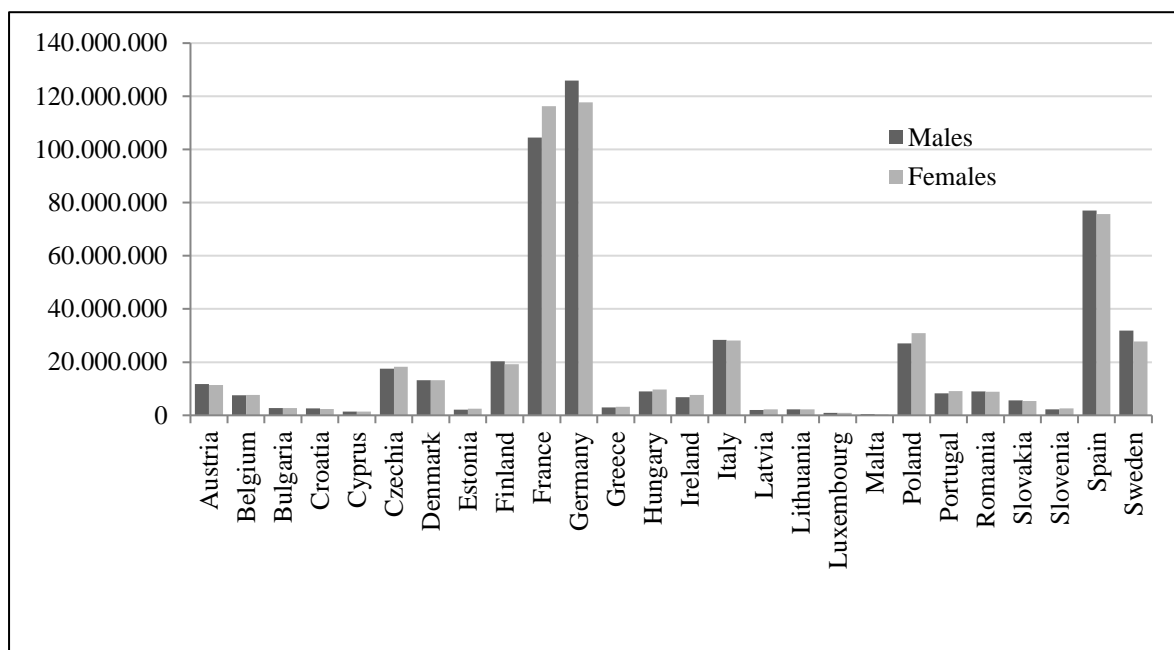


Figure 3: The number of trips pursued by males and females from selected European countries in 2017 (Eurostat Database, 2019)

Taking into account the gender, it should be stated that in almost half of the analyzed countries (12) more trips in 2017 were pursued by men than women. Their dominance was most visible in Germany (over 8 million more), Sweden (over 4 million), Spain (over 1.3 million) and Finland (close to 1 million), but also visible in Austria, Slovakia, Croatia, Italy, Romania, Luxembourg, Malta and Lithuania. In other countries, it was women who pursued more trips. Their advantage was most visible in relation to France (nearly 12 million more), Poland (nearly 4 million), Portugal (nearly 0.9 million), Ireland (over 0.8 million), Czechia (nearly 0.8 million) and Hungary (over 0.7 million). On the other hand, the analysis of the gross tourism activity index shows that the highest value was reached in 2017 in the Scandinavian countries, i.e. Finland (over 7 trips per inhabitant), Sweden (nearly 6) and Denmark (nearly 5). Less than one trip a year was characteristic of the inhabitants of Greece (around 0.6), Bulgaria (nearly 0.8), Romania and Italy (around 0.9 each). Determining the gross tourism activity index by gender gives the basis for stating that in 2017 it assumed a higher value for women than for men only in case of 8 analyzed countries (Figure 4), i.e. Slovenia (by 0.3), Ireland (by nearly 0.3), France (by over 0.1), Poland (by about 0.1), Cyprus (by about 0.1), Estonia (by nearly 0.1), Czechia (by 0.03) and Greece (by 0.02). In the case of other countries, the opposite situation occurred – the index reached a value higher for men than for women (especially in two Scandinavian countries, i.e. Sweden by about 0.8 and Finland by about 0.6).

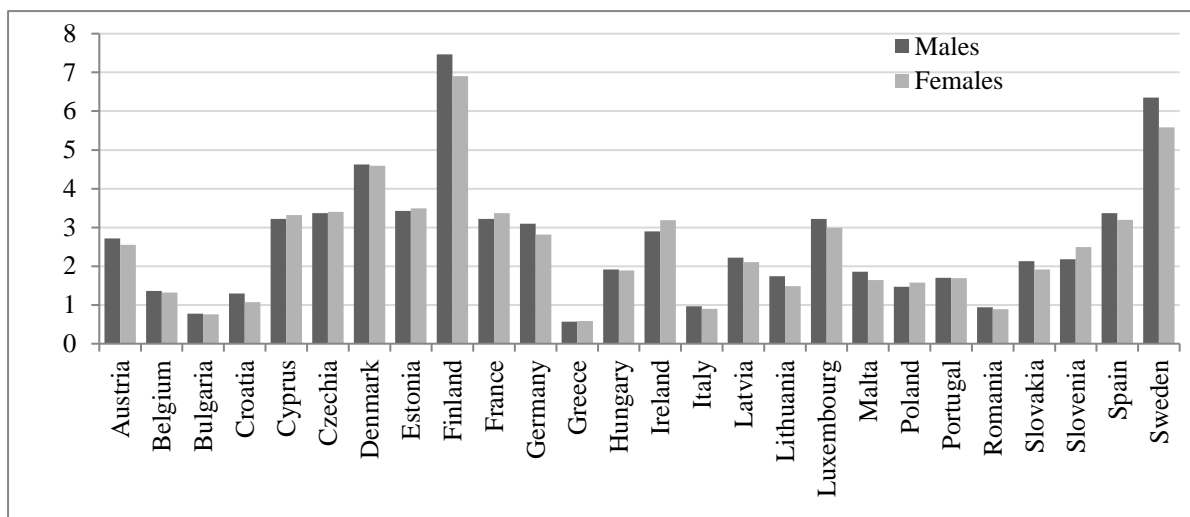


Figure 4: The number of trips pursued by males and females per one inhabitant (according to gender) of selected European countries in 2017 (Own calculation based on: Eurostat Database, 2019)

Consequently, considering the number of tourist trips and the gross tourism activity index three groups of European countries may be distinguished:

1. countries with dominating male tourism activity over female activity (Sweden, Finland, Germany, Lithuania, Luxembourg, Croatia, Slovakia, Malta, Spain, Austria, Italy and Romania),
2. countries with dominating female travelers, yet with a higher index of gross tourism activity for men (Latvia, Denmark, Belgium, Bulgaria, Portugal and Hungary),
3. countries with dominating female tourism activity over male activity (Greece, Czechia, Estonia, Cyprus, Poland, Ireland, Slovenia and France).

In conclusion, using all four measures H1A hypothesis was empirically confirmed only in case of 7 out of 26 countries, i.e. France, Poland, Ireland, Slovenia, Estonia, Greece and Cyprus – women of these countries travel more frequently than men.

4.2. The reasons for tourist inactivity

The reasons for not taking up a tourism activity may have various backgrounds. In the case of 20 EU countries, these are primarily financial reasons (from 26.18 to 74.57% of indications). In five countries (Luxembourg, Finland, Austria, Slovakia and Sweden) the residents most often admitted to no interest, no motivation to travel (from 24.31 to 60.42% of responses). Citizens of Denmark and Germany most frequently indicated health reasons or reduced mobility (29% and 39% respectively), and Lithuania – others reasons (40%). Regardless of gender, financial reasons were reported most frequently in such countries as: Belgium, Bulgaria, Croatia, Cyprus, France, Greece, Hungary, Ireland, Italy, Latvia, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and United Kingdom – table 1. In the group of women in a relatively large number of countries (Germany, Czechia, Denmark, Finland and Luxembourg) the most frequently indicated were health reasons or reduced mobility (26-48%), whilst only men from Denmark and Czechia declared these as the most important (23-37%). The opposite situation occurred with regard to the reason of tourism inactivity, such as no interest, no motivation to travel – in seven countries (Luxembourg, Estonia, Malta, Germany, Finland, Austria and Sweden) men indicated them most frequently (26-67% of responses), whilst women only in two (Austria and Sweden – 38% and 53%).

Table 1: The reasons for not pursuing tourism activity by women and men from the Member States of EU in 2016 (Own calculation based on: Eurostat Database, 2019)

Country	Males							Females						
	Financial reasons Males	No interest	No time due to family commitments	No time due to work or study commitments	Health reasons	Safety reasons	Other	Financial reasons Females	No interest	No time due to family commitments	No time due to work or study commitments	Health reasons	Safety reasons	Other
Austria	16.97	38.24	20.05	32.04	26.82	5.49	5.31	26.03	38.37	29.09	18.45	36.97	14.69	6.41
Belgium	54.12	43.81	19.23	27.41	22.93	3.33	21.37	56.42	44.55	19.95	22.01	26.16	4.33	22.09
Bulgaria	52.83	0.72	6.64	21.08	12.73	0.17	5.84	47.75	0.72	11.55	15.59	18.34	0.12	5.93
Croatia	62.01	14.13	19.61	9.82	18.34	0.04	7.86	61.25	14.43	12.88	15.12	29.06	0.18	6.24
Cyprus	57.28	8.42	15.03	15.64	19.07	b.d.	14.17	56.23	7.03	20.57	9.71	25.22	b.d.	15.14
Czechia	36.73	25.44	12.01	14.36	37.26	b.d.	b.d.	37.67	20.19	16.51	7.52	42.59	b.d.	5.59
Denmark	19.58	2.39	0.95	13.22	22.77	0.00	41.09	22.94	2.99	1.32	7.75	36.35	0.00	28.65
Estonia	29.09	32.32	b.d.	b.d.	b.d.	b.d.	b.d.	45.53	24.35	b.d.	b.d.	44.84	b.d.	b.d.
Finland	b.d.	37.78	b.d.	b.d.	13.15	b.d.	b.d.	b.d.	b.d.	b.d.	b.d.	28.71	b.d.	b.d.
France	38.45	15.98	7.67	12.56	14.37	0.82	10.16	40.53	11.20	8.76	10.49	16.52	1.04	11.47
Germany	30.44	34.41	19.77	28.96	28.52	b.d.	10.87	35.13	35.45	26.81	22.07	47.79	17.57	11.72
Greece	75.09	9.49	7.09	12.26	15.06	0.41	6.93	74.08	12.12	10.61	8.04	19.80	0.75	7.73
Hungary	46.36	2.90	3.50	15.21	22.09	0.00	9.94	46.36	2.90	3.50	15.21	22.09	0.00	9.94
Ireland	51.59	30.29	10.85	14.49	15.55	2.92	7.52	56.10	17.28	14.60	13.10	21.79	2.98	7.34
Italy	49.35	19.22	13.07	16.91	11.42	b.d.	6.17	48.23	19.89	15.53	10.44	16.80	b.d.	6.12
Latvia	49.12	12.25	7.44	13.01	16.26	0.00	1.92	47.26	6.98	9.45	6.31	28.20	0.00	1.80
Lithuania	14.39	6.40	4.86	9.95	11.86	3.44	49.09	23.84	8.08	4.90	10.98	16.98	2.76	32.46
Luxembourg	17.24	26.30	21.21	b.d.	11.93	b.d.	20.40	13.07	22.53	18.85	b.d.	26.30	b.d.	16.64
Malta	22.55	33.06	b.d.	15.20	16.36	b.d.	9.73	29.17	18.95	8.52	6.53	23.31	b.d.	14.23
Netherlands	32.84	28.80	6.72	12.97	18.81	3.12	14.31	33.79	24.28	6.94	8.84	26.73	1.85	15.00
Poland	50.25	20.90	11.57	26.09	19.13	1.62	4.51	48.76	21.75	15.46	17.42	26.77	2.46	4.28
Portugal	65.85	53.37	16.32	34.26	22.90	3.28	14.96	66.81	52.78	20.73	28.19	29.57	3.35	14.58
Romania	57.35	4.90	7.38	15.41	10.08	0.13	4.75	53.54	4.94	10.29	10.97	15.32	0.14	4.80
Slovakia	49.00	57.46	20.97	13.83	25.04	3.02	7.88	51.29	56.71	27.03	6.59	37.77	5.01	5.91
Slovenia	44.17	27.67	6.48	24.58	26.95	0.89	3.41	50.25	19.48	5.20	14.24	40.84	2.10	4.52
Spain	44.53	21.33	9.42	17.47	18.84	b.d.	5.18	49.17	17.18	12.54	10.34	25.30	b.d.	5.08
Sweden	40.77	66.91	5.72	11.08	16.04	3.48	12.57	52.29	53.46	4.69	9.99	22.62	3.67	12.26
United Kingdom	52.97	11.36	12.32	10.66	4.98	2.99	4.73	51.11	12.59	11.70	11.31	5.01	3.01	5.29

Thus, hypothesis H1B formulated at the beginning, and specified on the basis of subject literature, in the case of Eurostat data cannot be confirmed – in none of the countries men (or women) indicated no time due to work (or study) commitments the most frequently as a reason for tourism inactivity.

5. CONCLUSION

Tourism activity has now become one of the basic measures of the quality of human life and an indicator of the civilization development of societies. It is researched both by scientific associations (in terms of psychology, pedagogy, economics, sociology or medical sciences), as well as statistical offices, business environment institutions and companies involved in public opinion research. This is due to the fact that a reliable diagnosis of tourism mobility of the population is the basis for creating a tourism product, the proper functioning of the tourism industry and setting directions for its further development (Frechtling, 2001, p. 10). The size of tourism activity is shaped by many factors that operate with varying intensity in time and space.

One of them is gender. Analyses conducted for the purposes of this study indicate that only in 3 out of 26 European countries surveyed (Malta, Romania and Croatia) men are more active in tourism, and in more than twice as many countries (France, Ireland, Poland, Slovenia, Estonia, Greece and Cyprus), women travel more often. The reasons for this should be seen in the fact that nowadays the position of a woman in tourism (just like in society) has changed very much in relation to the traditional function. Women take up professional jobs, which make them one of the breadwinners (thus they have more rights in the household). However, this does not result in an even distribution of duties in the family – women still do most of them while working professionally. Hochschild (2003, p. 4) described this phenomenon as the second shift. Despite this, women represent a significant and often higher than men percentage of people travelling for tourism (leisure, cultural, educational or business purposes). If they do not travel, this is not due to no time due to family commitments, but for financial reasons (analogically to men) or health and reduced mobility (as opposed to men who are simply not interested in tourism). Finally, it is worth adding that statistics and research clearly show that the female market is the biggest opportunity in the foreseeable future (Barletta, 2006, p. 19). However, only companies and tourist destinations that can appropriately recognize their needs and expectations that frequently differ from men's can succeed in organizing trips for them.

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THE IMPACT OF DIGITAL INNOVATION ON NATIONAL COMPETITIVENESS

Rozana Veselica

*Business School PAR, Croatia
rozana.veselica@gmail.com*

ABSTRACT

Today, innovation and digital innovation becomes more important than ever, especially when it is analysed thorough national economies and competitiveness report's. Innovation is one of the crucial factors into achieving a sustainable competitive advantage. Competitiveness in on the other hand, the ultimate goal of each national economy, company or enterprise. In this paper innovation will be defined in terms of innovation in general, as stated from the most recent Oslo manual for innovation 2018, published by the OECD. The document contains measures of scientific and technological activities, proposed guidelines for collecting and interpreting technological innovation data often referred as Oslo guideline for collecting and using innovation data. Digital innovation will be defined from the relevant literature but as well from the World Digital Competitiveness (WDCR) report, published by the IMD. As stated on IMD official website "the objective of the digital competitiveness ranking is to assess the extent to which a country adopts and explores digital technologies leading to transformation in government practices, business models and society in general". Competitiveness will be defined and analysed from the WDCR, but as well from the relevant literature about competitiveness in general. Competitiveness will also be analysed in terms of national economies Global Competitiveness Report - ranking. The author will collect, analyse, compare, deduct and investigate the connection between innovation, digital innovation and global competitiveness - explained on national economy competitiveness ranking's for the case of Croatia. In order to explain more further the impact of digital innovation on national economies, a PESTL analysis of The Republic Of Croatia will be presented and analysed. The paper will found a strong connection between innovation, digital innovation and national economy's competitiveness ranking as well as their positive influence on each other. A strong connection between innovation, digital innovation and competitiveness, will be analysed and further explained.

Keywords: *competitiveness, digital innovation, innovation, PESTL analysis, sustainable competitive advantage*

1. INTRODUCTION

Today, innovation and innovation activities becomes more important than ever. Innovation is one of the crucial factors into achieving a sustainable competitive advantage. Competitiveness in on the other hand, the ultimate goal of each national economy, company or enterprise. In this paper innovation will be defined in terms of innovation in general, as stated from the most recent Oslo manual for innovation 2018, published by the OECD. The document contains measures of scientific and technological activities, proposed guidelines for collecting and interpreting technological innovation data often referred as Oslo guideline for collecting and using innovation data. Digital innovation will be defined from the relevant literature but as well from the World Digital Competitiveness (WDCR) report, published by the IMD. As stated on IMD official website "the objective of the digital competitiveness ranking is to assess the extent to which a country adopts and explores digital technologies leading to transformation in government practices, business models and society in general". Competitiveness will be defined and analysed from the WDCR, but as well from the relevant literature about competitiveness in general. Moreover, the paper will analyse the connection between innovation, digital innovation and global competitiveness as well as national economy competitiveness ranking's.

In order to explain more further the impact of digital innovation on national economies, a PESTL analysis of The Republic Of Croatia will be presented and analysed.

2. DIGITAL INNOVATION

Innovation is one of the key factors in the game of achieving sustainable competitive advantage. One of the most relevant guidelines for defining, measuring and analysing innovation is the Oslo manual, published by the OECD. The last edition, the fourth one was published in October, 2018, and they defined innovation as “an innovation is a new or improved product or process (or combination thereof) that differs significantly from the unit’s previous products and processes and that has been made available to potential users (product) or brought into use by the unit (process).” (OECD, Oslo manual, 4th Edition, 2018, p. 20.) “The fourth edition of the Oslo Manual takes account of major trends such as, the pervasive role of global value chains; the emergence of new information technologies and how they influence new business models; the growing importance of knowledge-based capital; as well as the progress made in understanding innovation processes and their economic impact. Its guidance seeks to contribute to measuring the process of digital transformation and thus supports the goals of the OECD’s Going Digital initiative.” (OECD, Oslo manual, 4th Edition, 2018, p. 5.) Going Digital initiative was officially launched in Berlin on 12 January 2017. “Over the course of the project, the OECD will seek to engage policy makers and stakeholders in a variety of ways, including through public events, country-specific round-tables, high-level ministerial discussions, and digital means. The OECD welcomes the active involvement and contributions of governments and stakeholders in this work.” (OECD, <http://www.oecd.org/going-digital/project/>) The Oslo manual is covering digital perspectives and provides much needed guidelines in measuring digital products and capabilities. Technological capabilities are often the reason of new or improved characteristics of innovation. “Three types of technological capabilities are of particular interest to potential users of innovation data: technical expertise, design capabilities, and capabilities for the use of digital technologies and data analytics” (OECD, Oslo manual, 4th Edition, 2018, p. 119.) Digitalisation is defined as “the application or increase in use of digital technologies by an organisation, industry, country, etc. It refers to how digitisation affects the economy or society.” (OECD, Oslo manual, 4th Edition, 2018, p. 246.) They also define digital-based innovation as they “include product or business process innovations that contain ICTs, as well as innovations that rely to a significant degree on information and communication technologies (ICTs) for their development or implementation.” (Oslo manual, 4th Edition, 2018, 246.) It is shown that the most recent and last Oslo manual edition has a strong highlight on digitalisation and digital based activities. In the paper digital transformation is also identified as one of the key factors into achieving competitiveness through innovation activities.

3. COMPETITIVENESS

In this paper, competitiveness will be defined as by The World Economic Forum (WEF) “the set of institutions, policies and factors that determine the level of productivity of a country” which has been measuring competitiveness among countries since 1979. (<https://www.weforum.org/agenda/2016/09/what-is-competitiveness/>) The World Economic Forum publish the Global Competitiveness Report and assesses the competitiveness of 140 countries, providing valuable insights of each economy based on 12 main competitiveness pillars. Those pillars are: Institutions, Infrastructure, ICT adoption, Macroeconomic stability, Health, Skills, Product market, Labour market, Financial system, Market size, Business dynamism and Innovation capability. For the purpose of this paper, business dynamism and innovation capability pillars will be furthermore explained and investigated. The author will conduct a Pestl analysis for The Republic Of Croatia, as it is the national economy on which the impact of digital innovation and competitiveness will be more overly explored.

Croatia is ranked 68th out from 140th countries, based on the most recent Global Competitiveness Report for year 2018. The year before, Croatia was ranked 66th out of 135th countries included in the report. In terms of competitiveness pillar - Innovation Ecosystem Croatia is ranked 81st when analysing business dynamism, and 63rd when analysing innovation capability indicators. The most competitive country in innovation capability indicators is Germany, holding the 1st place in 2018th. The innovation capability pillar consist of interaction and diversity, research and development and commercialisation innovation indicators. The best indicator is for research and development where Croatia is ranked 46th with positive indicators for scientific publications, patent applications, R&D expenditures and quality of research institutions. It is possible to extract the Croatian trend of positive and increasing innovation capability indicators on the national level. Japan is holding the 1st rank in terms of research and development innovation capability pillar. (World Economic Forum, Global Competitiveness Index 2018, <http://reports.weforum.org/global-competitiveness-report-2018/country-economy-profiles/#economy=HRV>) In order to investigate more deeply the linkage between digital innovation environment and national competitiveness, the author conducted the PESTL analysis for the Republic of Croatia. In the first table, the political/ legal and economical environmental aspects were analysed in terms of digital innovation and country performance. In the second table, the PESTL analysis continues by exploring the social and technological environmental aspects of the digitalisation activities in Croatia.

Table following on the next page

Table 1: PESTL analysis - Digital Innovation Croatia (Political, Economical, Legal Factors)

Political / Legal	Economic
Digital innovation activities could provide a positive impact on technological, innovational and general country/region business activities	Croatian GDP annual growth rate is increasing - 2.9 in the second quartet of 2018 - and had one of the strongest expansion since the third quarter of 2017. Digital innovation activities should aim to assist the further growth of GDP on local and national level
Croatian membership into international organisations (EU, UN, NATO, WTO, CEFTA...) could also positively affect and help digital innovation stakeholders future growth	GDP per capita is also showing a growing trend affecting the market by increasing innovation activities and investments in general, Digital innovation activities should be one of the first generators of welfare and benefit from digitalisation activities
WEF Global Competitiveness Report 2017/2018 - highlighted inefficient government bureaucracy, policy instability, tax regulations, corruption, tax rates and insufficient capacity to innovate as the most problematic factors for doing business, Digital innovation should aim to improve factors related to "doing business" in NUTS regions and wider country	Croatia has a low share of foreign direct investments if we compare it to the EU FDI average - digitalisation could reinforce the possible foreign investments in the IT sector and in country in general
Political instability due to management and leadership changes in Croatia and in the two NUTS regions	Unemployment rate is high, even though it is lower than in previous year. Digitalisation (or eGovernment) should also generate more labour force/working positions and help to further decrease the unemployment rate
Non existing national strategy for digitalisation activities - although it should be finalised until the end of 2018 and implemented during 2019	High country debt - The percentage of the Government debt in GDP was lowered in 2017. to 78% comparing to 83% in 2016.
Too many political options and interests surrounding the main capital area - Zagreb, which could affect the interests of digital innovation regional development	Ranked 74/137 economies by the Global Competitiveness Index (WEF 2017/2018). In terms of Innovation Pillar - Croatia is ranked 106/137 with a tendency of growth, Digital innovation activities should improve Croatia's competitiveness even further and raise the Global Competitiveness Ranking for the following year
Unsuccessful financial market development which could affect the creation and implementation of digital innovation in the country	One of the two NUTS regions - The Adriatic NUTS EU region is ranked 196th from 263 regions in terms of innovation - regarding technological readiness, business sophistication and innovation activities. Digital innovation should raise the awareness and the importance of innovation and digitalisation and again assist the increase of regional competitiveness and competitiveness in general
High administrative barriers in terms of setting up business and efficiency of administrative procedures	Access to EU funds - in terms of innovation, research and development
Taxes and contributions are higher than the average EU level, possible impact on digital innovation stakeholders	Need of decreasing taxes, reducing VAT and other regulations regarding business facilitation. Digital innovation activities could provide basic knowledge for business digitalisation and boost country economic growth - new start up's, new innovative companies, new businesses
Regional discrepancy - possible lack of funds for NUTS regions, slow bureaucracy system	Investments in R&D in Croatia are low compared to similar countries in terms of income level, Digital innovation activities could rise those investments through it's programs and procedures

(created by the author of the paper)

Table following on the next page

Table 2: PESTL analysis - Digital Innovation Croatia (Social/Technological Factors)

Social	Technological
Croatian has low and negative population growth rate (-1.17% for 2017) with net migration rate -1.7 migrant(s) 2017 - digital innovation activities should reinforce the local and national economy - helping growth and migrations of possible foreign employees and companies	In 2016 Croatia's gross R&D expenditures (GERD) were 0.85 percent of GDP. That is the one of the lowest national level of investments in R&D and considerably below the average of the EU-28 of 2.03 percent of GDP. Croatia lags significantly behind comparable countries that recently joined the EU: Slovenia (2.00 percent), the Czech Republic (1.68 percent), Estonia (1.19 percent), and Hungary (1.21 percent). Therefore - digital innovation activities should assist the regional and national economy into increasing the GERD levels
Rigid labour market, high unemployment rate, especially among women and youth - digitalisation activities could improve the economy by introducing innovation and increasing employment as well as the attraction of the country as a place for living and working	Good percentage of ICT usage - GCI 34/137 according to WEF 2017/2018 (related to Internet users, fixed broadband Internet subscriptions, Internet bandwidth and mobile - broadband subscriptions) - digital innovation activities should moreover improve the ICT usage in the country
Croatia improved educational activities, higher education and trainings and it is now ranked 60 - GCI WEF 2017/2018. Digitalisation will further improve and assist educational activities in the region	According to GCI Croatia has also a high level of competitiveness regarding the technological readiness ranked as 43/137 WEF 2017/2018
Health and primary education have a high level of competitiveness based on the GCI index - Croatia is 44th from 137 countries involved. Digital innovation activities should reinforce further the efforts on the field of primary education by helping companies and government in digitalisation and innovation activities	Competitiveness in PCT patents (Number of applications filed under the Patent Cooperation Treaty (PCT) per million population) could be furtherly reinforced
University and industry collaboration in R&D is still not improved and connected properly, digital innovation activities should be the connection and networking point for facilitating those collaboration activities	Ranked 48th from 63 economies in terms of World Digital Competitiveness - digital innovation activities should increase and improve the national ranking
High quality institutions, SMEs and other possible stakeholders capable for innovation and all other related activities - connected by the digital innovation activities or platform - creating the new force for future innovation development in the region and further	From 2013 to 2017 - Croatia had an increased capability of technological readiness - according to IMD WDCI (IMD World Digital Competitiveness Index), digital innovation activities should increase those capabilities
Possible positive impact on the growth of employment rate in the country - specially youth and woman	IT integration is decreased in the last years according to IMD WDCI (IMD World Digital Competitiveness Index) ranking. Digital innovation should be one of the main creator and generator of the new positive change
Possible connection point for all digitalisation activities in the region and further, providing high professional assistance and guidelines for digitalisation and innovation activities	High quality of scientific research institutions capable for innovation and all other related to science, research and development activities - new innovative labour database for the region

(created by the author of the paper)

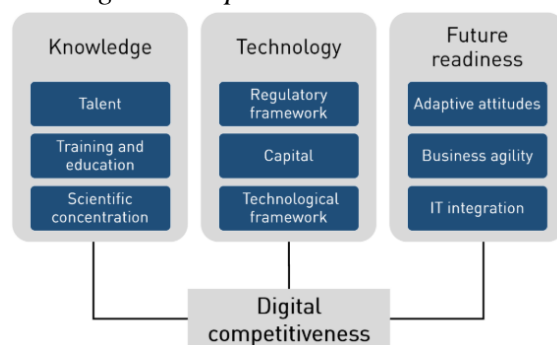
The PESTL analysis found positive and less positive impacts on digital innovation activities in Croatia, suggesting all of them should be taken in consideration for any further activities regarding digitalisation. The analysis found a strong connection between digital innovation activities and its impact on the country in general, and on research and development activities boost.

4. DIGITAL INNOVATION AND COMPETITIVENESS

In terms of competitiveness, digitalisation becomes more important than ever before and all the major player's recognised the need for the digitalisation improvement. World Digital Competitiveness Ranking (WDCR) is published by The International Institute for Management Development (IMD), starting with the year 2017. WDCR came as a response to the growing need for decision makers and practitioners to appreciate and manage digital transformations. The objective of the digital competitiveness ranking is to assess the extent to which a country adopts and explores digital technologies leading to transformation in government practices, business models, and society in general. The final ranking incorporates three factors, which reflect the standing of a country in the dimensions of Knowledge, Technology and Future Readiness.

Figure following on the next page

Figure 1: Digital Competitiveness Model - IMD - 2018



(Institute for Management Development, IMD World Digital Competitiveness Ranking 2018, <https://www.imd.org/research-knowledge/articles/the-imd-world-digital-competitiveness-ranking/>)

Knowledge measures the know-how necessary to discover, understand and build new technologies. These elements are captured by criteria that measure the availability of talent in a country, the level and quality of education and training as well as the production of scientific knowledge. The second factor measures the Technology environment of an economy, i.e. the overall context that enables the development of digital technologies. It assesses how supportive the regulatory environment is, how advanced the technological framework is and whether an economy provides capital to invest in technology. The final and third factor reflects the Future Readiness of an economy, that is, the level of country preparedness to exploit digital transformation. This element of preparedness is calculated by taking into consideration how adaptive a particular economy is, the level of agility exhibited in the country as well as the level of integration of digital technologies in the economy. For the year 2017 - Croatia was ranked 48th, and for 2018 it is ranked as the 44th economy from 63 ones included in the World Digital Competitiveness Ranking. When we analyse each Dimension separately, here are the Knowledge Dimension top strengths and weaknesses for year 2018.

Figure 2: Knowledge Dimension - World Digital Competitiveness Ranking - Croatia 2018

Subfactors	2014	2015	2016	2017	2018
Talent	59	57	56	59	59
Training & education	37	39	37	41	36
Scientific concentration	40	35	36	35	32

Talent		Rank	Training & education		Rank	Scientific concentration		Rank
▷ Educational assessment PISA - Math	38		▷ Employee training	63		Total expenditure on R&D (%)	40	
▷ International experience	63		Total public expenditure on education	33		Total R&D personnel per capita	39	
▷ Foreign highly-skilled personnel	62		Higher education achievement	44		▶ Female researchers	10	
Management of cities	52		▶ Pupil-teacher ratio (tertiary education)	10		R&D productivity by publication	46	
Digital/Technological skills	57		Graduates in Sciences	25		Scientific and technical employment	26	
Net flow of international students	54		▶ Women with degrees	5		▶ High-tech patent grants	13	

(Institute for Management Development, IMD World Digital Competitiveness Ranking 2018, http://konkurentnost.hr/wp-content/uploads/2018/06/imd_world_digital_competitiveness_ranking_2018-1.pdf)

The main strengths are pupil-teacher ratio, number of women with degrees, female researchers and high-tech patents grants. The main weaknesses are lack of international experience, lack of foreign highly skilled personnel and missing the adequate employee training. The Technology Dimension is analysed on the following table.

Figure 3: Technology Dimension - World Digital Competitiveness Ranking - Croatia 2018

Subfactors	2014	2015	2016	2017	2018
Regulatory framework	48	47	47	52	55
Capital	46	42	48	52	52
Technological framework	37	39	40	40	43

Regulatory framework	Rank	Capital	Rank	Technological framework	Rank
Starting a business	43	IT & media stock market capitalization	-	Communications technology	46
Enforcing contracts	22	Funding for technological development	56	Mobile Broadband subscribers	43
Immigration laws	62	Banking and financial services	58	Wireless broadband	39
Development and app. of technology	61	Investment risk	55	Internet users	37
Scientific research legislation	59	Venture capital	60	Internet bandwidth speed	45
Intellectual property rights	59	Investment in Telecommunications	4	High-tech exports (%)	33

(Institute for Management Development, IMD World Digital Competitiveness Ranking 2018, http://konkurentnost.hr/wp-content/uploads/2018/06/imd_world_digital_competitiveness_ranking_2018-1.pdf)

The main strength regarding technology competitiveness is investment in Telecommunication. The final Dimension is Future Readiness and it shows that Croatian adoptive attitude is ranked as 37th, business agility as 63rd (last one) and IT integration as 49th. Use of big data and analytic, as well as the agility to answer to possible business opportunities and threats were identified as the main weaknesses for the Croatian digital competitiveness. Actually, they were ranked as the last one of the total economies on the list. Digital Innovation aim is to raise the awareness of digital importance and competitiveness.

Figure 4: Future Readiness Dimension - World Digital Competitiveness Ranking - Croatia 2018

Subfactors	2014	2015	2016	2017	2018
Adaptive attitudes	44	54	54	43	37
Business agility	56	50	45	62	63
IT integration	38	44	46	46	49

Adaptive attitudes	Rank	Business agility	Rank	IT integration	Rank
E-Participation	22	Opportunities and threats	63	E-Government	32
Internet retailing	44	Innovative firms	30	Public-private partnerships	61
Tablet possession	29	Agility of companies	62	Cyber security	55
Smartphone possession	34	Use of big data and analytics	63	Software piracy	42
Attitudes toward globalization	62	Knowledge transfer	61		

(Institute for Management Development, IMD World Digital Competitiveness Ranking 2018, http://konkurentnost.hr/wp-content/uploads/2018/06/imd_world_digital_competitiveness_ranking_2018-1.pdf)

When taken in consideration the country World Digital Competitiveness Ranking, and it's knowledge, technological and future readiness dimensions, Croatia is still struggling with the previously specified sub factors for each of the selected dimension. As shown, it is also visible the slight raise of awareness and readiness for future innovation and digitalisation activities.

5. CONCLUSION

Croatia has just started and recently recognised the need of digital innovation. That is why digital competitiveness is of high importance for the country. From all collected and analysed data regarding competitiveness, innovation and macroeconomic environment it is visible that digitalisation is becoming more important on the national and global level. The World Digital Competitiveness Index ranking stressed out the strategic approach and importance of digital innovation.

Digitalisation is also ranked by both competitiveness index reports, Global Competitiveness Index and Regional Competitiveness Index. In the case of Croatia, there is no digitalisation strategy on national, regional or any other level. Croatian government just recently announced the need of such an important document, and started the process of creating the Croatian digital strategy on the national level. The strategy should be finalised until the end of 2018 and implemented during 2019. Croatia also opened the brand new Government Office for Digitalisation Affairs - Središnji državni ured za razvoj digitalnog društva. All those factors indicate the recognised need of digitalisation and innovation. Digital innovation aim is to address those issues and facilitate the digitalisation process by helping stakeholders into gaining competitiveness and business efficiency. Concerning the situation in Croatia, the unemployment rate, the percent of male/female labour force, youth unemployment and all other macroeconomic factors - it is very important to start with digital education from primary education to high school levels. Digital innovation could rise the national GDP, open new possibilities for the labour market, including positions for the most sensitive groups - females and youth labour force, and help into achieving the much needed sustainable competitive advantage. Therefore, Digital Innovation will provide a high impact on clustering, connecting and establishing future ecosystems creating fundamental for raising the awareness of digitalisation and innovation. Digital Innovation aim is to pro-actively build networks of regional stakeholders, including local SME's and motivating them to network, collaborate, innovate and digitalise. Digital innovation activities could become the central point for sharing knowledge on digitalisation, innovation and sustainable competitiveness, on the national level.

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MAIN DIRECTIONS OF DEVELOPMENT OF RESEARCH ON MANAGEMENT ACCOUNTING (THEORETICAL REVIEW OF ENGLISH-LANGUAGE LITERATURE)

Abbasova Sevinj

*Associate Professor, Head of the Economics Department
Azerbaijan State Economic University
sevinj.abbasova@yandex.ru*

ABSTRACT

Management accounting research papers published in the post-Soviet countries are usually characterized by solving applied problems, in particular: research on the content, purpose, objects, functions, management accounting methods, its place in the management system, as well as organization and methodology. Only a small part of the work reflects the results of interesting studies of western authors on the theory of management accounting. Therefore, the aim of the study is to systematize the modern studies of foreign authors on the formation and development of management accounting theories in the international accounting space. The purpose of this article is to examine the various scientific findings currently available in the field of accounting theory and methodology, to show the essence of regulatory and positive accounting theories, their influence on the development of management accounting theories and identification of differences between theories and concepts of management accounting; between empirical and constructive approaches to their formation. The modern theories of management accounting developed by western scientists (theories of situational differences, agency theories, sociological and psychological theories) in the context of the general discourse of socio-economic sciences are systematized here. It has been shown that the constructivist theories, interdisciplinary approaches, and critical studies have become popular in the study of accounting. In conducting this study, methods of analysis, synthesis, synthesis, comparison, groupings, and a systematic approach were used. It is concluded that modern management accounting theories, developed in the direction of the regulatory accounting theory, should be considered as a logically justified stage of its change and formation as a socio-economic fact. These theories are aimed at the formation of fundamental principles and methods of management accounting for finding practical solutions. The theoretical and practical significance of the article is that the conclusions and proposals are aimed at positioning the role of management accounting not only as a method, position, strategy and tactic, but, to a greater extent, as an approach to organizing an enterprise information system that meets the requirements of a modern user and required for the preparation of integrated reporting.

Keywords: *management accounting theories, regulatory and positive accounting theories constructivist theories, interdisciplinary approaches*

1. INTRODUCTION

A significant part of modern works, which are published in the post-Soviet countries and are devoted to the problems of management accounting, are characterized by the fact that they slightly reflect current research on the theory of accounting and management accounting conducted by English-speaking scholars. In our country, accounting is sometimes not perceived as a science, even by representatives of economic sciences, who consider it one of the applied branches of these sciences. This situation is probably related to their lack of awareness of the current state of the thematic area of this discipline. Contrary to this, in foreign academic practice, Accounting is an actively developing and complexly structured discipline, that went beyond the traditional limits of economic disciplines and became a social discipline quite a long

time ago, in the last quarter of the 20th century. Formed as a result of institutionalized methods of business organization at the dawn of the second millennium of our era, the accounting went through several stages, transforming from a craft for registration of business data into:

- a coherent system of rules and standards for providing business with the necessary information,
- social and managerial practice,
- “profession, science, and in the last half century - in an all-inclusive information environment, the language of business, economic and social practices” (Bryer R., 1993).

As a rule, the majority of articles and monographs of authors of post-Soviet countries, including in Azerbaijan, reflect applied questions - research on the content, tasks, objects, procedures, functions, tools, management accounting, its place in the management system and interaction with management, methods, organization, standardization. Therefore, there is a certain vacuum in studies of the theory of management accounting - both in relation to its subject and method, and in terms of interaction with the theory of accounting and related social sciences. But in the English-language scientific literature, such developments have been present for a long time. In this regard, in this review article, the author attempts to systematize foreign studies on the development of management accounting theories, in the context of the general discourse of socio-economic sciences, as well as current accounting concepts.

2. HOW THE IDEAS OF FOREIGN SCIENTISTS ON MANAGEMENT ACCOUNTING THEORY EVOLVED

The pre-scientific period of the development of accounting as a field of knowledge dates back to the 16th century. Since the mid-nineteenth century, accounting has become a branch of economics, acquiring all its signs (Roover R., 1955). Recognition of management accounting as an academic discipline taught in higher educational institutions, and as a professional management practice, came about from the middle of the twentieth century in the United States. In 1494, Luca Pacioli (1446–1517) presented his treatise “Summa de arithmetica, geometria, proportioni e proportionalita”, of which was a “Treatise on Accounts and Records” devoted to “keeping books, accounting rules, principles registration of facts of economic life and even matters of professional ethics. This work marked the beginning of the institutionalization of accounting for the development of the field of activity called accounting” (Sokolov Ya. V., Sokolov V. Ya., 2006). Some researchers (Melis F. 1950.; Winjum J., 1970) believe that the Pacioli treatise is based on the writings of the mathematician Leonardo Pisano (ca. 1170 - ca. 1250), which can be interpreted as the basis of management accounting and financial management and represent the stages of accounting development as follows (see table. 1).

Table 1: Development stages of accounting (based on the works of Italian researchers)

<i>Stage name</i>	<i>Περιοδο</i>
"Rudimentary accounting systems" period	Since antiquity to 1202
“Double recording” period	1202-1494 years
The period of stagnation of accounting	1494-1840 years
Period of scientific accounting	1840 - the present period

A source: (Melis F. 1950. ; Winjum J. 1970)

Table 2 shows the classification of the development stages of accounting based on studies of foreign authors.

Table 2: Development stages of accounting (based on studies of foreign authors)

<i>Accounting classification (development stages)</i>	<i>Author of classification</i>
<ul style="list-style-type: none"> ➤ Natural period (pre-capitalist) ➤ Cost period (capitalist) 	K. Rodbertus (1890)
<ul style="list-style-type: none"> ➤ Informative - until 1673, ➤ Legal - 1673-1973, ➤ Economic (managerial). 	R. Aubert (1979)
<ul style="list-style-type: none"> ➤ Transformation of the right of a single (state) property to the right of private property; ➤ Separation of the managerial function from the owner's right; ➤ Separation of the accounting function from the managerial. 	Yoshiaki Dzhinnay (1980)

A source: (Artkhashastra ili nauka politiki 1959; Sokolov Ya.V. 2009)

Having emerged long ago as an exceptional accounting practice, “the search for their scientific identity began in management accounting... in the late sixties of the last century. His scientific ideals, for the most part, were adopted from the natural sciences” (Kasanen E., Lukka K., Siitonen A., 1993). At that time, much of the research on management accounting was descriptive, without explaining the logic and cause-effect relationships (Zimmerman J.L. 2001). This activity was called Management Accounting Practices and the researchers did not take management accounting as a science. In the works of E. Kasanen, K. Lukka and A. Sitonen it was shown that innovative management accounting in companies or consulting organizations already took place at the end of the last century, and the scientific literature "analyzed or interpreted these innovations as accomplished facts", without creating new concepts (Kasanen E., Lukka K., Siitonen A., 1993). The scientific basis of management accounting is associated with the disclosure of cause-effect relationships, proving its origin, formation, change and architectonics. As the study of the literature shows, researchers have established logical constructions that divide into: 1) precisely defined management accounting theories that have the properties of theories and are recognized in the scientific community and 2) concepts that do not belong to the theory are “management constructions or management accounting practices” (Malmi T., Granlund V., 2009). Such constructions can be methods, models, algorithms, tools, concepts that should definitely be introduced into the practical activities of organizations (for example, cost accounting using the ABC method, R. Kaplan and D. Norton's balanced scorecard). Constructivism complements the research with political, social and ideological aspects - management accounting is positioned not just as a neutral practice, reflecting objective social reality, but as a tool capable of solving the identified problems. The “strict” theories of management accounting, as a rule, “borrowed from other social sciences and hardly having something that allows them to be made unique for management accounting” (Malmi T., Granlund V., 2009), include the following:

- theory of situational differences;
- agent theories;
- sociological theories;
- psychological theories.

The theory of situational differences (Contingency Theory) is based on the work of J. Innes and F. Mitchell, J. Innes (Innes J., Mitchell F., 1990), who applied T. Burns earlier organizational theories and G. Stalker, as well as P. Lawrence and J. Lorsch (Burns T., Stalker GM, 1961; Lawrence P. R, Lorsch J., 1967). The leitmotif of the theory of situational differences is the statement about the conditionality of an information system for managing changing

environmental parameters, such as: its uncertainty, fluctuation, aggressiveness and antagonism, diversity and diversification, local mentality and cultural traditions, as well as the internal format of the organization's activity — the technology used, the level of intra-company culture, strategic objectives and tactical objectives. The organizational structure of the enterprise and "... methods of cost accounting and cost calculation, control, management decision making" depend on these components (Lawrence P.R., Lorsch J., 1967). The theory of differences determines the connection between "... management accounting practices, the scope and conditions of companies' activities" (Gong M.Z., 2009). In order to ensure and support the growth of demand for management information in the context of business ambiguity, "the development of new management accounting methods" is needed (Johnson H.T., Kaplan R.S., 1987), as well as analysis of organizational tensions, differences and resistance to change, tracking changes in management accounting as a process (Deming W., 1966). J. Innes and F. Mitchell are the founders of the research direction, called Management Accounting Change. This trend is based on the statement that a well-organized management accounting system constitutes a company's competitive advantage, but changes much more slowly than is necessary to respond to environmental changes (Claudio W., Cullen J., 2013). The key idea of agency theories is the modeling of mutual cooperation "between principals (companies) and agents representing them (employees, contractors, ...) who are authorized by certain duties" (Gong M.Z., Tse M.S., 2009). In accordance with the research of the scientific school of S. Baiman, agent theories in management accounting are used in:

- formation of an information model of management decision making process;
- detection of differences in the role of accounting information as influencing management decisions;
- defining the role and objectives of management accounting through its economic environment (Baiman S., 2014).

In sociological theories management accounting systems are considered as a result of mutual actions and consistency between labor and capital, as well as the individual and the social environment, organization and social institutions (Gong M.Z., Tse M.S., 2009). For example, according to the results of budgeting practice analysis, A. Wildavski and N. Cayden, came to the conclusion that budgets play a significant role in the emergence and maintenance of property inequality in enterprises with internal disputes (Wildavsky A., Caiden N., 2004). The writings of T. Hopper and P. Armstrong, D. Nightsai D. Collinson, L. Oaks and M. Kowaleski are dedicated to presenting management accounting as a social practice that reflects class relations, policies and ideologies that reinforce effective control over labor (Gong M.Z., Tse M.S., 2009). The first use of psychological theories in management accounting, to study the mutual links between the behavior of individual workers and the effectiveness of the organization, was began by J. Birnberg and J. Shields. In management accounting, such directions of psychological theories are used as cognitive theory, theory of motivation, and socio-psychological theory. Cognitive theory studies the ways and methods of obtaining, processing and using information by workers. The theory of motivation examines the impact of motivation (motives) and internal regulators on the behaviour, actions and performance of staff. Socio-psychological theory determines the influence of the social group to which the worker considers himself involved (Birnberg J.G., Shields J. 1989; Birnberg J.G., 2011; Sitnikova N. V., 2012). In accordance with psychological theories, when the behaviour and actions of staff, regardless of their position, are aligned with the goals of the organization, its activities will be effective. In this case, the cognitive bias is aimed at exploring how employees can receive, process, apply information when making decisions. So here the human factor is crucial. The scope of the study of psychological concepts includes the study of various aspects of perception of a person, a group of individuals, social circles of any management accounting practice and the incentives,

motives generated by it, as well as discontent and resistance. Since the end of the last century, the American Association of Accountants has published the journal *Behavioral Research In Accounting*, which presents articles on topical issues of behavioral accounting. Currently, scientific developments in the field of behavioral accounting are very diverse and are modified "... from the study of individuals to the study of the environment in which accounting is conducted or which helps to form" (Birnberg J. G., 2011). Referring to management accounting, we note that here behavioral research focuses on assessing the nature and type of management, attitudes towards managers, corporate culture, types of control, cultivating the moral and ethical behavior of an enterprise, the process of generating information in management accounting and personnel behavior, a balanced scorecard.

3. DIRECTIONS AND TRENDS PREVAILING IN MODERN CONCEPTS OF MANAGEMENT ACCOUNTING

Note that the ongoing ongoing studies by foreign scientists of theoretical and practical aspects of management accounting are fundamental. Theories of management accounting adopted by the scientific community determine the emergence of innovations in this area, which are shaped by the social (sociology, psychology) and socio-economic (institutional economics, management theory, etc.) sciences. These theories evolve towards regulatory or positive accounting theory. We think that as a theoretical and methodological basis for research and implementation of management accounting, we should use the positive experience of representatives of Western and American accounting schools based on the practice and traditional features of accounting science in our country. To comprehend the essence, purpose and place of management accounting in the enterprise management system, we shall turn to the consideration of modern accounting theories (see Table 3).

Table following on the next page

Table 3: Modern accounting theories and their impact on the development of management accounting

Modern accounting theories	Regulatory	Positive	Constructivist	
			strict management accounting theories	managerial constructions or management accounting practices
Essence	Formation of opinions and judgments about how to reflect business transactions, evaluation of articles, the formation and verification of accountability, etc.	Logical reflections, explanations, economic interpretation of the existing and various accounting practices used by enterprises	They are divided into groups: 1) the theory of situational differences, 2) agent, 3) sociological and 4) psychological concepts.	Algorithm, mechanism, model, concept, method are able to be managerial construction;
			Accounting is considered as one of the possible ways of seeing, describing reality, solving found problems and contradictions. All the results of accounting practices (budgets, indicators, reporting, etc.) express the values that users attach to them, guided by their own interests. Constructivism complements the research with political, social and ideological aspects.	
Research theme	Standards of financial reporting, in particular IFRS, including the Conceptual Basis of Accounting, various provisions and rules for the accounting of assets, liabilities, income, expenses, etc., reflection of them in the financial statements	Construction of formal models based on empirical data	Financial reporting, accounting standards, professional activities of accountants and auditors, etc., as well as the interaction of accounting and management in organizations, social and economic consequences of the introduction of accounting methods and systems, etc.	Cost accounting based on the ABC method, R. Kaplan and D. Norton's system of balanced indicators
Research methods	Mostly quantitative	Quantitative and qualitative	Qualitative	
Development prospects	Currently it is shifted from academic publications, but conceptual boundaries of accounting practices are still debated in the scientific community.	The positivist theory of accounting (especially for European studies) can no longer be considered the only correct one.	Allows (and even welcomes) the use of cross-disciplinary approaches and basic theories from other social sciences in research	
Founded	on logical inferences and representations	on empiricism, that is, on the generalization of practical experience in the form of standards and principles of accounting	on the idea that the management information system depends on the variability of the external environment and the internal parameters of the enterprise	
Impact on the development of management accounting	They have a significant impact on the modern development of scientific management accounting.		Now dominates in research related to management accounting.	

Compiled by the author on the basis of generalization: (Watts R.L., Zimmerman J.L. 1978; Volkova O. N., 2012; Gong M.Z., Tse M.S. 2009; Lawrence P.R., Lorsch J. Organization 1967; Kasanen E., Lukka K., Siitonen A. 1993; Malmi T., Granlund V. 2009; Melis F. 1950; Mattessich R. 1995)

In accounting, the normative theory, which is the earliest and long time defining the nature of the research methodological paradigm, is associated with the development of opinions and views on the methods of reflecting business operations, evaluating articles, etc.

International Financial Reporting Standards and the Conceptual Basis of Accounting rules are a prime example of a regulatory approach. The current concepts of management accounting are interrelated with the regulatory theory of accounting. Today, it is given little space in serious academic publications, but nevertheless, the conceptual provisions of accounting practices are the subject of debate in the scientific community. In addition, the demand for normative research imposes a system of legislative regulation of different countries (Volkova O.N., 2018).

Today, new types of financial and business operations are increasingly emerging, requiring both the development of principles and rules for their evaluation and reflection, also understanding and application in practice. This demonstrates the importance of the future orientation of the work of theorists - the normative scientists. The results of such studies are based on logical conclusions and outcomes and, according to the scientists - normative experts, are considered correct and expedient. However, they are not always justified in practice. The accounting approach based on the explanation and economic interpretation of existing and various practices, used by enterprises, is called positive, formed in the 60-70s of the last century. The basic principles and provisions of a positive accounting theory were put forward in 1978 by R. Watts and J. Zimmerman (Watts R.L., Zimmerman J.L., 1978) in order to explain the actual accounting practice and predict its development: "... is a theory trying to explain what a world is, governed by a certain accounting practice, and what the world can become without such regulation" (Mouck T., 1990). The basis of a positive theory is empirical research, methods of generalizing practical experience in the form of accounting standards and principles (Watts R.L., Zimmerman J.L., 1990). In contrast to the normative, the positive approach is based on logical reflections, empirical analysis. An example of the application of a positive approach is, in particular, the study of the range of interests of users of financial statements, which also covers the behavioral aspects of accounting professionals, as well as individuals involved in the use of accounting information: accountants, managers, financiers. Research areas include financial accounting and reporting, management accounting. However, from the beginning of the new century, the positivist accounting theory begins to recede somewhat. It is gradually being replaced by alternative constructivist theories formed as a result of the "pragmatic alignment" in the social sciences. Both theories - normative and positive - significantly influence the current development of management accounting theory. The constructive theory developing in the context of the regulatory theory of accounting assumes that the surrounding social environment, formed by the interaction of all its participants, is not provided to us from outside. This is the reality that takes place. In the constructivist theory, accounting is recognized as one of the real and attainable methods of seeing, reflecting reality. This theory provides especially great opportunities for application in researches of interdisciplinarity and the basic theories borrowed from other social sciences. Certain methods, theories, premises are taken from economic theory and finance (for example, modeling). A significant part of accounting research is carried out now at the junction of accounting and management, accounting and history, accounting and sociology. Academic and practical constructivist studies are devoted to analyzing the diversified sides of emerging real facts in individual companies and in markets such as measurement, evaluation, and management. Due to the various topics, much more saturated, compared with the positivist theory, the current issues of integrating accounting with management in organizations are considered. Additionally, for example, the social and economic problems of the results of implementing accounting methods and accounting systems, measuring performance, creativity, reliability, veracity, etc.

4. CONCLUSION

We reviewed the current accounting theories in the context of their impact on the development of management accounting and evolutionary changes in management accounting theories in the works of foreign authors.

The objects of management accounting and other economic sciences at the micro level are the same, but today it has its own independent subject of study. This area of its research is a specific area of higher order science - accounting theory. In our opinion, the theory of management accounting can be interpreted as a related logical sequence of principles. These principles contribute to an adequate assessment of the existing accounting practices and guide the development of new practical methods, management structures and methods of an extensive group of socio-economic sciences. Modern theories of management accounting, developed in the direction of the normative theory of accounting, should be considered as a logically justified stage of its change and formation as a socio-economic fact. Therefore, management accounting can be positioned as a new scientific worldview, a different look at the process of managing and providing information, a more sophisticated management ideology and global science. Obviously, the place of management accounting in the financial system of the enterprise is special. Its organization and management require different approaches and specialists of a different order than those serving the accounting and tax sectors.

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PROMOTION OF ENO-GASTROTURISM ON THE WEBSITES OF CROATIA

Djani Bunja

*Assistant Professor at the Department of Tourism and Communication Studies
University of Zadar, Croatia
gianni@unizd.hr*

Sime Vucetic

*Ph.D. student at Faculty of Economics
University of Rijeka, Croatia
sime.vucetic4@gmail.com*

Domagoj Cingula

*Ph.D. student at Faculty of Organization and Informatics
University of Zagreb, Croatia
dcingula@esd-conference.com*

ABSTRACT

Given that tourism in Croatia is one of the main generators of the economy, in this paper a special emphasis has been placed on enotourism and gastrotourism as special forms of tourism in general. Food and drink as the most important component of gastronomy play an important role when tourists arrive at a particular destination not only in rural but increasingly in urban areas. It is important to note that tourists above all place the highest emphasis on the quality and authenticity of the food and drinks they plan to consume and have also had no occasion to taste them anywhere else. The main objective of this paper is to analyze the promotion of local eno-gastronomic products on the official web pages of the Croatian county tourist boards. The purpose of this paper is to analyze the extent and the criteria under which the eno-gastronomy is presented on the official websites of the county tourist boards in the Republic of Croatia.

Keywords: *Eno-gastrotourism, promotion, website, county tourist boards*

1. INTRODUCTION

The forms of gastronomic tourism are numerous and year-on-year their popularity is growing as curious tourists want to consume the gastronomic culture of the countries they come to by visiting food producers, gourmet festivals, restaurants and particular places offering special food with the possibility of tasting culinary products, where they can also observe the process of its production and preparation (Hall & Mitchell, 2005, ref. in Privitera et al., 2018). According to (UNWTO, 2017) gastronomy, after cultural motives and nature, occupies the third place among the main reasons for tourists visiting a destination.

Table following on the next page

Table 1: The reasons for visiting the Republic of Croatia

Motivation	Percentage(%)
1. Passive rest, relaxation	55
2. New experiences and adventures	31
3. Gastronomy	29
4. Natural beauties	26
5. Entertainment	24
6. Sports, recreation	20
7. Cultural heritage, events	12
8. VFR	10
9. Wellness	8
10. Health reasons	7

Source: Marušić, Z., Čorak, S., Sever, I., (2018): TOMAS, 2017, Stavovi i potrošnja turista u Hrvatskoj., Institut za turizam, Zagreb.

The research results in Table 1, which outlined the main reasons for the visitors' arrival, was the main inspiration for this article aiming to determine the level of quality of local gastronomy promotion in the Republic of Croatia. Considering that, according to the Institute of Tourism Research, gastronomy is the main motive for the arrival of nearly 30% of tourists, this research justifies its purpose and goal.

2. SHORT THEORETICAL REVIEW OF GASTRONOMY RESEARCH

López-Guzmán & Sánchez-Cañizares (2011) argue that a new and special type of tourist has emerged, a person who is primarily interested in tasting local food products. Perkov (2003) states that global trends influence the potential of a strong and efficient synergy between tourism and the food industry, so that consumer habits, in particular tourists, change in ways that more and more attention is paid to the diversity of food supply. According to Leko Šimić & Pap (2016), we are witnessing the globalization of gastronomy, the growth of domestic food consumption and the perception of food as a cultural product of a tourist destination. For Bertel (2011), gastronomic tourism can stimulate the senses, but above all tastes and, what is more important, it also has cultural value. López-Guzmán & Sánchez-Cañizares (2011) argue that gastronomic tourism is a great opportunity to promote and strengthen particular tourist destinations, especially as tourists are increasingly becoming aware of the cuisine available at the destination they want to visit. Tikkanen (2007) describes the interaction between gastronomy and wine, where wine can be used as an attraction for the promotion of a destination. Riley (2005) implies that food tourism is better developed in places where local cuisine is better associated with local culture. Wolf (2002) points out the importance of tourists who are motivated by gastronomic tourism, who enjoy the unforgettable experience and food at the same time. The combination of food and tourism for Halkier (2012) has had a strong appeal in recent years, where visitors are offered local products and culinary traditions, adding a new component to the image of tourist destinations and creating additional economic activity. Richards (2015) in his research emphasizes the role food can play in influencing the branding and positioning of a tourist destination. Gastronomic Tourism for Millan Vázquez de la Torre et al. (2016) has become a key factor in stimulating the economy not only in rural areas but also in urban areas that can accommodate many gastronomic routes. Henderson (2004), Quan & Wang (2004), Hashimoto & Telfer (2006) explore the relationship between food and tourism, and Kivela and Crofts (2006) explore the relationship between tourism and gastronomy. The relationship between local food production and tourism is increasingly recognized by the tourism sector (Londoño, 2011), and Leko Šimić & Pap (2016) set food as an important component and possibly a competitive advantage of Croatian tourism.

3. THE SIGNIFICANCE OF LOCAL GASTRONOMY PROMOTION ON THE INTERNET

Okumus et al. (2013) suggest that through brochures, catalogs, websites and other promotional materials authentic cuisines can promote their tourist destinations. Tour companies use online promotion to segment the target audience they want to offer their products and services (Biloš et al, 2015). Marketing and Promotion should define a set of activities for internal and external communication that can be implemented in practice by allowing hotel companies a variety of advanced messaging to raise awareness of the company, its products and services with the ultimate goal of causing consumer desires (Pereira & Almeida, 2014). In traditional marketing practice, information technology is applied in the process of creating, communicating and delivering value to clients (Strauss et al., 2006). In the everyday life, the increasing presence of the Internet has resulted in the Internet becoming the key media for marketing communication (Lončarić & Radetić, 2015). Research by Leko Šimić & Pap (2016, p. 17) showed that marketing efforts in Croatia have been ineffective in promoting the existing high quality products, especially in the segment of local food.

Table 2: Overview of information sources for tourists in the Republic of Croatia

INFORMATION SOURCE	PERCENTAGE (%)
Social media (Facebook, TripAdvisor, Instagram, Twitter...)	67
Online travel agents (Booking.com, Expedia, Holidaycheck.de)	51
Websites of Croatian Tours Bord(s)	46
Websites of accommodation units	44

Source: Marušić, Z., Čorak, S., Sever, I., (2018) : TOMAS, 2017, Stavovi i potrošnja turista u Hrvatskoj., Institut za turizam, Zagreb.

Table 2 clearly shows that the websites of tourist boards are very important for the promotion of local gastronomy since 46% of tourists use them as a source of information. It is important to emphasize that research by the Institute for Tourism (TOMAS, 2017) has shown that social media are the most important source of tourist information. This undoubtedly points to the fact that it is necessary to focus and make a strong promotion of local gastronomy in that advertising segment. Below is a table showing activities of tourists during their stay in the destination.

Table 3: Overview of tourist activities during their stay in the destination

ACTIVITIES	PERCENTAGE (%)
1. Swimming and bathing	78.3
2. Going to restaurants	46.9
3. Going to pastry shops, 'cafes' etc.	45.5
4. Visiting local events	30.1
5. Sightseeing	25.7
6. Excursions to National Parks / Protected Natural Areas	21.1
7. 7. Organized boat trips	19.6

Source: Marušić, Z., Čorak, S., Sever, I., (2018) : TOMAS, 2017, Stavovi i potrošnja turista u Hrvatskoj., Institut za turizam, Zagreb.

The data from Table 3 point to the importance of the promotion of gastronomy because according to the research almost every second tourist goes to a restaurant or other facility providing food and beverage services. Interestingly, it is a much larger percentage of tourists who go for organized excursions or sightseeing. This gives us the right to say that it is extremely important to invest in the promotion of Croatian gastronomy, especially local ones that are indigenous, which can be the main motive for the arrival of tourists to the destination.

4. RESEARCH METHODOLOGY

The research was conducted online from 24 January to 27 January 2019. It was conducted on a sample of twenty official websites of county tourist boards and the official website of the Zagreb Tourist Board which has a special status of the city and the county according to the "Law on the City of Zagreb". The website analysis includes some original criteria proposed by the authors of this paper, such as: the existence of an independent eno-gastro navigation menu on the home page, multilingual navigation menu, an overview of eno-gastro events and facilities that offer local eno-gastro products, a presentation of local eno-gastro food delicacies and drinks as well as the latest list of eno-gastro tours, festivals and mobile apps.

5. LOCAL ENO-GASTRONOMY ON THE TOURIST BOARDS WEBSITES OF THE REPUBLIC OF CROATIA

Misiura (2006) recognizes that food can be used as part of tourism promotion. Björk and Kauppinen-Raeisaenen (2014) state that eating experiences may affect the behavior of tourists when choosing a destination before choosing it. Therefore, the importance of local gastronomy promotion is unquestionable. An important role in the promotion of gastronomy in the Republic of Croatia has tourist communities which, as legal entities, have the basic function of promoting a tourist destination and have been established with this aim. Franić (2009) states that the goal of tourist boards, as economic and organizational units, is to satisfy the needs of tourists in their area through the promotion of tourist products, providing all relevant information for the stay of guests with a special aim of raising the quality of tourist services as well as other complementary services. Below is a table 4 where the results of online research are presented.

Table 4: Overview of the analysis of the promotion of local eno-gastronomic products on the official websites of the county tourist boards in the Republic of Croatia according to chosen criteria

County tourist board	EXISTENCE OF AN INDEPENDENT GASTRO NAVIGATION MENU ON THE HOME PAGE	GASTRO NAVIGATION MENU IN FOREIGN LANGUAGES	OVERVIEW OF ENO-GASTRO EVENTS IN THE COUNTY	CATERING FACILITIES OFFERING LOCAL ENO-GASTRO PRODUCTS	PRESENTATION OF LOCAL ENO-GASTRO PRODUCTS	ENO- GASTRO TOURS
						ENO-GASTRO FESTIVALS
						ENO-GASTRO MOBILE APP
Bjelovarsko-bilogorska	No, the content of gastronomy is deployed within multiple menus	English and German	yes	Yes, with images and contacts	Yes, along with pictures, description of "Granny's recipes" and video clip "Taste of the Bjelovar-Bilogora region"	Yes
						Yes
						Not found
Brodsko-posavska	No, the content of gastronomy is deployed within multiple menus	English, German, Slovene and Italian	Yes	Yes, with images and contacts	Yes, along with pictures and description in e-brochure „Tastes of the border region of Posavlje“	Yes
						Yes
						Offer within app "Vision One"
Dubrovačko-neretvanska	Yes, navigation menu „Food & Wine“	English, German, French, Polish and Spanish	Yes	Yes, with images and contacts	Yes with images and short description	Yes
						Yes
						Not found
Istarska	Yes, menu „Gourmet“	English, German and Italian	Yes	Yes, with images and contacts	Yes with images and brochure „Istra Gourmet“	Yes
						Yes
						Yes, „Istria Gourmet Guide“

Karlovačka	Yes, menu „Gdje jesti“	English	Yes	Yes, with description and contacts	Yes, with images and description	Yes
						Yes
						Offer within application „Vision one“
Koprivničko-križevačka	No, gastronomy content distributed within multiple menus	English	Yes	Yes, with contacts and images, partly	Yes, with images, description and video „Putevima vina Podravina i Prigorja“ and e-brochure „Okusi Podravine i Prigorja“, „Eno-gastro vodič Podravina“ and „Eno-gastro vodič Podravine i Prigorja“	Yes
						Yes
						Offer within application „Vision one“
Krapinsko-zagorska	No, gastronomy content distributed within multiple menus	English German and Italian	Yes	Yes, with images, contacts and location of objects	Yes, with images and description traditional recipees and the video „Zagorje wine region“ and „Zagorje bajka na dlanu“	Yes
						Yes
						Offer within applications „Visit Zagorje“ and „Vision one“
Ličko-senjska	Yes, „Lika gastro“ menu at the bottom of website (hardly visible)	English	Yes	Yes, with images, contacts and location of objects	Yes, with images, description, e-brochure „Cesta sira Ličko-senjske županije“ and a link to the website Gastronomska ponuda Ličko-senjske županije“	Yes
						Yes
						Not found
Međimurska	Yes, a separate menu at the bottom of the website „Eno-gastronomija“	English and German	Yes	Yes, with images, contacts and location of objects	Yes, „Eno-gastro tour Međimurja“, „Međimurski dani Vina“, „Karta Međimurska Vinske ceste“	Yes
						Yes
						Offer within application „Visit Međimurje“ and „AdriaGUIDE Međimurje“
Osječko-baranjska	Yes, menu „Eno and gastro“	English, German and Hungarian	Yes	Yes, with contacts and location of objects	Yes, with description, images and a quick link to „Gastro Croatia“ and „KlikCup“ search engine and the brochure and link about wine-roads of Osječko-baranjska County	Yes
						Yes
						Offer within „bestCROATIA“ app
Požeško-slavonska	Yes, menu „Okusi“	English, German, Italian and Slovene	Yes	Yes, with images, contacts and location of objects	Yes, with description, images and e-brochure „Okusi zlatne Slavonije“	Yes
						Yes
						Offer within „Panonia Tour“ app
Primorsko-goranska	No, gastronomy content deployed within multiple menus	English, German, Italian, Polish, Czech, French, Slovene, Spanish, Hungarian, Dutch, Russian and Chinese	Yes	Yes, with object contacts	Yes, with description, images and e-brochure „Gastro kvarner“	Yes
						Yes
						Yes, „Kvarner Gourmet & Food“
Sisačko-moslavačka	Yes, a separate menu „Eno- gastro Offer“ within the central menu	English	Yes	Yes, with images, contacts and location of objects	Yes, described in detail in e-brochure „Autohtona jela Sisačko-moslavačke županije“	Yes
						Yes
						Offer within application „Vision one“

Splitsko-Dalmatinska	No, gastronomy content deployed within multiple menus	English, German, Italian, Polish, Czech and French	Yes	Yes, with images, contacts and location of objects	Yes, described in detail in e-gastro guidebook with images and e-info guidebook, „Kulinarska baština“ and e-brochure „Gastro vodič“	Yes
						Yes
						Offer within application „Central Dalmatia mobile guide“
Šibensko-kninska	Yes, a separate menu „Oduševite svoja osjetila“	English, German	Yes	Not found	Yes, a short description with images	Yes
						Yes
						Not found
Varaždinska	Yes, menu „Gastronomija“ na sredini web stranice	English	Yes	Yes, with contacts and partly object images	Yes, description with images and in e-brochure „Put tradicionalne hrane“	Yes
						Yes
						Offer within application „Vision one“
Virovitičko-podravska	Yes, within menu „Restorani i kušalice vina“	Not found	Not found	Yes, with description and object contacts	Yes, through photo and video content „Okusi Podravine i Slavonije“	Yes
						Yes
						Offer within application „Drava Papuk“
Vukovarsko-srijemska	No, gastronomy content deployed within multiple menus	English, German, Italian, French, Slovene and Dutch	Yes	Yes, with description, images, contacts and location of objects	Yes, with description, images, interactive map and a brochure „Okusi Srijema i Slavonije“	Yes
						Yes
						Offer within application „Vision one“
Zadarska	Yes, within quick link „Eno-gastro“	English, German, Italian and French	Yes	Not found	Yes, description with images	Yes
						Yes
						Not found
Zagrebačka	Yes, within quick link „Okusi zagrebačkog kraja“ and a slide link „Gastronomija“	English and German	Yes	Yes, with description and object contacts	Yes described in detail in video content „Vinske ceste Zagrebačke županije“ and e-brochure „Okusi zagrebačkog kraja“ and „Okusi tradicija zagrebačke županije“	Yes
						Yes
						Yes, within applications „Vision one“ and „Vinske ceste Zagrebačke županije“
Grad Zagreb	Within menu „Lifestyle“	English, German, Italian, French, Spanish, Korean and Japanese	Yes	Yes, with images, contacts and object location	Yes, described in detail with images and the offer presented in e-brochures „Good Food guide“, „Restaurant Guide 2016“ and „The ultimate guide to grill, beer & burger“	Yes
						Yes
						Yes, application „Zagreb Food“ and a part of the content also presented in other mobile apps offered on the official website.

Source: Authors' research

The analysis shows the existing situation on the websites of the county tourist boards during the research period. Good results on promotions can be seen for eno-gastronomic products that are presented on the official websites of county tourist boards in the Republic of Croatia through various e-brochures. Most of the tourist boards, along with a short description, have appeared on the official web pages as well as on the photographs as characteristic indigenous eno-gastro products of their region. For accommodation and facilities offering authentic eno-gastro products, the results are good because most of them with their list and contacts also show the

pictures of the location. Also, all tourist boards take care of eno-gastro events in their counties. Highly appreciated is the initiative of some tourist boards for the implementation of the so-called " eno and/or gastro mobile application so that tourists can get closer to the variety of Croatian authentic cuisine and get to know good restaurants, inns, taverns and the like. Most tourist boards use general mobile apps and their content on gastronomy and a smaller number use special eno-gastro mobile applications. The suggestion for improvement is reflected in the concentration of local gastronomy content in the form of a unique gastro menu on the website, which would include all the gastronomic contents, and its existence provides a better overview of eno-gastronomic content. Furthermore, it would be desirable to have a better implementation of multilingual menus so that non-resident tourists can read as easily as possible and get all the information they need about local eno-gastro products and tours events and regional festivals. Also, the recommendation goes in the direction of making special mobile applications for gastronomy enthusiasts and of creating special e-brochures for eno-gastronomy. Until then it is possible to set up a link / shortcut menu on the main page of the county tourist boards for the content of the gastro website that would include a review of the best places for tasting food and wine in Croatia and / or link to other mobile applications that have a generally covered gastro-tourism offer in the Republic of Croatia. The limitations of this research are reflected in the lack of research into the promotion of eno-gastronomic offerings at lower levels in the Republic of Croatia and on social networks, which is also a potential for future research.

6. CONCLUSION

The tourism valorisation of the resource base, being the prerequisite for tourism development of a particular destination, depends on the factors or criteria on the basis of which the competitiveness of the tourist product is being built. The path of defining tourism product policy should be a set of motifs that encourage potential tourists to spend. Therefore, it is not in any case unprecedented to explore the features of Croatian gastronomy and to use it as such for the promotion of tourism. Tourism is a highly important economic sector for Croatia. However, the basic feature of Croatian tourism is its seasonality, i.e. the unattractiveness of its offer for tourists in low season. The success of tourist destinations depends on their ability to meet the needs, wishes and demands of tourists. Today they seek for authentic tourist experiences, i.e. those tourist products that are different from the unified tourist offer. While in the international tourist market it is generally difficult to achieve differentiation in relation to competition, it is largely possible if the offer and its presentation include an authentic (autochthonous) and traditional eno-gastronomic offer. The Croatian gastronomic offer, in this context, should be used more for the purpose of identity building on the international tourist market. It should also be used more for promotional purposes, which ultimately can have a positive impact on strengthening the local community and recognizability in the international tourism market. For that purpose, the gastronomic offer should be interpreted through inventive forms and thus revitalized old recipes. Finally, the offer of authentic and traditional food and drinks should be incorporated into existing tourist products as tourist attractions.

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IMPLEMENTATION OF THE ATTRIBUTES OF EXPONENTIAL ORGANIZATION BY JORDANIAN SERVICES COMPANIES

Refat Alfaouri

*Yarmouk University, Jordan
refatalfaouri@yahoo.com*

Hamza Tubaishat

*Yarmouk University, Jordan
hamzeh2011.tubishat93@gmail.com*

ABSTRACT

This research is examining the degree of implementation of the attributes of exponential organization by Jordanian services companies listed on Amman Stock Exchange (ASE) around (68) company will be examined, through their annual changes of their increase on their budget over the last 11 years. The change and increase of their annual budgets or the total value of these companies will be a great indicator for exponential trend and behaviour of these companies. The study is an attempt to examine the degree that companies listed in (ASE) follow internal characteristics of EXOs develops by Ismail Salim, and does the capital structure of EXOs differs from the capital structure listed in (ASE).

Keywords: *EXOs, Exponential Organization, Ismail Salim, Exponential Growth, Jordanian Services companies, New Business model, Growth, Organizational Performance*

1. INTRODUCTION

A private sector considered one of the most important factors that affect the country's economy and the development process of the country especially for its highly noted contribution in decrease the unemployment and improving the DGP. Unemployment is one of the main important factors that directly affect the country's economy ; when unemployment decrease the individuals income increase as a result the spending power of individual will increase which is positively affect the economy wheel. In order for companies to continue to survive in modern business competition, companies must quickly change their traditional strategies. So that we have to study and explains the new wealthy companies strategy that may be followed by local companies, the highly accelerated growth rate for a young companies become more and more propagated in the last few years and the explanation of this new model become very important to uncover the reason behind such achievements. "Our organizations are designed to resist external changes, instead of embracing them where useful." (Hagel n.d.). YouTube went from a start up funded by Chad Hurley's personal credit card to being purchased by Google for \$1.4 billion in less than eighteen months. Uber is valued almost \$17 billion, ten times its value of two years ago only. (salim, 2014)." Internet use has a positive association to profitability and to innovation in organizations" (JuulAndersen 2001). The organizations those are ten times better, faster, and cheaper than old type of organization is EXOs¹. EXOs means to Grow at least x10 than competitors in the industries if any. (salim, 2014).In 2011 Babson's Olin Graduate School of business Predict that in ten years 40% of companies that founded before 20 years and more wouldn't be survive. This because these companies will no longer has the power the new breed of organization with the power of exponential technologies, from groupware², data mining and robotics. "Direct linkage between technology investment and increases in organizational performance and productivity has been extremely elusive" (T.A. Byrd T.E.

¹ Exponential Organization

² -groupware: software designed to facilitate collective working by a number of different users.

Marshall 1998). The number of exponential organization which valued \$1 billion and above is 223 companies; with total Value of \$773.6 Billion most of them are privately held.

All EXOs shared the same characteristics:

- Get big Fast strategy.
- Depends in New Technology.
- Staying Private:

Most EXOs are being Private to avoid underestimate of companies' shares (Begum Erdogan 2016). Below table (1) shows some of EXOs and growth achieved in three years.

Table 1: EXOs and growth achieved in three years (Salim, 2014)

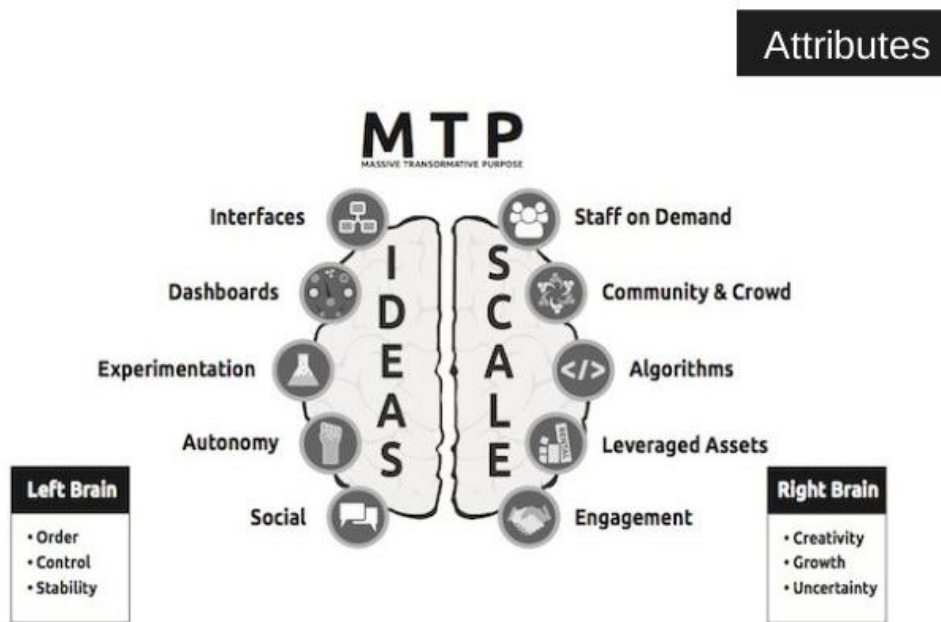
ExO Market Cap improvement

	Age (years)	2011 valuation	2014 valuation	Increase
Haier	30	\$19 billion	\$60 billion	3x
Valve	18	\$1.5 billion	\$4.5 billion	3x
Google	17	\$150 billion	\$400 billion	2.5x
Uber	7	\$2 billion	\$17 billion	8.5x
Airbnb	6	\$2 billion	\$10 billion	5x
Github	6	\$500 million (est.)	\$7 billion	14x
Waze	6	\$25 million	\$1 billion (in 2013)	50x
Quirky	5	\$50 million	\$2 billion	40x
Snapchat	3	0	\$10 billion	10,000x +

As we can see in the last table in only three years those organizations achieves an outstanding growth rate, for example snapchat were found in 2011 by the passage of three years only, its total value become \$10 billion. Those companies are force researchers to stand and explain how could such companies and organizations achieves such a highly growth in a few years. While many organizations consumes many years to grow only a percent of hundred, Ismail Salim whose Explains this type of organizations has identified 10 characteristics of exponential organizations five internal (Ideas) and five external (scale) as below Figure 1.

Figure following on the next page

Figure 1: Ten characteristics of exponential organizations (Salim, 2014)



2. RESEARCH QUESTIONS

In the future of work, you're either the one causing change or you're the one being changed. The most successful companies are the ones that are the forefront on innovation and disruption, and they are seeing wild growth. In this study we testing some of those factors in addition to other that the researcher sees that it followed by EXOs. This research is aims to answer the following questions mainly:

- Do the Companies listed in the ASE³ follows internal characteristics of EXOs develops by ismail salim ?
- Do the Companies listed in the ASE follows internal characteristics of EXOs develops by ismail salim ?
- Does the capital structure or Assets of EXOs differs from the capital structure of organizations listed in ASE?

2.1. Research objectives

- To stand on the awareness of Jordanian services companies listed in ASE of the new business model.
- To highlight the differences in capital structure and changes in assets between EXOs. And linear Organization.

2.2. Research significance

EXOs is the future of work. The value of this studies is to find out to what degree the Jordanian organization are applying the new business model. This is important to keep them in the competition with foreign organization and improve the local markets by bringing a new investors even foreign or local after being exponential. It helps them to improve their whole performance by providing them with a benchmark so they can determine where they are actually stand from being exponential. The treatment of the variables considered in this research touch the area of a new business trend. It explains the future of business environment. Growth is main goals for any organization to be attractive to investors; which is results in wealth maximization. This study considered as one of few studies to has no precedent in Jordanian market studies.

³ Amman Stock Exchange

Also it has a scientific benefit for financial information users by provide them with a general image about Jordanian company's strategy.

2.3. Statistics

- The number of EXOs in 2017 reaches 223.
- Total value of these EXOs \$773.6 Billion.
- All above companies founded before 10 years ago or less. (Salim, 2014).

3. PREVIOUS STUDIES

3.1. Damanpour, Szabat, Evan 1989

“The relationship between types of innovation and Organizational performance” - The relationship between adoption of administrative and technical innovations over time and its impact on organizational performance was studied. A confirmatory analysis of the data from 85 public libraries showed that, over consecutive time periods, changes in the social structure, portrayed by the adoption of administrative innovations, lead to changes in the technical system, portrayed by the adoption of technical innovations. Empirical support was also provided for Daft's (1982) framework for organizational innovation that was found to be effective in separating organizations based on their performance levels.

3.2. T.A. Byrd T.E. Marshall 1998

“Relating information technology investment to organizational performance” - This study says that the Corporations have invested billions of dollars in information technology (IT) over the last 20 years. There is much debate regarding the benefits accruing from these expenditures. Direct linkage between technology investment and increases in organizational performance and productivity has been extremely elusive. This research investigates the relationship between IT investment and organizational performance so that managers may better evaluate IT expenditures. With data on IT investment and organizational performance from 350 public companies over 4 years, this study uses structural equation analysis to empirically test a theoretical model composed of five IT investment variables and five organizational performance variables. The study found that the variable used to measure the extent to which users have access to IT was significantly and positively related to sales by employee, an organizational measure of labor productivity. Two other IT investment variables, the value of supercomputers, mainframes, and minicomputers and the percentage of IT budget spent on IT staff, were significantly and negatively associated with the sales by employee measure. Another IT variable, the IT budget as a percentage of revenue, was significantly and negatively associated with sales by total assets, a traditional measure of capital productivity. The last IT variable, the percentage of IT budget spent on IT staff training, was not related to any performance variable. Implications of these findings are discussed and, from a management perspective, postulations relating IT investment to organizational performance are stated. Researchers are provided with suggestions and encouraged to use these results to probe deeper into the relationship between IT investment and organizational performance.

3.3. Abdoljaleel, Tawfeeq 2014

“The impact of the capital structure on the performance of the listed Jordanian industrial companies” - This article examines the impact of capital structure on the performance of the Jordanian publicly- held industrial companies registered in Amman Stock Exchange for a period of five years (2008 to 2012). The multiple regression analysis was used to show the impact of capital structure represented by debt ratio, debt to equity ratio, growth percentage, and assets turn over, on firm performance represented by return on investment, and return on equity.

The multiple regression results indicated:

1. A negative statistical relationship, at 10% significance level, between debt ratio and return on investment. However, the results did not indicate, at 10% significance level, any statistical relationship between debt equity ratio and return on investment.
2. A negative statistical effect, at 1% significance level, between debt equity ratio and return on equity. However, the results did not indicate, at 10% significance level, any statistical relationship between debt ratio and return on equity.
3. A positive statistical relationship, at 1% significance level, between assets turnover and growth percentage on one hand with return on investment on the other hand. The results, as well, indicated a positive statistical effect between assets turnover and growth percentage on one hand (at 5% and 1% significance levels respectively) with return on equity on the other hand.

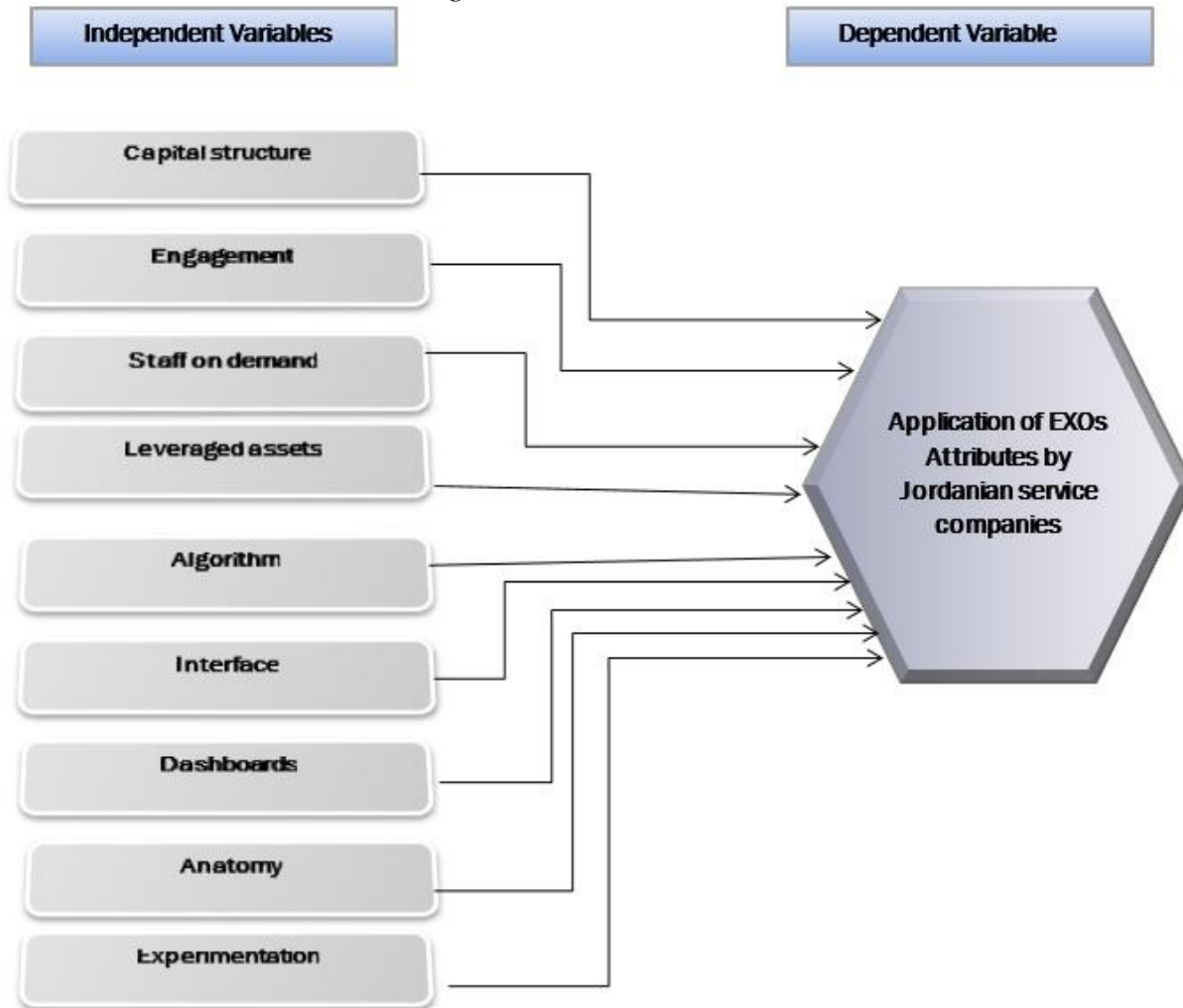
3.4. Bansaid, Mohamed 2018

“The effect of using information technology on the financial Performance of the economic Algerian firms” - This study aimed to find the impact of the adoption of information technology on the financial performance of the Algerian economic institution for 2017-2016. Knowledge of this relationship may encourage enterprises to invest in IT tools to improve their financial performance. To achieve this, financial ratios were calculated for a sample of 20 Algerian economic institutions belonging to different sectors, while a questionnaire was distributed to assess the use of information technology based on five dimensions: software, Internet, intranet, extranet, web page. To analyse this relationship, the smart PLS 2 model and PLS regression model were adopted after the study encountered the multiple regression problem. The study confirmed the relationship between some of the IT tools represented in software, intranet, extranet and financial performance of enterprises. The study concluded with a set of recommendations, the most important of which is the announcement and promotion of services available in the field of information technology, facilitating the access of IT institutions, providing training courses for managers with low level of education.

4. RESEARCH MODEL

Figure following on the next page

Figure 2: Research model



Source: Developed by researchers

4.1. Definishin of variables

- **Capital structure:** The capital structure is how a firm finances its overall operations and growth by using different sources of funds. Debt comes in the form of bond issues or long-term notes payable, while equity is classified as common stock, preferred stock or retained earnings. Short-term debt
- **Engagement:** Connect-ness Between Organization and Community, digital feedback; the ability to track how a user interacts with services.
- **Staff on demand:** Use of demand-based contractors vs. full time employees. Leverage external talent for business functions. The concept of flexibly staffing your organization is totally aligned with making it faster and avoiding one of the 4 sources of delay, people. On demanding allows to automatize quicker and with less delay pushing forward the Digital Paradox of faster, with less cost and better quality.
- **Leveraged assets:** is about taking out another of the sources of delay, the physical. If you flexibly access your assets rather than own them or lease them long term you are not encumbered by your balance sheet and by trying to maximize the use of your sunk costs. It is important to differentiate from financial leasing, which leaves you as slowed by your liabilities as you were by your assets.
- **Algorithm:** use big data to understand customer behaviour. By analysing historical data collected to predict its future behaviour.

- Interface: to have very specific and clear rules on how do things. it is Customize processes and algorithms created to decide how and what you bring into the organization.
- Dashboards: How you control, measure and track everything going on in EXOs. It is a real time monitoring Comprised of 2 pieces of tracking information:
 1. External information about the business.
 2. Internal performance metrics.
- Anatomy: employee has full decision making authority. Which results in a high revenue per employee number than competitors. It is actually attacking the Bureaucracy.
- Experimentation: the implementation of the Lean Start-up methodology of testing assumptions and constantly experimenting with controlled risks. (salim, 2014).

4.2. Methodology

Analyse the business environment; operational, managerial, Financial and strategic aspects of EXOs. To see if it is operates to ward being EXOs. In order to help them compete in the international markets. And keep up-to date with latest innovation in business world.

4.2.1. Population

The population contains all (350) service companies listed in ASE. A sample of (68) services companies are chosen for investigation.

4.2.2. Data Collection

To achieve the goal of this study. The researchers based it study on primary and secondary data. They have collect the data for the (68) companies from the official website for ASE. And select one company of EXOs. Secondary data covers journals, scientific research, Books that related directly and indirectly to the research in hand. A statistical treatment will be conducted by the researchers to answer the questions of the study.

4.2.3. Analysis

In table (2) the researchers calculate the change in all (68) services companies' total assets in different periods (1) the change in total asset in 5 years Period (2006-2011). (2) Also, the change in the total assets for the next 5 years (2011-2016), (3) the changes in total asset in one year (2016-2017), and the changes in the last 6 years (2011-2017). The calculation in all different period above conducted in order to find out does those companies witness the drastic change in their capital or total assets in any of those periods from 2006-2017, due to big improvement in their business or due to break through in their technology. The change in total assets through all the four periods shown in table (2) . Demonstrated that none of all (68) services company had shown a big or important change in their assets, representing an EXOs behaviour. Some companies shown big changes in their total assets like companies in number (6, 17, 40) in table (2) but those big changes where due to their restructuring their assets not due to real changes in their business or technology. As shown in the table (2), all Jordanian service companies had a marginal improvement in their total assets through the period of investigation (2006-2017). The change in their assets stay within (0.5%-2%) rate of change, and these rates of changes represent a minimum improvement in their business. For Capital structure differences as shown in table tow google as one of the EXOs achieves the maximum number of Debt to equity ratio for the period (2006-2016) in the second quarter of (2011) and only for (.06), also the minimum one achieves ZERO debt to equity ratio. In comparison with Jordanian services company for the same period we found than in (2006) only (6) companies from all (68) staying in the average of EXOs debt to equity ratio.

(2016) isn't much better, there is a slight improvement in the number of companies in reaches only (9). While the remaining companies achieves Debt to equity ratio in between of (0.1 - 2.47) for (2006) and (0.1 - 17.82) for (2016) as per table (2). This level of debt to equity ratio, capital structure policies and the changes in their total assets does not gives us any hope that Jordanian services companies will become an exponential organization. Therefore, Jordanian companies listed in (ASE) should re-evaluate their business policies and strategies, also, they have to change their technologies and their services delivery in order to achieve a real improvement in their business and to survive in a fast changing technologies turbulent environment.

Table 2: Total Assets and changes in Assets for Jordanian companies listed in ASE

Table (2) Total Assets and Change in Assets for the Jordanian Service Companies listed in ASE							
Company Name	2006	2011	Change in Assets 2006/2011	2016	Change in Assets 2011/2016	2017	Change in Assets 2016/2017
	Total Asset	Total Asset		Total Asset		Total Asset	
RAJAL	267,370,000	16,353	111	570,816,000	-34820716.16	570,805,000	-34826145.31
ITEL	536,665,015	661,531,374	1.34	621,382,034	0.94	652,346,446	0.39
ZARA	201,741,624	271,083,060	#VALUE!	214,431,158	0.79	213,576,331	0.79
FRST	ESTABLISHED IN 2008	83,171,006	10.99	85,223,271	0.36	81,452,867	0.36
JDPC	3394745	103271053	2.08	100947384	0.38	100462343	0.37
DERA	33,566,018	69,690,410	45.74	63,261,362	0.91	87,318,370	1.39
OFTC	1,201,521	34,356,540	0.5	61,021,310	1.11	58,850,841	0.36
CICO	35,324,187	17,661,131	#DIV/0!	17,328,209	0.98	23,836,382	1.35
MANE	0	168,486,740	3.61	362,253,338	2.15	446,121,402	1.23
TAJIM	43,045,836	177,075,331	1.25	147,453,734	0.83	144,623,733	0.38
PHNX	246,784,574	307,419,367	0	87,070,531	0.28	86,886,033	0.28
JOEP	315,867,273	1634	21.66	341,763,222	555944050.8	1,070,206,048	63762720.2
MAHR	5,723,555	123,343,360	0.91	115,859,453	142	186,126,350	1.06
EICO	74,037,311	67,662,846	0.79	126,382,710	1.88	258,639,670	2.04
UNIV	31,112,743	72,239,450	0.87	148,770,610	2.06	137,312,763	0.92
REDV	66,487,080	57,888,032	1.83	57,888,032	1	51,654,683	0.89
AEIV	62,589,873	114,343,323	0.98	67,673,011	0.59	66,758,536	0.39
NDTR	34,126,530	53,211,584	0.56	55,430,802	1.04	54,353,862	0.39
AMVL	64,219,404	35,380,640	0.39	11,053,326	0.31	10,693,575	0.38
MALL	65,548,185	64,304,619	1.21	67,354,363	1.05	64,317,571	0.35
ULDC	54,046,624	65,185,354	1.17	63,373,769	0.38	64,207,373	1
AIJI	75,843,541	86,739,362	3.48	37,364,043	1.1	35,034,580	0.38
ATCO	822,336	2,864,121	#DIV/0!	186,346,783	65.06	175,214,337	0.36
PROF	0	53,583,517	#DIV/0!	41,806,143	0.78	41,085,115	0.98
FFCO	0	45,214,302	1.05	62,397,275	1.39	64,338,476	1.03
JRCD	35,768,212	37,507,130	1.22	36,718,542	0.38	36,253,336	0.39
BSTI	484,735	590,673	1.14	1,439,712	2.44	636,714	0.44
AIHO	71,136,286	80,884,356	1.33	76,603,437	0.95	80,361,577	1.05
PTD	50,230,127	66,676,313	1.29	124,150,116	1.86	120,315,009	0.91
ASMS	22,710,835	29,303,427	1.53	45,270,416	1.54	37,352,534	0.83
CEGE	521,350,774	797,353,268	0.97	234,792,144	0.29	217,854,310	0.33
IPRO	43,800,201	48,426,748	#DIV/0!	41,505,331	0.86	41,447,114	1
AMVJ	0	70,310,246	0.7	32,743,233	1.31	30,363,350	0.38
JOIT	54,488,118	38,234,635	0	33,234,094	0.87	33,031,460	0.39
JLGC	24,363,256	1,134	#DIV/0!	72,464,787	-60630716.38	17,637,767	-148817225.3
FUTR	0	37,435,570	2.04	28,651,278	0.77	34,088,544	1.19
JDFS	17,736,812	36,333,779	#DIV/0!	56,333,162	1.56	65,671,265	1.15
RUMM	0	17,646,630	1.36	22,195,432	1.26	30,434,661	1.37
IDMC	23,640,012	46,233,803	1.35	47,152,257	1.02	43,316,335	1.05
BIND	15,455,105	30,100,135	0.99	40,538,844	1.35	41,130,575	1.03
EMAR	23,038,663	28,731,233	0.36	19,309,342	0.67	17,353,977	0.93
SANA	20,191,740	19,321,328	#DIV/0!	16,571,170	0.86	16,754,008	1.01
IBNH	0	23,961,820	#DIV/0!	33,428,855	1.12	31,374,563	0.34
ISRA	0	18,812,182	1.31	19,612,802	1.04	18,377,437	0.97
MSFT	12,814,275	24,433,841	1.45	32,116,611	1.31	34,647,256	1.08
STT	43,618,618	63,463,235	1.6	50,151,124	0.79	33,236,145	0.78
ZEIC	14,674,378	26,368,347	1.24	51,231,477	1.34	51,538,766	1
JOTF	25,039,626	31,176,257	1	41,051,880	1.32	46,403,846	1.13
JEIH	19,736,021	19,804,572	#DIV/0!	22,428,340	1.13	22,366,617	1
CARD	0	28,236,605	1.04	30,461,230	1.08	23,577,439	0.37
AIPC	19,880,584	20,725,214	1.2	20,475,826	0.99	21,521,218	1.04
PEDC	25,318,071	20,443,076	3.31	46,303,837	1.54	48,300,285	1.03
CEBC	8,012,858	31,330,440	1.74	30,636,344	0.98	33,833,014	1.1
SHIP	23,016,301	40,022,363	1.36	35,515,390	0.89	36,312,331	1.02
ITSC	16,303,063	22,311,355	0.33	25,285,645	1.1	25,700,476	1.02
AIFE	37,379,335	34,630,774	1.09	45,623,730	1.31	44,419,553	0.37
PIEC	24,132,271	26,255,563	1.52	32,677,049	1.24	30,846,583	0.94
AMAL	10,801,030	16,470,600	1.25	17,263,251	1.05	17,040,513	0.39
INTI	113,718,079	142,191,558	1.67	26,485,161	0.19	26,533,892	1
NAGL	13,822,806	23,080,575	#DIV/0!	19,085,308	0.83	17,503,322	0.32
RICS	0	14,010,677	#DIV/0!	12,860,321	0.92	12,353,343	0.36
MSKN	0	16,630,343	#DIV/0!	15,035,131	0.9	15,564,858	0.3
HPR	0	11,782,142		10,315,706	0.88	10,321,742	1

Table following on the next page

Table 3: Changes in capital structure for the Jordanian service companies listed in ASE depending on debt to equity ratio

Table (3)					
Changes in capital structure for the Jordanian Service Companies listed in ASE depending on debt to equity ratio					
Company Name	Year		Chang in capital structure 2006/2016	Google as one of the EXOs Debt to Equity Ratio	
	2006	2016		Date	Debt to equity ratio
EMAR	152	0.26	-1.25	31-12-17	0.03
AIFE	113	0.27	-0.85	30-09-17	0.03
EICO	120	0.38	-0.81	30-06-17	0.03
ZARA	0.67	0.17	-0.50	31-03-17	0.03
IDMC	0.60	0.26	-0.35	31-12-16	0.03
BIND	1.02	0.69	-0.33	30-09-16	0.03
DERA	0.33	0.03	-0.30	30-06-16	0.02
SHIP	0.77	0.50	-0.27	31-03-16	0.02
AIEI	0.30	0.13	-0.17	31-12-15	0.02
JDFS	0.25	0.10	-0.15	30-09-15	0.02
CICO	0.72	0.63	-0.08	30-06-15	0.02
JPCD	0.11	0.05	-0.06	31-03-15	0.03
MDTR	0.12	0.07	-0.06	31-12-14	0.03
JOIT	0.12	0.07	-0.05	30-09-14	0.03
JEIH	0.07	0.02	-0.05	30-06-14	0.03
IFRO	0.64	0.60	-0.05	31-03-14	0.04
AIPC	0.05	0.03	-0.01	31-12-13	0.03
BSTI	0.01	0.00	-0.00	30-09-13	0.03
FRST	0*	0.14	-0.00	30-06-13	0.03
MANE	0*	1.50	-0.00	31-03-13	0.04
AMWJ	-0.00	1.89	-0.00	31-12-12	0.04
IBNH	-0.00	0.40	-0.00	30-09-12	0.04
ISRA	-0.00	0.35	-0.00	30-06-12	0.05
AMAL	-0.00	0*	-0.00	31-03-12	0.05
MSKN	0*	24.61	-0.00	31-12-11	0.05
SANA	0.02	0.02	0.01	30-09-11	0.05
AEIV	0.22	0.25	0.03	30-06-11	0.06
MALL	0.14	0.17	0.03	31-03-11	-0.00
PEDC	0.29	0.34	0.05	31-12-10	-0.00
PIEC	0.32	0.39	0.07	30-09-10	-0.00
PROF	-0.00	0.09	0.09	30-06-10	-0.00
AIHO	0.16	0.25	0.09	31-03-10	-0.00
ABMS	0.21	0.31	0.09	31-12-09	-0.00
REDV	0.39	0.50	0.11	30-09-09	-0.00
OFTC	0.12	0.29	0.17	30-06-09	-0.00
ULDC	0.03	0.22	0.18	31-03-09	-0.00
SITT	0.91	1.10	0.19	31-12-08	-0.00
JPTD	0.78	1.00	0.22	30-09-08	-0.00
ITSC	0.12	0.37	0.25	30-06-08	-0.00
FFCD	-0.00	0.27	0.27	31-03-08	-0.00
JDPC	0.22	0.52	0.31	31-12-07	-0.00
JOTF	0.52	0.88	0.36	30-09-07	-0.00
PHNX	0.24	0.61	0.36	30-06-07	-0.00
ZEIC	0.30	0.70	0.40	31-03-07	-0.00
MSFT	0.04	0.47	0.43	31-12-06	-0.00
TAJM	0.10	0.53	0.43	30-09-06	-0.00
UINY	0.50	1.03	0.53	30-06-06	-0.00
MANR	0.26	0.83	0.56	31-03-06	-0.00
JLGC	0.46	1.16	0.70		
CEGE	1.55	2.38	0.83		
JTEL	0.49	1.32	0.83		
CARD	-0.00	0.84	0.84		
AMWL	0.18	1.17	0.99		
FUTR	-0.00	0.09	0.09		
RUMM	-0.00	0.35	0.35		
HIPR	-0.00	1.89	1.89		
ATCO	0.59	2.65	2.06		
CEBC	0.51	4.10	3.60		
RJAL	2.01	6.60	4.59		
JOEP	2.47	7.22	4.75		
RICS	-0.00	7.58	7.58		
NAGL	0.28	17.82	17.54		
INTI	-0.00	87.71	87.71		

Source:

http://www.sdc.com.jo/arabic/index.php?option=com_public&member_cat=900&member_sub_cat=3

<https://www.macrotrends.net/stocks/charts/GOOG/alphabet/debt-equity-ratio>

5. CONCLUSION

The study was an investigation of the Jordanian services companies listed in (ASE) to what Extent those companies applying the exponential model. The changes in total asset of a (68) company was calculated over an (11) years (2006 – 2017). And the capital structure were compared with EXOs Capital structure for the same period. The result showed a very small and marginal changes or improvement occurred, which indicates an absence of the most indicator & Exponential model, it is actually assures that all Jordanian services companies are following a linear model. Therefore, Jordanian companies have to change their plans, policies, and improve their research and development to be In line with evolution in technology. In order to survive and expand in a very changing and turbulent environment.

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MANAGING REGIONAL DEMOGRAPHIC POLARISATION IN CROATIA - THE ROLE OF COHESION POLICY

Lela Tijanic

*Juraj Dobrila University of Pula,
Faculty of Economics and Tourism "Dr. Mijo Mirković", Croatia
letijan@unipu.hr*

Darja Gombar

*Student at the Juraj Dobrila University of Pula,
Faculty of Economics and Tourism "Dr. Mijo Mirković", Croatia
dgombar@unipu.hr*

ABSTRACT

Croatian regions are faced with different types of development issues, where demographic risks, including regional migrations, present important obstacles in attempts to achieve regional convergence and further economic development. In parallel with this, polarisation tendencies exist which can have multiplicative, multi-level and long-term unfavourable effects. The studies have confirmed that it is urgent to manage determined demographic polarisation, before it causes higher development disparities. The aim of this paper is to present chosen demographic characteristics of the Croatian regions which should be included in managing demographic polarisation and to give an overview of the possibilities seen through European Union cohesion policy (its framework, funds and innovative delivery tools) that can be used to prevent the causes and consequences of this polarisation. The results determine regional demographic polarisation interconnected with economic disparities in Croatia. Textual analysis in the paper confirms regional demographic issues are internalised in different strategic and regional policy planning documents, while discussion gives recommendations about implementation potential regarding also new approaches in cohesion policy. Utilisation of specific regional endogenous resources is important in managing polarisations which implies that it is necessary to deal with different cohesion policy instruments directed towards the various regional socioeconomic problems in order to address demographic risk. Besides European Structural and Investment Funds here can be applied tools concerning urban development that are also elaborated in the paper. Conclusions can be observed in deciding on future population and regional policy actions as well as in studies which deal with the cumulative effects of regional polarisation.

Keywords: *cohesion policy, polarisation, regional migration*

1. INTRODUCTION

Balanced development represents one of the most important goals of regional policies, which is very often faced with issues seen through regional socio-economic obstacles, polarisations, divergence tendencies, areas with geographic, natural and demographic constraints. Croatia has significant regional disparities that can be confirmed regarding different regional typologies and development indicators. One of the important development issues in Croatia are demographic characteristics, including aging, depopulation, accelerated trends of migrations and unequal regional population distribution. Polarisation of population and economic activities have important influences at regional and local units (consequently at the national level). Less developed "poles" are often critically endangered with low demographic potential. There are also territories with specific characteristics, isolated, remote, mountain areas, areas lagging behind or unable to promote growth. These unfavourable demographic and spatial trends can have socio-economic and policy implications (due to the impact on productivity and growth,

labour supply, the provision of services, infrastructures, urban environment, urban-rural imbalances etc.) that can exacerbate divergence trends. Numerous researchers and policy makers confirm the need to find appropriate approach in managing polarisation, but there can be seen that spatial aspect of population distribution and addressing polarisation effects should be investigated in more detail and included in economic policy implementation. In managing regional disparities and fostering regional convergence European Union (EU) cohesion policy has unique role, from its beginnings. Its role in tackling demographic challenges in Croatia motivates different studies. The aim of this paper is to present chosen regional demographic characteristics in Croatia and to analyse opportunities to use instruments of the EU cohesion policy in managing demographic polarisation. Overview of regional demographic problems is presented in next sections, through a literature review and brief analysis of the main indicators which imply on regional polarisation (section 2 and 3). Analysis of possibilities to use cohesion policy instruments in managing demographic challenges together with the recommendations and emphasis on managing demographic polarisation are presented in the fourth section. Conclusions and implications can be seen in the final section.

2. THEORETICAL BACKGROUND

Regional disparities and divergence are well known problems in economic studies where (besides on its defining and measuring) special interest is given on possibilities to determine the factors and policy actions which may have an influence on reversing the divergence trends and on reducing regional lags. Patterns of polarisation can exist in parallel with regional disparities and convergence-divergence tendencies (Monastiriotis, 2014). Polarisation, as spatial concentration of economic activities and population, often leads to increasing regional inequalities. Benedek (2017) highlights the need to spread the capital and population to shrinking regions with the aim to achieve convergence and “depolarization”. He states that in order to respond to regional and urban inequality challenges it is necessary to develop new strategies with a spatial focus. Ubarevičienė and van Ham (2017) integrate population decline, migration with the process of polarization and confirm the significant impact of selective internal migration flows on regional differences. The importance of demographic determinants, including (e)migration flows in regional development is confirmed in many other studies. European Commission (2017) addresses lower productivity, educational attainment and employment rates (compared to the other regions in the country), population losses in low-income regions and out-migration of the younger and more educated population within the main reasons why some low-income and low-growth regions of the EU (called lagging regions) have been in their unfavourable position. The authors also recognize that economic development should be based on regionally differentiated investments and policy responses. Economic challenges of lagging regions in the EU-28 are presented in more detail in Brown et al. (2017). Various regional disparities are confirmed in Croatia too (Puljiz and Maleković, 2007; Pejnović and Kordej-De Villa, 2015; Đokić, Fröhlich and Rašić Bakarić, 2016). Borožan (2014) highlights population changes and migrations as possible causes of development differences. She investigates the impact of net migrations between the Croatian counties on convergence process and regional growth and determines economic divergence. By analysing the effect of migration (young, working age population) on labour supply and development, Karaman Aksentijević and Ježić (2015) conclude that negative demographic trends have significant effect on the growing development lag of East Croatia behind the Croatian average. Population polarisation in Croatia is observed in Pejnović (2004), Pavlaković-Koči and Pejnović (2005). Pejnović (2004) explains that the direction and spatial redistribution of Croatia's population were connected with differences in regional development. He also presents the model of cumulative causality in which developed regions become more developed due to the fact that these regions attract investments, innovations, have better services, while less developed areas

characterises downward spiral of unemployment, emigrations, lack of investment etc. Pejnović and Kordej-de-Villa (2015) confirm that socioeconomic development differences influence spatial mobility of the population and the atrophy of demographic potential in less developed regions. By using the index of demographic resources their study presents uneven spatial distribution of demographic resources in Croatia. Based on data on migration movements Klempić Bogadi and Lajić (2014) have shown polarisation to the Croatian capital city region with its surroundings as well as to coastal counties. Živić (2017) elaborates about complex demographic crisis in Croatia (interconnected with numerous aspects of socio-economic crisis), unbalanced regional economic development, economic and population polarisation, also connected with significant spatial differentiation of the Croatian territory according to demographic dynamics. He confronts Zagreb agglomeration as a “positive pole” and Eastern Croatia as the “negative pole”. Akrap (2014) explains the trends, factors and consequences of depopulation and spatial redistribution of population in Croatia, seen through absence of economic growth and inadequate implementation of the balanced regional development policy. Unique contribution on observing projections of population trends in Croatian counties from 2011 to 2051 give Wertheimer-Baletić and Akrap (2014). The results predict highly unfavourable demographic trends, intergenerational demographic imbalance with unequal spatial distribution of population in Croatia. The authors also warn on neglected spatial aspect of economic development. Valuable analysis and projections of demographic trends on regional level in Croatia until 2030 can be found also in Čipin, Akrap, Knego, Međimurec and Đurđević (2014). It can be seen that demographic characteristics represent important determinants in observing regional divergence and polarisation tendencies and that projections in Croatia are not optimistic. Besides obvious need to create and implement adequate measures of population policy, there is a possibility to use advantages of regional policy, especially instruments of the EU cohesion policy. The role of cohesion policy in managing demographic challenges, including regional demographic polarisation is still not investigated in more detail in Croatia, even though there are researches and discussions about the need to include demographic characteristics and focus demographic problems in the regional policy creation and implementation. Here can be highlighted the study of European Parliament - Directorate-General for Internal Policies - Policy Department B: Structural and Cohesion Policies. Regional Development (2013) in which demographic trends in the EU and the role of cohesion policy in resolving demographic challenges are presented. Among other aspects, the study analyses and gives an overview of demographic issues shown in programming documents of the cohesion policy 2007-2013. Similar approach based on this work is chosen later in our study. In the mentioned study the authors also observe territorial effects of demographic change, consider cases where the key challenges of demographic change in specific territorial conditions have been tackled. It is confirmed that regional and local dimensions are important in addressing demographic change and that EU cohesion policy supports regional adaptation by influencing regional socio-economic development, labour markets and integrated programs. European Parliament (2017) suggest more effectively tackling demographic changes through EU funds. Before analysing the role of EU cohesion policy in managing regional demographic polarisation in Croatia, the next section briefly synthesizes main indicators that confirm polarisation patterns in Croatia according to chosen indicators.

3. REGIONAL POLARISATION IN CROATIA - FACTS

Indicators in table 1 show significant regional disparities in Croatia (on county level) and imply on polarisation of population and economic activities, according to the last available data.

Table following on the next page

Table 1: Comparison of regional differences in Croatia 2016, 2017 (Croatian Bureau of Statistics 2018a, 2018b, 2019; Ministry of Regional Development and EU Funds, 2018a)

County of	Gross domestic product per capita, 2016., HRK	Development index (2014.-2016.)	Group	Population, estimate 2017. (share in total, in %)	Population density per km ² , 2017.	Net migration between counties, 2017.	Net migration with foreign countries, 2017.
City of Zagreb	147.166	117,76	4	19,46	1252,36	4102	-3.099
Zagreb	64.714	105,89	4	7,55	101,77	731	-2.371
Krapina-Zagorje	56.080	98,98	2	3,06	102,79	-33	-401
Varaždin	71.510	101,71	3	4,09	133,57	-180	-1.003
Koprivnica-Križevci	69.118	98,49	2	2,65	62,44	-224	-804
Međimurje	71.810	100,50	3	2,69	152,26	-102	-984
Bjelovar-Bilogora	57.996	92,58	1	2,66	41,60	-380	-854
Virovitica-Podravina	46.610	90,67	1	1,87	38,09	-435	-1.155
Požega-Slavonia	47.778	93,95	2	1,69	38,17	-437	-1.398
Slavonski Brod-Posavina	47.375	93,45	1	3,49	70,85	-778	-2.923
Osijek-Baranja	66.518	96,01	2	6,86	68,12	-964	-4.496
Vukovar-Sirmium	49.417	91,99	1	3,86	64,88	-1021	-4.644
Karlovac	64.010	95,19	2	2,87	32,62	-314	-773
Sisak-Moslavina	60.554	91,70	1	3,70	34,14	-887	-2.709
Primorje-Gorski kotar	100.815	105,28	4	6,95	79,90	381	-1.483
Lika-Senj	64.240	92,39	1	1,11	8,58	-127	-430
Zadar	68.611	104,65	3	4,09	46,26	258	-635
Šibenik-Knin	66.049	97,04	2	2,46	33,99	-65	-712
Split-Dalmatia	65.161	103,93	3	10,90	99,03	-266	-1.008
Istria	106.313	108,97	4	5,05	74,02	683	316
Dubrovnik-Neretva	84.871	108,58	4	2,94	68,15	58	-233

From the table above it can be seen that the differences between observed regional values are significant. Range, as a simple measure of dispersion, indicates that the difference between the highest and the lowest value in gross domestic product per capita is 100 556 HRK. More detailed (authors') analysis determines that only four counties have gross domestic product per capita above the Croatian average. Five counties are grouped in the most developed group according to Croatian development index. The highest shares in total population have counties with metropolitan centres. Concentration of population in these areas can strengthen polarisation tendencies with implications on emissive and receptive regions. Range in population density is 1243,78 people per km² (including City of Zagreb) or 143,68 people per km² (without City of Zagreb). Opposite to the poles that have the highest concentration of population and economic activities, counties with the lowest shares in population distribution and the lowest population density are classified in the least developed groups according to the

development index. Net migration between counties is positive in the most developed group of counties, while the least developed counties have negative net migration between counties which can also influence future polarisation. Internal migrations have had significant influence on demographic polarisation in Croatia (Gombar, 2017). Alarming facts arise from the data on international migrations. Only one county has positive net migration with foreign countries. If emigrants abroad are analysed as a share in relation to total county's population it can be concluded that the highest emigrations abroad are seen from County of Vukovar-Sirmium, County of Slavonski-Brod-Posavina, County of Požega-Slavonia, County of Sisak-Moslavina and County of Osijek-Baranja (counties which also have significant emigrations into another counties). Based on the same data source used above, the authors have determined that the County of Vukovar-Sirmium, County of Osijek-Baranja, County of Slavonski Brod-Posavina and County of Sisak-Moslavina have the largest negative total net migration of population in 2017. This may have a long term influence on strengthening polarisation and lagging behind regions which already lag behind, as well as on losing abundant resource potential of these areas to develop specific sectors (Gombar, 2017). Loss of population due to emigrations implies on underutilisation of regional resources and on the strength of push factors, where cohesion policy can be useful.

4. OVERVIEW OF POSSIBILITIES TO USE COHESION POLICY INSTRUMENTS IN MANAGING REGIONAL DEMOGRAPHIC CHALLENGES IN CROATIA

European Parliament (2017) recognizes the need to implement cohesion policy in order to respond to regional demographic changes (including migrations and population polarisations) through coordinated multi-level actions of European, national, regional and local actors. This should be achieved by using interconnected instruments targeted to demographic challenges, synergies between European Structural and Investment Funds, other instruments and initiatives which can be applied in developing more integral approach to demographic issues, with combining different policy actions that contribute to quality of life. Development strategies based on local and regional specificities present important part in this implementation. Starting from European level, it can be seen that some of the goals and initiatives¹ of the Europe 2020 (strategy for growth and employment) are connected with demographic changes and potentials. Cohesion policy, as the main investment tool to achieve goals of the Europe 2020, has important role in supporting regional adaptation to demographic change with wide range of its fields. This is necessary regarding that demographic change is a multi-dimensional phenomenon (European Parliament - Directorate-General for Internal Policies - Policy Department B: Structural and Cohesion Policies. Regional Development, 2013). In the programming period 2014-2020 five European Structural and Investment Funds (European Regional Development Fund, European Social Fund, Cohesion Fund, European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund) are allocated to Member States and implemented through co-financed national programmes. In the Common Strategic Framework (that facilitates the interventions under the European Structural and Investment Funds and other relevant policies and instruments in line with the Europe 2020's objectives by providing the guidelines), demographic characteristics and problems are included among horizontal principles and cross-cutting policy objectives. Addressing key territorial challenges and different types of territories, e.g. regions with specific demographic features are also taken into account (Regulation (EU) No 1303/2013). Adoption of the territorial cohesion, introduced to tackle geographic or demographic imbalances in the EU, is important part in confronting the

¹ European Parliament (2017) even suggests to incorporate a flagship initiative on demographics into the Europe 2020, financed by the funds, through measures in category of smart growth (to help regions affected by demographic challenges in the field of information and communication technologies, research and development, small and medium entrepreneurship), inclusive growth (by actions to encourage young people, ensuring generational renewal, self-employment and social inclusion) and sustainable growth (by measures to help regions to invest in the green economy).

demographic challenges (European Parliament - Directorate-General for Internal Policies - Policy Department B: Structural and Cohesion Policies. Regional Development, 2013). In the Common Strategic Framework it is explained that in order to contribute to the objective of territorial cohesion, the EU member states and regions should observe and recognise the specificities, potentials/problems and the role of cities, urban, rural, fisheries and coastal areas, areas facing geographical or demographic constraints, outermost regions, regions with a very low population density, islands, cross-border, mountain regions, urban-rural linkages, regions with socially marginalised communities (Regulation (EU) No 1303/2013). Territorial cohesion tries to find the way how to capitalise the strengths of the territories, manage concentrations in cities, enable connections and access to services, develop cooperation and foster urban-rural linkages (European Commission, 2018b). This is important to highlight when observing problems of regional demographic polarisation, because managing specific territorial characteristics and issues, but also utilisation of urban and regional endogenous resources are necessary in managing polarisation tendencies. Most of the priority themes of the European Structural and Investment Funds can tackle demographic risks. This is confirmed in the regulations of the legislative package that represents framework for the EU cohesion policy 2014-2020 implementation. Based on European Commission - Directorate-General for Regional and Urban Policy (2015), here is important to synthesise and highlight areas suitable for financing that are most closely linked with managing demographic challenges, such as provision of social infrastructure, including health, education, welfare, housing, transport, urban and rural regeneration, information society, productive investments, business start-ups, among the priority themes of the European Regional Development Fund; employment, adaptability of workers, enterprises and entrepreneurs, strengthening human capital through investing in education, training and vocational training, improving multifaceted social inclusion, social services regarding European Social Fund. Special attention is also devoted to disadvantages groups (e.g. young people, elderly people, migrants, women etc.). European Social Fund is the key instrument which can address demographic challenges directly, especially regarding interventions to promote education, training, social inclusion, labour market adaptability mismatches etc. Migration issues represent important challenge including internal and international flows. Cohesion Fund can contribute to accessibility, mobility and improving (urban) environment. European Agricultural Fund for Rural Development provides opportunities in tackling significant demographic challenges in rural areas, achieving a balanced territorial development of rural economies, while European Maritime and Fisheries Fund can contribute to a balanced and inclusive territorial development in fisheries and aquaculture areas, increase employment and territorial cohesion in coastal, inland areas that depend on fishing and aquaculture. European Regional Development Fund defines specific provisions on the treatment of particular territorial features (e.g. sustainable urban development through integrated territorial investments, innovative actions in the area of sustainable urban development, urban development network, areas with natural or demographic handicaps, northernmost regions with very low population density and outermost regions). Some of the activities can be complemented with other instruments. Specific provisions on the treatment of particular territorial features such as urban and rural areas are also included in the regulation on the European Social Fund (European Commission - Directorate-General for Regional and Urban Policy, 2015). It is interesting to note Urban Agenda and Urban innovative actions as new approaches and opportunities to stimulate growth and liveability in the cities and to test unique solutions in addressing urban challenges (European Commission, 2018c, 2018d). Important strategic documents for the implementation of the EU cohesion policy, including absorption of EU funds in Croatia are: Partnership Agreement (Ministry of Regional Development and EU Funds, 2014a), that ensures alignment with the Europe 2020 and sets the strategy for the use of EU funds, translated into operational programmes (Operational

Programme Competitiveness and Cohesion 2014-2020 (Ministry of Regional Development and EU Funds, 2018b); Operational Programme Efficient Human Resources 2014-2020 (Ministry of Regional Development and EU Funds, 2014b); Operational Programme for Maritime Affairs and Fisheries (Ministry of Agriculture, 2018)) and rural development programme (Rural Development Programme of the Republic of Croatia for the Period 2014-2020 (Ministry of Agriculture, Directorate for Management of EU Funds for Rural Development, EU and International Co-operation, 2015)). Based on regional and local needs, Regional Development Strategy of the Republic of Croatia (Croatian Parliament, 2017b), development strategies of counties and urban areas represent strategic framework for further implementation, with specific goals, priorities and measures. In observing unequal regional development and strategic guidelines for the regional policy implementation it is also necessary to include Spatial Development Strategy of the Republic of Croatia (Croatian Parliament, 2017c). According to the textual analysis it can be confirmed that demographic characteristics and problems are internalised in the mentioned strategic documents of the Republic of Croatia. This is clearly seen in the parts which refer to context analysis (e.g. development challenges, obstacles, potentials and needs, SWOT analyses of a country/region/urban areas), but also some of the objectives, priorities and measures (directly or indirectly) include elements related to demographic changes. Territorial challenges, specific needs of areas faced with demographic or other development constraints and also regional polarisation are determined. Measures to deal with these specificities are suggested. Integrated approach to territorial development (promotion of a more balanced territorial development and use of comparative advantages of different territories) financed through European Structural and Investment Funds is recognized as an opportunity and it has become important in strategic planning. It is also interesting to note that in the Croatian Regional Development Strategy demography is included as one of the horizontal themes. Polycentric and balanced territorial development in order to deal with polarisation between capital city, metropolitan areas and middle cities is suggested in Spatial Development Strategy. Here should be added that regional policy in Croatia is implemented based on Regional Development Act (Croatian Parliament, 2014, 2017a, 2018), which (among other aspects) also defines and classifies areas with development specificities, while demographic variables are used in the calculation of the Croatian development index (Ministry of Regional Development and EU Funds, 2018a), important in regional policy implementation (and monitoring). Implementation potential of the mentioned EU cohesion policy instruments in tackling demographic challenges in the new programming period (2021-2027) is even higher. Demographic challenges are included in the discussions/proposals for the post-2020 EU cohesion policy (as can be seen in European Commission (2018a)). The combination of described opportunities and financial instruments can help to better use resources, regenerate and strengthen areas where necessary, improve living and business conditions, encourage the cooperation as well as connection between rural, urban and regional territories, but urgent, more focused and more efficient, integrated actions are needed.

5. CONSLUSIONS AND IMPLICATIONS

Validated warnings in numerous studies about unfavourable demographic trends, unequal population distribution and regional socio-economic disparities in Croatia should be taken seriously. The paper addresses possibilities to use EU cohesion policy instruments in managing regional demographic challenges and polarisation in Croatia. It is determined that regional demographic characteristics are included in the strategic planning documents, important for the implementation of the regional policy and EU funds absorption in Croatia and that EU cohesion policy instruments can contribute to prevent the causes and various consequences of the mentioned issues. Even though European Social Fund is confirmed to be the key instrument which tackles demographic issues directly and European Regional Development Fund is

especially valuable due to possibilities to finance various areas (including also urban areas as centres of polarisation tendencies), here is necessary to highlight the need to provide multidimensional solutions through combination of cohesion policy instruments, supported with tailored actions of the (integrated) different policy areas. It can be concluded that implementation potentials lie in the understanding of the cohesion's principles and in using EU funds more proactively, by focusing interventions towards specific regional endogenous resources, providing employment opportunities, better living conditions, services and infrastructure and by encouraging polycentric, balanced territorial development. In next studies it will be useful to analyse in more detail the characteristics of regional polarisation in Croatia and its effects (including urban data). The absorption of EU funds in addressing demographic issues can be investigated by using more complex empirical analysis.

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THE MAIN DIRECTIONS IN TAX SYSTEM'S REFORM IN THE AZERBAIJAN REPUBLIC

Rauf Salayev

*PhD, Associate professor, Department of Economics
Azerbaijan State University of Economics, Baku City
salayev@mail.ru*

ABSTRACT

After independence, the economy transition of the Azerbaijan Republic to market principles caused, as in other areas, the need for fundamental reforms in the tax system. As is known, taxes from all the bases form the tax system. The tax system of Azerbaijan has created an effective mechanism for collecting tax arrears. Recently there have been major advances in the reduction of tax arrears, as well as reducing the number of tax debtors. Today, Azerbaijan has defined the integration of the tax system to the standards applied in the European Union as one of its goals. In accordance with the development strategy of the national economy, in recent years, there has been some success in improving the tax system. Significant work has been done to bring the tax authorities up to modern European standards, and to form tax legislation and administer in accordance with modern requirements. One of the most important element of the tax system of Azerbaijan is creation of a favorable business environment, the focus of business on economic development, and compliance with the economic interests of not only the state, but also entrepreneurs and citizens.

Keywords: AVIS, Tax Code, taxes, tax reforms, budget

1. INTRODUCTION

Attraction of large investments into national economy, macroeconomic stability, creation of the legal base encouraging the business sphere and some other factors created conditions for economic growth and development in Azerbaijan. It is known that the tax system is made by taxes. According to the changes made to the Tax Code in the Azerbaijan Republic since January 1, 2010 the rate of income tax is 20%. It is necessary to notice that for the purpose of expansion of investment opportunities and increase in financial income of the enterprises the rate of income tax was lowered from 27% to 20%. Experience of the last years shows that decrease in rates of taxes leads to the reduction of tax problem. At the same time, the enterprises as a result of decrease in rates of taxes receive additional current assets and by means of reinvestments can gain additional income. It creates possibility of realization of additional base for the taxation. Thus, decrease in a tax rate leads to expansion of the taxation. Practical result of all this is growth of tax revenues. Other essential change directed on social protection and financial improvement of the population is decrease the maximum rate of income tax from 35% to 14%. In general, all these actions are focused on stimulation of Azerbaijan economy development, including real sector, strengthening of social protection of the population, further improvement of investment climate.

2. THE MAIN DIRECTIONS OF TAX REFORMS IN THE AZERBAIJAN REPUBLIC

There is rapidly development of information and communication technologies; important work has been carried out towards to the “Electronic Government”. According to the State Program “(Electronic Azerbaijan)” for the Communications and Information Technologies’ Development in Azerbaijan in 2005–2008, which was approved by the Azerbaijan Republic President, the Ministry of Taxes in the Azerbaijan Republic also constantly expands the electronic services coverage to provide taxpayers. A new area in the development of the tax system has been started with the Azerbaijan Republic President’s decree on the September 12th

2005, with the approval of the "State Program for Improving Tax Administration in the Azerbaijan Republic in 2005-2007". Thus, the Automated Tax Information System (AVIS) has been created by the Ministry of Taxes in 2006 and 2007 the Internet Tax Administration (www.e-taxes.gov.az), also started electronic documents' exchanging with banks and accepting tax declarations in electronic documents. The computer terminals were installed in the regions and the telephone information service was expanded. In 2009 implementation of "The Strategic Plan of improvement of the tax law and administration in 2009-2012" has been started in the tax system. According to "the Strategic Plan", for the purpose of further improvement of tax administration, since January 1, 2010, in the sphere of the VAT, use of electronic invoices has been started. By introduction of deposit accounts of the VAT, the conditions for realization of payment of the VAT in an electronic form has been created on the goods (works and services) bought from other taxpayers, and on the goods imported from other countries. "Payment VAT Rules while the payment of cost of goods (works and services) acquired according to the tax invoice issued to the taxpayer, maintaining the account on the deposit VAT account, the movement VAT, VAT compensation is made from the operations on this account and its transfer in the state budget and into the corresponding deposit account of the government customs authorities opened in treasury bodies" are approved. Application of the deposit account on the VAT, first of all, is directed on improvement of the mechanism of tax control from tax authorities. At the same time this system plays the information role for tax authorities. The carried-out reforms in this direction allows cutting down expenses of taxpayers on administration due to simplification and improvement of tax administration. It should be noted that application of the VAT deposit account succeeded to create new and rather effective system in evasion prevention from VAT payment and its illegal compensation [1]. Each taxpayer who signed the contract on electronic documents exchange with tax authorities has official Internet page on the official site of the Ministry of Taxes (www.taxes.gov.az), and also "e-box" (e-mail). By means of this the page Internet taxpayers use electronic services. According to the article 176 of the Tax Code of the Azerbaijan Republic, for people who were registered as VAT payers and carry out taxable operations, electronic tax invoices are obliged to expose who accept goods, works or services, on condition of observance of article 176.4 of the Tax Code. The persons who weren't registered for the VAT, the electronic tax invoices have no right to expose. Working on expansion of providing electronic services to businessmen are continued. So, works for creation of conditions of providing the current tax payments, appeals to tax authorities for suspension of operations of taxpayers, and also registration in the on-line regime of the natural persons who are carrying out business activity without creation of the legal entity by means of the Internet are conducted. Thus, works on creation of a subsystem of "Electronic office-work" on the Internet internal revenue service are complete. By means of a subsystem, the correspondence with taxpayers is carried out in an electronic form. It creates conditions for correspondence and creation of more effective communication between tax authorities and taxpayers. Currently, work is underway to install electronic transmission devices in cash registers to strengthen the cash payments control. This makes it possible to promptly transfer to the database of tax authority's information on ongoing cash settlements, which, in turn, will create opportunities for improving the efficiency of tax control and transparency of taxpayers. In addition, according to the "Strategic Plan", in the framework of the next stage the Electronic Audit system was introduced for the tax control modernization. The international experience and internal opportunities of tax authorities have been studied. Application of electronic audit in oil, banks and trade spheres by primary results allowable to reduce by 1,5 times human resources and time spent for one check as a result of carrying out in the automated order of risk analysis of evasion from taxes. Application of electronic audit makes it possible to detect of taxes evasion risks with probability in 90-95 percent. For the purpose to simplification of the software studying the new software of ACL-Mentor has been developed by tax auditors for

carrying out electronic audit. Also, together with the German company DATEV the new easy-to-work interface was created and answers according to the electronic audit. Electronic audit is directed on protection of the rights of taxpayers, for it is use the automated information system is necessary and system available in Ministry of Taxes that has all opportunities for carrying out electronic audit. Use of system of electronic audit is able to afford to reduce number of exit checks by 90 percent. On October 5th, 2007, Order No. 2458 issued the order were issued by the President of the Azerbaijan Republic "On measures to ensure the organization of activities on business entities according to the "Single Window" principle. Within two years, with the introduction of this principle, entrepreneurship rapidly began to develop. The development of entrepreneurship in our country is a priority for the state's economic policy. Introduction of the principle of "Single Window" caused positive reaction of businessmen, the public and representatives of mass media of our country. Within three years as "The uniform window" is applied, in the Ministry of Taxes more than 140000 economic entities, from which more than 16000 - commercial legal entities are registered. In 2013 the number of the registered taxpayers was increased: 457 – commercial legal entities, 4032 – natural persons. In 2015 the total of the registered taxpayers in Azerbaijan was 616242 in comparison with the same period of 2014, the number of the registered taxpayers increased by 13,1%. In 2016 the number of total registered taxpayers in Azerbaijan was 844902. By the end of 2017 in Azerbaijan were registered 134556 new taxpayers, including 9864 legal and 124702 persons. Within execution of the instructions defined at the disposal of the President of the Azerbaijan Republic "About acceptance of the planned directions of reforms in the tax sphere in the 2016 year" and improvement of tax administration" of August 4 of the 2016 year in the Ministry of Taxes a preparatory work on introduction of "Electronic criminal case" ended. For acceleration and improvement of quality of the cases considered by the Department of preliminary investigations of tax crimes at the Ministry of Taxes in the sphere of tax offenses and investigations of fight against crime, and also creation of identical electronic statistical registration base, minimizing of administrative procedures, saving of time, rational use of human resources in the Automated Tax Information System (AVIS), the module "Electronic criminal case" is created and entered into use. "Electronic criminal case" - the electronic system created on purpose to departure in Department of the materials reflecting the facts of criminal character, connected with tax offenses, drawing up electronic decisions, letters, petitions and other documents during process of preliminary investigation, including possibilities of quick search. Starting from January 1, 2017, the Ministry of Taxes in Azerbaijan Republic started providing individual and operational services for disciplined taxpayers on the basis of the "green corridor" principle. To determine the mechanism for regulating work with taxpayers operating on the basis of a transparent partnership, the relevant rules were approved. These rules define the criteria for identifying taxpayers operating on the basis of a transparent partnership, the services they will receive, the procedure for considering their applications and procedures on other issues. Taxpayer services will be provided on the basis of the "green corridor" principle without territorial restrictions. Along with traditional electronic services, services for receiving documents, issuing ready documents, exchanging electronic documents, SMS informing service, as well as on-site service, partner taxpayers will also provide innovative services using the latest advances in information and communication technologies. The video conference with the partner taxpayers will be one of such innovative services. The video conference can be adjusted by means of the website of the ministry, Facebook, Skype, WhatsApp and with use of other opportunities of ICT. Moreover, in the CALL Center at the Ministry of Taxes the special line will be open for rendering high-speed services to partner taxpayers. On the basis of addresses of the partner taxpayers, tax authorities will be able to hold meetings or round table, seminars and conferences. Implementation of special training programs from Training Center of the Ministry of Taxes is provided, and also preparation specialized both the innovation, traditional and online

of trainings on a free basis. As a result of the successful implementation of the State program on the socio-economic development of the regions, a high growth in the level of macroeconomic indicators was achieved in the country, at the same time, investments in fixed capital from all financial sources gave impetus to the increase in construction of infrastructure, utilities, social -service facilities in the regions and quality improvement in the services sector. Regional development, had a positive impact on tax revenues. Despite the fact that most of the population of the regions is engaged in agriculture, for many years exemption from family and peasant farms and other agricultural spheres, revenues by region have increased 11.8 times in the last 10 years. The last 9 months of 2018 were marked by continuation of macroeconomic stability, economic growth and further strengthening of financial stability in Azerbaijan. In the conditions of difficult external risks and calls, national economy managed to keep high dynamics of development and showed high stability. In 9 months of 2018 the positive trend observed in national economy against the forecast of 5 billion 298 million manats is collected 5 billion 306 million manats of taxes in the state budget. The forecast is executed for 100,2 percent. 65,8 percent fall to the share of not oil sector of the paid taxes.

3. ACHIEVED INDICATORS OF THE BUDGET-TAX POLICY OF THE AZERBAIJAN REPUBLIC FOR THE PERIOD 2007-2017

For the first 9 months in 2018, tax revenues from the private sector of the non-oil sector has been increased up to 7 percent, its share in non-oil taxes increased from 51 percent to 59 percent (compared to 9 months in 2017). The successful implementation of the socio-economic development concept of the Azerbaijan regions, including the of new jobs opening, ended with the expansion in the taxation market, tax revenues from the regions during the reporting period totaled 508.0 million manats, compared to the corresponding period in 2017 increased by 12.0 percent. In 2018, a number of measures for expansion of the market of the taxation, to ensuring open and transparent activity of business is carried out. Due to implementation by the Ministry of Taxes of the measures directed on forming of the transparent relations with taxpayers, turns in not oil sector, having increased by 7,1 percent, exceeded 44 billion manats. The turn in trade grew by 18,4 percent, including a turn of retail trade - for 27,9 percent. In order that taxpayers had opportunity to adjust the work on registration documentation, the number of exit tax audits had been decreased by 3 times. In 2018, the package of changes and additions for the Tax Code of the Azerbaijan Republic was approved by National Assembly of the Azerbaijan Republic. Effective support of economic growth and business, changes of tax rates, reforming in the taxation mode and expansion in the taxation market, strengthening in administration and tax control enter decrease in scale of evasion from taxes and shadow economy. In order to support the business development and increase the benefit due to business changes, in the Tax Code of the Azerbaijan Republic as decrease in degree of the simplified tax granting urgent tax privileges for retail trade and non-cash payment in public catering, release of the small businessmen keeping the income and expenses account, from a tax on the dividend income, a deduction from the income of noncommercial expenses of taxpayers, including a certain part of the subsidies allocated to spheres of health care, education, culture and sport are also entered.

Table following on the next page

Indicators	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenues-total	6006.6	10762.7	10325.9	11403.0	15700.7	17281.5	19496.3	18400.6	17498.0	17505.7	16516.7
Value Added Tax	1179.2	1910.9	2012.8	2082.5	2222.7	2366.9	2710.0	3119.6	3454.7	3623.5	3668.6
Excise	402.9	486.9	485.1	514.9	480.2	531.5	593.3	797.3	647.8	625.1	612.6
Profit tax of legal entities	2457.7	2862.3	1329.2	1429.9	2134.0	2252.0	2374.8	2302.7	2211.1	1983.2	2285.9
Land tax	27.1	30.6	26.2	35.3	35.3	30.6	33.1	35.4	48.7	50.3	50.4
Tax on income of individuals	588.6	627.2	581.9	590.2	715.7	813.0	859.7	980.3	982.5	1145.7	1040.3
Tax related with foreign economic activities	293.3	449.7	418.1	291.8	433.1	592.5	675.2	684.7	934.5	861.2	903.0
Property tax	72.4	112.9	66.2	101.8	103.9	105.1	125.1	141.3	148.2	174.7	178.6
Other taxes	68.6	96.8	86.8	90.3	140.6	157.6	161.5	192.7	247.7	457.0	505.7
Other returns	793.8	4037.7	5197.7	6136.2	9305.4	10306.5	11842.1	10030.4	8706.7	8474.7	7160.5
Tax on mining	123.2	147.7	121.9	130.1	129.8	125.8	121.5	116.2	116.1	110.3	111.1

Table 1: Receipt of taxes and other payments in the state budget of Azerbaijan for 2007-2017, million manats: [3]

In nine months in 2018, 9 billion US dollars were invested in the Azerbaijan economy. It is pleasant noticed that 5,6 billion US dollars it has been invested in not-oil sector. It should be noted that the state budget for 2019 was adopted by National Assembly of the Azerbaijan Republic. The forecast for the state budget income for 2019 is 23 billion 168 million manats, to expenses - 25 billion 190 million manats. Thus, it is offered to increase the state budget deficiency for 2019 to 2 billion 22 million manats or 2,5% of GDP. Income of the state budget in 2018 is approved on 22 billion 149 million manats, and expenses - 23 billion 100 million manats. The state budget deficiency is predicted at the level of 951 million manats or 1,3% of GDP. The forecast of oil price in the state budget for 2019, for calculation of the oil income put 60 US dollars for barrel. Income of the state budget of Azerbaijan during the reporting period executed 1,3 percent more than it has been expected. In the income structure of the budget through the Ministry of Taxes was 5305,7 million manats which is in comparison with the similar period in 2017 more 80,9 million manats or 1,5 percent. It means that 65,8 percent (3491,2 million manats) fell to the share of not-oil sector. Through the State Customs Committee 2600,4 million manats had come to the state budget, that is 33,2 percent (648,8 million manats) above as an indicator in the similar period last year. In addition, during the first 9 months of 2018, the state budget received 321,5 million manat from paid services provided by budget organizations. Other revenues amounted to 74,1 million manats. Transfers from the State Oil Fund of Azerbaijan (SOFAZ) to the state budget have been amounted 7,788 billion manats. The State budget expenses in January-September 2018 has been consisted 15666 million manats. These are 22,5 percent or 2882,3 million manats more than in similar indicator in 2017. During 9 months in 2018, 34,5 percent (5410,1 million manats) the state budget expenses were a social orientation, that is 11,2 percent, or 545,1 million manats more than similar indicator in 2017. In the state budget of Azerbaijan during the reporting period additional 423,7 million manats was formed. In 10 months in 2018, GDP raise up to 0,8%. GDP per capita in 10 months 2018 was 6648,1 manats. According to forecasts of the International Monetary Fund, the average world economic growth in Azerbaijan in 2018 and 2019 is going to be 3,7 percent, and according to calculations of the World Bank this indicator will make 3,1 percent. It should be noted that the International Monetary Fund expects that already by the end of 2018 the state budget of Azerbaijan will reach surplus.

Today Azerbaijan determined by one of the purposes integration of tax system to the level of the standards applied in the European Union. According to strategy of development of national economy, in recent years certain success in improvement of tax system is achieved, considerable works for the purpose of bringing tax administration to modern European standards, creation the tax law and administration according to modern requirements are carried out. Continuation of these actions is one of the most important aspects of the plan of action within neighborhood policy between the European Union and the Azerbaijan Republic. Within this plan of action development of tax system of Azerbaijan is directed on harmonization with tax system of the European Union and the standard standards of the tax law. Dynamic development of economy, and orientation to the European and western model of the relations created need for further improvement of the tax law, formation of tax law which creates favorable opportunities for integration into the European Union for effective regulation of tax system. Carrying out actions for bringing the tax law to requirements of the tax law of the European Union is provided in communications. In this direction, the analysis in the sphere of improvement of activity of tax authorities and tax administration, increase of efficiency of tax control, tax administration is carried out now, and also possibilities of their application in Azerbaijan are studied. It is necessary to consider that with the modification of the Tax Code for the purpose of improvement of the tax law and administration, we widely make use of experience of the leading countries of the world, including experience of the European countries.

4. CONSLUSION

Today, rather effective mechanism of collection of tax debts is created in Azerbaijan tax system. Lately, there were serious questions of reduction in tax debts' volume , and reduction in tax debtors' number. For this question, the Ministry of Taxes pays much attention to introduce information technologies. For example, the applied AVIS, plays an important role in improvement of works on compulsory collecting tax debts. For this purpose, the most effective automation of the processes connected with preparation and the direction of notices on tax debtors can be considered. The main objective of tax authorities is tax control implementation of the taxes calculated on the party of taxpayers, and their timely transfer in the state budget. One of the most important elements of Azerbaijan tax system is creation of a favorable business environment, a business orientation on economy development; compliance to economic interests not only the states, but also businessmen and citizens. Adopted strategic government programs contribute to the development of the business environment and the relationship between tax authorities and taxpayers. Strategic Road Maps on the national economy and the main sectors of the economy are designed to ensure the economy competitiveness, its inclusion and the improvement of social welfare based on sustainable economic development. Responding to global challenges, as a result of the investments mobilization, a favorable environment for free competition, access to markets and the development of human capital, Azerbaijan will strengthen its position in the global economy and become one of the highly profitable countries. The key directions of a strategic road map on national economy and the main sectors of economy" were approved by the President of the Azerbaijan Republic on December 6, 2016. In the appropriate order, strategic road maps on national economy and 11 sectors of the economy generally consisting of 12 documents were transferred to the Center of Analytics and Communication with an assignment of carrying out monitoring, an assessment, and also communications for implementation of these strategic road maps [2]. During the last 10 years, with the rates of economic growth, Azerbaijan takes a leading place in the world. Because of successful oil strategy, the infrastructure has been modernized due to present income, the economies of non-oil resources have been developed; social security improved; the state assets increased, and also the strategic currency reserves exceeding the GDP level.

It is necessary to specify that the main difference of strategic "road maps" from earlier accepted state programs is that in "road maps" the concrete indicators for measuring results of activities for each of the directions are defined. Such indicators, on the one hand, will allow to define efficiency of execution of programs for each of sectors, with another - will raise the reporting of government bodies. These documents are directed only on achievement of economic development and the Azerbaijan Republic economy, including tax system today. From this point of view, they will allow to carry out economic reforms in tax system of the Azerbaijan Republic. In summary, based on the above, it is necessary to emphasize that Azerbaijan requires formation of tax system which would provide necessary volumes of tax revenues in the budget, would make active competitive forces in market economy, would regulate expansion processes and production modernization, would stimulate businessmen's investment activity and would provide social stability in society.

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THE EFFECT OF LEADERSHIP ON TURNAROUND AND PERFORMANCE IMPROVEMENT: A COMPARATIVE ANALYSIS

Fahd Slamti

*Teacher Researcher at Faculté des Sciences Juridiques,
Economiques et Sociales de Salé,
Université Mohammed V, Morocco
fahd.slamti@gmail.com*

ABSTRACT

The contribution of leadership in management has always attracted the interest of researchers and practitioners. From Curt Coffman and Peter Drucker to Bruce Avolio and Cécile Dejoux, work related to this theme has contributed significantly to the emergence of the phenomenon. Far from the research that focused on commandments of leadership, James Burns was the first to explain the performance of transformational leadership by observing the political career of many American leaders. His work was completed by Bernard Bass, to whom we owe the introduction of this theme in industrial psychology. Considered the founding father of transformational leadership, he has inspired a new generation of researchers and practitioners. This work is among the ongoing research on leadership approaches. The objective is to assess the effect of the leadership style on the ability of companies to recover from the difficulties generated by a loss of competitiveness. Based on the model of Full Range Leadership developed by Bass, we conducted a comparison of two leadership styles: that practiced by Carlos Ghosn, Chairman and CEO of Renault-Nissan, and that advocated by Carlos Tavares, Chairman and CEO of PSA Peugeot-Citroën. The comparison allowed us to distinguish between two rather different approaches to leadership, which allowed the two car manufacturers to overcome their economic problems and regain competitiveness at the international level.

Keywords: *Performance, Transactional leadership, Transformational leadership, Turnaround*

1. INTRODUCTION

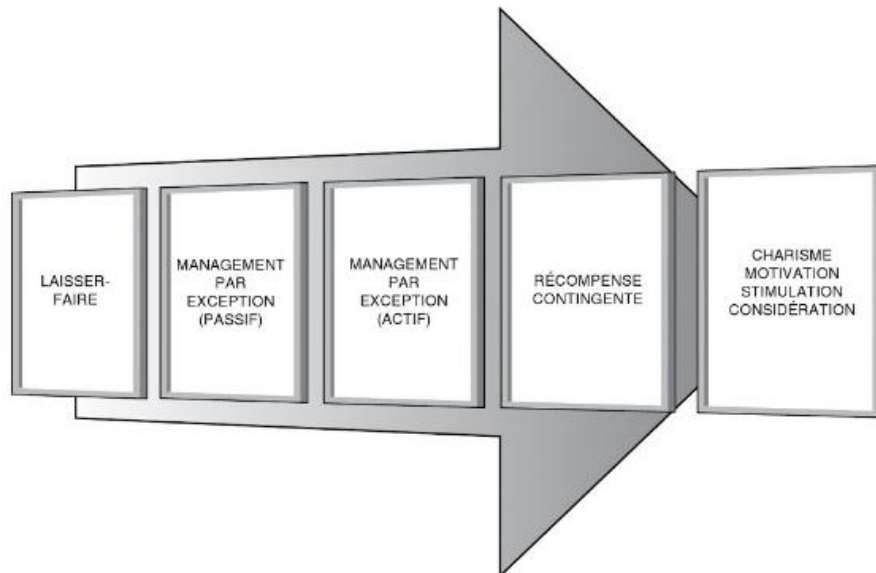
Today, firms live in a turbulent environment where competition continues to intensify. This is a new context where consumer volatility is becoming a major feature that requires reinventing itself in order to create value and find new sources of growth. In addition to the economic and financial crises that threaten their existence, firms also face the demands of civil society and non-governmental organizations. Leadership, which can be defined as « the process by which an individual influences a group of individuals in pursuit of a common goal », arouses the interest to professionals and academics. This definition implies that the concept can not be reduced to the personality traits or behaviors of the leader. Indeed, we can only speak of leadership when a dynamic of influence occurs between a person and a group of individuals in a specific context. Whether focused on ideas or achievements, leadership is expected to play an important role in a business life. In addition to its role in implementing change, leadership comes to meet the aspirations of executives and collaborators thirsting for human values.

2. LITERATURE REVIEW

In his book published in 1978, James McGregor Burns treats leadership from a political perspective and discusses two types: transactional and transformational. In the first type, the leader uses rational means to influence the staff. This may include punishment or promises of reward. As for the transformational leader, the latter manages to obtain the support of its team through the motivation conveyed by values and ethics. About both styles of leadership, Burns mentions: « The relations of most leaders and followers are transactional: leaders approach followers with an eye to exchanging one thing for another: jobs for votes, or subsidies for

campaign contributions. (...) Transforming leadership, while more complex, is more potent. The transforming leader recognizes and exploits an existing need or demand of a potential follower. But, beyond that, the transforming leader looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower. »¹ Inspired by Burns' works, Bernard Bass (1990) has established one of today's most approved and used leadership models. The author makes a distinction between transactional and transformational leaders and enriches Burns' work to establish a development process (Figure 1). While the first type of leadership, based on sanction and reward, favors the exchange based on management by objectives, the second one is turned towards the proposition of a vision and the change focusing on a management by values. For Bernard Bass, transformational leadership is the most effective leadership style for contemporary organizations. Transformational leaders influence their teams in three ways: First, they raise their level of awareness of the importance of the objectives set. Secondly, they persuade their collaborators as to the subordination of particular interest to general interest. Thirdly, they invite their employees to meet a higher category of needs.

Figure 1: The Full Range Leadership model



2.1. Transactional leadership

For Burns (1978), « [Transactional leadership] occurs when one person takes the initiative in making contact with others for the purpose of an exchange of valued thing. The exchange could be economic or political or psychological in nature (...). Each party to the bargain is conscious of the power resources and attitudes of others. (...). Beyond this [the bargaining process] the relationship does not go. The bargainers have no enduring purpose that holds them together »². The author explains that the relationship between the leader and his followers is most often based on transactions. These represent the essential relationship between the two parties: bonuses in exchange for achieving objectives, jobs against votes, subsidies in exchange for campaign financing... Bass (1999), who emphasizes the exchange relationship, defines transactional leadership as: « (...) the exchange relationship between leader and follower to meet their own self-interests. take the form of contingent reward in which the leader clarifies for the follower through direction or participation what the follower needs to do to be rewarded for the effort. It may take the form of active management-by-exception, in which the leader

¹ McGregor Burns, J. (1978), *Leadership*, Harper Collins, p.11

² *Leadership*, op. cit., p. 8

monitors the follower's performance and takes corrective action if the follower fails to meet standards.»³. For their part, Antonakis, Avolio, et Sivasubramaniam mention: « Transactional leadership is an exchange process based on the fulfillment of contractual obligations and is typically represented as setting objectives and monitoring and controlling outcomes. »⁴ Thus, the author describes the transactional leadership style according to two factors: contingent reward and management by exception (Table 1)⁵. According to the first factor, the leader apprehends the relationship with the workforce as an exchange or negotiation through which goals are set, as well as rewards and sanctions for success or failure. This is how the leader gets the commitment of his employees. As for the second factor, the leader will rely on control and correction to ensure that the workforce follows the objectives to be achieved. It should be noted that Bass makes the distinction between active exception management, according to which the leader conducts a regular and passive control, and management by passive exception (the leader intervenes only after problems arise).

Table 1: Transactional factors

Factors	Leader behaviour
1. Contingent reward	<ul style="list-style-type: none"> - Negotiate goals with teams - Setting clear criteria for reward and sanction - Fix the rewards with his team
2. Management by exception	<ul style="list-style-type: none"> - Attentive to performance standards - Set up a control device

2.2. Transformational Leadership

According to Burns (1978), « [Transformational leadership] occurs when one or more persons engage with others in such a way that leaders and followers raising one another to higher levels of motivation and morality. Their purposes, which might have started out as separate but related, as in the case of transactional leadership, become fused. Power bases are linked not as counterweights but as mutual support for common purpose »⁶. Transformational leadership, while more complex, is also more powerful. Indeed, a transformational leader has the ability to recognize and exploit needs. Even more, he may observe latent motivations among his followers and often wishes to satisfy more noble needs by mobilizing the whole individual. «Through transformational leadership, both parties are encouraging and pulling themselves up, in a relationship where followers become leaders and the leader is likely to become a moral leader». Burns mentions: « Moral leadership emerged from fundamental wants, needs, aspirations and values of followers. It's kind of leadership that can produce social change that will satisfy followers and authentic needs » (Burns, 1979). Bass considers transformational leadership as the process by which leader and followers engage in a mutual process of elevating motivation and morality. The author writes: « Transformational leadership refers to the leader moving the follower beyond immediate self-interests (...). It elevates the follower's level of maturity and ideals as well as concerns for achievement, selfactualization, and the well-being of others, the organization, and society »⁷.

³ Bass, B.M. (1999). « Two Decades of Research and Development in Transformational Leadership », European journal of work and organizational psychology, vol. 8, p. 10

⁴ Antonakis, J., Avolio, B., Sivasubramaniam, N. (2003) « Context and leadership: an examination of the nine-factor full-range leadership theory using the Multifactor Leadership Questionnaire », The Leadership Quarterly 14, p. 265

⁵ Adapted from Valérie-Claire Petit (2013). Leadership: L'art et la science de la direction d'entreprise, Pearson Education France, p.153

⁶ Leadership, op. cit., p. 20

⁷ « Two Decades of Research and Development in Transformational Leadership », op. cit., p. 11

According to him, four factors allow leaders to generate team transformation (Table 2)⁸:

- **Charisma:** the leader behaves in an exemplary manner and thus assumes to be a role model for the team members. Thus, through regular actions, he demonstrates an irreproachable level in terms of personal and professional ethics capable of generating the trust, respect and admiration of the employees.
- **Inspiring motivation:** the leader communicates his vision to the staff and manages to convince them thanks to his optimism, making sure that all the people adhere to it fully. The inspiring motivation enhances the motivation of employees to achieve the objectives set.
- **Intellectual stimulation:** Antonakis, Avolio, and Sivasubramaniam mention that « Intellectual stimulation refers to leader actions that appeal to followers' sense of logic and analysis by challenging followers to think creatively and find solutions to difficult problems ». Thus, the leader encourages his team to question their thinking patterns by demonstrating creativity, imagination and innovation. This encouragement enhances the commitment to the transformation process initiated.
- **Individualized consideration:** the leader creates a positive climate by attaching particular importance to the organizational community and paying attention to the needs expressed by the team members. Antonakis, Avolio, and Sivasubramaniam mention: « individualized consideration refers to leading the way to satisfaction by advising, supporting and paying attention to the individual needs of followers, and thus enabling them to develop and self-actualize ». Indeed, individualized consideration boosts initiative.

Table 2: Transformational factors

Factors	Leader behaviour
1. Charisma	<ul style="list-style-type: none"> - Represents a role model for his teammates - Exceptionally talented - The team trusts the leader and is proud of him
2. Inspiring motivation	<ul style="list-style-type: none"> - Communicates a positive vision - Gives the feeling of a collective mission - Undertakes the future with optimism
3. Intellectual stimulation	<ul style="list-style-type: none"> - At the origin of new ideas - Launches new projects - Makes aware about the need to reinvent
4. Individualized consideration	<ul style="list-style-type: none"> - Cares about his teams - Shows personalized consideration - Sensitize everyone to values to share

2.3. Leadership and performance

There are several studies which examined the relationship between leadership style and performance. Carless, Mann, and Wearing (1995) have shown the effect of transformational and transactional leadership on strengthening group cohesion, and as a result, positively impacting the performance of Australian banks. Sosik, Avolio and Kahai (1997) examined the impact of transformational leadership on the level of creativity of 36 working groups using a decision support system. The authors have demonstrated that transformational leadership has a direct and indirect influence on performance. For their part, Sommer, Howell et Hadley (2016) studied the effect of leadership on organizational resilience following a crisis that affected the health sector. The analysis of the data collected from 426 team members and 52 leaders made it possible to conclude on the influence of the leader's behavior on the resilience of the team members, mainly through affective mechanisms. Precisely, transformational leadership has been associated with greater resilience of team members.

⁸ Adapté de Valérie-Claire Petit (2013). Leadership: L'art et la science de la direction d'entreprise, p.153

3. PRACTICAL IMPLEMENTATION OF THE FULL RANGE LEADERSHIP MODEL

3.1. Carlos Ghosn and the miraculous rescue of Nissan

This is the story of a historic rescue by a Renault executive who recommends taking a stake in a Japanese company in difficulty, then takes charge of its recovery as a Chief executive officer. In 1999, Nissan is on the verge of bankruptcy, the company is facing a record debt of \$ 22 billion, its market share collapses and the whole of its business model is running out of steam. The company is considered impossible to recover, and only a radical change in management can save it. Within the company, there is a strong sense of attachment, a great loyalty and a big commitment and self-discipline. The fact that the company may disappear gives rise to a strong expectation of leadership and greater accessibility to change. All to start with the presentation by Carlos Ghosn of his « Nissan Revival Plan » including drastic cost reductions, but also an investment component rich in symbols: revival of the Z series (a legendary sports car), launch of Nissan Qashqai and the conquest of the US market. The speech announcing the stimulus plan is emblematic of this desire to create a sense of urgency. Carlos Ghosn announces: « The facts and figures reveal that Nissan is bad. ». To mobilize its teams, Ghosn has made three simple commitments: to return to profits in the first year of the plan, to reduce the debt by half and an operating margin above 4.5% by 2002. He stated that if these results were not achieved, he and all members of the Executive Committee would resign. Ghosn started collecting opinions before making his own one, visiting all Nissan sites around the world. He then relied on multidisciplinary task forces to find ways to improve performance. Thus, instead of applying preconceived plans, he took the trouble to listen to everyone and organizes working groups bringing together employees of different ranks and cultures. Indeed, Carlos Ghosn is often presented as a multilingual and multicultural boss who worked in four different continents. With his reputation as « cost-killer » and as he did at Renault, Ghosn leaves nothing to chance by announcing its strategic objectives. It implements a performance policy based on quality and innovation and promotes transparency by intensifying communication. He is determined to reduce costs: He abolishes lifetime employment, seniority promotion and manages to reduce the number of keiretsu members from 1400 to 4. Ghosn explains his approach to employees and tries to motivate them by involving them in projects and encouraging them to achieve specific goals. In addition, performance-based compensation of up to 25% of the annual salary is set up, as well as bonuses linked to the success of the recovery plan.

3.2. Carlos Tavares and PSA turnaround

In 2012, PSA recorded the heaviest loss in its history, more than 5 billion euros. The drop in sales is significant, especially in the European market, where the group is highly dependent, brand positioning is unclear and distribution channels are not very profitable. It was in this difficult context that Carlos Tavares landed at the Group with principles such as operational excellence and the culture of profitability. Persuaded that it is not enough to make beautiful cars but to do it with less cost, the new boss has put pressure on site managers to find new ideas. From the first day, Carlos Tavares announced the color: « I want to break the silos ». While the new president kept the same teams, he demanded that they work more together. He keeps repeating: « In my teams I trust » and often uses the term « talents » to refer to employees. It must be said that the charisma of the new boss is irreproachable. « In all my career, I have never known a leader who has such encyclopedic knowledge (...). He is able to evoke the door handle of this or that competitor, at Ferrari, Renault or Audi ».⁹ Its rescue plan, known as « Back in the race », which aims for operational excellence, ended two years ahead, ensuring the restoration of economic fundamentals. Tavares does not seem to care about the dictated approach of his recovery plan when he announces that: « (...) Back in the race (...) was rather a

⁹ Propos d'Eric Apode, directeur de produit chez la marque DS.

top-down plan of recovery, a restructuring plan, (...) ». In promising to complete PSA's recovery without closures, Tavaréz managed to win the trust of the unions, which almost all validated the competitiveness agreement. As demanding with others as with himself, the boss announces: « The important thing is the results, that's what makes the teams proud ». And to humbly add: « The saviors of PSA, it is all the collaborators of the group who worked to its restructuring with a lot of merit. I am one of those collaborators and, like them, I feel proud of them. ». « (...) we act as a community of destiny and we move in the direction we have decided to follow for the best results ». Barely « Back in the race » completed, a second plan was launched « Push to Pass », which aims at profitable growth. « Our plan is very ambitious (...) carried by the heart of the company (...). It was our transverse groups who offered us the whole [of] the ideas », Says Tavaréz. Driven by a futuristic vision, the boss of PSA expects significant changes in terms of mobility and digital transformation: « We must position ourselves as contributors of mobility solutions », he says. Tavaréz does not hide his optimism about the future and sees more of an opportunity to be seized by the group, especially with regard to mobility. Thus, he announces that: «The human being seeks mobility because it is an essential dimension of freedom. The needs are very strong, and it's good news for our company». For Tavaréz, the new projects are the spearhead of PSA and represent a source of motivation for teams. Just for connected mobility services, four drivers of growth are to be considered: B2C and B2B auto-sharing, fleet management, connected customer service and lead business. « (...) We organize ourselves to offer our customers mobility solutions where they have both (...) access to the object of mobility, access to the maintenance contract and access to the insurance of their vehicle. ». It should be noted that the group had entered into a partnership with IBM for smart services and big data for the automotive industry. Convinced that performance is more important than size, Tavaréz pays close attention to performance standards. To this end, he plans, by 2018, to multiply by four the economic performance of the last fifteen years and increase turnover by 3% per year.

3.3. Comparative analysis of both leadership approaches

Let's start by identifying Carlos Ghosn's influence preferences, in other words his personal leadership style developed between 1999 and 2002. The use of Bernard Bass's Full Range Leadership model clearly shows a transactional style¹⁰. Certainly, Ghosn has real transformational qualities in terms of intellectual stimulation, charisma and individual consideration. First, the Renault-Nissan boss has a great persuasive capacity to convince his teams of the need to reinvent themselves and find new solutions to different organizational problems. Second, his charisma driven by his image of multicultural manager and his reputation as « cost-killer ». Third, he shows remarkable ability in terms of listening and respect for ideas and opinions. But this charismatic boss is above all a transactional leader since his secret to saving Nissan can be summed up in four commandments characterizing this type of leadership:

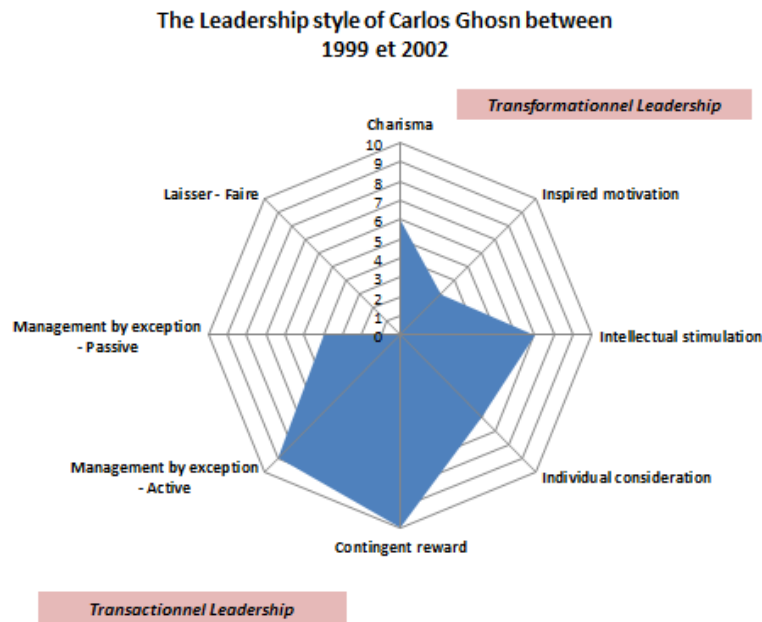
- To establish a sense of urgency and work quickly
- A personal commitment to results
- To negotiate ambitious goals and explain them at all levels
- To monitor progress closely and set rewards / sanctions

Table following on the next page

¹⁰ Leadership, op. cit., p. 192

Table 3: Score obtained by Carlos Ghosn

<i>Factors of the Full Range Leadership</i>	<i>Score</i>
Charisma	6
Inspiring motivation	3
Intellectual stimulation	7
Individualized consideration	6
Contingent reward	10
Management by exception - Active	9
Management par exception - Passive	4
Laisser - Faire	0

Figure 2: Leadership style of Carlos Ghosn between 1999 et 2002 ¹¹

For Carlos Tavaréz, the Full Range Leadership model shows a transformational leadership style. Indeed, this leader has important transformational qualities in terms of charisma, individual consideration, intellectual stimulation and inspiring motivation. With regard to charisma, its know-how, skills and merits seem to convince more people. Good command over the different issues reinforced by the trust of the various stakeholders, including unions and shareholders. As for the acquisition of Opel for example, Tavaréz managed to convince all the stakeholders, who seem to be unanimous about this big deal, including the German government and unions that were initially skeptical. With regard to individual consideration, it is important to remember that expectations in terms of recognition are particularly strong among employees. By claiming that PSA saviors are his own collaborators, Tavaréz strengthens the team's commitment by associating names with success. Moreover, he spares no effort to make his employees aware of the importance of the values of excellence and profitability. Concerning intellectual stimulation, the new projects launched by the group have multiplied since the arrival of the new leader. Connected car, autonomous car and accelerated transition to hybrid and electric vehicles (two modes of propulsion that will equip all ranges of PSA by 2025). Finally, Tavaréz communicates his vision with conviction and optimism.

¹¹ These are the marks awarded by Valérie-Claire Petit to the leadership style of Carlos Ghosn between 1999 and 2002.

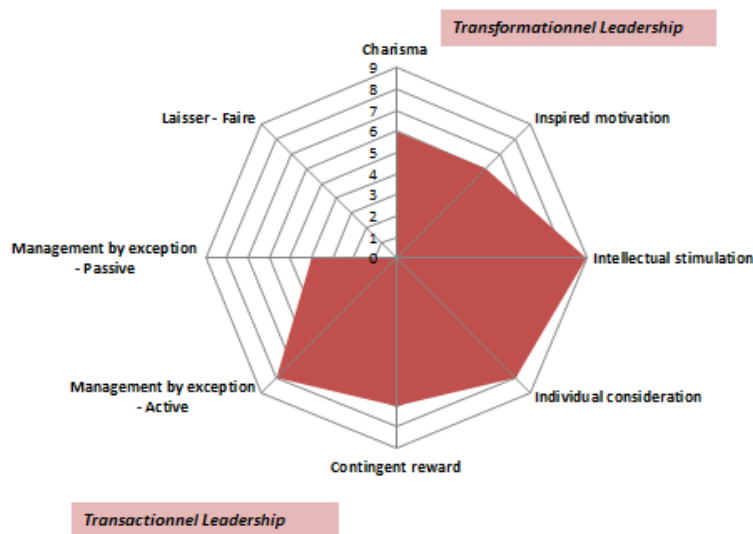
Aware of the need to reinvent things in order to face the important changes the industry is experiencing, he does not hesitate to seize the opportunity to convey his conviction to his teams approaching the future with optimism. Based on the commitments made by Carlos Tavaréz during the presentation of his two recovery and expansion plans, and evaluating, on the one hand, the opinions of professionals and academicians on the CEO of Peugeot-Citroën, as well as the comments and positions of Tavaréz during interviews given to different media, on the other hand, we were able to establish a scoring of the factors constituting his Full Range Leadership model (Table 4).

Table 4: Score obtained by Carlos Tavaréz

<i>Factors of the Full Range Leadership</i>	<i>Score</i>
Charisma	6
Inspiring motivation	6
Intellectual stimulation	9
Individualized consideration	8
Contingent reward	7
Management by exception - Active	8
Management par exception - Passive	4
Laissez-faire	0

Figure 3: Leadership style of Carlos Tavaréz between 2014 et 2017

**The Leadership style of Carlos Tavaréz between
2014 et 2017**



4. CONCLUSION

Indeed, economic difficulties influence the behavior of employees: discouragement, lack of motivation, loss of confidence due to the lag compared to competitors' products ... The experiences of Nissan and PSA are typical examples of the influence of leadership on the turnaround of companies facing economic difficulties. Both styles of leadership have allowed these two manufacturers to get out of the red zone and to return to growth. The Ghosn method worked thanks, on the one hand, to the strong sense of belonging of Japanese collaborators, their loyalty and predisposition in terms of commitment and self-discipline, and on the other hand, on the capacity of this leader to create a sense of urgency and to negotiate ambitious goals.

As for Carlos Tavaréz, this car enthusiast won the support of his teams thanks to his expertise, his vision and the recognition of the efforts made by his staff. Certainly, the common point between the two Carlos remains their ability to mobilize the teams around big challenges. If the transactional leader wins the engagement of the collaborators through the contingent exchange (negotiation of the objectives, setting up of a system of reward and sanction ...), the transformational leader, meanwhile, places his collaborators at the rank of partners by promoting its strong active listening and motivational skills. The goal is to unleash the creative potential of the teams and boost innovation within the company. There is no doubt that the staff's expectations in terms of leadership are more strongly expressed. In addition to the hope to see a management based on proximity, which puts an end to the gap that has grown between top management and employees, they now require a style of leadership more transformational. An expectation that seems consistent with the turbulent and changing nature of today's environment. The companies that will succeed tomorrow are those that will develop an energy-releasing leadership. A leadership based on empowerment, recognition, active listening and the incentive to think differently.

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LOCAL GOVERNANCE AS A TOOL FOR CITY COUNCIL IN TURKEY

Elif Karakurt Tosun
Bursa Uludag University
Bursa, Turkey
ekarakurt@uludag.edu.tr

ABSTRACT

The city councils that entered the Turkish Local Governments Act with the Municipal Law Number 5393 dated 2005 is defined as the "partnership model" that carries the cities to the sustainable future in the integrity of the principles of "claiming ownership of the city", "active participation", and partnership in the solution". It provides the generalization of the democratic participation at the local level, the development of citizenship consciousness, the adoption of multi-actor and multi-partner management style. The general function of the city councils of structures and the working methods differ from one city to another is enabling a common mind embracing the entire city by bringing together the "all sharers" in the city. The Municipal Law Number 5393 dated 2005 has brought the "city councils" application with the Article 76 in order to enable the non-governmental organizations, the professional associations and other in the decisions and implementations in accordance with the governance approach. In accordance with this law The City Councils Regulation has entered in to force which was published in 2006 and amended in 2009. Thus, the city councils model became an obligation for the municipalities in Turkey. But today, in many of the cities either the city councils have not been established or have been unable to effectively fulfill the tasks specified in the Article 76 of the Municipal Law and City Council Regulation. In the Article 4 of the City Councils Regulation the city council is defined as: governance mechanisms with democratic structures where the central government, the local government, professional organizations in the nature of public institutions, and the civil society meet with the understanding of partnership, within the framework of citizenship law; where development priorities, problems visions of the city are determined, discussed, solutions developed on the basis of sustainable development principles, and where common mind and compromise is essential.

Keywords: City Council, Local Governance, Regulation, Turkey

1. INTRODUCTION

The procedures and form requirements of the city councils to be able to fulfill the functions specified in the definition has been drawn in the City Councils Regulation. In the "article 7" of the City Councils Regulation dated 2006, working principles of the council have been indicated in the following way:

- a) Within the Local Agenda 21 process, contributing to moving the cities to livable future in the integrity of the principles of claiming ownership of the city, active participation, and partnership in the solution, b) Implementing the basic principles related with the city and the urban life in the United Nations Summits and other international agreements that the State of Turkish Republic has signed and approved.
- b) Keeping the principles of the development of the city vision and citizenship awareness, protection of the cities' rights and law, sustainable development, environmental awareness, social assistance and solidarity, transparency, accountability, participation and subsidiarity in the foreground,
- c) The city council, taking the international developments and the conditions of the country, to prepare the opinions and proposals with a neutral approach,
- d) Taking the participation and compromise based on the common mind as essential,

- e) By being aware of the changes and innovations in advance, adopting the result-oriented work culture,

And, in the Article 6 of the City Councils Regulation the tasks of the city councils have been counted. These tasks are as follows:

- a) Ensuring the generalization of democratic participation at the local level, development of citizenship law and common life consciousness, adoption of the multi-partner and multi-actor governance approach,
- b) Ensuring the sustainable development and preparation and implementation of the plans towards the solutions arising in this regard,
- c) Contributing the establishment of a common mind covering the entire city during the processes of the determination, implementation and monitoring of the basic strategies and activity plans related with the city,
- d) Improving the participation, democracy and reconciliation culture within the framework of subsidiarity principle,
- e) Developing and protecting the values such as historical, cultural and natural related with the city identity.
- f) Contributing the effective, productive and fair use of the city resources,
- g) Supporting the environmentally sensitive and poverty – relieving programs developing the life quality of the city based on the concept of sustainable development,
- h) Contributing to the development and the institutionalization of the civil society,
- i) Increasing the effectiveness of the children, the youth, the women and the disabled people in the social life and enable them to take active role in the local decision-making mechanisms,
- j) Contributing to implementation of the principles of transparency, participation, accountability, predictability in the urban management,
- k) Having the opinions created in the city council sent to the relevant municipality in order to be assessed.

In 2009, a number of amendments were made in the City Councils Regulation. The most remarkable one among these amendments is the 5th Article under the title "the Formation of the City Councils". According to this: "The city councils are established at the places where the municipality organization exists in three months following the local government elections". Thus, taking one more step after the formation of the city councils becoming an obligation, a calendar has also been brought about with regard to when this is going to be realized. The Bursa City Council takes place among the first city council establishments in the country. The Bursa City Council has emerged both as a local movement and as a part of the international process. Locally, first of all in the form of common center of the neighborhood, the District Advisory and Solidarity Centers (SEDAM) where the problems of the district are discussed, citizen- local government relations are facilitated have been established as the participatory management units. Following the participatory process started at the SEDAMs, the City Advisory and Solidarity Council has been established in order to realize the participation involving the entire city. So, with the pluralistic and participatory efforts and citizen-municipality cooperation has revealed an organization model from the floor to the ceiling. On the other hand, Bursa has supported the city council process with international cooperation by being integrated in the Local Agenda 21 Program which is in a sense a local projection of the United Nations Agenda 21 global concept before Turkey supported this program at the government level (Bulut, 2013: 91). In early 1995, with the initiation of the Bursa Metropolitan Municipality, the City Advisory and Solidarity Council was established. In the council assembled every 3 months, the local governments, the representatives of the public institutions and organizations, the professional

chambers, the democratic society organizations, the civil society organizations and the former executives served in Bursa in the previous years as governor or mayor have taken seats. The council by being restructured in 1998 has been turned into the Bursa City Council platform (Bursa Metropolitan Municipality, 2008: 10-17). In 1996, with the decision taken in the Metropolitan Municipality Assembly, the department of Local agenda 21 was established (Bursa Metropolitan Municipality, 2008: 10-11). The Bursa City Council founded in 1995 has worked in a functional form during the Local Agenda 21 process within the context of public participation in local decision making mechanisms, in accordance with the Municipal Law number 5393 passed in 2005 and the City Council Regulation Acts published within the framework of this law, the Local Agenda 21 works have entered into a different process by being moved to the body of the city council. The activities within the body of the Bursa Local Agenda 21 General Secretariat have been carried out by taking under the roof of Bursa City Council (bursa.bel.tr, 2015). A comprehensive field study has been made in Bursa in the context of "the Awareness and the Effectiveness of the Bursa City Council" in order to examine with the eyes of the citizens to what extent the city councils of which establishment is a legal obligation for all of the municipalities in Turkey, are fulfilling the tasks specified in the Article 76 of the Municipal Law and in the Article 6 City Council Regulation. In this context, questions related with tasks, structure, working system and the effectiveness level of the organization named "the City Council are asked to the 2915 citizens residing in the 7 central township of the city of Bursa. In the first part of the questionnaire the persons were asked whether or not they are aware of the existence of an organization named "the City Council". In the second part of the questionnaire, the citizens who stated that they are aware of the city councils were asked questions related with examination of to what extent the city councils fulfill the tasks specified in the law and the regulation in other statement the level of effectiveness with the eyes of the citizens. The reason for the work having carried out in Bursa is that the Bursa City Council is one of the first city councils established in Turkey. The evaluation of to what extent the Bursa City Council which is one of the first city councils in Turkey fulfill the tasks defined in the legal regulations and the effectiveness in the urban management with viewpoints of the people living in Bursa; is in a nature of opportunity to analyze the activities of the Bursa City Council in an objective way. In addition, because of the importance of the city of Bursa in the country in terms of its population, socio-economic data, the field study conducted peculiar to Bursa will serve as an example for the other city councils in Turkey.

2. IMPORTANCE OF THE STUDY

The city councils as a mechanism established in the framework of strengthening local participation, governance and local initiative are rather new structures for Turkey. The city councils have a problematic structure due to the deficiencies arising from both being a new institution for the country and the legislation. In addition, that to what extent the city councils that are established in the framework of development of the locality phenomenon are known by the public and an assessment made by the public related with how effective organizations are the city councils is a phenomenon that has been neglected. With this study, by including widest possible sample mass in the field study within the framework that temporal, spatial and economic criteria have permitted, opinions and information of the people (the people living in the city of Bursa) about the city councils have been intended to be measured. The mentioned study has been conducted in the city of Bursa and in peculiarity of the Bursa City Council.

3. THE METHOD

The field research was conducted in 2017 and 2018. During this period, the literature scanning was carried out and the questionnaire was prepared. The questionnaire was applied in a field study conducted with face-to-face method in the 7 central town during January-February 2018.

In Turkey, so far various studies related with the city councils in the context of different issues have been conducted and published as articles and reports. In the studies conducted, the legal-administrative issues encountered in the functioning of the city councils have been discussed. The studies conducted using quantitative research methods in the context of city councils have been carried out with a mass who actively participated in urban management process such as the executive board members of the city council, the municipal assembly members and so on. Eventually, within the perspective of the citizens which is the main target mass of local participation, any study questioning the functionality of the city councils in fulfilling their tasks assigned to them by the laws and the regulations has not been observed. The questions which have been used in the field researches concerning the city councils previously conducted in Turkey are not proper for this study. For this study which will demonstrate the level of knowledge of the people living Bursa about the Bursa City Council, the preparation of the original questions by the researchers has been accepted as the most accurate method. The population of the city of Bursa is 2,787,539 according to the data of the year 2017. For the field study the city of Bursa has been divided into 7 districts on basis of central townships. Considering the population distribution of these 7 districts, the "Laminar Random Sampling Method" has been used. In the mentioned field study, the areas where the study will be carried out have been determined in order to achieve the gender distribution, education and income level that will reflect the general profile of the people living in the city of Bursa. The questionnaire used in the research based on the field study in which the awareness and effectiveness of the Bursa City Council is handled have been filled out by interviewing 2915 subjects face-to-face. There are totally 60 questions in the questionnaire form. The first 16 questions are intended to determine the demographic characteristics and the level of satisfaction of the people in the city of Bursa. And the 17th question is in the form of "Have you heard about the city council?". The field study has been terminated with the persons who gave a "no" answer to this question in the field study. The reason for this is that all of the other questions contained in the questionnaire after the 17th question is related with the legal-administrative structure, working principles, working areas of the city councils. Therefore, the answers that the persons who are not aware of the city council give to these questions will not be reliable. Thus, while the number of people who answered the first 17 questions included in the questionnaire was 2915, the number of the ones who answered the questions after the 18th question has decreased to 2132. The reliability research of the study titled the Awareness and Effectiveness of the Bursa City Council has been performed on 2132 subjects who answered all of the questions contained in the questionnaire. For the reliability test of the face-to-face survey technique performed in the field study, the Alpha Reliability Coefficient has been calculated with the SPSS version 22. Accordingly, the alpha reliability coefficient of field work is 94,8%. The data related with the field study in which the Awareness and the Effectiveness of the Bursa City Council and conducted with the way of face-to-face interview are as follows.

4. FINDINGS

Table following on the next page

Table 1: The profile of the people who participated in the field study

Gender	Frequency	%	Income**	Frequency	%
Female	964	33,1	No revenue	947	32,5
Male	1951	66,9	Less than minimum wage	477	16,4
Educational Status	Frequency	%	Min. wage - 2000 TL	1028	35,3
Illiterate	26	0,9	2001 – 3000 TL	311	10,7
Elementary School Graduates	478	16,4	3001 – 4000 TL	113	3,9
Secondary School Graduates	1618	55,5	4001 TL and above	39	1,3
Graduate	725	24,9	Marital Status	Frequency	%
Master Degree	68	2,3	Married	1760	60,4
NGO's Membership	Frequency	%	Single	1084	37,2
Yes	210	7,2	Widowed/Divorced	71	2,4
No	2705	92,8			
Total	2915	100,0	Total	2915	100,0

The general profile of the person who participated in the field work is as shown in Table 1. According to this, it is seen that the 55,5% of the people who participated in the field study are at secondary school level, the income of 35,3% of them ranges between the minimum wage and 2000 TL, and 60,4% of them are married and 92,8% of them are not a member to any NGO (Table 1).

4.1. Awareness of the Bursa City Council

In the research that examined the awareness and effectiveness of the city councils all over the country in peculiarity of the Bursa City Council, the persons have been primarily asked whether or not they are aware of the institution called "city councils". To what extent the persons who responded this question positively are aware of the Bursa City Council have been investigated in the other questions. In this context, the people who participated in the field study have been asked a question in the form of "Have you heard of the city council?" The 73,2% of the people participated in the study and answered the questions have given a "yes", and the 26,8% of them "no" answer (Table 2). Since all of the questions after this one are related with the city councils, the survey has been continued with the persons who gave a "yes" answer to this question by terminating field study with the persons who gave a "no" answer to this question. In the questionnaire, the questions contained after this question have been responded by 2132 persons who gave a "yes" answer.

Table 2: Have you heard of the city council?

	Frequency	%
Have you heard of the city council?		
Yes	2132	73,2
No	782	26,8
Total	2915	100,0

Table 3: What is the working area of the Bursa City Council?

	Frequency	%
What is the working area of the Bursa City Council?		
To organize activities for groups such as women-youth-disabled	184	8,6
To ensure the development and creation of urban consciousness	195	9,2
To perform culture-arts activities	194	9,1
To help ensure the effectiveness of municipal activities	326	15,3
To become a platform where the city's priority issues are discussed	184	8,6
All	770	36,1
I have heard of its name, but I do not know what it does.	495	23,2
Total	2132	100,0

** 1\$ = 5,65 Turkish Liras, 1 € = 6,51 Turkish Liras.

This time, the people who stated that they heard of the Bursa City Council have been asked what the working areas of the Bursa City Council are at the rate of 36,1%, the people who responded this question state that the Bursa City Council performs activities in all of these work fields expressing that they are to organize activities for groups such as women-youth-disabled, to ensure the development and creation of urban consciousness, to perform culture-arts activities, to help ensure the effectiveness of municipal activities, to become a platform where the city's priority issues are discussed, the 23,2% of the respondents of this question have given the answer "I have no idea" in the subject of what is the work area of the Bursa City Council (Table 3).

Table 4: Following the works of the Bursa City Council

Do you follow the works and activities carried out by the Bursa City Council?		Frequency	%
	Yes	509	23,9
	No	1623	76,1
	Total	2132	100,0

The people who participated in the field study have been asked whether or not they follow the works and activities carried out by the Bursa City Council. The 23,9% of the respondents (509 participated) have given the "yes" answer. And the people who gave "yes" answer have been asked through which channels/means they follow the works and activities carried out by the Bursa City Council. In addition, the persons have been allowed to mark more than one choices.

Table 5: Through which channels / means do you follow the works and activities carried out by the Bursa City Council?

Through which channels/means do you follow the works and activities carried out by the Bursa City Council?		Frequency	%
	Through local written and visual media	233	45,8
	By means of internet (web site of the city council, face book, search engines, etc.)	203	39,9
	Personally attending the Bursa City Council meetings	37	7,3
	Through posters, brochures, billboards	147	28,9
	All	47	9,2
	Total	509	100,0

The respondents of this question have stated that they follow the works and activities of the Bursa City council at the rate of 45,8% through local written and visual media, at the rate of 39,9% by means of internet, and at the rate of 28,9% through posters, brochures, billboards (Table 5).

5. CONCLUSION AND EVALUATION

When the results of the field study conducted in Bursa in the months of January - February of 2018 in framework of "The Awareness and Effectiveness of the Bursa City Council" are analyzed, the results that come out can be summarized as follows:

- The 73,2% of the people who participated in the study area are aware of the existence of an organization called the City Council. That is, the 2132 persons of the total of 2915 people participated in the field studies have heard of an organization named the city council. The 86,4% of these 2132 people are also aware of the existence of an organization called the Bursa City Council.
- However, only the 23,9% of the people, that is 509 persons, who are aware of the organization called the Bursa City Council have been following the works and the activities carried out by the Bursa City Council. And this indicates that the interest in the works of the Bursa City Council is at a very low level.

The basic hypothesis of this study carried out within the framework of "The Awareness and Effectiveness of the Bursa City Council was in the form of: "The Bursa City Council is known by the people living in Bursa. But the people living in Bursa are indifferent to the works and activities carried out by the Bursa City Council. Therefore, the information of the people about the Bursa City Council is only limited to being aware of the existence of this structure". When the answers given by the people who participated in the field study is analyzed, it is revealed that the Bursa City Council is known at a high rate. However, the rate of the people who follow the works of the Bursa City Council and show interest in them is at the level of 23,9%. The people are aware of the existence of such an institution but they do not pay enough attention to the works of this institution. However, the essential mission loaded on the institution of the city council was to become the mechanisms where all of the relevant partners in the city come together as "the common mind of the city" in the basic issues concerning the city by enabling the people to actively participate in the administrative processes at the local level. According to the people who participated in the field study, the Bursa City Council has been effectively fulfilling various tasks at the point of protecting the values in the city and increasing the quality of life but the individuals have not been the part of this process. And this has revealed once more that the works related with increasing the role of the citizens in the administrative process and functioning of a mechanism based on governance are evolving from top to bottom and the state of people being unwilling at the point of being involved in this process which is one of the most important problems of the Turkish democracy culture.

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THE ROLE OF THE AMIS INFORMATION SYSTEM IN GLOBAL MONITORING OF PRICES VOLATILITY OF AGRICULTURAL PRODUCTS: EXAMPLE OF INFLUENCE OF CRUDE OIL PRICE ON GLOBAL WHEAT PRICES

Branka Stipanovic

Veleučilište "Marko Marulić" in Knin

brankastipanovic@gmail.com

ABSTRACT

Prices of agricultural products on the global level are becoming increasingly vulnerable to oscillations. Prices volatility is reflecting numerous factors in the agricultural market, among other things the price of crude oil as basic energetic source in the process of production and distribution of agricultural products to end users. The objectives of the research are to determine the role of the AMIS information system in global price volatility monitoring on agricultural product markets and to determine whether oil prices have a statistically significant impact on the prices of crops, specifically wheat. Knowledge of the causes of volatility of agricultural product prices is a key step in ensuring the availability of agricultural products to end users globally, which is the reason for selecting his research subject.

Keywords: *information systems in agriculture, AMIS, volatility of agricultural product prices, oil prices and agriculture*

1. INTRODUCTION

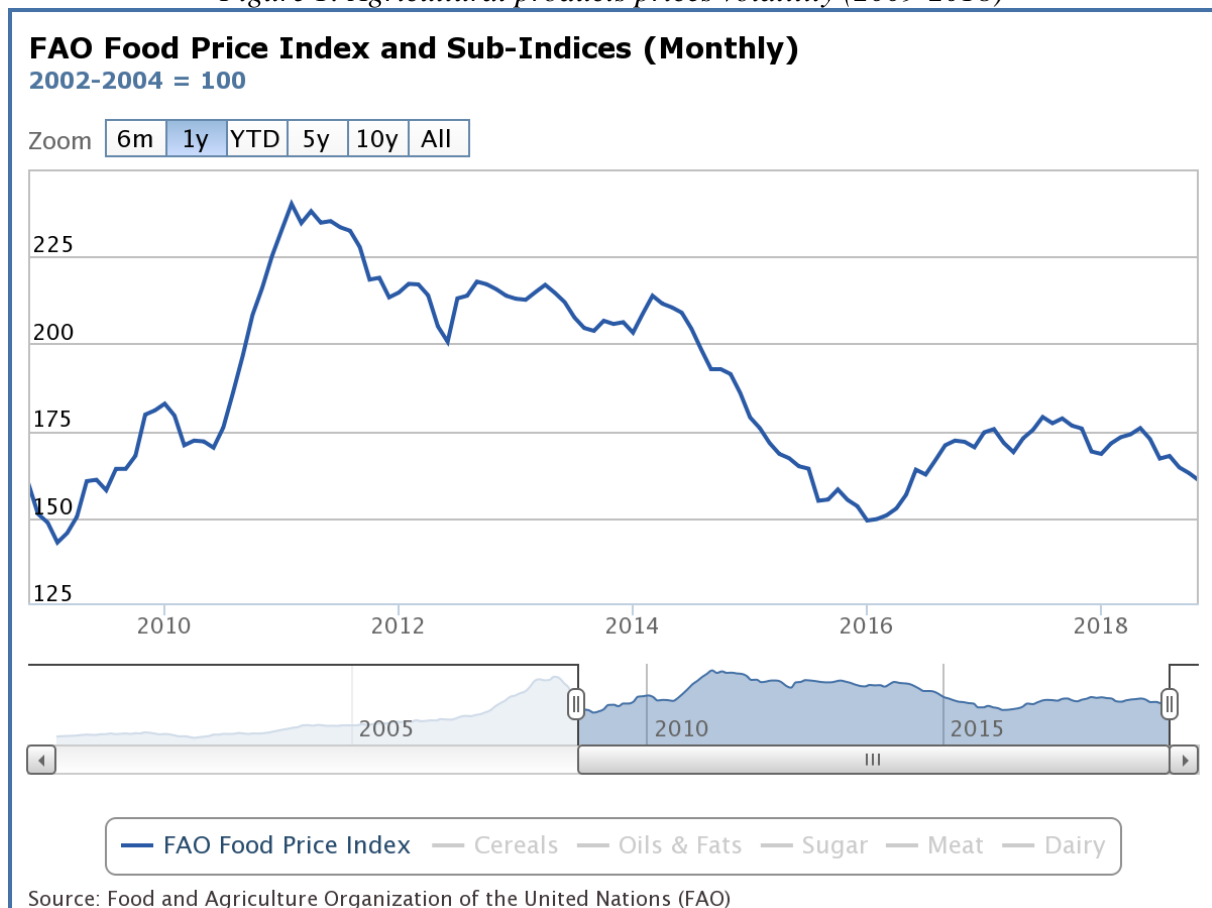
The research deals with the role of the AMIS information system in monitoring the volatility of agricultural product prices, with a special emphasis on analysing the relationship between oil prices and wheat prices as a globally significant agricultural product. The aim of the paper is to explain the reasons for AMIS implementation and its role in monitoring the volatility of agricultural product prices, as well as to describe its fundamental features. The specific aim of the paper is to test the relationship between trends in oil price movements and wheat prices. The work is divided into five chapters. The first chapter describes the research settings. The topic of the second chapter is AMIS information system and the reasons for its implementation. The third chapter describes the basic features and functionality of the AMIS information system. The methodology, results and interpretation of the research results on the relationship between crude oil and wheat prices are presented the fourth chapter, while the fifth chapter is conclusion of the study.

2. AMIS INFORMATION SYSTEM AND DEVELOPMENT OF ITS INTRODUCTION

The Agricultural Market Information System (AMIS) was introduced to monitor the volatility of agricultural products prices globally. In this way, it also systematically contributes to transparency and coordination in agricultural markets. Implementation of the AMIS Information System is the result of the joint efforts of the Agriculture Ministers of the G20 countries, and the system dates back to 2011 (Clapp and Murphy, 2013). AMIS is designed as a system of inter-agency and international co-operation and coordination in the exchange of key information on prices on the agricultural markets. The system generates price volatility data, and ministers of agriculture aim to reduce the volatility of agricultural products as products, as that products meet the key and basic existential needs of each human being. Through the AMIS system, the most important agricultural crops are monitored namely wheat, maize, rice and soy. The system collects data on production, consumption, stocks and trade of the mentioned agricultural crops (Nazlioglu et al., 2011). In addition to the G20 countries, Spain and seven other countries (Egypt, Kazakhstan, Nigeria, the Philippines, Thailand, Ukraine and

Vietnam) are also involved in collecting international information on the volatility of the prices of key agricultural crops. The primary reason for introducing the AMIS information system in 2011 is the growth of market instability, which increases the likelihood of global agricultural product price volatility. As the price of agricultural products directly reflects on meeting the existential needs and addressing hunger in the world, the AMIS system is not designed solely as a solution to economic problems in agricultural markets but as a system of contribution to addressing the problem of famine in the world. The volatility of agricultural products prices hits the poorest population especially hard by raising the share of total revenue allocated to food and thus contributing to the development of global poverty. Due to the volatility of agricultural product prices, food quality deteriorates, which consequently negatively reflects the health status of the most vulnerable population groups. The problem of agricultural product prices volatility also has negative implications for the agricultural business entities around the world. In the conditions of market instability, it is difficult to monitor and plan the costs of agricultural production and distribution and to plan revenue projections, especially in the medium and long term. In all situations where a high level of uncertainty is present, it is difficult to make any investment decision in agricultural production. The volatility of agricultural product prices has increased over the last few years. Figure 1 shows the trend of price movements of agricultural products in the period 2009-2018.

Figure 1: Agricultural products prices volatility (2009-2018)



Source: AMIS. Prices and price volatility. Retrieved at 21.01.2019. from <http://www.amis-outlook.org/indicators/prices/en/>

The data in Chart 1 indicate that there was a continuous growth in prices of agricultural products from 2009 to 2011. The prices of agricultural products reached the peak in 2011. After that period, there was a continuous trend of agricultural products prices falling until 2016.

In 2017 and 2018, the average prices of agricultural products on the international market were again marked by an upward trend compared to 2016. Increasing market instability, and thus the volatility of prices in agricultural markets, is also greatly affected by the fact that the role of the state in controlling the prices of agricultural products is minimized and the openness of the economy contributes to price oscillations. In addition, the agricultural product market is largely dependent on developments in other markets, i.e. movements in the overall supply and value chain. A factor that has a significant impact on the price movement of agricultural products is the price of crude oil as described in detail by Ciaian (2011).

3. CHARACTERISTICS OF THE INFORMATION SYSTEM AMIS

The AMIS information system provides numerous useful information for different groups of users and stakeholders in the agricultural sector on an international level. Information on supply and demand for agricultural crops (wheat, maize, rice and soy) is available on the official web site <http://www.amis-outlook.org/>. The site provides data on monitoring of the specified agricultural crops in certain countries included and data on international agricultural-related policies (van der Velde et al., 2019). As a part of market monitoring, price trends and expectations related to future market developments are shown in the AMIS database. The AMIS system indicators clearly point to key international markets for wheat, maize, rice and soybean crops. Key indicators relate to price trends and volatility, energy and other indicators (oil prices, fertilizers, ethanol, and maritime freight) as well as monitoring the stocks and utilization of key agricultural crops. Statistical information is available for all interested stakeholders from the database on agricultural cultures, their production and consumption and import and export trends. Users' technical support is also provided in order to ensure the effectiveness in the process of searching for available data and information in AMIS information system, particularly information relating to research areas of market prices and the prognosis of yields and agricultural stocks. Functioning of the Information System AMIS is provided by a continuous and systematic work of three key bodies with different roles and responsibilities. A key strategic role in the functioning of AMIS belong to ten international organizations operating at the Food and Agricultural Organization (FAO) headquarters (Nakai, 2018). Technical experts from all countries involved in the AMIS system participate in the AMIS Information Body. The information body provides accurate, reliable, relevant and comparable data on agricultural cultures, specifically supply, demand, prices, stock, imports and exports. The other body is the Rapid Response Forum, which consists of top officials from countries involved in the AMIS system. The meetings of this working body serve to make common decisions and guidelines for improvement on the international agricultural market based on the coordination of national policies and the adoption of common strategies. In order to ensure the objective of ensuring coordination and transparency on the international agricultural market, technical workshops and training seminars are being conducted (Nakai, 2018).

4. RESEARCH ON THE IMPACT OF PETROLEUM PRICES ON AGRICULTURAL PRICES

This chapter presents the methodology of research, results and interpretation of research results.

4.1. Research methodology

The study was conducted based on secondary statistics from the AMIS system on oil prices and prices of agricultural crops (wheat). The data collected were processed through simple regression analysis in order to examine to what extent the price of crude oil as an independent variable affects the price of wheat as a dependent research variable. The following simple regression analysis model was set:

$$Y = ax + b \text{ or } Y = \beta_0 + \beta_1 x$$

meaning:

Y = wheat price (dependent variable)

B_0 = constant (intercept)

x = oil price (independent variable)

β_1 = coefficient of variable x

The research is based on the null hypothesis that there is no statistically significant correlation between the price of agricultural product (wheat) and the price of oil ($H_0: \beta_1 = 0$), but this hypothesis tends to be dismissed by proving a statistically significant correlation between the price of crude oil and the price of agricultural products (wheat).

4.2. Results and interpretation

Table 1 shows the global wheat price data in USD t and crude oil price data expressed in USD /barrel by West Texas Intermediary (WTI) for the period 2000-2016.

Table 1: Data on wheat and crude oil prices from 2000 to 2016

Year	Global price of Wheat (USD/t)	Crude oil (USD/barrel WTI)
2000-01-01	100,74	30,38
2001-01-01	106,37	25,98
2002-01-01	132,17	26,18
2003-01-01	131,57	31,08
2004-01-01	133,46	41,51
2005-01-01	129,89	56,64
2006-01-01	168,57	66,05
2007-01-01	226,88	72,34
2008-01-01	286,95	99,67
2009-01-01	190,11	61,95
2010-01-01	194,50	79,48
2011-01-01	279,99	94,88
2012-01-01	276,12	94,05
2013-01-01	265,75	97,98
2014-01-01	242,50	93,17
2015-01-01	185,61	48,66
2016-01-01	143,16	43,29

Sources: <http://www.amis-outlook.org/indicators/prices/en/>
and <http://www.amis-outlook.org/indicators/energy/oil/en/>

A simple regression analysis model is shown in Table 2.

Table following on the next page

Table 2: Model of simple regression analysis

<i>Regression Statistics</i>							
Multiple R	0,94416						
R Square	0,89145						
Adjusted R Square	0,88421						
Standard Error	21,84122						
Observations	17,00000						

ANOVA							
	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression	1,00000	58762,06641	58762,06641	123,18083	0,000000012		
Residual	15,00000	7155,58550	477,03903				
Total	16,00000	65917,65191					

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95,0%</i>
Intercept	47,91160	13,68046	3,50219	0,00320906	18,75240	77,07081	18,75240
Crude oil (USD/barrel WTI)	2,23818	0,20166	11,09869	0,00000001	1,80835	2,66801	1,80835

Source: data processing in MS Office Excel

It is concluded, based on the regression analysis model, that the determination coefficient is high (0.89), indicating the representativeness of the model. Since the p-value of the intercept and the p-value for an independent variable of crude oil is less than 0.05, conclusion is that there is a statistically significant correlation between the crude oil prices and wheat prices on the global market. Model states that:

$$Y = 47.91 + 2.38x, \text{ i.e.}$$

$$\text{Wheat price} = 47.91 + 2.38 \cdot \text{oil price}$$

5. CONCLUSION

Liberalization and globalization of the market and the rise of international trade, as well as the factors in the supply and the value chain in the agricultural market are affecting the increase in the volatility of agricultural product prices. For this reason, AMIS Information System has been set up to monitor price volatility in agricultural prices of wheat, maize, rice and soybean. Monitoring price volatility is the basis for ensuring coordinated action and transparency on the international agricultural market. It has been proven in this research that the prices of crude oil is a variable that significantly affects the price volatility of agricultural products (wheat).

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