

# DIGITALES ARCHIV

ZBW – Leibniz-Informationszentrum Wirtschaft  
*ZBW – Leibniz Information Centre for Economics*

Mura, Ladislav (Ed.)

## Book

## Entrepreneurship : development tendencies and empirical approach

**Provided in Cooperation with:**  
IntechOpen, London

*Reference:* (2018). Entrepreneurship : development tendencies and empirical approach. Rijeka, Croatia : InTech.  
doi:10.5772/intechopen.68372.

This Version is available at:  
<http://hdl.handle.net/11159/1820>

### Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics  
Düsternbrooker Weg 120  
24105 Kiel (Germany)  
E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)  
<https://www.zbw.eu/econis-archiv/>

### Standard-Nutzungsbedingungen:

Dieses Dokument darf zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden. Sie dürfen dieses Dokument nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen. Sofern für das Dokument eine Open-Content-Lizenz verwendet wurde, so gelten abweichend von diesen Nutzungsbedingungen die in der Lizenz gewährten Nutzungsrechte.  
<https://zbw.eu/econis-archiv/terms-of-use>

### Terms of use:

*This document may be saved and copied for your personal and scholarly purposes. You are not to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public. If the document is made available under a Creative Commons Licence you may exercise further usage rights as specified in the licence.*

PUBLISHED BY

# INTECH

open science | open minds

World's largest Science,  
Technology & Medicine  
Open Access book publisher



**3,350+**  
OPEN ACCESS BOOKS



**108,000+**  
INTERNATIONAL  
AUTHORS AND EDITORS



**114+ MILLION**  
DOWNLOADS



**BOOKS**  
DELIVERED TO  
151 COUNTRIES

AUTHORS AMONG

**TOP 1%**  
MOST CITED SCIENTIST



**12.2%**  
AUTHORS AND EDITORS  
FROM TOP 500 UNIVERSITIES



Selection of our books indexed in the  
Book Citation Index in Web of Science™  
Core Collection (BKCI)

**WEB OF SCIENCE™**

Chapter from the book *Entrepreneurship - Development Tendencies and Empirical Approach*

Downloaded from: <http://www.intechopen.com/books/entrepreneurship-development-tendencies-and-empirical-approach>

Interested in publishing with IntechOpen?  
Contact us at [book.department@intechopen.com](mailto:book.department@intechopen.com)



---

# Entrepreneurs and Growth: An Option, Obligation or Obsession

---

Juha Saukkonen

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70527>

---

## Abstract

“Growth” as a word carries a positive tone in it; human beings grow and mature, gaining new knowledge and resources, and so do companies. Growth, however, has never been for all. In competitive markets, some grow and others do not—or grow at slower pace than others. Furthermore, growth is a process that strains the capabilities and resources of an individual, company, and its acting entrepreneurs to their extreme. Growth means also learning and leaving behind something learned or possessed before. Growth disrupts the history and path of a single company and its entrepreneur. The text synthesizes the scattered literature in growth and entrepreneurship. A case study shows how growth is viewed in an entrepreneurial company. The author shows how companies can be categorized to different sub-segments based on their growth opportunities, urge to grow, and growth aspirations. The typical enablers and hindrances of growth hindrances get introduced. The chapter underlines that for some companies, growth is one of the strategic options, whereas to some, it is more of an internal and external obligation. Despite the existence of multiple stage-based models, growth is an individual path and no model should be taken in a law-like manner.

**Keywords:** entrepreneurship, growth, opportunity, evolution, disruption

---

## 1. Introduction

Growth and growth entrepreneurship are current buzzwords of business development. They have made their way recently also to political vocabulary. National, regional, and local authorities and organs create and maintain programs and policies that aim at fostering growth among the enterprises they support and regulate. Also, the word “startup” is well known and actively used by all type of actors in business and policy arena. The name of startup itself

implies that it is started from scratch, with the only option to grow (or die) soon. This topical area deserves a treatment also when entrepreneurship gets pictures and investigated.

In this chapter, the aims are:

- To understand what we mean with the concept of “growth” itself;
- How growth as a concept and process could be understood in a wide yet concise manner inside the field of entrepreneurship;
- Introduce methodological and conceptual models that can be used as models when researching growth in the field of entrepreneurship as well as practical tools to analyze growth opportunities and obstacles within a firm and act on it.

We look at growth from processual, dynamic, and individual points of view. Elements of growth get discussed, and also, some taxonomies of companies in relation to growth are introduced. In the latter part of the chapter, recent studies of the growth companies across continents, their growth enablers, and hindrances are presented. In order to mirror entrepreneurial reality against the models and theories of the literature, a portrait of a growth trajectory of a fast-growing environmental technology individual firm gets presented. To conclude, the future of growth as a phenomenon is discussed.

## 2. Methodology

This chapter combines the practices of conceptual research in the literature review and qualitatively oriented case study research in the empirical part. As Ravitch and Riggan [1] put it, the conceptual framework includes not only the relevant theoretical literature but also aims at fitting into it the findings of prior research as well as the researching authors own experience-based knowledge and commitments. Furthermore, they define conceptual framework as “an argument about why the topic one wishes to study matters, and why the means proposed to study it are appropriate and rigorous” [1], also pointing out that they tend to and even should change along the study process, as the knowledge of the researcher changes in volume, content, and direction. From this methodological viewpoint, this chapter should be seen as a journey in the vast supply of frameworks and research findings related to the chapter topic. The author aims at creating a certain level of synthesis of the scattered literature. The wide treatment of different angles related to the phenomena of growth and entrepreneurship serves as a basis for students and researchers of the topic to choose the areas from within the big picture to drill into.

The exploratory approach to scan, compare, and synthesize (where possible) represents the “reason” element of the framework building, following the ideas of Ravitch and Riggan [1]. The other element “rigor” means choosing a method and using it with rigor to create knowledge out of data gathered. In this chapter, the rigor is represented by the use of case study method to link the conceptual framework into the trajectory of growth of an individual firm.

The research approach used in the case study (Chapter 3) was inductive. The research project proceeded from collecting the primary data of the object of study to recognize patterns that

would then serve as basis for model creation. The process also included critically reviewing the identified issues against conceptual and process models of prior research and proposing improvements or modifications. As it goes for inductive approach, models and concepts presented in the literature review can affect but neither decide nor limit what the researchers will find when collecting primary data [2]. Single case study was selected, since the case study method is well suited to the aim of understanding new and evolving phenomenon [3, 4].

Qualitative research method was chosen due to the opportunities it gives to the researcher to develop a complex, holistic picture of the target [5]. The data were collected using semi-structured interviews. There were pre-planned themes to ensure the interviewers covered the essential topics emerging from the framework creation and to guide the interviews so that they allow summaries and comparisons between individual respondents. The informants were informed of the key themes—but not exact questions—when agreeing the time and place for the interviews.

Choice of respondents plays a crucial role for data quality and affects the ability of the researchers to come up with concise conclusions. Altogether four respondents from the target company were interviewed. To balance and mirror the internal view and in order to have a wider and more neutral view to the case company, three external experts of the industry in question and growth company management were added to the respondent pool. The final pool consisted of following types of respondents as listed below:

1. In-house resources in company X

- Founder-Owner-Manager—later in this paper referred as FOM—the person behind the core innovations of X acts as CEO and is the biggest shareholder in X
- Owner-Manager—OM—works in business development, experience in environmental/energy business also from a large corporation, has an equity stake in X
- Sales & Marketing Personnel—two respondents; SMP<sub>1</sub>, SMP<sub>2</sub>—work in the commercial activities of X in different markets areas, no equity stakes in X

2. External experts

- External Industry Expert (EIE): an expert in energy and environmental technology business.
- Business Development Expert (BDE): an experienced start-up business coach and board member in start-ups
- Venture Capital Expert (VCE): over 15 years of experience in VC and private equity investments

The researcher team for the case study consisted of two researchers with different educational and background and researcher experience. In order to avoid biases in conducting interviews, a joint semi-structured frame was created in advance. In the interviews, the frameworks of earlier research were shown to respondents on a schematic level in order to spark and steer the discussion. All interviews were recorded and loosely transcribed after which the researchers first analyzed the data independently. Next, the individual findings by the two researchers

were compared and fused for a joint view. All interviews took place within 3 weeks timeframe, so the contextual factors were the same for all interviews.

### 3. Literature review

#### 3.1. Growth in business: definition and its relativity

Is 1.0% growth per annum really growth? In the economic downturn that started in the latter half of 2000s, we have learned that even this type of growth on the society level is a good sign for many economies. Doubling it to 2% will prove the economy is back on growth track. Naturally, the same scales should not be applied to individual entrepreneurial firms. Compared to societies that have a lot of inbuilt inertia, force of slowness, a firm, and entrepreneur (s) in it can move in a much more agile way, grasp the opportunities, and find new markets. Yet, growth in business is not nearly as common a phenomenon as the popularity of the term and research on it would suggest.

An often and officially used definition for a growth company is the one by EU and OECD that claim that: "A growth company is a firm that at the starting point of the follow-up period employs at minimum 10 people, and for the next 3 years, the average growth in the employment is at min. 20% annually" [6]. This may sound like a modest demand in the world where there are companies that mushroom, go global, and get funded heftily in a short few years' time. Widely published stories of unicorns (whose market capitalization is 1 billion USD or more) are however just the top of the iceberg, growth is taking place in all segments of business and most often outside the radar of the mass media and public recognition. As an example, in the timespan of 2006–2009 in Finland (an advanced economy in terms technological level, education and GDP), this country with 5.5 million population only had 665 true growth companies, out of 280,000 total number of companies registered. This means that a mere 0.2% of companies are growth companies. However, at the same interval, the growth in these companies was a major vehicle of employment and net job creation in the economy.

The abovementioned definition focusing on the company's headcount as the measurement of growth has been criticized. In the era of networking, outsourcing and digitalization sales revenues can scale up fast with minor impact to the number of people in the payroll. Shifting the measuring stick to average 20% sales revenue for 3 years in a row does not change the big picture. In the Finnish context, the amount of "growth companies" doubles. However, growth companies of this kind still represent 0.5% fraction of companies!

There are also whole industries and markets, where the 20% annual grow definitely is not enough and not a satisfactory achievement. Entrepreneurs funded by professional Venture Capital companies (VC) are posed to high expectations and demands for growth. The Venture Capitalists' agenda is straightforward: Invest → help to grow (during Holding Period) → Exit → Invest to next target. Venture Capital firms differ in their IIR (Investment Rate of Return) demands and do not share their targets on IRR publicly. Journal articles and start up training programs have introduced some "typical demands" from the VC community [7, 8].

These vary between “(invested) money back 10-fold in 5 years—via IPO or trade sale exit” to “3-fold in 10 years—that most of other companies would see as a failure”. The National Bureau of Economic Research has found out the average return in reality to be 25%, but occasionally even up to 700% returns have materialized. It is not likely any VC firm would be satisfied being average or would state publicly industry average is sufficient for them. Putting the figures given above to the IRR conversion table (**Table 1**), we see what kind of multiples to original investments and exit times are needed to high end (10-fold return in 5 years), average (25% return), and low end (3-fold in 5 years).

Naturally, the IRR also is dependent on the ownership stake that the VC firm takes in the company into which they invest. Using the high-end IRR demand (10-fold return in 5 years), we see that if a VC company takes a 25% stake in the company—rather typical practice in VC operations—the company value has to grow aggressively (**Table 2**). If the stake that the entrepreneur sells out to investors is just 10%, the growth needs to be even more spectacular to satisfy the return needs of the investor.

In today’s economy, the valuations of companies are rarely based on asset value. An often used basis in the pricing of the company at exit is the multiple on the net sales. A multiple of 2

EXIT YEAR					
Multiple	3	4	5	7	10
3 x	44%	32 %	25 %	17 %	12 %
4 x	59	41	32	22	15
5 x	71	50	38	26	17
7 x	91	63	48	32	21
10 x	115	78	58	39	26

**Table 1.** Return on investment vs. exit time and multiple on original investment.

If you sell this part of your company	For an investment of	With the return of investment of 10x in 5 yrs	The company needs to be worth in 5 yrs
100 %	€ 1 mill	(€10 mill)	€ 10 mill
50 %	€ 1 mill	(€10 mill)	€ 20 mill
25 %	€ 1 mill	(€10 mill)	€ 40 mill
10 %	€ 1mill	(€10 mill)	€ 100 mill

**Table 2.** Stake sold to investors and its impact of growth demand in value.

means company sale value being net sales of the last fiscal year multiplied by 2. In the above examples, the net sales have to reach either 20 or 50 million a year. The multiple of 2 is on the mid-range of typical valuations for enterprise value [8]. If the year of investment the net sales were 5 million, the official demand of 20% annual growth would lead them in 5 years to just over 10 million, which would not satisfy the investors.

As a summary it can be stated that

- Growth is needed for advancements in economy and society, on an aggregate level;
- True growth in business is not as a common phenomenon as assumed and wished, huge majority of the companies fail in fulfilling the official growth company criteria;
- Growth does not bear the same meaning and urge for all companies, industries, and stakeholders.

Logically, the findings above propose that we should approach growth in the entrepreneurial context from multiple angles. We want to shed knowledge on what growth is made of, how and why does it happen, and what is the role of entrepreneur or entrepreneurial team in the growth. We also need to see if there are foreseeable profound changes in economics, societies, and technology affecting entrepreneurial growth both in its chances to flourish as well as in the way, it is executed.

### 3.2. Growers, hypergrowers, and non-growers

The literature on SMEs and entrepreneurship does not fall short in presenting options for taxonomies of companies in relation their growth. Based on the views of Birch and Hagerty [9] and Storey [10], one can come up with the following hierarchy that divides companies into five categories:

1. **Shrinkers:** Negative growth, the ones that are going down in size of business subcategories: (1) passive shrinkers; (2) deliberate shrinkers (e.g., family firms not having successor to take over or a self-employed person gradually retiring)
2. **Trundlers:** No growth, e.g., mature firms with nongrowing market
3. **Triers:** Some growth and some aspiration to grow
4. **Fliers:** Rapid growth
5. **Hypergrowers:** Exponential (and today: viral) growth

The research intensity on company growth has been understandably placed to the high end of the growth continuum. An appealing research objective has been the cohort of Gazelle companies, a category with widely accepted definition. A Gazelle company has increased by at least 20% annually for 4 years or more starting from a revenue base of at least \$1 million. This pace means that the company is able to double its revenues over a 4-year period. A gazelle company acts like an animal chosen to its symbol—it runs fast and, when needed, jumps.

The questions that have interested numerous researchers of gazelles have been: Why and how the entrepreneurial firms then end up into one category in the continuum—e.g., how and why they become gazelles? Are there some practices that can be learned to foster growth or practices to avoid that are hindering growth? Numerous researchers (e.g., Calvo [11] on Spanish manufacturing SMEs; Parker et al. [12]) have been drawn to test the classical Law by Gibrat [13] that says in its simplified format that firm growth is independent to its size. So understanding growth is not a SME and entrepreneurial phenomenon, but growth can occur in any size of a company. Gibrat's inputs propose that if firm growth do is a random variable, three outcomes would be excluded: (1) firms of a given size will grow faster (or slower) than other sized firms; (2) firms that grow faster (or slower) in one time period will grow faster (or slower) than in a later time period; (3) there will be factors that powerfully and consistently explain firm growth performance.

Parker et al. [12] used British data set on more than 100 Gazelles. They state that the Gibrat's law does not generally hold. They also add that "best practice learning", i.e., routine application of strategies adopted by successful companies is unlikely to foster firm growth in a changing economic environment. Calvo [11] analyzed whether small, young, and innovating firms have experienced a greater employment growth than other Spanish firms over the period. His results show that old firms grow less than young ones, and high level of process and product innovating activity is a strong positive factor in the firm's survival and its employment growth. Conclusion is that small size of a company is a potential set up for growth. The key variables for growth are still the deeds, strategies, and action suitable to the dynamic environment. These deeds are to a certain extent individual to each company.

In addition to the academic research, the consulting company Deloitte has acted in adding knowledge and understanding of high-growth companies. For more than a decade, Deloitte has surveyed growth companies across markets. The reports published on growth companies by identify them and present the enablers of the growth that has already taken place as well as enablers and obstacles for future growth. Deloitte lists on a yearly basis top 500 growth technology companies, separately for EMEA, Americas, and Asia regions [14]. Findings support the earlier studies in showing that the environmental factors affect firm growth. According to Deloitte, the innovation and growth context also referred as entrepreneurial "ecosystem" impact the growth. Large domestic market does not seem to that important a variable for growth, at least not in the technology business that is the overarching theme for the Deloitte study, as **Table 3** shows. For example, countries of Northern Europe are overrepresented in the listing compared to population. Germany as the biggest single economy in EMEA falls short in the presence of growth companies.

The other environmental factor affecting growth is the industry and the nongeographical marketplace in which companies operate. Industries vary in opportunities of scalability and resource demands (capital, capacity, and assets) for growth. Certain industries (see **Table 4**) seem to offer a more fertile growth for hypergrowth than others. In software business, the threshold or "barrier of entry" for high growth seems to be the lowest one (highest number of companies listed), whereas the growth opportunities in hardware, media, and cleantech are the highest for those who can surpass the threshold (highest average growth in the sector).



**Top 10 countries with the greatest number of winners**

Country	Number of ranked companies
France	94
United Kingdom	70
The Netherlands	54
Norway	50
Sweden	50
Israel	27
Finland	23
Germany	23
Belgium	22
Turkey	21

**Table 3.** Fast 500 growth companies according to country of origin: EMEA region.

**Companies and growth by sector**

Sector	Number of ranked companies	Average growth per sector (%)
Clean Technology	20	471
Communications	61	345
Hardware	49	962
Life Science	29	347
Media	70	644
Software	271	362

**Table 4.** Fats 500 growers by sector and growth rates per sector: EMEA region.

Average growth rate of Deloitte EMEA 2016 awardees is 967%, ranging from 212% up to 28,000+ %. Despite the obvious support from the context surrounding the company, growing companies of total 28 countries were awarded as top 500 growers. This underlines the fact that growth is still to an extent of an independent entrepreneurial effort that can be born in numerous contexts. This phenomenon has also been recognized by Mahroum [15]. The title of his book reveals well a certain context independent of modern growth businesses: “Black Swan startups: Understanding the Rise of Successful Technology Business in Unlikely Places”.

### 3.3. Elements of growth

Researchers, statisticians, investors and policy makers, and evaluators alike need and produce numerical proofs and measurements of growth. However, these statistician views may be



misleading in the sense that (1) they see the growth as an end rather than means; (2) they fail in understanding the multifaceted nature of growth; and (3) they assume all aspects of growth are demonstrated in the numerical data with a relatively short lead time.

The analysis of the nature of growth and elements making the totality of it by Wickham [16] shows what a wide look at the phenomenon called growth may be (**Figure 1**):

When analyzing and acting upon Wickham's framework, it is worth noticing that

- There is not a sequential order of growth elements to occur  
 Example: Good performance accumulates resources that can be used to build/acquire assets or alternatively: Organizational growth helps the company to define and find direction that leads to better performance that strengthens financial position etc.
- There are iterations and loops  
 Example: Resources allow acquisitions of assets that, when properly used, allow the organization to grow and perform, adding again the resources etc.
- Every element acts in an interplay with others  
 Example: Growing an organization is not a value *per se*. Organizational growth only makes strategic sense when connected to the assets and direction to move forward
- Some elements of growth do not get an immediate manifestation in numbers available from official and public data like income statements and balance sheets  
 Example: Without proper strategic direction, the Wickham's cycle of growth is "broken": Sometimes a direction means a temporary de-growth as some products/services or customer segments are abandoned in order to make room for new ones. The impact on numbers in employment and revenue can even take a backslash but impact positively on long-term success



**Figure 1.** Nature of growth adapted from Wickham [16].

- The model does not state that all elements need to be internal to the company

Example: Structural and Organizational Growth—elements can be also partnerships and networks in which the company and entrepreneurs become part of.

Typical for a growth pattern of entrepreneurial companies is that the elements of growth at one point of time do not take place at same pace and magnitude. There are developmental stages where one element is weighted over the others. The key knowledge for a growth-aspiring entrepreneur is to recognize what is the “bottleneck element” hindering the growth. Logically, the next managerial step is to figure out how that element could be “fed” to reach a level that allows growth cycle to spin.

Wickham’s model is not a sole one that describes the dimensions of growth. For example, Hanks and Chandler [17] propose the dimensions of age, size, value, sophistication, and complexity. As can be seen, some of the dimensions offer a clear-cut measurability, whereas some are more open to relativity and subjective/qualitative judgment. Building on that, e.g., Laukkanen [18] and Muhos et al. [19] have utilized a dichotomy of qualitative and quantitative dimensions for SME growth. Independent of the dimensional framework used, all authors seem to agree on the complex and multifaceted nature of growth. This view requires both wide and deep study into the actions as well as causes and consequences of that action.

### 3.4. Growth as a sequential process

Researchers have been fascinated in building process models of entrepreneurship and growth of entrepreneurial companies. These stage-based models have varied in naming the stages, but the overall philosophy has remained the same—growth starts at some point of the company journey and stops or stagnates at some later point. These stages bear importantly different issues, opportunities, and obstacles for growth between them. In their large study, Levie and Liechtenstein [20] identified and analyzed 100+ stage-based models of growth. One of those models often cited is the one by Scott and Bruce, where they presented a trajectory consisting of stages of (1) Inception, (2) Survival, (3) Growth, (4) Expansion, and (5) Maturity [21]. Interestingly, growth is separated to be stage of its own right and separated from other three early stages. Stage sequences between three to six stages can be commonly found across scholarly literature, models going down to two stages and seven or up are more rare but existing. The validity of staged-based models has been often defended by the observation that entrepreneurs have been well able to place themselves into some of stages presented in the models, e.g., Eggers et al. [22].

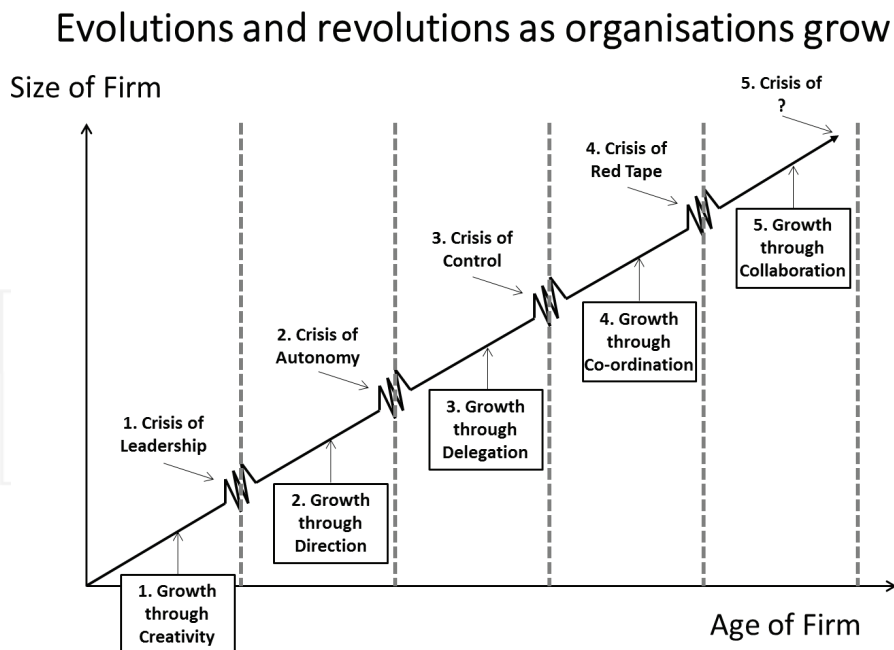
The stage-to-stage movement is not linear and not happening at a constant pace. Numerous scholars have stressed the important role of discontinuities and crises in the development. Some like Kazanjian [23] use terms like “developmental problems” or “developmental hurdles” [24], instead of “crises.” Dodge et al. state that there is a consensus of different problems occurring at during different stages of growth, and they are of sequential nature [25]. According to Scott and Bruce [21], the “crisis” stages are more likely to cause the organization to fail than other phases of development, if the company fails in solving the development obstacles. The crises and hurdles are negative to the development of a start-up company and

entrepreneurs. When in crisis, the entrepreneurs can learn new ways of thinking and acting. According to Greiner "...these periods of tension provide the pressure, ideas and awareness that afford a platform for change and practices" [26]. Greiner's model (**Figure 2**) shows the sources of growth through the stages of growth and likely sources of crises.

A new stage-based model is the one introduced in the start-up genome report [27] by Marmer et al. The researchers state that at start, they saw "describing the repeating patterns of startups an impossible task or even a disgraceful reduction of the artistry of entrepreneurship to numbers and graphs". Marmer et al. claim to have gained understanding of success and failure factors over growth stages. The project started with basic assumptions held by many earlier researchers:

1. Startups evolve through stages of development. Stages can be measured with specific milestones and thresholds.
2. There are different types of startups. Each type evolves through the stages differently.
3. Learning is a fundamental to progress for startups. More learning increases chances of success.

With point 2 above, Marmer et al. mean different types of Internet start-ups. So it is industry specific and based on their own sample. Points 1 and 3 provide wider applicability.



**Figure 2.** Sources of growth and crises in a growth trajectory of a firm (based on Greiner [26]).

The four stages identified—“Marmer stages”—are Discovery, Validation, Efficiency, and Scaling. As a conclusion, it is stated that:

1. The Marmer stages correlate with traditional indicators of progress.
2. The startups do not move through the stages (called non-consistent growth) in order show less progress.

In their research, Marmer et al. observed a specific phenomenon of Premature Scaling [28]—a development trajectory that jumps over a stage or overspeeds through it has a high correlation with a later failure of a start-up. Opposite to “growth obstacle,” this phenomenon can be called “wrongly directed growth” that consumes and misdirects the growth resources of the company. In their data originating of 600+ Internet-based businesses, Marmer et al. found that 70% of startups which they studied scaled prematurely and thus were not able to exploit their growth potential.

### 3.5. An alternative look: growth as a dynamic movement

The key theme of previous chapter: stage-based models of entrepreneurial growth have not been popular only in doing. The models have been tested for validation and improvement in numerous contexts and set-ups. A summary made by Muhos and Kess [29] proposes that “The empirically based stage framework seems to be an effective tool for *reflecting on and predicting* the challenges faced during the early development of a company”. Moreover, their study revealed specific viewpoints contradictory to the framework: companies in different contexts face *culture-and context-specific issues* in their early growth, allowing the following statement to surge: “Growth is a multidimensional phenomenon, and each and *every early technology-intensive company is unique to an extent.*”

Levie and Lichtenstein [30] state that the stage-based models fail as they suggest a certain level of determinism. There too are cases where the entrepreneurial firms and entrepreneurs in them can retrospectively see their development to have followed closely one growth model. This does not yet give justification to call them *models* of growth. Since there is a supply of 100+ models, it is statistically speaking logical to make a good match with one or many of the models. The suggestion of Levie and Lichtenstein is to see growth rather consisting of dynamic states between which the firm moves. This approach gives space to discontinuities and iterations. Various researchers like Cope and Watts [31] have shown interest to understand growth paths as a series of critical incidents that trigger actions affecting growth and adaptability and action learning [32]). According to Evers [33], even the entrepreneurial capabilities should be considered dynamic. They vary in content and value, as the firm and entrepreneurs move along their trajectory.

**Figure 3** shows a schematic model of the dynamic state model, where the entrepreneurs action and reasoning have an effect on and are effected by its resources and interactions with other stakeholders, creating a cycle of continuous change.

As Levie and Lichtenstein (ibid.) summarize, “not only is the dynamic states approach more accurate than stages theory, it is also more optimistic for entrepreneurs. With flexibility and

### Dominant Logic of Founder(s), Managers

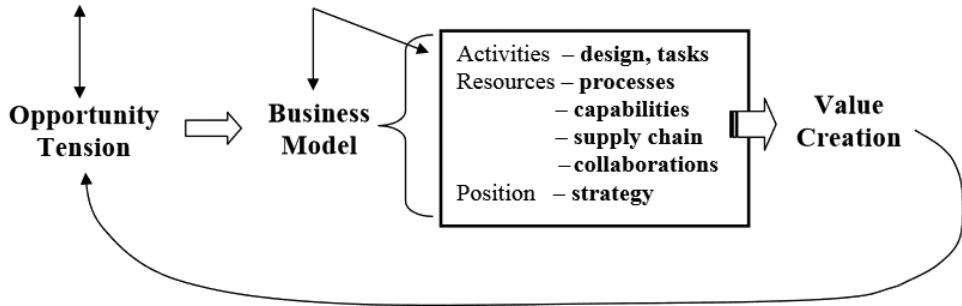


Figure 3. The elements of dynamic change [20].

awareness, ventures can endure far longer and in much greater variety than has ever been predicted by stages theory. Further, the dynamic states approach shows that it is normal for a firm to survive and maintain fitness by continual change...” This idea of never-ending development is studied more closely in the empirical case part (Growth trajectory of an environmental technology startup) of this chapter based on research by Saukkonen and Vääntinen [34].

### 3.6. Growth as a personal path of an entrepreneur

There is a consensus view that the development of an entrepreneurial company should not be (fully) separated from the personality and development of people running it. These intervening factors include the personality traits and life stage of the owner/manager (see Figures 4 and 5).

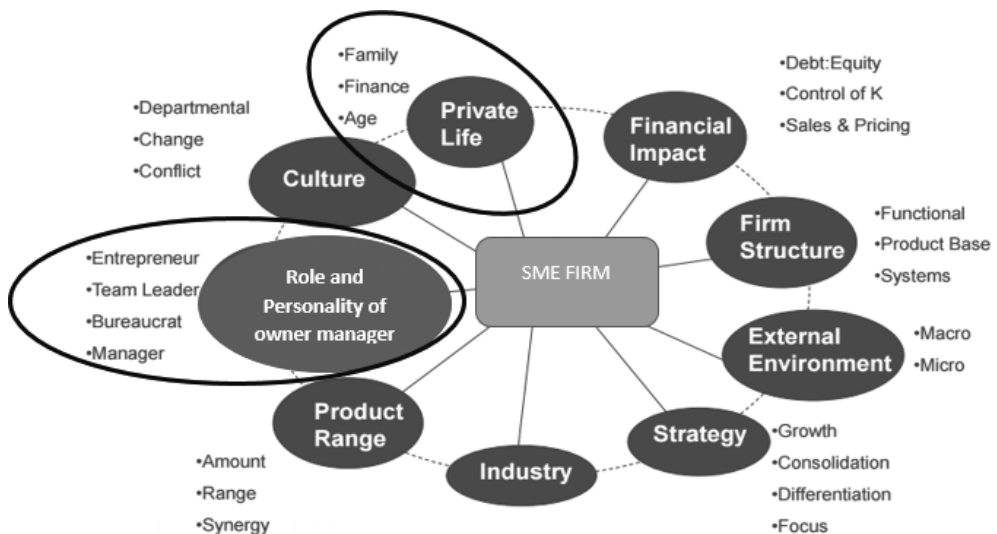


Figure 4. Factors affecting growth: Compiled from multiple sources.

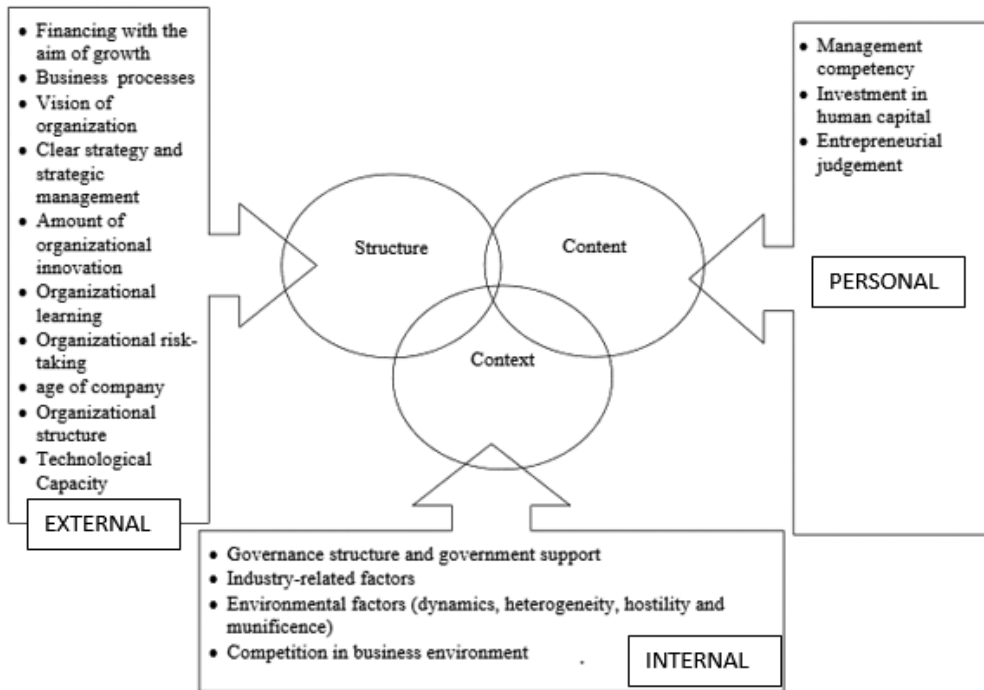


Figure 5. Categorized model of factors affecting growth adapted from Farrokh et al. [35].

More structured view of these individual factors has been presented, e.g., by Farrokh et al. [35] with a trichotomy to Internal, External, and Societal factors. Internal factors refer to the organization and resources inside the firm. External factors are societal and business network based. Personal factors include owner-manager's drive and capabilities. These are needed to be present for growth to take place.

Just like personal life, goals and situations can affect either way (positively and negatively) to growth aspirations and willingness, the dynamics can also act in a reversed direction. Growth can lead an entrepreneur to situations and conditions that serve another purpose than the growth itself. In this view, growth is a means of getting somewhere, not a value or target *per se*. This view got support in the classical volume by Hampden-Turner and Trompenaars named "Seven cultures of capitalism." In their work [36], it gets shown how there were deep and important underlying basic motivations of people working in these different capitalism-driven systems.

Capitalism is too a major extent based and dependent on free enterprise. The free enterprise is made of individuals engaging into entrepreneurial activity to reach their goals. They are the backbone of all capitalistic systems. That much so, that the US Small Business Act from 1953 boldly opens by stating (Paragraph 1): The essence of the American Economic System of private enterprise is free competition and (Paragraph 3) Security and wellbeing of the society

cannot be realized unless the actual and potential capacity of small business are encouraged and developed [37].

If and when we believe the statements of US Small Business Act and also Friedman, entrepreneurs grow because they want to earn more than their nongrowing business would yield. Hampden-Turner and Trompenaars [36] interestingly prove that to be a false assessment. In his study and book, the nation whose “culture of capitalism” was primarily based on “creating personal wealth” was UK. The driving force in American capitalistic culture was “creating something new.” And often the creation of new products, services, and markets requires additional resources, and the way to attract resources is to grow. This view suggests the process of growth is of a value per se, the growth is not solely driven by the target of increasing size of the business and resulting wealth.

There has been a wide array of studies focusing on the entrepreneurial cohort of people as a collection of different persons, personalities, and behaviors. This school of entrepreneurship studied is called cognitive perspective to entrepreneurship. The basic thought of this view is that individual characteristics, interpretations, and directions affect (1) the likelihood and action in starting a new business and (2) the way, the path of entrepreneurship will continue. In a study by Kelley et al. [38] based on large data derived from 2010 to 2011 US Survey for GEM (Global Entrepreneurship Monitor), researchers found support to their hypotheses that individuals with (1) high income orientation, (2) high independence orientation, and (3) high self-efficacy (self-assessed ability) are more likely to engage into high job growth intentions. Also, the perceptions of opportunities (market newness, competitive uniqueness and international intensity) that vary between individuals in same circumstances play a significant role [38].

Naturally, some of these variables may not be stable indicators. The independence variable and self-efficacy had not significant correlation to growth intentions in a data collected 2 years earlier. The prolonged economic downturn may have caused that despite entrepreneurs’ ability, the perspectives of growth were not in sight. So the motivation to give an extra effort for growth was missing. Also in the economic doldrums, the risks in seeking growth may overweight the desire for independency, as Kelley et al. speculate.

As an overarching summary of relation of entrepreneur as person and growth, it can be stated that studying growth path of an entrepreneurial company without looking also at its owner/managers is missing a critical element. But as shown, in addition to individual characteristics, also cultural and situational contexts affect growth and aspirations for it. Churchill and Lewis [39] claimed that evolution of an entrepreneurial company will lead to changes and revaluations of the role and core capabilities of founders (see **Figure 6**).

Findings by Churchill and Lewis point out the necessity of the entrepreneur to renew and redefine his/her role along the trajectory of the firm. Just like when raising a child, growth means also letting go. This alone might be one hindering factor of growth: Do I want to manage an organization or am I more on my own turf running a stable business that I can steer independently.

A real-life question posed to Finnish SME companies (the survey panel for of the 2016 National SME barometer of an OECD-wide study “Financing SMEs and entrepreneurs 2017,” and this



## The changing role of the entrepreneur

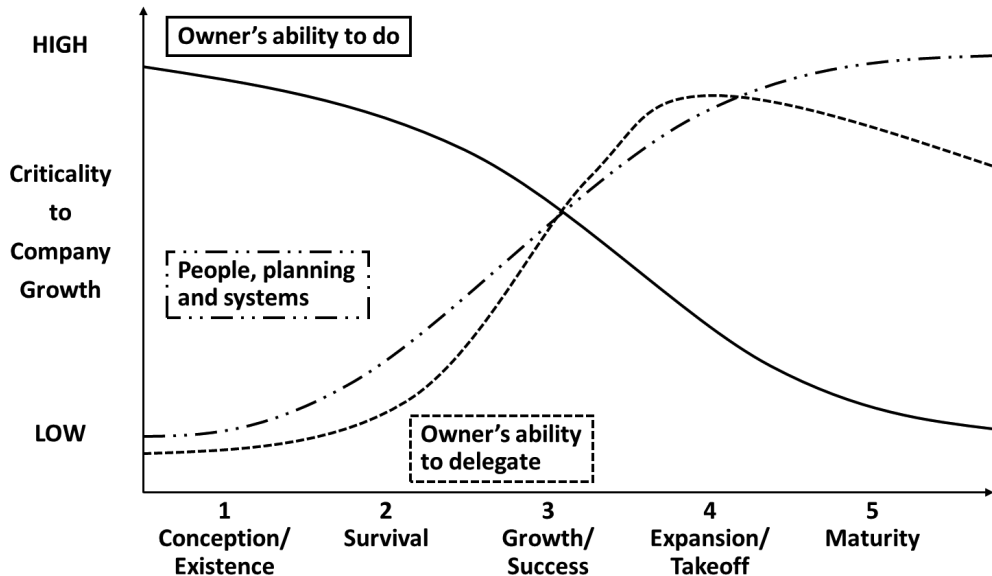


Figure 6. Change of managerial factors over time [39].

question was proposed to be included to the survey by the Association of Finnish Entrepreneurs!) was: "If your company suddenly got a sum of money that corresponds your last years sales revenue, what would you do?" [40] What was then the most popular answer?

Nr 1 (most popular) option: *"We would keep most of it as a reserve for future needs."*

The cause-effect or reasoning for such an answer was not conducted, but one can speculate with a few alternative reasons: (1) the 10-year economic downturn had consumed the earlier reserves and new buffers for bad times were really needed; (2) the companies do not find appealing opportunities to invest the money to and (3) the companies have no ideas that would need developmental investment into?

Nr 2 (second most popular) option: *"We would increase our investments."*

Nr 3 options (a draw between two options): *"We would pay back some of the debt we have"* and *"We would increase our innovation activity"*.

But there are entrepreneurs: and then there are growth-oriented entrepreneurs. Whereas the aforementioned choices of action were the ones surging among the whole sample of 500 SMEs participating, the action plans of the subset of companies identified (by their answers to other



questions) to be strongly growth aspiring. They would (1) Invest, (2) Innovate, and only (3) keep in reserve.

The last conclusion of the study in question is that companies and entrepreneurs do differ in their aspiration and willingness to grow. This may link to the markets they operate in and opportunities in there, but it may also be a personal value statement by the entrepreneurs in relation to growth. This view suggests that growth is not just a phenomenon; it is also a mindset. How are those “entrepreneurial mindset” and “growth mindset” then born and developed? In a study among the students (Business Administration, undergraduate level) that have participated in a specialization program of technology business and entrepreneurship and later engaged to a start-up activity as business owners of employees, Saukkonen [41] observed a gradual conversion into entrepreneurial activity through identifiable stages instead of a sudden decision to embark on an entrepreneurial journey. The key learnings and actions on this path were all related in mingling with entrepreneurs or other entrepreneurs-to-be via *networking, trying, and learning*. These findings hint that here might be more social elements in entrepreneurship development than in the traditional view concentrating on individuals alone.

### 3.7. Growth companies of today: Why and how do they grow?

Learning from the best seems at surface a natural and recommended way for an entrepreneur to grow from growth aspiration to growth that really happens. In the opening words of “Deloitte Fast 500 EMEA” report on high-growth tech companies. Bucaille points out that the four elements of growth capital, labor, knowledge/creativity and energy/resources are not enough to explain the difference between fast and slow growers [42]. High-growth companies [42] have created out of these a unique combination of value, often referred as business model. In addition, they have added a person-based flavor as a fifth element: leadership.

This opportunity of agile entrepreneurial firms of the new breed to take over the market from traditional players with a superior new value offering is not new. Harvard professor Clayton M Christensen made already at 1990s an interesting finding: When key technologies in an industry change, the dominants’ firms in the “new world” are not the ones they used to be [43]. The industry originally under Christensen’s study was external computer memories: disk and diskettes from 5.25 inch floppy disks to 3.5 inches, and then to hard disks, etc. Why do the best firms of their breed tend to miss the train of change, then? Christensen had altogether five complementary explanations for this. One of them states that *capabilities of an organization define its incapacabilities*. Very few companies are brave enough to admit that a big part of their legacy in knowledge, practices, facilities, machinery etc. are not asset in the new landscape, but rather a burden that brings with them inertia—*force of slowness*. An entrepreneur starting from a clean slate has then an upper hand to react, adapt, and proact.

The same plot can be found in the early writings of the forefather of innovation theorists and researchers Joseph Schumpeter [44], who proposed at 1930s that at times every industry is shaken by waves of *creative disruption* that rearrange competitive positions and rewrite “the rules of the game” [39]. Mark Jenkins from the Cranfield University in England made a corresponding observation when studying the different eras of technical regulation and

competitive success between companies in Formula 1 car racing; technological evolution often means competitive revolution [45].

In the era of ubiquitous technology, these rules of the game change more often than ever before, so unforeseen entry and growth opportunities are available but so are the opportunities for sharp decline and death. Following the ideas of Cinzia Parolini [46], entrepreneurial opportunities can arise in various forms of value system re-engineering: Creating new activities into a value system or making some traditional activities obsolete. In both cases, business model works, if it helps the whole value systems to reduce cost and/or increase the end customer value.

Deloitte [42] also makes a remark based on their reports and research that has spun over a decade: The quality of the high growers is largely based on the quality of their environment. Partners provide talent, expertise, revenue, research, and capital that are needed to fuel growth. Understanding growth of an entrepreneurial company should not forget the entrepreneur as an individual or the individual company that has set a goal to grow, but it should not stop there but look also around them.

To support their listings and aggregate figures of the selected growth awardees, Deloitte has at constant intervals looked at the root causes and affecting factors to grow by surveying the highest management (CEOs) of the high-growth companies.

The listings and company analyses are done by Deloitte in a yearly basis and available over the Internet to all parties interested. CEO surveys do not happen on a yearly basis for all major regions (Americas, Asia, EMEA), but in country level, there are unbroken time series in various countries. To highlight some main contents, here are some excerpts for the 2016 results: Growth continuum, sources, and hindrances of growth among the management of Turkey's Fast 50 technology business growers [43]:

- 85% of the CEOs believed they will maintain the high rate of growth (even though only 42% believed the economy in general will grow and only 9% that economy will grow substantially)
- 70% believed the growth can be continued organically, not by structural arrangements such as acquisitions
- the biggest single contributors to the past growth have been high-quality employees and exceptional/unique products created by them
- 61% believed they will grow their personnel between 1 and 25% - obviously in the digitalized world the growth and employment curves differ
- 64% list HR issues (finding, hiring, and retaining talent) as major challenge to growth
- 39% mention as the top personal challenge raising and delegating responsibility—moving from entrepreneurial management more toward an organization; the second one being reaching profitability—supporting the notion that growth is resource-demanding, and it fires back on profits that will follow only later on, so it is risky.

The finding gives support to the statement that growth is still even in the technology business sphere based on individuals. First, entrepreneurs are willing to explore, create, and take risk, and subsequently, growth is continued in the talented individuals that the entrepreneur is able to attract, motivate, and lead on the growth trajectory.

#### **4. Case study: future growth of an entrepreneurial start-up and its impact on entrepreneurs**

In a single case study, Saukkonen and Vääntinen [34, 47] assessed the suitability of models of growth dimensions, sources, and obstacles proposed by earlier research and literature to a case company: an entrepreneurial start-up company providing environmental technology for global business-to-business markets. Researchers used method of qualitative, interview-based data collection among the company's internal stakeholders and external business experts. Through an analysis of the obtained data, researchers drew conclusions of the compatibility of (some) earlier models to the unique case of new company growth.

##### **4.1. How do prior-art models of growth suit true start-ups, specifically one operating in environmental technology business?**

As a reflection of results vs. earlier models of venture growth, it seems defensible to state that the dimensions in Wickham model can be pictured from the research data, even in a certain sequential order: First, a strategic choice of (first) solutions to be completed is done. Second, the funding for the implementation needs to be secured, after which the (minimum) organization to accomplish the task is put together. Structural and organizational dimensions of growth combine the internal and external resources: The mission-critical parts are kept in the control of the company and complementary, but less strategic or innovative capabilities are extracted from the partner network.

The four first stages of the model by Marmer et al. were all referred to, but the events did not follow the sequential order. The studied startup company had simultaneous and parallel growth processes. The Greiner model-based discussion of crises stages and sources did not bring up relevant information. The sources of growth from the model by Greiner were clearly easier to discuss: "Customers are currently most important element for company growth" (Owner-Manager OM).

Despite the avoidance of the usage of expressions like "environmental technology" or "cleantech" in the spontaneous discussion, the special characteristics of the business segment were well visible. The specific context contained issues such as:

1. The unavoidable role of regulatory framework, or frameworks, when the company acts in multiple markets and many solution areas. The role of regulations and other interventions by governments and other public authorities serves both as enablers as well as obstacles for growth

2. A company operating in this segment has long lasting and tight connections with their stakeholder network. "You need have customer side for speakers for promoting your technology" (External Industry Expert, EIE).
3. The clock speed in environmental technology business differs from many other fields. The long development time of regulations (that affects the decision-making ability of the firms, suppliers and customers alike) was mentioned earlier as a source of slow clock speed. Other factors are related to the depth and volume of R&D before sales can be done. "Unit cost is pretty high when you are environmental and energy business. You need a real life demonstration, which is working ... then pilot1, pilot2, ½ scaled unit and full scaled unit" (EIE).
4. The specific nature of the financial dynamics in this industry. The capital injections are needed early on, long before the sales revenue starts to act as a source of financial resource but "If we go in as an investor early on, the risks are humongous but so are the potential rewards. If later, the company value has gone up already, so the risk is lower but so is the potential multiple to your investment" (Venture Capital Expert VCE).

#### 4.2. How are dimensions, sources, and challenges of growth interpreted and prioritized?

Despite the findings presented in the Chapter 3.1, where a clear order of the growth dimensions emerged from the data, separating the dimensions from each other seemed artificial to the interviewees. The different fields of the growth are intertwined, and the order of priorities was dependent on the financial status of the company. A single capital injection would have changed both the order and speed in which different dimensions develop. The volatility of a growth pattern is therefore clear.

Strategic decision-making was seen as the key foundation for all other areas of growth across the respondent pool, but views on what makes "growth" in strategic terms differed a lot. For some respondents, growth in strategic dimension was a synonym to having a wider offering, whereas to some, it was more of narrowing and focusing. In enhancing the value of the company to its owners and customers, the innovativeness acts in controversial manners. To attract a portfolio of customers and fulfill multiple needs, strategic choice of having one main solution to offer was regarded as a risky option. "To me having different solutions for different end-users gives more options to customers to choose from" (Sales and Marketing Professional SMP<sub>2</sub>). On the other hand, limited resources must be well addressed to limited number of directions, as there is a need for efficiency from early on. Investor view preferred a clear focus: "In early stage, the way you should have a fairly limited portfolio. You better be somewhat single-minded. But all products and services have a life-cycle, so the portfolio needs to grow and renew over time. However, the portfolio growth should not kick in before break-even" (VCE).

One way to impact the business portfolio and also the structure of the revenue streams would be to move from mere product supplies to product-service system (PSS) bundling services to the technology supply and thus allow the company to better fund its development organically: "By adding services like operating the plants on behalf of the customers is a future way of improving the constant cash flow. The margins are different to tech supplies but so is the

predictability. And the purchase threshold for services is lower than that of buying hardware—the latter one has a life cycle of 30 years” (Founder-Owner-Manager FOM). This means that growth models should avoid labeling the firms studied to product or service companies but rather see how those two basic business types can be combined.

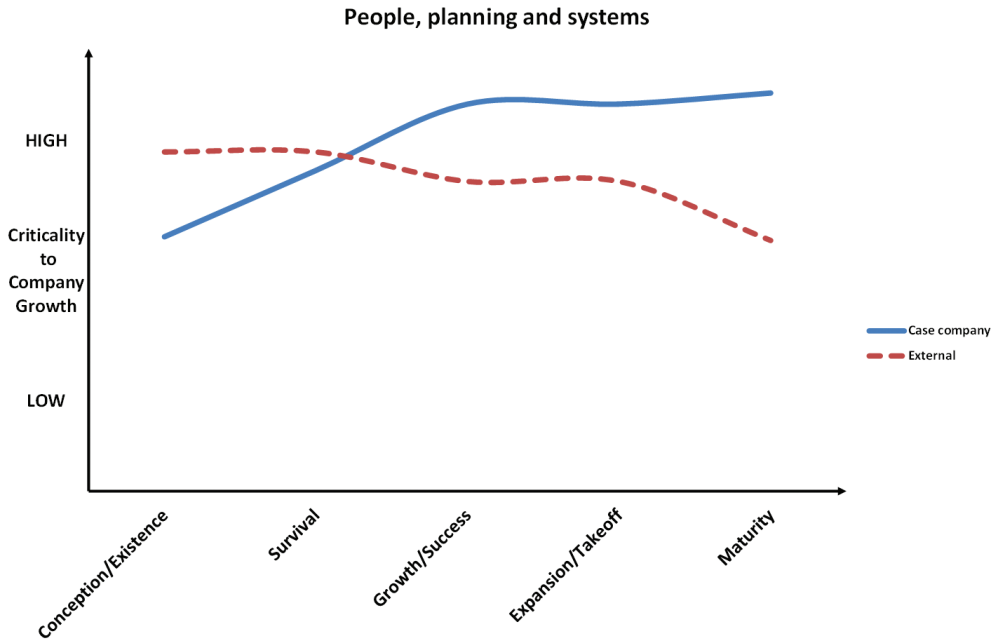
One difficulty to adopting Wickham’s model was the networked in which today’s companies operate. Talking of growth only within company boundaries felt falling short: “Ecosystem is needed for real size unit: sustainable production, sustainable fuel supply security, logistics, maintenance ... you cannot do it yourself” (EIE). In manufacturing companies, the trend of outsourcing the manufacturing and thus reducing capital needs has been a long prevailing trend. Based on the case study, outsourcing without holding a control over operations grows the risk. “Own manufacturing is not a red flag to an investor, if that is needed to control the entire process in its critical parts” (VCE). The views of the internal and external interviewees matched in this respect. “Own manufacturing is a strategic choice. I want to reduce the risk by having a clear and firm view on what is happening, I know and can promise the delivery times we can do. This may change over time, but at this point we do want to have a tight grip on the process” (FOM). The usage of subcontractors and many of them may seem a good risk-aversion policy, but it may contain a strain to company resources: “The wider the network, the higher risk of quality issues and delays. And truly managing a supply chain of networked companies is rare and demanding skill” (VCE).

### 4.3. Entrepreneur’s changing roles and capabilities

The external experts in the sample put more emphasis on the traditional management skills—process and systems management—from early on than in-house respondents. That gives support to Start-Up Genome Report [27] findings that if processes are not efficient and the scaling up occurs, the phenomenon Premature Scaling is a potential misstep on the growth path. A remark made underlined that the processes should not be seen from only engineering angle but instead “There must be a sales process from early on, who sells and how. If I do not get that I cannot invest” (VCE, Venture capital expert). The later decline of the importance of mastering processes and systems (as seen by external experts) should be looked at in conjunction with their views of the changing role of the entrepreneur (**Figure 7**).

**Figures 8 and 9** show how the interviewees—internal vs. external—saw the role of the entrepreneurs to change over different development stages. There were some surprising findings between the two groups (internal vs. external) as well as when compared to the original model by Churchill and Lewis.

The external experts clearly expressed that the ability to delegate has to start early on and owners’ own ability to do starts diminishing also at an early stage. The need to delegate is also a concern of entrepreneurs in the case company: “It’s a dilemma that too much is in our hands and we don’t have enough time to handle everything ... we really in the process how to delegate and to whom, it’s the huge challenge for us” (OM). Ability to delegate is also a part of process management capability, and it also touches the network partners of the company: “To delegate is to co-operate” (Business Development Expert).

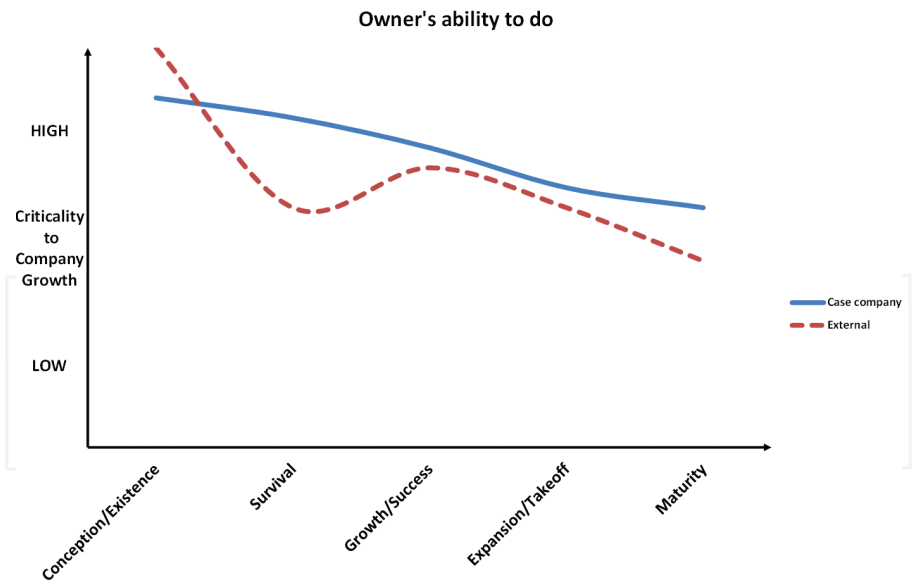


**Figure 7.** The changing criticality of skills in process, people and systems management following the model by Churchill and Lewis—averages of the graphs drawn by informants in the interview sessions.

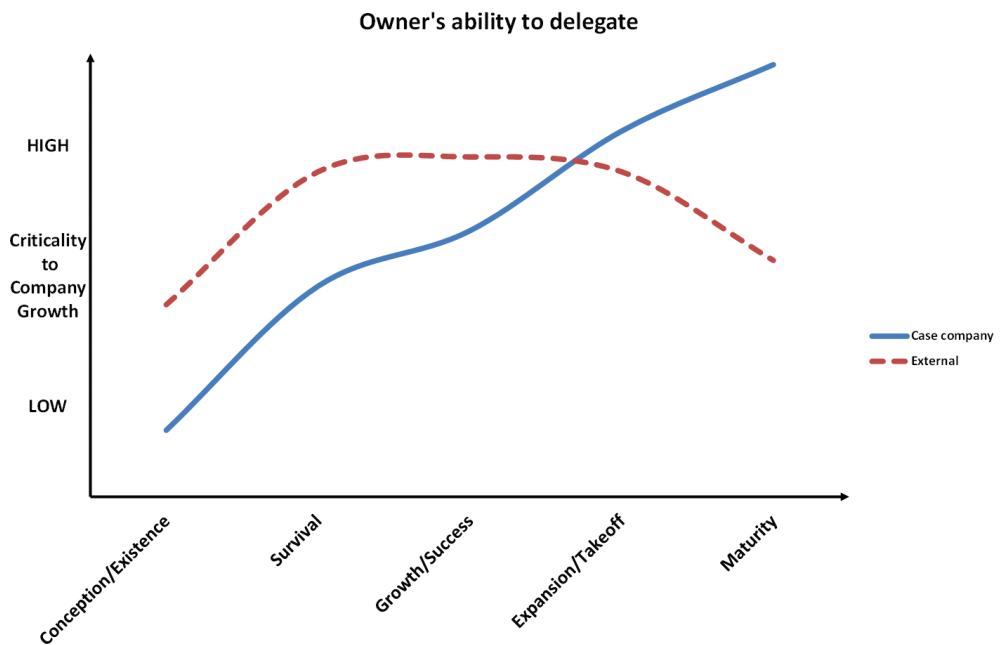
An important challenge for the entrepreneurs seems to arrive, when the company reaches some level of maturity. Managing company at that stage differs from start-up management. New skills are needed, and new angles to look at the company must be established. In addition to funding rounds, there should be management upgrading rounds: “Management and funding should update many times in growth company ... management and funding are the sources of crises. Aspiration to company growth is of high criticality to company growth” (Business Development Expert, BDE). If the aspiration diminishes, the company can start to stagnate. Both respondents that have an entrepreneur role in the case company wanted to keep us a start-up mentality in the firm they manage: “I want to see this as an eternal start-up but the term can perhaps not be used for a very long time” (Founder-Owner-Manager FOM). “I don’t want to be in mature company, I want to develop” (Owner-Manager OM). Their views were supported by the VCE “Thing to keep as long as possible from start-up is the entrepreneurship spirit, but it must be combined with growth in leadership skills” and BDE: “renewal is needed in growth company ... is it synonym for continuous start-up”.

#### 4.4. Can the growth be maintained?

One of the iconic figures in 1990s–2010s corporate management and leadership Steve Jobs has been quoted to describe Apple Inc. as an “eternal start-up”. Being the member of the original founding team, Jobs enjoyed and kept up an entrepreneurial relation to Apple despite its growth into a global corporation.

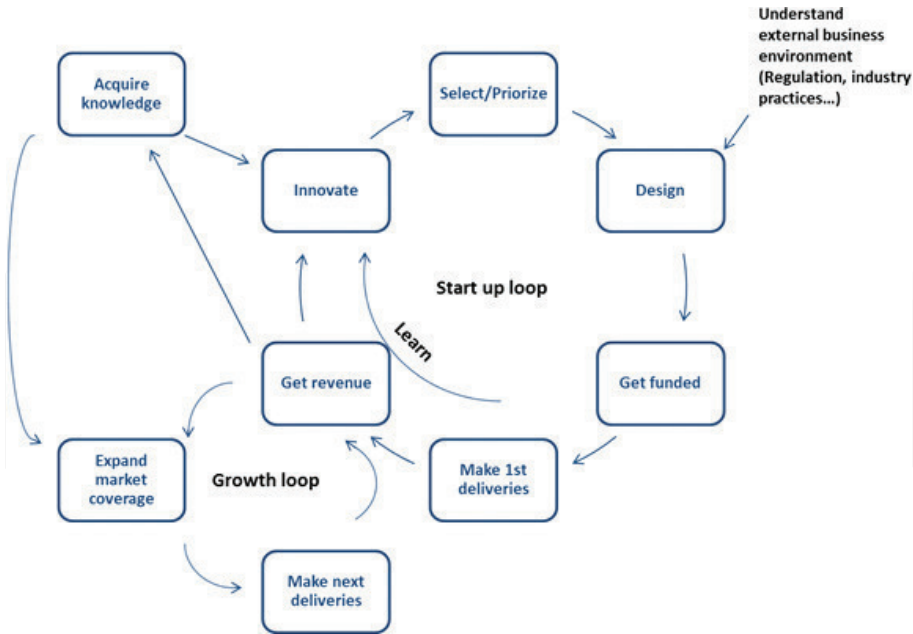


**Figure 8.** The changing role of the entrepreneur across the development stages (1) following model by Churchill and Lewis—averages of the graphs drawn by informants in the interview sessions.



**Figure 9.** The changing role of the entrepreneur across the development stages (2) following model by Churchill and Lewis—averages of the graphs drawn by informants in the interview sessions.





**Figure 10.** The cyclical two-loop model of growth and development Saukkonen & Vääntinen, [34].

Interestingly, the same echo of never ending growth was heard in the young and small aspiring company studied in the case. Based on the case study findings, it can propose a replacement of linear or at least sequential growth construct model with a more cyclical model (**Figure 10**). The model highlights the finding that an innovation-based company needs to simultaneously run processes leading to scalable and optimized processes (“growth loop”) and keep on a new venture-type search of novel ideas (“start-up loop”).

## 5. Conclusions and discussion: future of growth

The conclusions of this full chapter are:

- Growth in an entrepreneurial company is a relative, context—and stakeholders’ expectation—based phenomenon.
- Factors in the resources, market opportunities, and personal aspirations affect the stance taken toward growth as well as its directions and speed of growth. No single model to describe growth in an entrepreneurial firm can be found, the growth has individuality in it. Based on the case research findings, it can be also stated that search for one best model of growth for a single start-up venture is not a viable effort. Instead, various models should be studied and utilized. Researchers as well as business developers aiming at growth should identify the most relevant elements of these models to the case in question



as well as the context in which the companies operate. Industries have their specific features that should be woven into the models for company growth in that sector.

- The models of growth do have their role: the phenomenon is better understood and acted upon by having a wide and versatile supply of models that contribute to the understanding of the phenomenon and individual cases. The research findings and the proposed new cyclical model of start-up growth in environmental technology business developed give support to the view presented by Levie and Lichtenstein [20]. Stage-based models have clarity and structure but reflect poorly growth business reality that is made of uncertainty, loops, and flexibility. Newer models such as the one by Marmer et al. acknowledge the importance to pivot when necessary and to find new directions by revisiting the work done in earlier phases when the development stagnates. The growth stagnating can be a result of both internal reasons as well as external feedback.
- Growth should be seen as a vehicle of reaching something by action rather than as an end result of action.
- Companies in the growth mode identify the sources, enablers, and obstacles to growth largely in a same manner, giving support to views that studying growth companies can serve as an agent for future growth.

In addition, it is not enough for companies to recognize the developmental phase they are in but also to develop and implement strategies to tackle the challenges viable to the industrial context they live in and taking in account the resources of the company, its entrepreneurs, and value network.

Various megatrends suggested to act as drivers of global change such as Globalization, Digitalization, Acceleration and Network organizing [47, 48] can be seen to offer wider and faster opportunities for growth than the past periods of time. New industries and markets are developed to a remarkable size at higher and higher speed. In the world of virtual goods memes, network externalities, low (capital) barriers to entry and viral spreading all seem to point out that growth is better available for all than we are used to.

An example of such a mushrooming market is mobile gaming, which in the first quarter of 2017 showed 53% growth to previous year [49, 50]. The global yearly revenue at the sector globally was predicted to reach 46 billion USD for 2017 and to grow to 64 billion by 2020 [51]. The other side of the coin of hypergrowth is the hypercompetition. It can be estimated that the supply of the games available at this moment (mid-2017) exceeds 1200 new games *per day* coming to the market via the two main platforms iStore and Google Play. This means a monthly growth in supply of approx. 40,000 new options for customer to choose from on top of the existing ones. Naturally new products and companies can only succeed, if the customers abandon earlier games they played. Major trends in the future of growth might be *polarization* and *volatility* of growth. The new world may give an unprecedented opportunity to grow for some, leaving a very minor role for the rest. Ideas of reaching massive consumer bases with low-cost pricing strategy applied, e.g., by Spotify for streamed music leaves very limited opportunities for profitability to nonhypergrowers.

Technological advancement is another Janus-faced force that affects firms aspiring to grow. The global availability of digital technologies and the opportunities they give to spread the

new solutions seem to favor growth. Simultaneously, the abundance of technologies is making the right choices regarding technologies both complicated, risky, and short lived. The megatrend of acceleration means the birth and growth happen at faster pace but so do decline and death. The accelerating pace of change referred as “increased clockspeed” by Fine from [52], and the increase in the sheer amount of potentially transformative and often intertwined technologies has made technology anticipation more complex. Global ICT consultancy firm Gartner publishes their “Hype Cycle curves” of emerging technology areas and particular technologies. As the representative of Gartner, J. Fenn coined the purpose of them: “Hype Cycle for Emerging Technologies targets strategic planning, innovation and emerging technology professionals by highlighting a set of technologies that will have broad-ranging impact across the business” [48]. Gartner publishes both broad and more specific Hype Cycles. There are close to 2000 individual technologies under Gartner’s radar [53].

Investing money and effort to technologies in their early stage sounds a risky choice. But it is also risk baring for a company to wait until a technology reaches the more predictable development stage. Acting first in a stage where more and more insights of how the technology can benefit the company start to crystallize, and the whole value chain and customer-base means the competitive advantage potential for a company has vastly diminished. One interesting line of research could be studying the means entrepreneurs are trying to balance the growth of business value and the risk that growth bears. One approach to this direction is the framework by Skok [54] based on his view that increasing of the value and reduction of the risk are key targets for any start-up management. He linked some key events or artifacts (**Figure 11**) that lead to success in relation to these two targets. Empirical research on that framework would

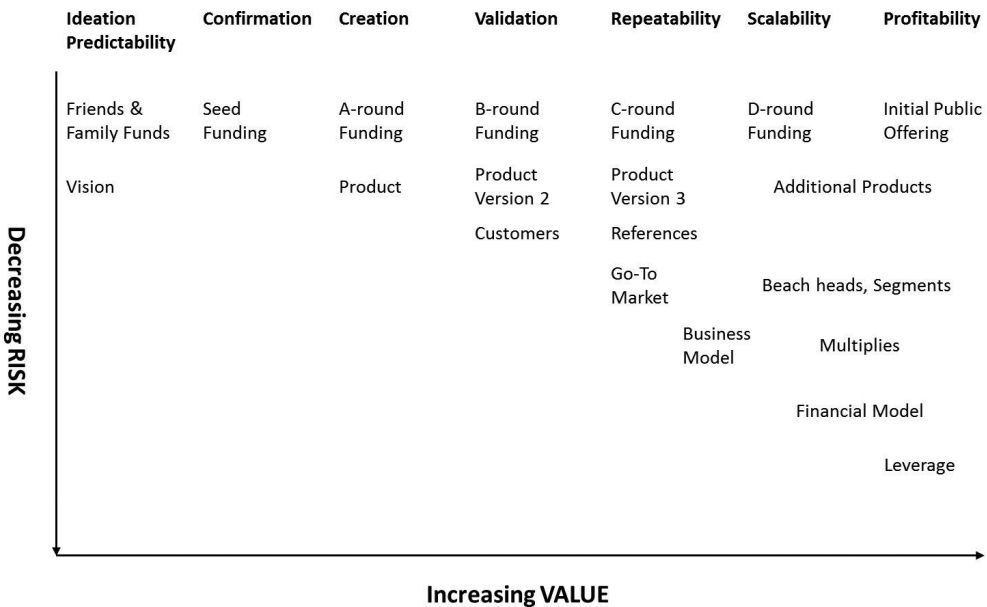


Figure 11. Key artifacts and events in risk/value framework across development stages (Skok [54]).

however require an opportunity for a longitudinal study with close involvement to the decision-making process of the studied growth companies.

Perhaps, growth has never been democratic but in the future perhaps even less so. The shortened life cycle of products may also lead to short-living companies. We all know “firefly products” that shine bright and short. Will the business climate of future be apt for firefly companies as well?

## Author details

Juha Saukkonen

Address all correspondence to: [juha.saukkonen@jamk.fi](mailto:juha.saukkonen@jamk.fi)

JAMK University of Applied Sciences, Jyväskylä, Finland

## References

- [1] Ravitch SM, Riggan M. Reason & Rigor: How Conceptual Frameworks Guide Research. Thousand Oaks, California: Sage Publications; 2016
- [2] Malhotra N, Birks D. Marketing Research. An Applied Approach. Updated Second European ed. Edinburgh Gate, England: Pearson Education Limited; 2005
- [3] Eisenhardt KM. Building theories from case study research. *Academy of Management Review*. 1989;**14**(4):532-550
- [4] Yin RK. Case Study Research: Design and Methods. Thousand Oaks, California: Sage; 2003
- [5] Creswell J. Qualitative Inquiry and Research Design: Choosing among five Approaches. Thousand Oaks: Sage Publications; 1998
- [6] Ministry of Economic Affairs and Employment of Finland: Kasvuyritykset (in Finnish). Growth Companies Available at: <https://www.tem.fi/yritykset/kasvuyritykset>. [Accessed: 21 May, 2017]
- [7] Johnston K. What Return Do Venture Capitalists Expect? 2017. Available at: <http://finance.zacks.com/return-venture-capitalists-expect-10600.html>. [Accessed: 21 May 2017]
- [8] Macabacus LLC. Valuation Multiples. 2017. Available at: <https://www.macabacus.com/valuation/multiples>. [Accessed: 17 May, 2017]
- [9] Birch D, Haggerty A, Parsons W. Who's Creating Jobs? USA: Cognetics, Inc.; 1993
- [10] Storey D. Understanding the Small Business Sector. London: Routledge; 1994
- [11] Calvo JL. Testing Gibrat's law for small, young and innovating firms. *Small Business Economics*. 2006;**26**(2):117-123

- [12] Parker SC, Storey DJ, Van Witteloostuijn A. What happens to gazelles? The importance of dynamic management strategy. *Small Business Economics*. 2010;**35**(2):203-226
- [13] Gibrat R. *Les inégalités économique*. Paris: Recueil Sirey; 1931
- [14] Deloitte. Technology Fast 500™ Europe, Middle East & Africa (EMEA). 2017. Available at: <https://www2.deloitte.com/global/en/pages/technology-media-and-telecommunications/articles/technology-fast-500-emea.html> [Accessed: 23 May, 2017]
- [15] Mahroum S. *Black Swan Start-ups*. UK: Palgrave Macmillan; 2016
- [16] Wickham P. *Strategic Entrepreneurship: A Decision-Making Approach to New Venture Creation and Management*. London: Pitman Publishing; 2004
- [17] Hanks SH, Chandler GN. The growth of emerging firms: A theoretical framework and research agenda. In: Anonymous the Proceedings of 7th Annual National Conference of the United States Association for Small Business and Entrepreneurship. Chicago: United States Association for Small Business and Entrepreneurship; 1992
- [18] Laukkanen M. Exploring alternative approaches in high-level entrepreneurship education: Creating micromechanisms for endogenous regional growth. *Entrepreneurship & Regional Development*. 2000;**12**(1):25-47
- [19] Muhos M, Piila L, Iskanius P. Dimensions of growth—A case study in Finnish technology intensive SMEs. *Proceedings of EBRF*; 2007. pp. 26-28
- [20] Levie J, Lichtenstein BB. A terminal assessment of stages theory: Introducing a dynamic states approach to entrepreneurship. *Entrepreneurship Theory and Practice*. 2010;**34**(2): 317-350
- [21] Scott M, Bruce R. Five stages of growth in small business. *Long Range Planning*. 1987;**20**(3): 45-52
- [22] Eggers JH, Leahy KT, Churchill NC. Stages of small business growth revisited: insights into growth path and leadership management skills in low- and high-growth companies. In: Bygrave WD, et al., (Eds.), *Frontiers of Entrepreneurship Research*; 1994. pp. 131-144. Babson Park, MA: Babson College
- [23] Kazanjian RK. Relation of dominant problems to stages of growth in technology based new ventures. *Academy of Management Journal*. 1988;**31**(2):257-279
- [24] Parks GM. How to climb a growth curve: Eleven hurdles for the entrepreneur-manager. *Journal of Small Business Management (pre-1986)*. 1977;**15**(000001):25
- [25] Dodge HR, Fullerton S, Robbins JE. Stage of the organizational life cycle and competition as mediators of problem perception for small businesses. *Strategic Management Journal*. 1994;**15**(2):121-134
- [26] Greiner LE. Evolution and revolution as organizations grow. *Harvard Business Review*. 1972:37-46

- [27] Marmer M, Herrmann BL, Dogrultan E, Berman R. A New Framework for Understanding why Start-Up Succeed. Start-Up Genome Report. [Online] 2011 Available: [http://gallery.mailchimp.com/8c534f3b5ad611c0ff8aecd5/files/Startup\\_Genome\\_Report\\_version\\_2.1.pdf](http://gallery.mailchimp.com/8c534f3b5ad611c0ff8aecd5/files/Startup_Genome_Report_version_2.1.pdf) (15th February 2014)
- [28] Marmer M, Herrmann B, Dogrultan E, Berman R. Startup Genome Report Extra on Premature Scaling: A Deep Dive into why most High Growth Startups Fail. Start-Up Genome Report Version 1.2. [Online] 2011 Available: <http://blog.startupcompass.co/pages/startup-genome-report-extra-on-premature-scal> (15th May, 2015)
- [29] Muhos M, Kess P. Early business growth—case technology intensive SMEs in Southern California. International Refereed Journal of Engineering and Science (IRJES). October 2013;**2**(10):27-38
- [30] Levie J, Lichtenstein BB. From “Stages” of Business Growth to a Dynamic States Model of Entrepreneurial Growth and Change. Hunter Centre for Entrepreneurship Working Paper. UK, Glasgow: University of Strathclyde; 2008
- [31] Cope J, Watts G. Learning by doing—an exploration of experience, critical incidents and reflection in entrepreneurial learning. International Journal of Entrepreneurial Behavior & Research. 2000;**6**(3):104-124
- [32] Clarke J, Thorpe R, Anderson L, Gold J. It's all action, it's all learning: Action learning in SMEs. Journal of European Industrial Training. 2006;**30**(6):441-455
- [33] Evers N. International new ventures in “low tech” sectors: A dynamic capabilities perspective. Journal of Small Business and Enterprise Development. 2011;**18**(3):502-528
- [34] Saukkonen J, Vanttinen K. Development trajectory of an innovation-based environmental technology start-up. In Proceedings of The 11th European Conference on Innovation and Entrepreneurship 15-16 September 2016; 2016. p. 706
- [35] Farrokh S, Kordnaeij A, Zali MR. Factors affecting the growth of small and medium-sized enterprises. I J A B E R. 2016;**14**(10):6199-6216 Available at: <http://serialsjournals.com/serialjournalmanager/pdf/1479289988.pdf>. [Accessed: 30 May, 2017]
- [36] Hampden-Turner C, Trompenaars A. The seven Cultures of Capitalism: Value Systems for Creating Wealth in the United States, Japan, Germany, France, Britain, Sweden, and the Netherlands. New York: Doubleday; 1993
- [37] Small Business Act. 1953. Available at: <https://legcounsel.house.gov/Comps/Small%20Business%20Act.pdf>. [Accessed: 30 May, 2017]
- [38] Kelley DJ, Ali A, Lee C. 2014, January. Growth intentions as a function of personal resources and opportunity perceptions. In ICSB World Conference Proceedings. p. 1. International Council for Small business (ICSB)
- [39] Churchill NC, Lewis VL. The five stages of small business growth. 1983 Harvard Business Review, [Online], Available at [http://www.researchgate.net/profile/Virginia\\_Lewis2/](http://www.researchgate.net/profile/Virginia_Lewis2/)

- publication/228315536\_The\_Five\_Stages\_of\_Small\_Business\_Growth/links/00b495163f77e0bf82000000.pdf [Accessed from: 5 May, 2015]
- [40] Rikama S. Näkökulmia Rahoituksen Saatavuuteen Pk-yrityksissä (in Finnish) ("Views on Availability of Financing in SMEs"). A Seminar Presentation 10th may, 2015 2017 Available at: [http://www.temtoimialapalvelu.fi/files/2793/Samuli\\_Rikama.\\_Pk-yritysten\\_rahointustilanteesta.pdf](http://www.temtoimialapalvelu.fi/files/2793/Samuli_Rikama._Pk-yritysten_rahointustilanteesta.pdf) [Accessed: 23 May, 2017]
- [41] Saukkonen J. 2016. From a student of a startup business to a startup entrepreneur or employee. Suoranta M, Patja P, Aaltio I, Tunkkari-Eskelinen M, editors. Yrittäjyyskasvatuspäivät: conference proceedings. Yrittäjyyskasvatuspäivät Jyväskylässä 13.-14.9. 2016; Entrepreneurship Education Conference in Jyväskylä, 13th to 14th September 2016: Theme: Entrepreneurship Education Praxis. Working paper/Jyväskylä University. School of Business and Economics 383. Available at: [https://jyx.jyu.fi/dspace/bitstream/handle/123456789/52506/YKTT2016%20Conference%20proceedings\\_21.12.16.pdf?sequence=1](https://jyx.jyu.fi/dspace/bitstream/handle/123456789/52506/YKTT2016%20Conference%20proceedings_21.12.16.pdf?sequence=1) [Accessed: 23 May, 2017]
- [42] Bucaille A. Welcome. Opening of the Deloitte 2016 Fast 500 Report EMEA Available at: <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Technology-Media-Telecommunications/deloitte-tech-fast-500-emea-2016-ranking.pdf>. [Accessed: 25 May 2017]
- [43] Christensen C. The innovator's dilemma: When new technologies cause great firms to fail. Boston: Harvard Business Review Press; 2013
- [44] Schumpeter JA. The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle. Vol. 55. Transaction Publishers; 1934
- [45] Jenkins M, Floyd S. Trajectories in the evolution of technology: A multi-level study of competition in formula 1 racing. *Organization Studies*. 2001;22(6):945-969
- [46] Parolini C. The value net: A tool for competitive strategy. Chichester, UK: Wiley; 1999
- [47] Andresen KS, Eriksen TT, Kruse M, Persson H, Mogensen KAE. 10 Megatrends toward 2020 Available at: <http://cifs.dk/publications/scenario-magazine/2006/fo-52006/futureorientation-52006/why-megatrends-matter> [Accessed: 11 May, 2017]
- [48] Vielmetter G, Sell Y. Leadership 2030: The six Megatrends you Need to Understand to Lead your Company into the Future 2014 AMACOM Div American Mgmt Assn
- [49] Deloitte. Technology Fast 50 Turkey Winners and CEO Survey 2017. Available at: CEOs Turkey 2016: <https://www2.deloitte.com/content/dam/Deloitte/tr/Documents/technology-media-telecommunications/technology-fast50-2016-final.pdf>. Accessed: 28th May 2017
- [50] Takahashi D. Worldwide Game Industry Hits \$91 billion in Revenues in 2016, with Mobile the Clear Leader 2017 Available at: <https://venturebeat.com/2016/12/21/worldwide-game-industry-hits-91-billion-in-revenues-in-2016-with-mobile-the-clear-leader>. [Accessed: 26 May, 2017]

- [51] McDonald E. The Global Games Market Will Reach \$108.9 billion in 2017 with Mobile Taking 42% 2017 Available at: <https://newzoo.com/insights/articles/the-global-games-market-will-reach-108-9-billion-in-2017-with-mobile-taking-42>. [Accessed: 26 May, 2017]
- [52] Fine CH. Clockspeed: Winning industry control in the age of temporary advantage: Perseus Books. Massachusetts: Reading; 1998
- [53] Fenn J, Raskino M. Mastering the Hype Cycle: How to Choose the Right Innovation at the Right Time. Chicago: Harvard Business Press; 2008
- [54] Skok M. Roadmap to Success 2014 Startup Secrets (31-10-2014). [Online]. Available: <http://www.slideshare.net/mjskok/startup-roadmap-workshop-2014>. [Accessed: 21 April, 2015]





---

# Entrepreneurship and Creative Economy: Mental Models of Cultural Entrepreneurs in Belo Horizonte, Brazil

---

Anna G.M. Oliveira and Marlene C.O.L. Melo

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70770>

---

## Abstract

This study aims to analyze the common elements in the mental models of cultural entrepreneurs in Belo Horizonte, Brazil, as well as to contribute to the expansion of public policies that enable the development of such enterprises. The theoretical framework of this study addresses entrepreneurship and the mental models of entrepreneurs in the creative economy sector. The Brazilian government has showed concern with the development of the creative economy sector, considering its importance in the national and international scenario. There is a lack of information and data that describes the specific characteristics and issues of the creative economy. Thus, it is important not only to present a statistical data on the sector, but also qualitative data that can broaden and deepen the knowledge of the sector and its professionals.

**Keywords:** entrepreneurship, mental models, cultural entrepreneurs, creative economy, qualitative research

---

## 1. Introduction

Entrepreneurship, over time, has emerged as a generator of income source, contributing to the economic and social development of Brazil; whether motivated by the need of an individual, or group, or business opportunities perceived in the market [1]. According to The Global Entrepreneurship Monitor report (GEM) published in 2015, 17.2% of the Brazilian adult population (between 18 and 64 years of age), were entrepreneurs [2].

The Brazilian government has showed concern with the development of some sectors of the economy, including efforts to expand the development of the creative economy sector.

In 2011, we saw intensification of this effort with the creation of the Secretariat of Creative Economy in, under the Ministry of Culture, aiming to lead the formulation, implementation, and monitoring of public policies based on social inclusion of the Brazilian cultural diversity, sustainability, and innovation [3].

This concern of the Government is also reflected in the National Plan of Culture, established by Law 12.343, on December 2, 2010, which has, among its objectives as defined in Article 2, § IX, XI and XII, “to develop the cultural economy, the internal market of cultural consumption, as well as exports of goods, services and cultural content;” “to improve and develop the cultural industry both in the public and private sectors,” and “to professionalize and specialize agents and cultural managers [4].”

The Plan of the Secretariat of Creative Economy presents five key challenges for the development of effective public policies for this sector. The first major challenge was the gathering of information and data related to companies in this sector. The Plan confirms the lack of sufficient existing data, which prevents a comprehensive understanding of features and capabilities of the sector, as well as the fact that the secondary data reported does not always reflect the reality.

The second challenge is related to the coordination, stimulation, and nurturing of creative endeavors. The third challenge is the lack of educational opportunities promoting the development creative skills, which hinder the advancement of qualified professionals. The fourth challenge is the need of an infrastructure for distribution/circulation and consumption/enjoyment of creative goods and services. The fifth challenge revolves around the creation/adaptation of the tax legislation, social security, labor law, and intellectual property terms that meet the specific needs of enterprises and industry professionals.

The lack of information and data describing the characteristics and specific industry issues is noticeable. Thus, it is important not only to present, through further research, statistical data on the sector, but also qualitative data that can broaden and deepen the knowledge of the sector and its professionals.

Based on this scenario, this study aimed to analyze the common elements in the mental models of cultural entrepreneurs in Belo Horizonte, Brazil. The five companies of the cultural sector surveyed in this study were selected by criteria of accessibility: an art school, an open air cinema, a publisher, a conventional theater group, and a puppet theater group.

Following this introduction, this chapter is divided into five parts: the theoretical framework, which is a review of the key concepts related to the topic of this study; the context of the studied sector, the methodology, in which is explained how this study was conducted; the presentation and discussion of results; and final considerations, followed by references.

## 2. Theoretical framework

This study is anchored on two theoretical pillars: entrepreneurship and mental models. To understand the phenomenon of entrepreneurship, theoretical considerations about its conceptual dimensions and development were drawn. In the area of mental models, theories related

to the topic were exposed, as well as a reflection on its relationship with entrepreneurship. In addition, this theoretical framework addresses the sector of the creative economy in Brazil.

## 2.1. Entrepreneurship

Behind every invention or innovation, there are people or teams with visionary, argumentative characteristics, seeking differentiation: entrepreneurs are those persons who “have a singular motivation (...), a desire to be recognized and admired, imitated and referenced, and wish to leave a legacy [5].” Dornelas [5] tracks the position of Schumpeter [6] in finding that “The entrepreneur has always had a fundamental role in society and argues that the emphasis on studies in the area emerged as a result of rapid technological change and the rapid increase in market competition.”

Filion [7], reports that Schumpeter “was the one who really launched the field of entrepreneurship” by associating economic growth to the behavior of the entrepreneur, especially with regards to innovative entrepreneurship, which, according to Schumpeter himself [6], is a propellant of economic and social development of a nation.

Schumpeter [8] states the importance of entrepreneurship to the capitalist system, by considering such a system as “a form or method of economic change,” an evolutionary process that takes place through changes in the economic life, which in turn produces industrial and consumer transformations.

The innovation is “a specific tool for entrepreneurs” by which they identify the change as an opportunity for new businesses, products, or services. The executives must find the sources of innovation, the changes and symptoms “that indicate opportunities for an innovation to succeed [9].” The term entrepreneurial ship derives from the French word entrepreneur, which literally translated, means “one who is among” or “intermediate,” or “being on the market between supplier and the consumer [10].”

McClelland [11] points out characteristics of entrepreneurial behavior: the pursuit of opportunity and initiative, persistence, commitment, demand for quality and efficiency, calculated risk taking, goal setting, information gathering, planning and monitoring systematic, persuasion and networking, independence and self-confidence.

Sometimes—and mistakenly—the term entrepreneur is regarded as synonymous with business owner. A business owner is not always an entrepreneur, because the entrepreneur demonstrates an innovative behavior by creating a new situation for their company or business, while the business owner is more directed to the operational aspects of the business. Despite the differences between these individuals, they share some characteristics; it would be rare to find a business owner that did not have at least some characteristics of the entrepreneur [5, 12].

The GEM report [1] defines entrepreneurialship as “any attempt to create a new business or new venture such as a stand-alone activity, a new company, or an expansion of the existing enterprise. In either situation the initiative can be from an individual, group of individuals or companies already established.” That is, in conceptual terms, the literature points to the

individual entrepreneur and the settings that characterize such behavior. On the other hand, an individual with such characteristics cannot be considered entrepreneur, which would be equally mistaken to consider an individual lacking these characteristics unable to undertake an entrepreneurial endeavor.

For this study we adopted the Hisrich and Peters [13] entrepreneurship concept, defined as “the process of creating something new with value by devoting the necessary time and effort, assuming the financial, psychological and social risks, as well as receiving the resulting rewards of satisfaction, and personal and economic independence.”

The literature indicates the action of the entrepreneur is strongly influenced by their mental models [14]. Therefore, it is necessary to review the subject of mental models or cognitive styles, in order to understand their influential relationship.

## **2.2. Mental models of entrepreneurs**

To better understand entrepreneurial action, a deep understanding of cognition is required. Cognitive skills, concurrently with motivation, represent the basic determinants of learning and performance at work. Besides the entrepreneurial behavior and entrepreneurial skills, the mental model of entrepreneurs seems to be the path to understanding and developing this topic.

The term mental models emerged in 1943 from the launch of the book “The Nature of Explanation,” written by Scottish psychologist Kenneth Craik who defined it as a representation of elements and environmental situations. His theory has been used in psychology and cognitive sciences, and in the business field, albeit slowly, through the research of mental models concepts [15].

Mioranza [16] attributes the spread of the mental models concepts by the publication of two books, both titled as “Mental Models,” in 1983. The first publication by Gentner and Stevens consists of a collection of contributions made to a seminar on the topic. The second publication by Johnson-Laird seeks to explain the theory of mental models through deductive reasoning and reading comprehension.

Johnson-Laird [17] made explicit the need to create new cognitive science study methods that would change how researchers in the field would perceive how the human mind operates. Later, Johnson-Laird [18] stated that reasoning depends on the individual collection of knowledge that leads to the formulation of a conclusion and validation; as well as the pursuit of other opportunities in alternative mental models to reach a decision. According to the author, reasoning is a simulation of outcomes in the outside world based on the knowledge of the individual through their mental models, and not just a rearrangement of formal logic [19].

The mental models are incomplete and reflect only the portion of the object understood, and may therefore be flawed or reflect limited knowledge that no longer applies to a given situation, thus requiring the improvement of its theoretical analysis and practice in daily life [20]. The cognition is not limited only to the human brain, but it is also directly related to the physical and social environment of the individual [21].

Several factors may influence the construction of mental models: the observation of the occurrence being modeled, experimentation and understanding of the trends of the occurrence, as well as all types of search and selection of information on the subject that are fundamental for the construction of a mental model. In this construction, individuals make use of processes of representation, communication, and interaction with the environment, forming a loop between the experience, evaluation and application of certain concepts. The environment sends messages of all kinds and the individual, based on their ability and cognitive capacity, processes these messages to build a representation of the world and the elements associated with it [14].

The mental models strongly affect the attitudes of individuals, because they influence how people interpret what they see and what they experience [14]. Senge [22] collaborates with Johnson-Laird [17] in stating that two people with different mental models, also reflecting its subjectivity, can observe the same object in different ways and thus describe it in different ways, each under their own perspectives. For him, mental models can be “simple generalizations” and even “more complex theories” that shape the way of individuals act [22].

In the field of organizations, Hill and Levenhager [23] speculated that to be successful, entrepreneurs must be able to handle significant ambiguity, which requires them to develop a “vision” or mental model of how to act in their environments, as well how to communicate their interests and goals to stakeholders to gain their support. The responsibility committed to the position of the entrepreneur is very large, because as decision makers, or sometimes the only decision maker, they take upon themselves to define the company’s strategy [24]. These decisions may be heavily influenced by the professional and personal life of the entrepreneur, the meaning they attach to reality and how they live it—in other words, by their mental models [24].

The mental models are a set of four elements from systemic construction: cognitive, functional, symbolic, and emotional. The functional elements are not only made from a number of physical characteristics of the organization, such as size, product line, and market infrastructure, but also translated into aspects of the utility of the company [25].

The symbolic elements are related to what the organization represents or symbolizes for the subject, in other words, the meaning he/she attaches to it. Cognitive elements are their mental constructions—or perceptions—about a particular phenomenon or object, including the perception that the individual has of the organization. In other words, cognitive elements create knowledge networks that organize and connect the various types of information, generating meanings to objects. Emotional elements show a series of “states of mind (pleasure, pain, joy, fear, etc.) that the individual carries on the organization.” These elements generally refer to the emotional state, either positive or negative, that the individual develops for the organization [25].

The entrepreneur registers objects and events from these elements. Based on external stimuli, the collective representations of the object and their own mental representations, form the subject of its business representation. So “the more important the organization is for the entrepreneur, the greater will be the network of meanings associated with it [25].”

Past experiences, social interactions, symbols and their meanings, and moments of difficulty, all contribute to the changes and consolidations of mental models. Thus, mental models do not depend on “just the heads of individuals,” but also on their life stories and their interpersonal relationships with employees, customers, suppliers, competitors, family, and friends [26].

The mental models, along with other external aspects, can contribute positively or negatively to the development of the skills of individuals, and therefore influence on the organizational performance. The responsibility of entrepreneurs about their organizations is in their actions, thoughts, and representations of the world—in other words, in their mental models [26].

In this viewpoint, Estrada et al. [15] argue that, given the context of evolution and constant changes in the markets, there is a growing trend of people incorporating more mature and evolved models in the values and objectives of the organization, with thoughts and attitudes continually seeking training, development, and true values. According to these authors, there is no point for an organization to have tools, instruments, techniques, organizational structure, resources, and information, if the mental models of individuals of the organization are unable to process them and make decisions to position the organization strategically. These considerations are consistent with those of Mioranza et al. [26], by claiming that the way individuals act and relate is also essential influencers to the organizational processes.

The competitiveness of companies depends on the ability of the organization—or entrepreneur—to identify opportunities, trends, and new realities in the market in which the organization operates; as well as the ability to see what occurs within the organization, to question existing practices and procedures, and have the ability to adapt them as needed. It is clear, therefore, that the way entrepreneurs think about their organization, the image they have of its development, and the way they pursue their objectives can either broaden or narrow the possibilities of the organization [15]. De Toni et al. [27] collaborate with this reasoning by stating that the construction of mental models of the entrepreneurs can strongly influence the performance of organizations, contributing to the differences in performance between same-sized organizations and in the same market segment.

The mental models are an important factor in the entrepreneurial process emphasizing the social nature of it and the need for the development of studies on the subject [28].

### **2.3. The creative economy in Brazil**

The creative economy sector began to gain prominence worldwide in 1986, when the United Nations (UN) published the Declaration of the Right to Development, which states that it is an indisputable human right and also a duty of the state. The creative economy has to be understood as a “strategic axis of development for different countries and continents in the new century [3].”

The sector of the creative and cultural economy includes the activities performed from intellectual capital that generates new jobs and enables economic growth and the development of the country. According to the 2008 Report of the United Nations Conference on Trade and

Development (UNCTAD), the creative economy is comprised of “the cycles of creation, production and distribution of goods and services that use creativity and intellectual capital as primary inputs [29].”

The creative factor is of great importance for the country’s economy. Creativity is a “relevant factor for the establishment of trade relations, competitiveness, and global economic integration to the extent that the ability to create becomes more important than the production of commodities and industrial products with low added value [30].”

In this economy, the main raw material is creativity itself, and its activities can be grouped as core, related activities, and support activities, in accordance with the UNCTAD’s proposed classification. Core activities include segments such as Cultural Expressions, Performing Arts, Visual Arts, Music, Film, Video, TV, Radio, Printing and Publishing, Software, Technology, Architecture, Design, Fashion, and Advertising. The related activities are composed of segments for secondary companies providing services and materials essential to the core activities. Support activities relates to the indirect deliveries of goods and services that support both the core and related activities.

It is important to realize that the creative economy is a productive sector and provides potential for development, including the creation of public policies that encourage its growth. The Office of Creative Economy (SEC) was created in 2011, under the Ministry of Culture, which developed the Plan of the Secretariat of Creative Economy, containing actions to regulate and stimulate the activities of this sector.

The SEC, through the Plan of the Secretariat of the Creative Economy, defines creative industries as “all productive activities that have as their main function the generation of a creative output of symbolic value, which becomes the central element for price formation and production of cultural and economic wealth [3].”

The 2012 SEBRAE report shows that the annual growth of the creative sector in the last 5 years, as compared to the country’s Gross Domestic Product (GDP), is of 6.13%. The survey data indicates the volume of people exercising formal occupations related to creative industries—3,763,271 people, or 8.54% of the country’s formal employees. There are 865,881 persons exercising formal occupations in activities related to the core, representing 1.96% of total formal employees in the country. The average monthly income of formal workers in the core activities of the creative industry is R\$ 2293.64, 44% higher than the average income of formal workers in the country, which averages at R\$ 1588.42. The research also shows that 63,373 companies are acting in the core of the creative industries, which corresponds to 1.86% of the total of 3,403,448 enterprises in the country [31].

Thus, one can observe the importance of the sector to the economy, especially if you take into account the fact that the country has a huge number of informal enterprises in this sector—as in other sectors of the economy—which makes it difficult to fully analyze it in terms of the number of acting enterprises and number of persons employed therein, as well as the financial transactions that it produces, and the extent of their contributions to their growth and development of the sector.



### 3. Methodology

The methodology of this research is characterized as qualitative, constituting of a descriptive and explanatory case study. The qualitative research is essentially interpretative, which includes a description and analysis of data about people, organizations, or even scenarios, with the aim to interpret and generate bases for some considerations and conclusions from the data [32].

The case study method appears to be the most suitable for the proposed goals of this work, the method “is characterized by deep and exhaustive study of one or a few objects, so as to allow their broad and detailed understanding [33].” The case study is the process that “investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly defined [34].” Thus, this research consists of a case study of multiple subjects.

This study can be characterized as descriptive and explanatory. The descriptive study aims to “accurately describe the facts and scenarios of a certain reality [35].” The explanatory research deepens the knowledge of a particular subject, and that it can be performed as a continuation of descriptive research [33].

Five companies in the cultural sector in Belo Horizonte, one of the segments that make up the sector of the creative economy, were selected based on the criteria of accessibility. As the focus of the research is the analysis of the mental models of the entrepreneur, which are related to individual behaviors and perceptions, there was no concern in distinguishing very successful companies to other that are less successful, but to select companies that were consolidated in market, having the entrepreneurs as the main subject of the research.

The fieldwork consisted of semi-structured interviews with an entrepreneur of each of the companies surveyed, based on the script used by Mioranza [16], adapted for the objectives of this research. For the analysis and interpretation of data, we used the technique of content analysis that should produce results that reflect the objectives proposed in the research based on the extracted content of communication [36]. The content analysis can be understood as a set of techniques for communication analysis, through an objective and systematic description of the revealed content, for the purpose of interpreting the message. This technique “seeks to know what is behind between the lines [37].”

The interviews were recorded and transcribed so that the speech content could be analyzed according to the thematic category method, with the aid of Windows Excel spreadsheets to interpret the data obtained. Data was analyzed according to Bardin [37] and is presented and analyzed in the next section.

### 4. Presentation and analysis of data

To better understand the organizations surveyed, a brief description of each is necessary. The first organization, the School of Visual Arts, was founded in 1999 in Belo Horizonte, and offers courses in cartoon illustration, drawing from observation, composition, anatomy



and perspective, animation, visual storytelling, painting, advertising art and illustration, sculpture and modeling, digital and 3D illustration, and technical course in visual arts. The school is a small business, founded by two partners with 16 employees, and a teaching staff consisting of 15 experienced and qualified teachers to provide quality education to their students.

The second company operates in the field of motion picture, founded in 1992 as an open air cinema in order to display French films only. Two years later, in 1994, the current owner took over the company with the vision to display a repertoire, not only French, but independent movies originating from all European, North American, Latin American countries, and more. Subsequently, the organization acquired sponsorships of large corporation, such as Unibanco and Usiminas, which provided greater livelihood to the exhibits. The organization currently has three projection rooms with a capacity for up to 138 people, and it promotes various film festivals, including free daily shows at public schools in the suburban areas with the goal of enabling low-income children to gain cultural access to through the exhibits. This project takes place throughout the year without the help of the government or any funding for its implementation. This is a small business and currently employs about 30 employees. Besides the exhibition of films, the open-air cinema houses in its space have a restaurant and cafe, a bookstore, and a small shop selling customized products.

The third subject is a publishing company founded in 1981 with the intention of bringing African-Brazilian and Brazilian cultures back into schools through the publication of books. According to the entrepreneur, the idea was to mildly debate the theme of racial prejudice by enhancing self-esteem and the sense of equality among children. This small business employs seven full time employees and relies on the cooperation of other freelance professionals for illustration and layout work. The publisher currently offers in its catalog books in the field of Anthropology, Sociology, History, Education, Brazilian Literature, Children, and Youth Literature. In textbooks, other topics were added to promote cultural development of children and adolescents, such as the children with special needs, native Brazilians in the current society, gender and homosexuality, among other topics.

The fourth company is a theater group founded in 1982 by 12 artists aiming to create pieces that reflect and represent their generation. The interviewee is one of the founders of the group that brought her education and professional business experience as an accountant and administrator to the enterprise. The theater group is a small business currently employing 50 people at its headquarters—the cultural center, created from the perceived need for greater social engagement with performance arts in the city, with focus on research, training, and encouragement of theatrical creation. The organization offers courses and workshops for artistic training for various projects in the area, while maintaining a research center, as well as preservation of the art through an in-house book and video library. The group has performed repeatedly in all regions of Brazil, as well as in the United States, Canada, and several countries in Europe and Latin America.

The fifth company is a puppet theater group founded in 1970 by three professors of the School of Fine Arts at the Federal University of Minas Gerais (UFMG). The group manages every project from script creation and adaptation, to scene props, to de conceptualization, and creation of the puppets. In 2000, the group decided to part ways the University, looking for

greater administrative autonomy as well as greater possibilities for gaining sponsorship to finance their projects. In 2003, with the death of two of the original founders, the direction of the group was passed to one of the original partner's daughter and two other professionals. Since then, the group has developed several projects, creating new shows, and a museum where the puppets and props of shows since its foundation and the school are exposed, and a school which offers introductory courses to puppetry.

With regards to demographics of the respondents, among the five subjects researched, three are men and two women. The entrepreneurs surveyed are between 40 and 71 years of age, two are married, two are single, and one is divorced. About their academic backgrounds, all respondents have training in the area in which they operated and exhibited quite diverse professional experiences prior to opening their current companies, which might have been beneficial in the development and growth of their current businesses—confirming the above cited theory by [24, 26].

The respondents reported that they always had an interest in getting involved in the arts industry. According to the theory, the motivations of the entrepreneur can originate from their creativity, need to contribute to society through their work, and the need for recognition [38]. Their motivations for the creation of their enterprises can be seen in the extracts below:

*And I always thought to myself, what would I be willing to do until I die? I'll be working, because I do not believe in retirement. So what type of work would satisfy me? You often hear of artists of visual arts who die in the middle of a project, this is very common in this field and I admire that. (I1)*

*[...] What I feel for motion pictures is not passion, it is love. Love is very distinct from passion. Love requires dedication, resignation, sacrifice, patience, tolerance, cadence, faith, believe. Love is a different feeling by choice. I chose motion pictures because I love it. (I2)*

*[...] This space stimulates greatly. It's a space where playfulness extraordinary are possible, where people can express their emotions, show their other side. This interested me more than being a farmer, which was my destiny because my father was a farmer. (I4)*

One interviewee showed her desire to give continuity to the work of her parents, a responsibility to carry on a social activity that brings cultural projects to less fortunate social classes.

*Years ago, my dad gave an interview at the group, and the end of it he laughed and he said "look, I think we've been condemned to make the world go round" and I agree! I agree because he left me here with the hot potato, and I'm thinking that's it, I'm doomed, I don't have too many options! (laughs) (I5)*

Such feelings are related to the life history of the individual, and even their family ties as described by [26]. Another observation from the interviews is the view that the company could contribute in some way to the social question, as in art school, which detected the lack of trained visual arts professionals in the city, fulfilling not only the commercial purpose of any institution, but also the social objective of training professionals. As the publisher, which seeks to bring schools the discussion of prejudice and racial inequality, it also has the function of changing the cultural viewpoint of the society:

*[...] God knows how I've been supporting my community library here. It's what I like to do—put a book into the hands of a kid, although kids today do not like to read much, but we have to insist! We can't be discouraged! It's a question value, I believe in the cause, I believe that this work is important and there's a lot much more to be done. (I3)*

According to [25], mental models are characterized by cognitive, symbolic, emotional, and functional elements. The authors define the cognitive elements as the mental constructs of the individual on a particular experience or object, allowing the evaluation of the image the individual has of the organization. The extracts from the interviews that reflect these elements are presented in **Table 1**.

The data presented reflects cognitive elements of images that respondents constructed in relation to their organizations. Their speeches are marked by descriptor such as constant movement, community project, and what the company offers to its target audience. An element that displays disparity to the others is the symbolism of struggle and survival, as it relates to the difficulty of survival in a competitive environment. In this sense, the capacity and the behavior of the entrepreneur are fundamental bases for the continuity of the company [39].

The symbolic elements are related to what the organization represents or symbolizes for the subject, the meanings they assigns to it [25]. The data obtained from the interviews were presented in **Table 2**.

Entrepreneurs had common symbolic elements related to joy, memory and stability. Noteworthy are the symbolic elements, translated as “my life,” “big career goal,” which are greatly related to the identification with the organization. Other evidence presented in the interviews demonstrates certain symbiosis between the entrepreneur and their organizations: at times, entrepreneurs confuse the characteristics of the organization with their own and describe both. This can be clearly seen in the following extract: “The open air cinema is synonymous with strength, and I am his guardian (I2).” This can be explained by the fact that the entrepreneur is looking to print their values and characteristics in the companies they created. It is an interesting result, however, to find that level of identification with the established organization. Such data collaborates with the study of [15].

In the case of cinema, we are faced with the question of preserving the city’s cultural heritage. According to the theory, this fact can produce the strengthening of the creative potential and the development of the organization [40, 41].

The emotional elements refer to the affective state, albeit positive or negative, that the individual has towards the organization [25]. The emotional elements cited by the entrepreneurs surveyed were very diverse, most mentioned were feelings of satisfaction, joy, commitment, achievement, responsibility, anxiety, and frustration. **Table 3** presents the elements mentioned.

Cognitive Element—How do you describe... (company name)?				
This is the space where experienced artists show aspiring artists the possibilities that they may have.	It's a house of public interest in the city, plus the responsibility of being the last open air cinema of the city.	It's a small company in Brazilian context, which makes it an endless struggle, hard, difficult in every end.	It's a collective project and lots of work.	It is an eternal motion, is an unrelenting thing, pulsating non-stop.

Source: Survey data.

**Table 1.** Cognitive elements.

Symbolic Element—What the... (name of company) mean to you?				
Stability. It is a safe haven.	It's synonym of resistance.	My life.	It's a big career goal of work and life.	It's my memory, my joy, my life, my history, my future: it's all of that.
Source: Survey data.				

Table 2. Symbolic element.

Emotional Element—What are the feelings that... (name of company) brings you?				
Tranquility and anxiety at the same time.	Responsibility, commitment and joy.	Fulfillment and frustration.	All feelings that a person can experience.	Joy, tears, anger, satisfaction, fulfillment, anxiety.
Source: Survey data.				

Table 3. Emotional element.

It is noticed that the emotional elements described by the interviewees are a mixture of positive and negative feelings, but most predominantly are feelings related to pleasure. It is noteworthy that the elements of anxiety and frustration are related to problematic situations which entrepreneurs surveyed are currently facing in their own businesses. In the first case, the entrepreneur expressed his concern to “refresh the group,” since, according to him, the actors are aging the group needs to continue without their physical presence.

*So we have been thinking about it, how refresh the group, how to give continuity to the group without the physical presence of the founders. Because today, our major limitation is also our greatest advantage - our product is that we do, and our shows take off mostly because of actors in them. This is a physical limitation of both time and space, which is disturbing. (...) And besides, we're old, we're getting old, and can't really take the race (...) How about ten years from now? We're already tired of traveling, how are we going to do? This is how generate revenue so we need to reinvent our model (I4).*

Another fact that stood out was the question of succession. The interviewee, aged 71, is seeking a person who can continue his business with the cultural identity that he gave the company. Single and childless, this entrepreneur does not have a natural successor to take control of the company. She shares how she thinks about it daily and believes that the only solution would be to sell the company when she is no longer able to run the business.

The functional elements are comprised of a number of physical characteristics of the organization, such as size, product line, markets and infrastructure, and translated into aspects of company utility [25]. The interviewed entrepreneurs were asked about the benefits they get from the company. It can be seen through **Table 4**, that despite treating the physical aspects of the environment, most of the elements cited by entrepreneurs qualify as emotional. I was cautious to not fix the entrepreneurs in their speech to fully convey their own perceptions. The mental models are a partial reflection of object, which can be understood by the means of perception [20, 42].

The elements reported show the emotional bond that entrepreneurs have with relation to their companies. For the respondents, their companies symbolize their achievements, a place of personal and professional fulfillment. Aiming to expand the vision of the mental representations

Functional Element—What benefits will the... (name of company) gives you?				
Constant learning.	Professional achievement. And what I need, materially speaking.	A reasonably good life, spiritually and mentally.	A very interesting experience as an actor, as well as my subsistence.	I love my work and have fun doing it.

Source: Survey data.

**Table 4.** Functional element.

of the interviewed entrepreneurs about their organizations, they were asked about what comes to mind when they hear the name of their company. The elements represented were the most diverse, but also related to the feelings they have for their companies. Some elements, such as love, commitment, sense of belonging to a collective project, joy, only underscore the level of personal connection entrepreneurs have with their own ventures. Thus, it is perceived that the mental models of the surveyed entrepreneurs of this cultural segment are loaded with symbolic representations related to the emotional aspects of the relationship between entrepreneurs and their own businesses. The results point to a strong relationship of identification and realization by the interviewees.

The surveyed cultural entrepreneurs had an inclination to identify market opportunities as [26, 39]. Two of the respondents reported having identified themselves to a market opportunity when opening their businesses, both aimed to fulfill unexplored markets in the city. As for new market opportunities, all cultural entrepreneurs surveyed reported to know opportunities in underexplored niches or of great potential in their own markets, both for the development of new products and services for these niches, confirming the approach [15]. Two of the entrepreneurs surveyed reported that one of the issues that ultimately hinder progress in this segment is the lack public policies for investments in the cultural area:

*Because the government, I'll give you an example, there is a line of credit from government for recovery open air cinemas and creating new theaters with Brazilian capital. Look how wonderful! A 4% interest per year, that looks wonderful!? And you can pay in 12 years, look how wonderful? Just you need to guarantee the same money you borrow! If I have the value I'm asking, it's easy, no need to take loan! So that's the difficulty here in Brazil. They need to understand that it's not a 'favor' the state is creating, it's a way to strengthen the cultural level of the people and this kind of cinema is strictly cultural. But the Brazilian government doesn't understand it yet. (I2)*

*I think the biggest challenge is that we're still an underdeveloped country. A country where you still have a narrow political class, managers who lack knowledge, lack of culture, lack citizenship, lack ethics, lack full observance of the constitution, and because of the lack of collective interests they always turn their back to the cultural industry. Fail to see that education and culture are essential for a human being to be happy. (I4)*

Such difficulties are not unknown to the government; proof is in the second key challenge the Plan of the Secretariat of the Creative Economy, which calls for the development of public policies for the sector, as well as the coordination, encouragement, and promotion of creative endeavors. The document stresses that public notices of promotion are currently the only means of investment in culture in the country, and that it is necessary to find other ways to finance projects in this sector [3].

Thus, new forms of financing through the development agencies, public, and private banks need to be created. Lenders need to adapt their offers to the actual needs of the industry, while taking into consideration their inability to provide full security for such loans, and meet deadlines and other requirements imposed by the lending institutions. If the nature of these entrepreneurial endeavors differs from traditional enterprises, it is necessary to create policies and regulations that promote their development.

Regarding the process undertaken, respondents cited some factors that provide pleasure in the process. Among the most frequently cited factors are; the pleasure to see the outcome of their efforts, the possibility to create something new, the satisfaction of getting a positive result, to overcome challenges and see the company grow; as reflected in the statements below:

*[...] It's like having a dream and not know if it will ever work. (I1)*

*I think it is a chance, that's all. (I2)*

*You see the book in the kid's hand, whether at school or at any other place. That's when I begin to drool! The kid doesn't know who I am, never mind who the publisher is, he's just there enjoying the book, the new world that he's walking into. (I3)*

*You happen to see an invention come to fruition, a new idea to be performed -that gives me more pleasure than anything. To see it happen and transform it into reality. That's what gives me pleasure. (I4)*

*I think it's to create. To draw the puppet, see it being built, and finally ready. I think that is what gives me the most pleasure. (I5)*

Some of the motivations refer to the need for achievement, which is a second entrepreneurial characteristic, according to [11]. This characteristic is the individual need of entrepreneurs to test their limits and capabilities to performing what they have proposed. The need for achievement drives individuals to start and build their businesses [11].

Regarding the involvement of the respondents with their ventures, they reported working about 10–12 h a day. In some accounts, it was observed that respondents often take work home and even work on weekends and during the holidays.

Regarding the degree of importance given to their businesses, three of the respondents reported that cultural entrepreneurs put their companies before their personal lives. The other two have given the company the second place in their lives, being second only to their children. About the motivations that lead them to continue with the organizations, the reports show the involvement and commitment of entrepreneurs with their organizations:

*I think it's the idea that we're just beginning (I1).*

*Man, I never want to stop! To stop for me would be the end of my life (I2).*

*If I did not have to work, I don't know what I would do. My sister says "Are going to work until you die?" I say: "If I could die working, I will find it to be a very good end." (I3).*

*I think it's because of all the possibilities that are still on the table, that I still can take a risk and see what could happen (I4).*

*I think that's my story, challenge, each year has a new challenge, a history, my days are never the same. So I think that's what motivates me (I5).*



The reports feature elements such as: satisfaction, challenges, opportunities for personal and professional growth, possibilities for what the business can become, as well as the emotional bond created with the company. The existence of such elements strengthens the bond and commitment of the entrepreneurs interviewed with their businesses. This data confirm what [25] argues as the greater the importance entrepreneurs give to their organization, the larger meaning of commitment is associated with it.

The data also indicates common elements of mental models among entrepreneurs surveyed in this segment, especially with regards to the elements cited [25, 26]. Among them, the symbolic and emotional elements that led respondents to explore their mental representations in relation to their endeavors are highlighted. With this regard, it was apparent in their speech, evidence showing a strong connection, identification, and a symbiotic relationship with their companies, what seems to be one of the main sources of great motivation and commitment to the same. Such involvement can also come from the pleasure afforded by the fact that they do what they love, which in turn provides an opportunity to satisfy their need for achievement.

## 5. Final considerations

This study aimed to analyze the common elements in the mental models of cultural entrepreneurs in Belo Horizonte, Brazil. The field research was conducted through semi-structured interviews with an entrepreneur of each company studied.

The interview results indicated that cultural entrepreneurs are often required to deal with financial difficulties to sustain their ventures, whether through the Law for Promotion of Culture or sponsorship development. These difficulties require the entrepreneur to obtain necessary resources to execute their projects, as well as to have the ability to manage resources, deal with the allocated budget, all while striving to achieve the projected results.

For this to occur, it is necessary to develop the entrepreneurial skills that enable dealing with these activities efficiently. It is not enough for entrepreneur this segment, have only the artistic and cultural skills for the development of the organization. It is essential to create public policies and programs that make possible the formation and development of management skills in these entrepreneurs with the aim of strengthening the projects already established and also provide the basis for the creation of new ventures. Thus, it is necessary to consider that the nature and dynamics of these activities and projects differ from traditional enterprises, becoming essential and urgent to create policies that promote their development. It is necessary to establish new forms of financing that encourages the development of enterprises, calling for public and private banks to adapt their offerings by taking into account the challenge the entrepreneurs face that to offer collateral and abide by deadlines required by the lending institutions.

Investments in this sector is necessary as it has a have specific role in society. The cultural sector has great social impact in the country [43, 44]. Mainly because Brazil is a developing country, which should strive to invest in education and culture, thus promoting more than the development of its population, but the fulfillment of a constitutional right guaranteed to

the people. It is also considered that such actions justified the formalization of enterprises that operate informally, show that the industry has potential for economic growth and generation of tax revenue for the country. Small enterprises and valorization of the culture can provide a fertile environment for the strengthening of the local economy [45].

It is hoped that this study can contribute to the social context, providing information regarding the specifics of these organization, to help establish public policies that enable the development of businesses in the creative economy sector as the first challenge in the proposed Plan of the Secretariat of Creative Economy (2011), with regards to survey information and industry data.

The collected data indicate common elements of mental models between the entrepreneurs surveyed. The most evident were the emotional and symbolic elements that led respondents to explore their mental representations in relation to their endeavors. Were evident, in their responses the strong connections with their respective companies (almost symbiotic), fueled their motivation and commitment to the success of their enterprises.

Among the common elements we highlight a few like emotional satisfaction, joy, commitment, achievement, responsibility, anxiety and frustration, and "all the emotions inherent to any other area of life," mentioned during the interviews. The reports are marked by positive elements, such as satisfaction and achievement. Only two of the respondents also cited the frustration and anxiety due to adverse situations they face in their businesses. Such networks of meanings formed in their mental models around their developments point to some elements common to entrepreneurs surveyed: their high degree of involvement and commitment to their organizations, and also their emotional ties with their businesses. Distinct elements of mental models of entrepreneurs within the same segment are fully explainable since, despite of being companies in the same industry, they perform different activities.

The research results point to the importance of the theme of this study. The development of mental models of entrepreneurs can narrow or broaden the possibilities for growth of organizations, by building the skills of entrepreneurs and their decision-making in the conduct of their respective companies. As these are dynamic structures that can change over time, it is believed that mental models can be created to encourage the development and organizational performance. The development of mental models of entrepreneurs can narrow or broaden the possibilities for growth of organizations, by building the skills of entrepreneurs in the conduct of their companies.

A challenge found in this research is anchored by the fact that the subject of mental models still offers sparse literature, particularly in the area of administration, since this topic has been extensively explored in the areas of education and psychology. The studies related to the mental models of entrepreneurs conducted so far are few and recent. One limitation of the research is the fact that a small number of entrepreneurs have been interviewed.

It is suggested for future studies, the continuity of research conducted in non-traditional sectors of the economy, such as the creative economy, with the goal of building a more adequate research model for these segments, to better analyze the mental models of these entrepreneurs. Thus, this paper is expected to contribute to the expertise, education, and training of entrepreneurship, providing administrator with realistic training with a vision of new segments of



the economy to be better exploited. Above all, this study aims to show that this market sector is different from the others and it lacks specialized competencies of individuals wishing to enter this environment. It is believed that continuous research in these areas can greatly contribute to business growth, through the development of their entrepreneurial skills and consolidation of mental models geared to better organizational performance. In the perspective of management, the theme of the creative economy has still been little explored, constituting an opportunity for its development [44]. It is hoped that this study may well contribute to the development of the subject, and it may stimulate further research in the area considering its importance to the field of management studies.

## Author details

Anna G.M. Oliveira\* and Marlene C.O.L. Melo

\*Address all correspondence to: [annamira@gmail.com](mailto:annamira@gmail.com)

Unihorizontes University Center, Belo Horizonte, Brazil

## References

- [1] Greco SMSS et al. GEM—Empreendedorismo no Brasil: 2010. Curitiba: IBQP; 2010. Available from: [http://www.sebrae.com.br/customizado/estudos-e-pesquisas/temases-trategicos/empreendedorismo/livro\\_gem\\_2010.pdf](http://www.sebrae.com.br/customizado/estudos-e-pesquisas/temases-trategicos/empreendedorismo/livro_gem_2010.pdf) Accessed: December 09, 2010
- [2] Singer S, Amorós JE, Arreola DM. GEM—Global Entrepreneurship Monitor 2014-2015 Global Report. Massachusetts: Babson College; 2015. Available from: <http://www.gem-consortium.org/report> Accessed: March 11, 2015
- [3] Ministério da Cultura. Plano da Secretaria da Economia Criativa: Políticas, Diretrizes e Ações 2011 a 2014. Brasília: Ministério da Cultura; 2011. Available from: <http://www.cultura.gov.br/site/wp-content/uploads/2011/09/Plano-da-Secretaria-da-Economia-Criativa.pdf>. [Accessed: May 15, 2011]
- [4] Brasil. Lei nº 12.343 de 23 de dezembro de 2010. Institui o Plano Nacional de Cultura - PNC, cria o Sistema Nacional de Informações e Indicadores Culturais - SNIIC e dá outras providências. 2010. Available from: <http://www.cultura.gov.br/site/wp-content/uploads/2011/05/Lei12.343-PNC-Publica1.pdf> [Accessed: September 02, 2011]
- [5] Dornelas JCA. Empreendedorismo: Transformando Idéias em Negócios. Rio de Janeiro: Elsevier; 2001
- [6] Schumpeter JA. A Teoria do Desenvolvimento Econômico. Nova Cultural: São Paulo; 1988
- [7] Filion LJ. Empreendedorismo: Empreendedores e proprietários-gerentes de pequenos negócios. Revista ADM. 1999; 34:05-28. Available from: [http://www.rausp.usp.br/busca/artigo.asp?num\\_artigo=102](http://www.rausp.usp.br/busca/artigo.asp?num_artigo=102) [Accessed: September 02, 2000]

- [8] Schumpeter JA. Capitalismo, Socialismo e Democracia. Rio de Janeiro: Fundo de Cultura; 1961
- [9] Drucker PF. Inovação e Espírito Empreendedor (Entrepreneurship): Prática e Princípios. Pioneira: São Paulo; 1986
- [10] Sarkar S. Empreendedorismo e Inovação. Escolar: Lisboa; 2007
- [11] McClelland DC. A Sociedade Competitiva: Realização e Progresso Social. Rio de Janeiro: Expressão e Cultura; 1972
- [12] Souza ECL. Empreendedorismo: Da gênese à contemporaneidade. In: Souza ECL, Guimarães TA, editors. Empreendedorismo Além do Plano de Negócio. São Paulo: Atlas; 2006. p. 3-20
- [13] Hisrich RD, Peters MP. Empreendedorismo. Bookman: Porto Alegre; 2004
- [14] De Toni D et al. Os modelos mentais dos empreendedores e sua relação com o desempenho organizacional. In: Encontro Nacional da Anpad, 32; Rio de Janeiro; 2008. Available from: [http://www.anpad.org.br/evento.php?acao=trabalho&cod\\_edicao\\_subsecao=391&cod\\_evento\\_edicao=38&cod\\_edicao\\_trabalho=8891](http://www.anpad.org.br/evento.php?acao=trabalho&cod_edicao_subsecao=391&cod_evento_edicao=38&cod_edicao_trabalho=8891) [Accessed: September 02, 2008]
- [15] Estrada RJS, Flores GT, Vasconcelos F. A influência dos modelos mentais no processo de mudança e no desempenho organizacional: uma proposição de perfil de modelo mental. In: Seminários em Administração da Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo (FEA-USP), 12; São Paulo; 2009. Available from: [http://www.ead.fea.usp.br/semead/12semead/resultado/an\\_resumo.asp?cod\\_trabalho=1032](http://www.ead.fea.usp.br/semead/12semead/resultado/an_resumo.asp?cod_trabalho=1032) [Accessed: September 02, 2009]
- [16] Mioranza, G. 2012. Modelos mentais dos empreendedores e sua relação com o desempenho organizacional: Um estudo no setor metal mecânico de Caxias do Sul [Masters dissertation]. Caxias do Sul: Universidade de Caxias do Sul; 2012
- [17] Johnson-Laird PN. Mental models in cognitive science. *Cognitive Science*. 1980;4:71-115. DOI: 10.1207/s15516709cog0401\_4
- [18] Johnson-Laird PN. Mental models and probabilistic thinking. *Cognition*. 1994;50:189-209. DOI: 10.1016/0010-0277(94)90028-0
- [19] Johnson-Laird PN. Mental Models and Human Reasoning. Special ed. PNAS: Princeton University; 2010. p. 2. DOI: 10.1073/pnas.1012933107
- [20] Chapman JA, Ferfolja T. Fatal flaws: The acquisition of imperfect mental models and their use in hazardous situations. *Journal of Intellectual Capital*. 2001;4:398-409. DOI: 10.1108/EUM0000000006087
- [21] Fassin Y et al. CSR and related terms in SME owner-managers' mental models in six European countries: National context matters. *Journal of Business Ethics*. 2014;120:11-24. DOI: 10.1007/s10551-014-2098-7

- [22] Senge PM. A Quinta Disciplina: Arte e Prática da Organização de Aprendizagem. Best Seller: São Paulo; 1990
- [23] Hill RC, Levenhagen M. Metaphors and mental models: Sensemaking and sensegiving in innovative and entrepreneurial activities. *Journal of Management*. 1995;21:1057-1074. DOI: 10.1177/014920639502100603
- [24] Gouveia TB, Grisci CLI. A demanda empreendedora e o trabalho imaterial na construção da subjetividade do “empreendedor”. In: Encontro Anual da Associação Nacional de Programas de Pós-graduação em Administração, 30; Salvador; 2006. Available from: [http://www.anpad.org.br/evento.php?acao=trabalho&cod\\_edicao\\_subsecao=149&cod\\_evento\\_edicao=10&cod\\_edicao\\_trabalho=6061](http://www.anpad.org.br/evento.php?acao=trabalho&cod_edicao_subsecao=149&cod_evento_edicao=10&cod_edicao_trabalho=6061). [Accessed: September 02, 2006]
- [25] De Toni D, Milan GS, Hexsel A. O desempenho organizacional a partir dos modelos mentais dos empreendedores: Um estudo exploratório em duas empresas do setor metal-mecânico. In: Encontro de Estudos em Estratégia da Anpad, 3; São Paulo; 2007. Available from: [http://www.anpad.org.br/evento.php?acao=subsecao&cod\\_edicao\\_subsecao=255&cod\\_evento\\_edicao=30&interna=true#3es\\_2007](http://www.anpad.org.br/evento.php?acao=subsecao&cod_edicao_subsecao=255&cod_evento_edicao=30&interna=true#3es_2007) [Accessed: September 02, 2008]
- [26] Mioranza G et al. Modelos mentais: Estudo de suas implicações no desempenho organizacional. Simpósio de Excelência em Gestão e Tecnologia, 8; Rio de Janeiro; 2011. Available from: <http://www.aedb.br/seget/artigos11/2614530.pdf> [Accessed: May 15, 2011]
- [27] De Toni D et al. As dimensões dos modelos mentais dos empreendedores e seus impactos sobre o desempenho organizacional. Encontro de Estudos em Estratégia 6; Bento Gonçalves/RS; 2013. Available from: [http://www.anpad.org.br/diversos/trabalhos/3Es/3es\\_2013/2013\\_3Es75.pdf](http://www.anpad.org.br/diversos/trabalhos/3Es/3es_2013/2013_3Es75.pdf) [Accessed: January 15, 2013]
- [28] Grazzini F, Boissin J. Analyse des modèles mentaux développés par les dirigeants français en matière d’acquisition ou de reprise de PME. *Management*. 2013;16:49-87. DOI: 10.3917/mana.161.0049
- [29] Costa AD, Souza-Santos ER. Economia criativa: Novas oportunidades baseadas no capital intelectual. *Revista Economia & Tecnologia*. 2011;7:179-186. Available from: [http://www.economiaetecnologia.ufpr.br/revista/indices/volume\\_07\\_n\\_2.html](http://www.economiaetecnologia.ufpr.br/revista/indices/volume_07_n_2.html) [Accessed: April 24, 2011]
- [30] Costa AD, Souza-Santos ER. Economia criativa no Brasil: Quadro atual, desafios e perspectivas. *Revista Economia & Tecnologia*. 2011;7:151-160. Available from: [http://www.economiaetecnologia.ufpr.br/revista/indices/volume\\_07\\_n\\_4.html](http://www.economiaetecnologia.ufpr.br/revista/indices/volume_07_n_4.html) [Accessed: April 24, 2011]
- [31] Sebrae. 2012. A Economia Criativa Brasileira: Estimativas e Tendências: Secretaria de Economia Criativa Reúne e Publica Dados Relevantes Para o Setor. Available from: [http://www.sebrae.com.br/setor/cultura-e-entretenimento/gestao-empresarial/mapeamentos/integra\\_bia/ident\\_unico/18549](http://www.sebrae.com.br/setor/cultura-e-entretenimento/gestao-empresarial/mapeamentos/integra_bia/ident_unico/18549) [Accessed: June 27, 2012]

- [32] Creswell JW. Projeto de Pesquisa: Métodos Qualitativo, Quantitativo e Misto. Artmed: Porto Alegre; 2007
- [33] Gil AC. Métodos e Técnicas de Pesquisa Social. Atlas: São Paulo; 1999
- [34] Yin RK. Estudo de Caso: Planejamento e Métodos. Bookman: Porto Alegre; 2001
- [35] Triviños ANS. Introdução à Pesquisa em Ciências Sociais: A Pesquisa Qualitativa em Educação. Atlas: São Paulo; 1987
- [36] Franco MLPB. Análise de Conteúdo. Liber Livros: Brasília; 2008
- [37] Bardin L. Análise de Conteúdo. Lisboa: Edições 70; 1977
- [38] Chen MH et al. Understanding creative entrepreneurs' intention to quit: The role of entrepreneurial motivation, creativity, and opportunity. *Entrepreneurship Research Journal*. 2017;3:7. DOI: 10.1515/erj-2016-0001
- [39] Smirnov V. The genesis of the entrepreneurship theory at the classical and non-classical stages of science development. *Economic Annals-XXI*. 2017;164:14-19. DOI: 10.21003/ea.V164-03
- [40] Abankina T. Creative economy: Towards cultural heritage capitalization. *Voprosy Ekonomiki*. 2017;4:100-116
- [41] Castro FG, Figueiredo LF. Creative economy as value proposal in business models. *NAVUS-Revista de Gestão e Tecnologia*. 2016;6:111-122
- [42] Siachou E, Daskou S, Yannopoulos P. Existing dimensions of absorptive capacity and the way foreword: The mediating functionality of mental models manifested by entrepreneurs. In: 12th Annual European Conference on Knowledge Management (ECKM); Passau, Germany. Available from: <http://connection.ebscohost.com/c/articles/98280699/existing-dimensions-absorptive-capacity-way-foreword-mediating-functionality-mental-models-manifested-by-entrepreneurs> [Accessed: August 23, 2017]
- [43] Lazzeretti L, Innocenti N, Capone F. The impact of related variety on the creative employment growth. *The Annals of Regional Science*. 2017;58:491-512. DOI: 10.1007/s00168-016-0805-2
- [44] Oliveira P et al. Economia criativa na produção científica brasileira em administração: Mapeamento bibliométrico nas bases ANPAD, CAPES E SPELL. *Revista GEINTEC*. 2016;6:2966-2981. DOI: 10.7198/S2237-0722201600010018
- [45] Aragão A et al. O impulso da economia criativa no desenvolvimento regional no México. *Revista GEINTEC*. 2017;7:3634-3645. DOI: 10.7198/S2237-072220170001004

---

# **Economic Transition and the Corporate Governance Implementation**

---

Zuzana Kittová, Dušan Steinhauser and  
Viera Ružeková

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70533>

---

## **Abstract**

In Slovakia, the privatization of the state property in the beginning of the 1990s created a need for the corporate governance implementation. The aim of this chapter is to evaluate the level of implementation of corporate governance in Slovakia after more than 25 years since starting the transition from a centrally planned to a market economy, including a legal framework for its implementation. To support our analysis, we explored a relationship between the level of the corporate governance implementation and economic results of corporations. For this purpose, we reviewed annual reports for year 2015 by 27 corporations listed on the Bratislava Stock Exchange. The average profit of the evaluated corporations was approaching 21 million EUR, and the average assets value was at 1.2 billion EUR. Using the scoring method devised by us for this purpose, the average score of the annual report evaluation reached 2.59 points out of maximum 5 points. Finally, we tested a hypothesis that improving the level of corporate governance implementation may contribute to profitability and assets value of corporations.

**Keywords:** corporate governance, principles, implementation, transition, privatization

---

## **1. Introduction**

In the academic literature as well as at the regulatory level, there are various definitions of the corporate governance. A governance in general is dealing with strategy development for directing a group of people and deciding on roles of its members [1]. According to the OECD, corporate governance involves a set of relationships among company's management, its board, shareholders, and other stakeholders. Corporate governance also provides a structure through which objectives of company are set, and means of attaining those objectives and performance

monitoring are determined. The purpose of corporate governance is to help build an environment of trust, transparency, and accountability necessary for fostering long-term investment, financial stability, and business integrity [2]. Corporate governance deals with the way suppliers of finance to corporations assure themselves of getting a return on their investment [3]. Corporate governance system is a combination of mechanisms which ensure that the management (the agent) runs the firm for the benefit of one or several stakeholders (principals). Such stakeholders may cover shareholders, creditors, suppliers, clients, employees, and other parties with whom the firm conducts its business [4]. Corporate governance represents the whole set of legal, cultural, and institutional arrangements that determine what public corporations can do, who controls them, how that control is exercised, and how the risks and return from the activities they undertake are allocated [5]. Knapik explains that it is an internal structure of rules governing the distribution of rights and responsibilities among the actors inside the corporation as well as outside of it. Corporate governance increases the market value of a corporation and the benefits for its shareholders [6]. In our opinion, corporate governance can be defined as a control system for transactions of a specific nature, namely for contractual relations arising between corporate capital owners and corporate managers in result of investing into corporate capital. Property owners are seeking a profitable allocation for their available resources, where managers are possessing professional competences. A contract arises between the capital owners and corporate managers that can be broken by one or both parties under imperfect competition conditions. In order to ensure desirable performance under these contracts, a concept of corporate governance has been devised [7].

It is a prerequisite for the corporate governance implementation that some corporate capital exists. The first joint stock companies emerged in the seventeenth century. However, by the mid of the nineteenth century, companies were mostly directed and controlled by their owners. In 1855, the Limited Liability Act was adopted in the United Kingdom that introduced the concept of limited liability of the shareholders. This resulted in increasing profitability of companies. Management as a profession emerged and the capital ownership was detached from the company management [8]. These matters are the source of essential problems in the current corporate governance.

After the regime change in Slovakia, the transition and namely privatization of the state property in the beginning of the 1990s created a need for the corporate governance implementation. The aim of this chapter is to evaluate the level of implementing corporate governance in Slovakia after more than 25 years since starting the transition from a centrally planned to a market economy, including a legal framework for its implementation, as well as to explore an expected relationship between the level of the corporate governance implementation and economic results of corporations.

## **2. Economic transition and privatization in Slovakia**

Economic transition from the centrally planned to a market economy at the beginning of 1990s started by one-shot price liberalization, followed by further rapid liberalization steps including abandoning of wage regulation, introduction of internal convertibility of the currency,

privatization, liberalization of foreign trade (for more details see for example [9–11]), and, in later stages, building of market institutions [12]. The privatization in Slovakia took the form of restitution, the large-scale privatization, and the small-scale privatization. In January 1991, the Bratislava Stock Exchange was founded. The large-scale privatization took place in two phases: the first one in years 1991–1993 and the second one in years 1993–1996. The first phase of the so-called coupon or voucher privatization started with preparing the list of privatized companies. Slovak citizens were granted coupon books with 100 investment points in return for 1000 Kčs (Czechoslovak crown, currency unit in the former Czechoslovakia). Citizens investors were able to purchase directly company stocks or vest their investment points in so-called investment privatization funds (IPFs). As they were lacking any knowledge on investing, IPFs were preferred. These funds obtained 6.1 billion investment points representing 71% out of the total number [13].

In Slovakia, a method of rapid transformation, so-called “shock therapy,” was applied. It was believed that a rapid transformation of property rights would automatically lead to the creation of market regulation mechanism and law enforcement. This method combined the property rights reform with the creation of the financial market of Anglo-Saxon model. At the same time, the German model of universal banks, i.e., the combination of credit and investment banking (concentrated model of corporate governance) was adopted. However, the absence of regulation authorities turned to be a problem in the privatization and in the financial market creation. For example, minority shareholders were not always sufficiently protected [14]. The transformation should have started with effective regulation and law enforcement, not with privatization.

### 3. National corporate governance code

The first national code of best practises for corporate governance was published by the committee chaired by A. Cadbury in 1992 in the UK. In 1999, the OECD published the corporate governance principles. The principles were revised in 2004 and 2015.

*“The Principles themselves are evolutionary in nature and are reviewed in light of significant changes in circumstances in order to maintain their role as leading instrument for policy making in the area of corporate governance” [2].*

The latest review is a response to the international financial and economic crises as well as to challenges of the global economy. The principles are nonbinding, they seek to identify objectives and suggest various means for achieving them. The above document contains six main principles each of which is supplemented by number of supporting sub-principles. The principles are presented in six chapters. In the following text, we indicate only a very brief description of the principles. Due to the large number of changes, we emphasize the most important ones marking them as “new.”

- I. Ensuring the basis for an effective corporate governance framework (transparent and fair markets, efficient allocation of resources, clearly defined split of powers among authorities, new: independency and accountability of supervision, regulatory, and enforcement authorities).



- II. The rights and equitable treatment of shareholders and key ownership functions (shareholders' rights such as the right to secure methods of ownership registration, convey or transfer shares, obtain information on the corporation, participate and vote in the general shareholder meetings, elect and remove members of the board, share in the profits; equitable treatment of shareholders; disclosure of capital structure and control arrangements, new: making use of information and communication technologies at general meetings such as electronic voting and vote confirmation systems, ability to vote in person or in absentia, disclosure of remuneration of board members and key executives).
- III. Institutional investors, stock markets, and other intermediaries as a new principle replacing the previous third principle requiring equal treatment of shareholders (institutional investors acting in a fiduciary capacity, conflicts of interests minimization concerning analysts, brokers or rating agencies, fair and efficient price discovery at stock markets).
- IV. The role of stakeholders in corporate governance (active cooperation between corporations and stakeholders, especially creditors, bank and insurance companies; the rights of stakeholders established by law or by contractual relations; access to information on a timely and regular basis for stakeholders; effective redress for violation of rights).
- V. Disclosure and transparency (disclosure on financial and operating results of a company, on company objectives, share ownership, remuneration, related party transactions, foreseeable risk factors, responsibilities of the CEO and/or Chair, new: nonfinancial reporting).
- VI. The responsibilities of the board (functions of the board such as guiding corporate strategy, major plans of action, annual budgets etc.; selecting, compensating, or replacing key executives, ensuring the integrity of accounting and financial reporting systems, new: responsibility of the board for oversight of the risk management system, tax planning, and internal audit).

Among the most significant changes of the OECD principles in its latest revision, there is the introduction of enforceability together with sanctions in case of incompliance with the principles. Such sanctions by government authorities are included in the first chapter that describes corporate governance framework, transparency, fairness, and effective allocation of resources. In this chapter, new references are also made to the accountability of supervising bodies, respecting human rights, environment protection, as well as to the need for a cross-border cooperation and information exchange among government authorities in different countries in the case of cross-border ownership. As far as the structure of principles is concerned, the third principle—formerly titled “The Equitable Treatment of Shareholders”—has been fundamentally changed. In the new revision, the third chapter aims at discouraging the conflict of interests that may concern analysts, brokers, rating agencies, or other persons. The next important change relates to the obligation to disclose not only financial but also nonfinancial information. Company websites serve as the best medium for this purpose. In our opinion, another significant change is the responsibility of the board for overseeing the risk management system, tax planning, and internal audit.



The OECD principles may be adopted not only by corporations listed on stock markets but also by other companies, including smaller enterprises. For them, adopting and implementing corporate governance principles may improve their reputation, their position in supplier-customer relations, as well as their access to external financial resources.

The OECD principles have become a basis for creating national codes of good corporate governance in many developed countries. According to the OECD, there is no single model for a good corporate governance [2]. The adjustment to local legal, economic, and cultural conditions is therefore necessary. While the EU member states prefer nonbinding corporate governance principles, in the U.S. mandatory rules prevail. Following the year 2000, corporate scandals in the U.S. were revealed such as accounting fraud in Enron and WorldCom. They led to enacting the Sarbanes-Oxley Act in 2002 defining responsibilities of corporation's board of directors and introducing criminal penalties for certain misconducts.

The creation of the national corporate governance code for Slovakia reflects very closely the development concerning corporate governance in the rest of the world. Already, the first Slovak code published in 2002 referred back to the OEDC 1999 principles. This code was incorporated into the Bratislava Stock Exchange rules for shares admission to the listed market. In 2004, the Bratislava Stock Exchange initiated establishing an association that would monitor international developments in the field of corporate governance, update the national code, and promote the implementation of principals by corporations. Foundation of the Central European Corporate Governance Association (CECGA) in 2004 was an important step from the institutional point of view. Following the publication of revised OEDC Principles in 2004 as well as the changes of the relevant legislation in Slovakia<sup>1</sup>, the CECGA in cooperation with other institutions such as the National Bank of Slovakia, the Slovak Banking Association, the Ministry of Finance of the Slovak Republic, the Ministry of Economy of the Slovak Republic, and the Ministry of Justice of the Slovak Republic elaborated the new corporate governance code for Slovakia, setting benchmarks to internal company relationships and environmental matters. It came into effect in 2008 and was applicable to all companies whose securities were admitted to trading on the Bratislava Stock Exchange regulated market [15]. The code was structured according to the OECD principles; however, the principle of ensuring the basis for an efficient corporate governance framework was emphasized as an underlining principle of the code.

The approval of G20/OECD principals' revision in 2015 represents the next milestone of the Slovak national code development. The second Slovak code revision was coordinated by a Steering Committee that met for the first time in February 2016, comprising representatives of five institutions (CECGA, the Bratislava Stock Exchange, the Ministry of Economy of the Slovak Republic, the Ministry of Justice of the Slovak Republic, and the University

---

<sup>1</sup>This legislation encompasses mainly: Act No. 460/1992 – Constitution of the Slovak Republic; Act No. 513/1991 – Commercial Code; Act No. 40/1964 – Civil Code; Act No. 365/2004 Z. z. – Act on Equal Treatment in Particular Areas and on Protection against Discrimination; Act No. 300/2005 – Criminal Code, Act No. 540/2007 Coll. on Auditors, Audit and Audit Supervision; Act No. 483/2001 Coll. on Banks; Stock Exchange Act No. 429/2002 Coll.; Act No. 566/2001 Coll. on Securities and Investment Services; Act No. 7/2005 Coll. on Bankruptcy and Restructuring; Act No. 431/2002 Coll. on Accounting; Act No. 311/2001 – Labor Code.

of Economics in Bratislava). A tutor responsible for review was appointed to each of the six chapters of the code: they were:

- the Ministry of Economy of the Slovak Republic as a tutor for both the ensuring the basis for an effective corporate governance framework (chapter 1) and the role of stakeholders in corporate governance (chapter 4),
- the Ministry of Justice of the Slovak Republic as a tutor for both the rights and equitable treatment of shareholders and key ownership functions (chapter 2) as well as the responsibilities of the board (chapter 6),
- the Ministry of Finance of the Slovak Republic as a tutor for both the institutional investors, stock markets, and other intermediaries (chapter 3) as well as the disclosure and transparency (chapter 5).

The remaining members of the Steering Committee gave recommendations on the draft. Further consultation with specialists and representatives of companies aimed at simplification and readability of the text. Repeatedly revised code was introduced to the public in October 2016 during the 19th European Corporate Governance Conference. Apart from the OECD 2015 Principles, the revised code incorporates also the EU Commission Recommendations on the quality of corporate governance reporting on the “comply or explain” basis (2014/208/EU), on the regime for the remuneration of directors of listed companies (2009/385/EC), on the role of nonexecutive directors of listed companies and on the committees of the board (2005/162/EC) as well as the recommendation fostering an appropriate regime for the remuneration of directors of listed companies (2004/913/EC). In the field of transparency and information disclosure, the relevant EU legal framework is regarded by incorporating the binding Directive 2013/34/EU and nonbinding Commission Recommendation 2014/208/EU. The Directive 2013/34/EU on the annual financial statements, consolidated financial statements, and related reports of certain types of undertakings refers to the corporate governance in recital 4:

*“Annual financial statements pursue various objectives and do not merely provide information for investors in capital markets but also give an account of past transactions and enhance corporate governance. Union accounting legislation needs to strike an appropriate balance between the interests of the addressees of financial statements and the interest of undertakings in not being unduly burdened with reporting requirements” [16].*

Undertakings referred to in the directive (i.e., public-interest entities such as undertakings, whose transferable securities are admitted to trading on a regulated market, credit institutions, and insurance undertakings) shall include a corporate governance statement in their management report. That statement shall under Art. 20 (1)(a) contains a reference to the:

- corporate governance code to which the undertaking is subject,
- the corporate governance code which the undertaking may have voluntarily decided to apply,
- all relevant information about the corporate governance practices applied over and above the requirements of national law.

If an undertaking departs from a corporate governance code, Art. 20 (1)(b) of the directive requires an explanation as to which parts of the corporate governance code it departs from and the reasons for doing so. Where an undertaking decides not to refer to any provisions of a corporate governance code, it shall explain reasons for not doing so. Furthermore, the corporate governance statement shall include a description of the main features of the undertaking's internal control and risk management systems as well as the composition and operation of the administrative, management, and supervisory bodies and their committees. Article 20 (1)(b) of the directive refers to the key principle of corporate governance in the EU, namely the “comply or explain” principle that explained in more detail in the Commission Recommendation 2014/208/EU. The aim of this recommendation is to provide guidance for member states and their companies on corporate governance reporting.

*“It is recommended that, where applicable, corporate governance codes make a clear distinction between the parts of the code which cannot be derogated from, the parts which apply on a ‘comply or explain’ basis and those which apply on a purely voluntary basis” [17].*

Companies should describe how they have applied corporate governance code in order to inform shareholders, investors, and other stakeholders. The information should be easily accessible and available on companies' websites.

Article 20 (1)(b) of the Directive 2013/34/EU requires listed companies to provide explanations in case of departure from the recommendations of the code to which they are subject to or which they have voluntarily decided to apply. The explanation of departure from an individual corporate governance code recommendation should specify:

- in what manner a company departed from a recommendation,
- the reasons for the departure,
- how the decision to depart from the recommendation was taken within the company,
- where the departure is limited in time, when the company envisages complying with a particular recommendation,
- where applicable, a measure taken instead of compliance and how that measure achieves the underlying objective of the specific recommendation or of the code as a whole, or how it contributes to the good corporate governance of the company.

The corporate governance code for Slovakia implements the “comply or explain” approach. Therefore, it was necessary to clearly differentiate the principles that are regulated by laws in Slovakia from the rest of the text. The code is intended not only for listed companies but also for other companies interested in its implementation. The code regulates internal as well as external relationships of companies on basis of fairness, openness, and accountability. Disclosure, within the limits given by the position of a company among competitors, is a basis for trust between a company and those, who contribute to its success such as shareholders, employees, creditors, suppliers, customers, or other stakeholders [18]. Companies should comply with the code since January 1, 2017, and report according to the code since 2018.

Apart from the code, an important corporate governance regulation in Slovakia is represented by the Act No. 431/2002 Coll. on Accounting as well as Act No. 540/2007 Coll. on Auditors, Audit, and Audit Supervision. The Act on Accounting in its § 20 imposes an obligation to corporation listed on regulated markets to support their annual reports with a statement on corporate governance. The annual report should further include an information on the capital structure, rights attached to all series and classes of shares, restrictions of voting rights, shareholders with special rights including the description of these rights, rules for appointing and withdrawing board members, and powers of the board, particularly the right to decide on issuing or buying back shares and so on.

#### **4. Evaluation of the corporate governance implementation and its impact on economic results of corporations**

Regular evaluation of the corporate governance implementation in Slovakia is carried out by the CEEGA based on publicly available information, primarily on the quality of the annual reports of corporations. Surveys on corporate government disclosure for the years 2011–2014 are available to the public. The association monitors the quality of information on corporate governance, the compliance with the § 20 of the Law No. 431/2002 on Accounting as well as with the corporate governance code for Slovakia. In 2014, the survey covered 66 companies listed and traded on the Bratislava Stock Exchange. Companies with capital listed in the multilateral trading system were excluded from the survey because according to the Stock Exchange Act No. 429/2002, the disclosure obligation does not apply to them. The evaluation criteria included [18, 19]:

- Presence of disclosed annual report in the Central Register of Regulated Information (CERI), in the Register of Financial Statements (RUZ) and on the company's website (according to § 34 of the Stock Exchange Act, companies are required to publish an annual financial report including the annual report as well as information on corporate governance no later than 4 months after the end of the financial year).
- Availability of information on the company's website (in accordance with § 23d of the Accounting Act as well as with the principle IV of the code).
- Scope and quality of information in the corporate governance statement (according to the Accounting Act, the annual report of a company has to include a statement on corporate governance).
- Information about board members of the company including their qualifications, selection process, and independence (this obligation is imposed by § 20, paragraph 6 of the Accounting Act as well as by the principle IV of the code).
- Disclosure on remuneration of directors and the supervisory board according to the principle IV of the code.
- Information on risk management as recommended by the principle IV of the code.

- Information on the existence, composition and activities of the Audit Committee (companies whose securities are traded on a regulated market are required to establish an audit committee according to § 19 of the Accounting Act; this committee does not have to be set up separately if the supervisory board carries out its normal activities).
- Information on the existence, composition, and operation of the Remuneration Committee (according to principle V of the code, the establishment of this committee is recommended).
- Information on the existence, composition, and activities of the Nomination Committee (similarly, the establishment of the nomination committee is recommended by principle V of the code).
- Additional criteria such as information on rotation of auditor, board members elected by employees, independent board members, and gender diversity.

The survey results show positive changes compared to previous year in several areas. The number of companies disclosing their annual report in all of the available platforms (e.g., CERI, RUZ, and on the company's website) increased from 1 in 2013 to 39 in 2014. Annual report or annual financial report was quickly and easily available on website for 76% of companies. The share of companies without available corporate governance statement or with a statement providing no relevant information fell from 60 to 42%. However, the share of companies with comprehensive explanation of each item, and deviation from the code decreased slightly from 22 to 20%. As far as disclosure of information on board members is concerned, the decrease by three percentage points to 13% in the share of companies that do not provide any information can be observed. However, this percentage is still very high. The disclosure on remuneration is an area that most companies (71%) have carefully protected. The share of companies providing sufficient information about risk management, ex-ante risk, and risk quantification slightly increased, making 23% in total. Finally, a growing number of companies that inform on the establishment of the Audit Committee were observed.

For our research, we, however, performed our own review of annual reports for year 2015 by 27 corporations listed on the Bratislava Stock Exchange. We selected corporations that met two criteria: they had been listed since 2010 and were not in liquidation. We evaluated the following criteria:

- **Bankruptcy** or restructuring: no bankruptcy or restructuring proposal/no problems = 1 point, warning = 0.5 points, serious problems = 0 points;
- **Enforced debt collection**: no proceeding = 1 point, warning = 0.5 points, serious problems = 0 points;
- **Debts on taxes or insurance**: no debts registered = 1 point, warning = 0.5 points, serious problems = 0 points;
- **Risk rate**: average of the variables bankruptcy, enforced debt collection, debts on taxes or insurance;

- **Annual report format:** annual report disclosed in a format enabling easy search of information = 1 point, annual report disclosed in a 20 (1)(b) format not enabling easy search of information = 0 points;
- **Information on corporate governance:** annual report includes information on corporate governance = 1 point, annual report does not include information on corporate governance = 0 points;
- **Reference to the code:** annual report makes reference to the corporate governance code, evaluation within the interval <0–1>, lower evaluation granted where the company made reference to invalid code or the title of the code was not indicated properly;
- **The “comply or explain” principle:** the company respects the “comply or explain” principle, evaluation within the interval <0–1>, lower evaluation granted where this requirement was not respected sufficiently;
- **Annual report evaluation:** sum of variables Risk rate, Annual report format, Information on corporate governance, Reference to the code, The “comply or explain” principle.

For the purpose of quantitative analysis, we considered also the following variables:

- **Profit or loss:** profit (+) or loss (–) of a company in EUR;
- **Assets:** total value of company assets in EUR;
- **Number of employees:** coefficient was added according to the applicable interval: <1–2> = 1; <3–4> = 2; <5–9> = 3; <10–19> = 4; <20–24> = 5; <25–49> = 6; <50–99> = 7; <100–149> = 8; <150–199> = 9; <200–249> = 10; <250–499> = 11; <500–999> = 12; <1000–1999> = 13; <2000–2999> = 14; <3000–3999> = 15;
- **Profit or loss/number of employees:** profit or loss of a company divided by the number of employees' coefficient;
- **Assets/number of employees:** total value of company assets divided by the number of employees' coefficient.

Data were obtained from publicly available databases [20–23] and official companies' websites. **Table 1** comprises the descriptive statistics of our survey.

The average profit of the evaluated corporations was approaching 21 million EUR and the average assets value was at 1.2 billion EUR. The average score of the annual report evaluation reached 2.59 points out of maximum 5 points. It is important to pay attention to the skewness according to which most of variables were negatively skewed. It means that the value of variables for the majority of corporations is lower than the mean. Negative skewness value can be observed for the variables of number of employees, annual report evaluation as well as all variables compounded in the annual report evaluation variable (e.g., risk rate, annual report format, information on corporate governance, reference to the code, the “comply or explain” principle). We interpret this as an insufficient corporate governance implementation. In our opinion, the reason behind is the insufficiently developed Slovak capital market that does not motivate corporations to improve performance against the principles and increase transparency.

Variable	Mean	Standard Error	Skewness	Kurtosis	Count
Profit or loss	20637480.33	46955078.05	2.67	6.56	27
Assets	1209156473.22	3068741581.81	3.14	9.22	27
Number of employees	9.22	3.66	-0.21	-0.4	27
Profit or loss/number of employees	1548612.31	3246777.11	2.67	6.92	27
Assets/number of employees	85789446.69	205263945.77	3.04	8.69	27
Bankruptcy	0.89	0.32	-2.62	5.27	27
Enforced debt collection	1.00	0.00			27
Debts on taxes or insurance	0.81	0.28	-1.25	0.74	27
Risk rate	0.90	0.16	-1.56	1.61	27
Annual report format	0.67	0.48	-0.75	-1.56	27
Information on corporate governance	0.74	0.45	-1.16	-0.70	27
Reference to the code	0.64	0.45	-0.65	-1.52	27
The “comply or explain” principle	0.54	0.47	-0.12	-1.99	27
Annual report evaluation	2.59	1.38	-0.67	-0.80	27

**Table 1.** Descriptive statistics of the survey on Slovak corporations.

High value of skewness can be observed for both variables of profit or loss and total assets. It means that few observations with very high value of variables exist. The validity of the results of quantitative analysis is negatively influenced by this fact. Therefore, we decided to proceed with the graphical regression analysis and with the figure showing the number of observations (histogram).

**Figure 1** illustrates polynomial regression between the annual report evaluation reflecting the level of the corporate governance implementation and the profit or loss of a corporation divided by the number of employees' coefficient. We tested a hypothesis that the level of corporate governance principles implementation should have impact on corporation profitability.

Based on our results (correlation coefficient  $R = 0.1828$  and  $p\text{-value} = 0.3614$ ), we were not able to confirm the hypothesis. The main reason is the existence of extreme observations that were indicated also by the skewness results. Thus, we were not able to confirm the existence of relationship between a good implementation of corporate governance principles and the profitability of corporations, even when not taking into account three corporations with extreme values of variables. Therefore, we interpreted values of isolated variables using a histogram. The histograms show the standard normal distribution of observations. The majority of corporations under evaluation reached a relatively low value of the variable profit or loss/number of employees (within the interval from 0 to 2,000,000 EUR) and higher value of the annual report evaluation. The three corporations with extreme values of variables reached high values for both variables (e.g., the profit or loss/number of employees and the annual report



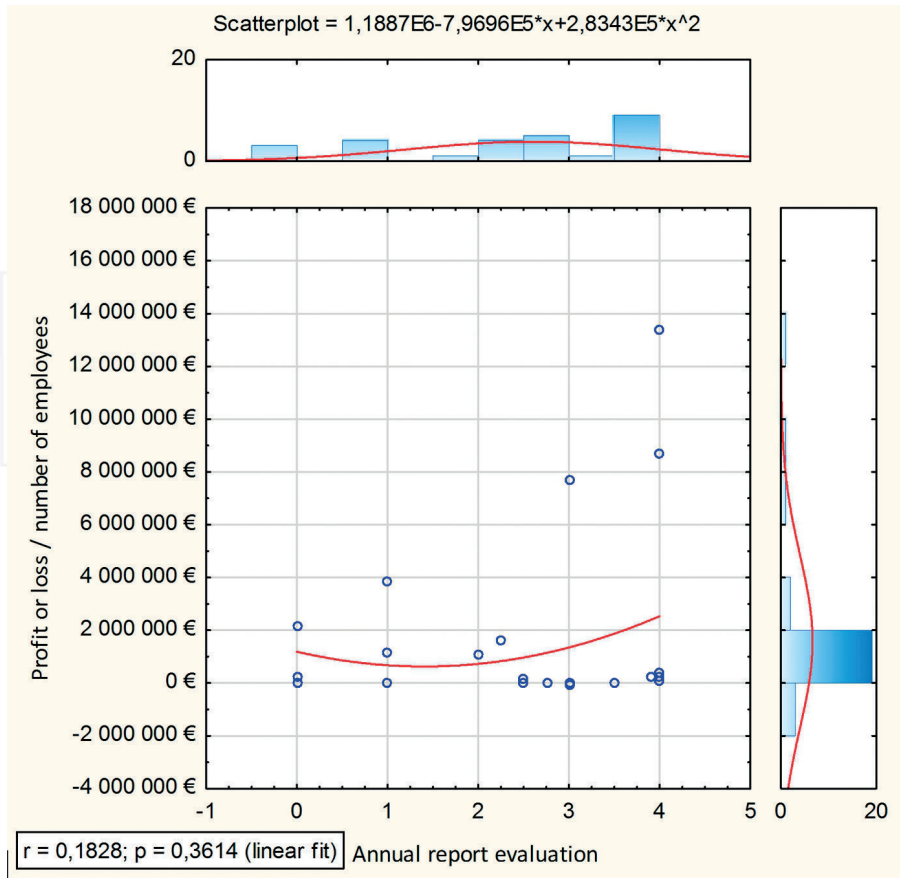


Figure 1. Scatterplot with histograms of profit or loss/number of employees against annual report evaluation.

evaluation). At the same time, no corporation with a high level of the profit or loss/number of employees' variable had a low value for the annual report evaluation variable. Therefore, we assume that larger corporations pay more attention to corporate governance implementation.

Results of the polynomial regression between the variables assets/number of employees and annual report evaluation as well as of the analysis of the two variables based on histogram (Figure 2) are very similar. We identified only two corporations with extreme values of variables. These extreme observations reduced both the correlation coefficient and the p-value and negatively influenced the validity of the results of quantitative analyses. The hypothesis that the level of corporate governance principles implementation should have impact on assets value was not confirmed for Slovak corporations. However, we have to add that, in the literature on corporate governance, a strong and significant positive relationship between good corporate governance (such as higher investor protection and lower managerial entrenchment) and firm value (measured by the Tobin's Q Ratio calculated as the market value of a



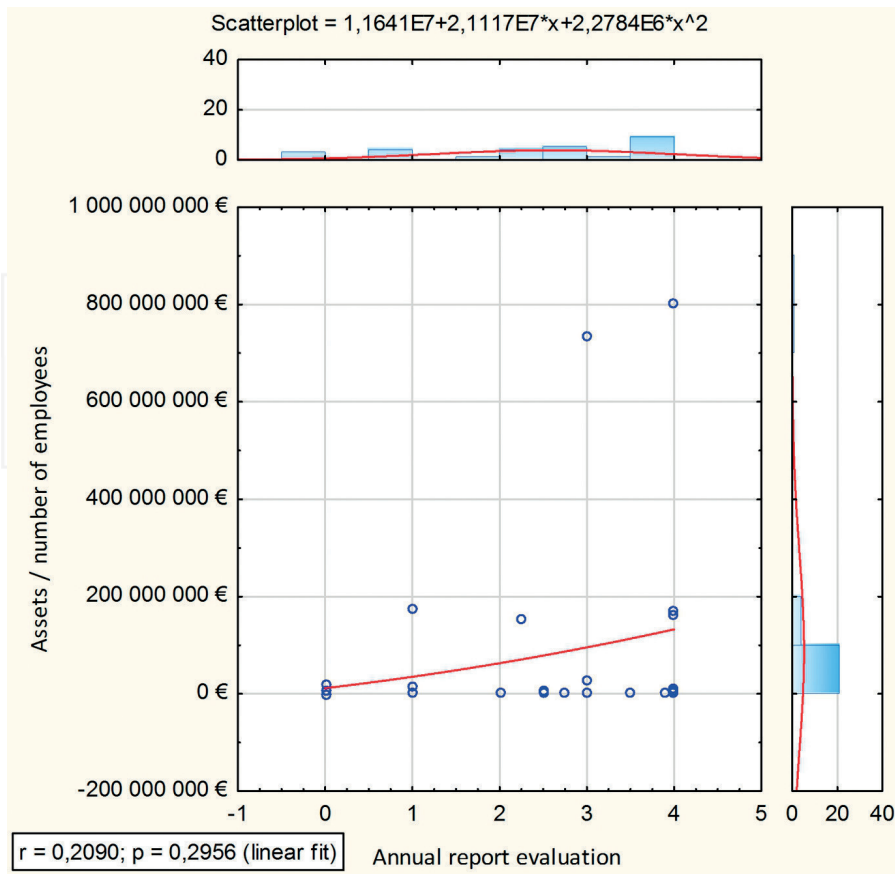


Figure 2. Scatterplot with histograms of assets/number of employees against annual report evaluation.

company divided by the replacement value of the firm's assets) was shown within the context of the Middle East and North Africa (MENA) region [24].

## 5. Conclusion

After the long period of centrally planned economy, Slovakia changed its economic system and started to establish a market economy. State-owned property was privatized and private property, as a prerequisite for the corporate governance implementation, was established. Despite efforts to implement a model of corporate governance based on financing by capital markets, a model based on credit financing was pushed through. The situation persists, and the Slovak capital market is still underdeveloped. Our aim was to evaluate the level of implementation of corporate governance in Slovakia after more than 25 years since starting the transition from a

centrally planned to a market economy, including a legal framework for its implementation as well as to explore the relationship between the level of the corporate governance implementation and economic results of corporations. We evaluated the level of corporate governance implementation on the basis of publicly available databases, annual reports, annual financial reports, and companies' websites. Our evaluation shows insufficient corporate governance implementation by corporation listed at the Bratislava Stock Exchange. Further, we were not able to confirm our hypothesis that good corporate governance has positive impact on corporation profitability and assets value. There was no observable statistical correlation between the economic performance of corporations and the level of corporate governance implementation. We interpret our results by an assertion that in Slovak conditions, benefits of the corporate governance implementation need not directly and immediately manifest themselves in increased profits or increased value of assets. However, it should be borne in mind that a correlation between adherence to corporate governance principles and economic performance may still exist but it was overridden by inefficiency of underdeveloped Slovak capital market. It could be worthwhile to test the hypothesis in conditions of efficient markets. Nevertheless, we assume that larger corporations pay more attention to corporate governance implementation.

## Acknowledgements

This paper is a part of a research project of the Ministry of Education, Family and Sports of the Slovak Republic VEGA (in the period 2017–2019) No. 1/0897/17: "The Importance of European Energy Union Project for Strategic Interests of This Grouping in the Context of the Enhancement of Competitiveness of the Slovak Republic."

## Author details

Zuzana Kittová\*, Dušan Steinhäuser and Viera Ružeková

\*Address all correspondence to: [zuzana.kittova@euba.sk](mailto:zuzana.kittova@euba.sk)

Faculty of Commerce, University of Economics in Bratislava, The Slovak Republic

## References

- [1] Cihelková E, Hnát P, Štěrbová L, Zadražilová D. Governance v kontextu globalizované ekonomiky a společnosti. Prague: Professional Publishing; 2014. p. 729
- [2] OECD. G20/OECD Principles of Corporate Governance. Paris: OECD Publishing; 2015. p. 60. DOI: 10.1787/9789264236882-en
- [3] Shleifer A, Vishny R. A Survey of Corporate Governance. The Journal of Finance. 1997;52(2):737-783. DOI: 10.1111/j.1540-6261.1997.tb04820.x

- [4] Goergen M, Renneboog L. Corporate governance and shareholder value. In: Lowe D, Leiringer R, editors. *Commercial Management of Projects: Defining the Discipline*. Oxford: Blackwell Publishing Ltd; 2006. p. 100-131. DOI: 10.1002/9780470759509.ch5
- [5] Blair M. *Ownership and Control: Rethinking Corporate Governance for the Twenty-First Century*. Washington, D.C.: Brookings Institute; 1995. p. 371
- [6] Knapik P. *Obchodné rokovanie I*. Bratislava: EKONÓM; 2010. p. 450
- [7] Kittová Z, Steinhäuser D. Inštitucionálne a makroekonomické prostredie firiem. *Politická ekonomie*; 2017. DOI: 10.18267/j.polek.1138
- [8] Liška V, Sluková K, Volejníková J, Sojka M. *Institucionální ekonomie*. Příbram: Professional Publishing; 2011. p. 235
- [9] Ružeková V, Kašťáková E, Silná Z. Analýza zahraničného obchodu Slovenskej republiky. Bratislava: Vydavateľstvo EKONÓM; 2013. p. 183
- [10] Kašťáková E. Odhalené komparatívne výhody Slovenska pri prenikaní na zahraničné trhy. *Studia commercialia Bratislavensia: Scientific Journal of Faculty of Commerce, University of Economics in Bratislava*. 2015;8(31):384-392
- [11] Šášiková M, Hlušková T. Cooperation and Its Role in Facilitation of Foreign Expansion: Example of Slovak Enterprises. *Entrepreneurial Business and Economics Review*. 2013;1(4):83-96. DOI: 10.15678/EBER.2013.010407
- [12] Šikulová I, Frank K. The Slovak Experience with Transition to Market Economy [Internet]. 2013. Available from: [http://ekonom.sav.sk/uploads/journals/229\\_wp\\_49\\_sikulova\\_frank\\_experience\\_with\\_transition.pdf](http://ekonom.sav.sk/uploads/journals/229_wp_49_sikulova_frank_experience_with_transition.pdf) [Accessed: June 14, 2017]
- [13] Bačišin V. Najväčšiu úlohu v kupónovej privatizácii hrali fondy [Internet]. 2006. Available from: <http://hnporada.hnonline.sk/financne-noviny/159950-najvacsiu-ulohu-v-kuponovej-privatizacii-hrali-fondy> [Accessed: June 13, 2017]
- [14] Okruhlica F. *Vlastnícká správa spoločnosti (Corporate Governance)*. Bratislava: IURA Edition; 2013. p. 336. DOI: 10.4149/BLL\_2013\_030
- [15] CECGA [Internet]. Available from: <http://cecga.org/> [Accessed: June 14, 2017]
- [16] Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the Annual Financial Statements, Consolidated Financial Statements and Related Reports of Certain Types of Undertakings, Amending Directive 2006/43/EC of the European Parliament and of the Council and Repealing Council Directives 78/660/EEC and 83/349/EEC. [Internet]. Available from: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32013L0034> [Accessed: June 16, 2017]
- [17] Commission Recommendation of 9 April 2014 on the Quality of Corporate Governance Reporting on the 'Comply or Explain' Basis (2014/208/EU) [Internet]. Available from: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32014H0208> [Accessed: June 16, 2017]

- [18] Lazárová B, Debnárová L. Slovak Corporate Governance Disclosure Survey 2014 [Internet]. 2015. Available from: <http://cecga.org/wp-content/uploads/CECGA-Monitoring-Report-2015.pdf> [Accessed: June 19, 2017]
- [19] Debnárová L. CECGA rozšírila kritériá hodnotenia spoločností. Finančný manažér: Journal of Slovak Association of Finance and Treasury [Internet]. 2015. Available from: [http://asocfin.sk/wp-content/uploads/2012/07/FM-2-2015-VNUTRO\\_WEB.pdf](http://asocfin.sk/wp-content/uploads/2012/07/FM-2-2015-VNUTRO_WEB.pdf); Accessed: June 24, 2017
- [20] Index podnikateľa [Internet]. 2017. Available from: <https://www.indexpodnikatela.sk> [Accessed: Jan 14, 2017]
- [21] Ministry of Finance of the Slovak Republic. Register účtovných závierok [Internet]. 2017. Available from: <http://www.registeruz.sk/cruz-public/domain/accountingentity/simple-search> [Accessed: Jan 8, 2017]
- [22] FinStat. [Internet]. 2017. Available from: <http://www.finstat.sk> [Accessed: Jan 14, 2017]
- [23] The Bratislava Stock Exchange. Zoznam cenných papierov. [Internet]; 2017. Available from: <http://www.bsse.sk/Cenn%C3%A9papieretrh/Zoznamcenn%C3%BDchpapierov.aspx> . DOI: 10.17226/24810 Accessed: Jan 8, 2017
- [24] Hasan I, Kobeissi N, Song L. Corporate governance, investor protection, and firm performance in MENA countries. Middle East Development Journal. 2014;6(1):84-107. DOI: 10.1080/17938120.2014.886421

INTECH

---

# The Roll of the Entrepreneur in the Establishment of Economic Equilibria

---

Er'el Granot

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70674>

---

## Abstract

In this chapter, a simple market model is presented to illustrate how random entrepreneurial activity can be responsible for the establishment of economic equilibria without the assumption of perfect knowledge. In this model it is assumed that the entrepreneurs (both traders and producers) have no information regarding the other entrepreneurs' preferences, wealth, or production skills. The only information they have is the past transaction prices, and yet this information is sufficient for the market to reach equilibrium price. Equilibrium is not a stationary process on the microscopic level. It is a process, which consists of interactions between entrepreneurs, who act randomly without insight. Consequently, the market price continuously oscillates randomly around the equilibrium values. The higher the risk the producers are willing to take, the more stable is the equilibrium. When entrepreneurial actions are depressed, the market may drift from its optimal point. This model also investigates the more realistic scenario, in which, due to specialization, the production boundary frontiers are convex (instead of linear). It is shown that in this case, the drifts are suppressed and the optimal equilibrium is more stable. Moreover, the amount of risk aversion has a clear effect on the production growth of the economy. The lower the risk aversion is, the higher is the growth rate of the economy.

**Keywords:** entrepreneurship, market equilibrium, entrepreneurial behavior, economic equilibria, entrepreneur, iterative economic processes, Austrian school of economics

---

## 1. Introduction

The entrepreneur is usually regarded as a unique special individual, who has some foresight abilities. Usually, entrepreneurship is related to the introduction of a new technology, a new method, and a new invention, and therefore its presence imbalances the established economy, forcing it to migrate from one equilibrium to the next. Since the traditional Marshallian-Walrasian economic analysis is based on equilibrium, no room was left to the entrepreneur in this traditional economic paradigm (see [1, 2]; see also [3] where the term entrepreneur is used for small

business manager rather than an actor in an uncertain economic world). Since entrepreneurs interrupt the equilibrium state, they were no more than noises (or as Kirzner calls: pests) to the well-established economic theories.

The neoclassical economic equilibrium is established by perfect competition, as was formulated by Knight (see Ref. [4]), and perfect knowledge. It is therefore recognized that the participating actors act as if they possess all the information regarding the market [3, 4]. Clearly, they do not *really* have perfect knowledge, however, to all practical matters; it was conjectured that they act *as if* they do.

The Austrian school of economics based its theory on ordinary men and ordinary man's behavior and therefore rejected these prepositions [5, 6], and yet they recognized that the market converges to an equilibrium [7]. This observation was regarded by Hayek as one of the most fundamental laws of economics [6, 7].

The mechanism, by which the market is in a permanent convergence process toward equilibrium, despite the lack of knowledge, is based on entrepreneurial action [8, 9]. The information is transmitted via the entrepreneurial action, where every act toward equilibrium is encouraged, while every act away from equilibrium is discouraged via the profit and loss mechanism. Therefore, entrepreneurs are crucial ingredients in the process toward equilibrium, but as far as I know, this process has never been demonstrated.

Despite the fact that the Austrian economists recognized that the information is transmitted via the price mechanism, they still attributed insight to the entrepreneurial act [8, 9]. Such an attitude makes it difficult to establish a scientific analysis of the connection between the entrepreneurial behavior and the convergence to equilibrium. However, this conjecture is superfluous. Since the profit and loss mechanism is an essential ingredient in the process, it can be the only necessary feedback mechanism, and no additional conjectures (as entrepreneurial insights or the assumptions that errors lure the entrepreneurs) are needed.

A physical analogy to such a process is diffusion. In the microscopic realm, diffusion occurs by random movements and collisions of microscopic particles. However, in the macroscopic level, the diffusion equation emerges, which frustrates any deviation from the equilibrium values. On the macroscopic level, there are no signs of the complex randomness of the microscopic world.

This physical analogy can be useful to illustrate the problems in the Austrian picture of the equilibrium state. According to their view, at the state of equilibrium, all expectations are coordinated in a perfect concert. As Kirzner put it, "(in the state of equilibrium) All plans are made in the correct expectation of the corresponding plans being made by others. No one's plan is frustrated on account of others failing to act as that plan had anticipated they would act. No realised plan is regretted as having failed to make use of opportunities, made possible by the actions of others, which hindsight reveals but which foresight failed to anticipate" [8].

Going back to the physical analogy, at a state of equilibrium, a gas occupies a container homogeneously. Using Kirzner's (or Hayek's) terminology, one can state that every particle is completely coordinated with the rest of the particles, since every particle is, on the average, propagated toward the vacancies that the other particles have generated. After all, on average

the gas is at rest. However, it is clear that no information is transmitted between the particles. They all propagate in a *totally* random manner. In this case, all the “information” that a single particle needs to know about the gas to reach equilibrium is the average volume of the gas, which in this case is merely the dimension of the vessel. The particle does not need to know *any* information about the other particles, not even their total number.

In a similar manner economic equilibrium can be generated in a gradual process of random events, where every one of the actors has only a rough estimate of some average property of the market.

Ever since the establishment of the Marshallian synthesis [2], one of the fundamental tools in the neoclassical theory is the equilibrium between demand and supply.

This tool was frequently used by the Austrian school of economics as well; however, they regarded it with much suspicion since they did not recognize supply as a separate entity, which depends on objective costs (as the classical economists conjectured), but as a realization of the demand to other commodities. That is, there is a supply of good A only since the supplier prefers other goods over good A. Therefore, in principle, the knowledge of the individuals’ preference ranking or their utility functions (which can be shown to be equivalent [10]) is sufficient to determine the supply and demand curves, and therefore it can determine the equilibrium point.

Moreover, as was shown in Ref. [11], the willingness to trade depends not only on the price of the good but on the amount of exchanged goods as well. Therefore, the history of trading has an impact on the amount of the traded goods. If a person does not possess any units of good A, he may be willing to purchase 5 units, but if, let us assume, he already has 3 units, then he will not be willing to purchase the extra 2 units. This is indeed a plausible scenario, which emphasizes the fact that both curves have a “thickness” or a certain amount of uncertainty.

Another problem arises from the discretization of the commodities. For example, let the intersection between the demand and supply curves occurs at the price of 14.5 units of A, for which 23.5 units of B are traded. If these are indivisible goods (like cars or houses), then clearly no equilibrium can be established. For 23 units of B demand exceeds supply, and for 24 units supply exceeds demand. In such a scenario, it is clear that the system would oscillate around the unreachable equilibrium point. The mechanism, by which the system oscillates around this point, is the random entrepreneurial activity.

It is the object of this chapter to demonstrate that not only does the economic equilibrium can be established by entrepreneurial actions but also that these actions can be totally random. Nevertheless, we begin with stationary market analysis.

## 2. Deriving the supply-demand intersection from the preference ranking matrices

Let the market consists of  $N$  traders. The  $n$ th trader possesses  $a_n$  units of A and  $b_n$  units of B. The  $n$ th trader’s utility preference matrix is  $R_n(a, b)$  [11].



Therefore, every trader seeks to improve its state by increasing its preference ranking. That is, if initially his possessions of A and B are  $a_n$  and  $b_n$ , respectively, then he will be willing to trade  $\Delta a$  units of A for  $\Delta b$  units of B (note that  $\Delta a$  and  $\Delta b$  can be negative) provided

$$R_n(a_n - \Delta a, b_n + \Delta b) > R_n(a_n, b_n). \quad (1)$$

Thus, for every  $n$ , there are infinite preferred states  $m$ , which are characterized by  $a_m$  and  $b_m$ , which obey

$$R_n(a_m, b_m) > R_n(a_n, b_n). \quad (2)$$

To upgrade to the preferred state  $m$ ,  $\Delta a = a_m - a_n$  units of A should be exchanged with  $\Delta b = b_m - b_n$  units of B (or vice versa). Hence, a price can be determined

$$p_m \equiv \frac{a_m - a_n}{b_m - b_n}. \quad (3)$$

Then, for any price  $p$ , the maximum units of B that the  $n$ th trader is willing to purchase is

$$\Delta b_n(p) = \max_{p_m > p} \{b_m - b_n\} \quad (4)$$

(where the subscript stands for the fact that the maximum operation is acting on the group of states  $m$ , for which  $R_n(a_m, b_m) > R_n(a_n, b_n)$  and  $p_m \equiv \frac{a_m - a_n}{b_m - b_n} > p$ ).

Therefore, the total demand of units of B, i.e.,  $b_{Demand}(p)$  for the price  $p$ , is

$$b_{Demand}(p) = \sum_n \Delta b_n(p) = \sum_n \max_{p_m > p} \{b_m - b_n\} \quad (5)$$

Similarly, on the supply side, the maximum units of B that the  $n$ th trader is willing to sell is

$$\Delta b_n(p) = \max_{p_m < p} \{b_n - b_m\}, \quad (6)$$

and then the total supply of units of B, i.e.,  $b_{Supply}(p)$  for the price  $p$ , is

$$b_{Supply}(p) = \sum_n \Delta b_n(p) = \sum_n \max_{p_m < p} \{b_n - b_m\}. \quad (7)$$

Since the equilibrium price  $p^*$  corresponds to the intersection point of the two curves, then

$$b_{Supply}(p^*) = b_{Demand}(p^*). \quad (8)$$

### 3. Perpetual dynamic convergence to equilibrium

Clearly, such a mechanism can work only in trading arenas, in which the preferences of each trader are *publicly published*. An approximation of such a trading arena is the modern stock

exchanges. But these are only approximations; in ordinary markets, the trader's preference is not a public knowledge, and it takes an entrepreneurial activity to unveil it.

First, the trader needs to contact a different trader, and usually this part of the process is a pseudorandom one.

Let trader  $q$  has  $a_q$  units of A and  $b_q$  units of B, and similarly trader  $p$  has  $a_p$  and  $b_p$  units of A and B, respectively. Then, their initial preference ranking is  $R_q(a_q, b_q)$  and  $R_p(a_p, b_p)$ , respectively. From this initial condition, the *bargaining stage* begins.

In this stage they seek  $\Delta a$  and  $\Delta b$  such that

$$R_q(a_q + \Delta a, b_q - \Delta b) > R_q(a_q, b_q) \quad \text{and} \quad (9)$$

$$R_p(a_p - \Delta a, b_p + \Delta b) > R_p(a_p, b_p). \quad (10)$$

If they do not find such numbers, i.e., they do not agree on the price and the amount of exchanged goods [11], then they look for a different trading partner. In this case, there is no entrepreneurial activity since they have nothing to lose by stopping the bargaining (since the other trader offers only to reduce their preference status).

However, if there exist  $\Delta a$  and  $\Delta b$  that meets these demands, then the entrepreneurial stage begins since each one of them has to decide whether he should or should not take the deal. In this case he chooses an entrepreneurial act because he takes risks. He is risking in losing the good deal in front of him.

The method, by which the trader (now entrepreneur) can evaluate how beneficial is the deal, is by comparison of previous transactions. The entrepreneur must have a memory or some kind of a record of historical prices.

The entrepreneurial process is therefore a continuous process, in which the entrepreneur seeks to improve his *future* condition by acting *today* based on his *past* experience.

In many respects this process resembles the process, in which, according to Mises [12], money regains its value. Mises solved Helfferich vicious cycle (see, e.g., [13]), by explaining that money has a current value, i.e., people want it today, since they expect that other people would still want money tomorrow on the account of their yesterday's experience.

In all these cases, the individual takes a risk, which makes him an entrepreneur. His decision is based on the two questions: what kind of information he possesses and how large a risk is he willing to take?

The decision can be based on published public information of previous transactions. In many markets the past transactions are published. If not all the information is distributed among the participants, then at least part of it is. However, even if the past transactions and prices are classified, or at least, are inaccessible, then the trader can base his decision on his own trading experience. In this case, the convergence is slower but provided the traders choose their trading partner randomly, the process can still converge.

As for the risk taken, the entrepreneur has to decide on the margins of the acceptable price. That is, if  $\langle p_{previous} \rangle$  is the mean value of the previous transaction, then the entrepreneur has to decide on  $\Delta p$ , which determines his tolerance to price fluctuations.

If the trader is a seller then  $\Delta p$  determines a minimum acceptable value for future transaction prices

$$p_{new} > \langle p_{previous} \rangle - \Delta p. \quad (11)$$

Similarly, if the trader is a buyer, then  $\Delta p$  determines a maximum acceptable value for future transaction prices

$$p_{new} < \langle p_{previous} \rangle + \Delta p. \quad (12)$$

The lower  $\Delta p$  is, the higher is the risk the entrepreneur is willing to take. When  $\Delta p$  has high positive values, the trader is a risk averse actor, while  $\Delta p$  has low (or negative) values, the trader is a risk-seeker.

In particular if the transaction price is distributed normally with a mean  $\langle p_{previous} \rangle$  and standard deviation  $\sigma$ , then the trader takes a risk, which can be quantified by the probability

$$\frac{1}{2} \operatorname{erfc}\left(\frac{\Delta p}{\sigma}\right), \quad (13)$$

(where  $\operatorname{erfc}(x)$  is the complementary error function [14]) to reject the transaction.

It should be stressed, however, that in reality not only does not the trader have the distribution, but he cannot even tell whether there is one. In the simulation (in the following section), no such knowledge was assumed.

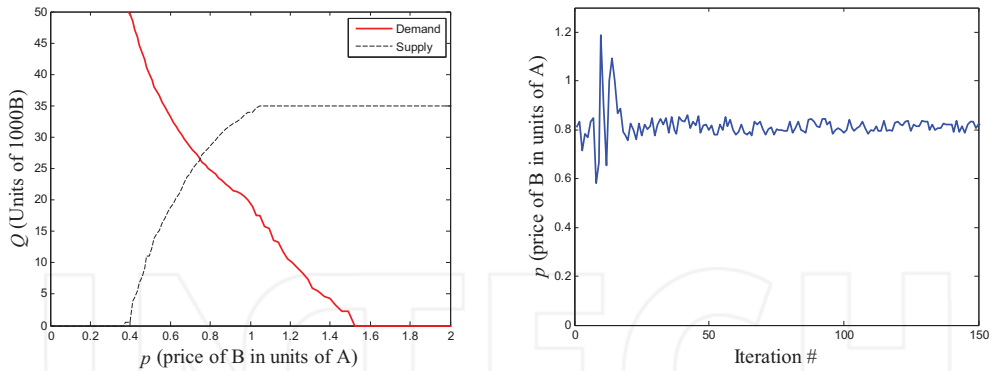
For simplicity, it is assumed that all the traders have the same utility function  $R$ , in which case

$$R(a, b) = -(a - 105)^2 - (b - 105)^2, \quad a \leq 100 \text{ and } b \leq 100. \quad (14)$$

The market in this simulation consists of  $N=1000$  traders, where half of them initially have  $a_n = 40 \pm 2$  units of A and none of B and half of them possess  $b_n = 70 \pm 2$  units of B and none of A.

The demand and supply curves of this market are presented in **Figure 1** (on the left), and as can be seen, the equilibrium price is around  $p^* \sim 0.75$ .

In **Figure 1** (on the right), the result of a dynamic market simulation is plotted. In every iteration, two traders are chosen: the first from the owners of As and the second from the owners of Bs. First, they both check if trading is beneficial for both of them, i.e., that their status after trading is better off than their current status (according to the utility function). Then, they both check if the price agrees with their risk aversion. In this simulation, it was taken that  $\Delta p$  is about half the standard deviation of previous price transactions, i.e.,



**Figure 1.** Simulation results. Left: static analysis of demand-supply curve intersection. Right: a dynamic market—the price variations vs. the iteration number.

$$\Delta p = c \sqrt{\langle p_{previous}^2 \rangle - \langle p_{previous} \rangle^2}, \text{ where } c = 0.5. \quad (15)$$

The transaction will take place only if: (1) The transaction improve their preference ranking, and that (2) The transaction price agrees with their risk aversion.

As can be shown from this simulation, the prices oscillate but quickly converge to the average value  $p^* \sim 0.8$ , which is close but not identical to the demand-supply intersection point. The small disagreement can be attributed to the fact that the supply and demand curves were calculated under the assumption that the traders would prefer to trade the largest amount of goods, which, as was explained in [11], this is not always the case. Moreover, dynamic convergence has a memory, and it depends on the initial state, which is randomly selected, in this simulation.

Moreover, we see that the system does not converge to a single value but keep oscillating randomly around the mean value. When  $\Delta p$  decreases, the convergence is quicker but the amount of exchanged goods (and the number of transaction) decreases as well.

#### 4. Entrepreneurship in production

In trading, entrepreneurship is relatively simple. There are only two relevant parameters: the price and the amount of exchange goods. However, if the traders are producers as well, they have to decide about additional parameters: the amount of goods to produce. This is a much more risky operation. In trading, the entrepreneur can decide whether to make the trade or to reject it. In the latter, he may put himself at a risk of losing a good deal for the prospect of finding a better one. However, by rejecting a deal, his state remains intact. Neither has it improved nor worsened.

When the entrepreneur decides to change his production strategy, he put himself in a larger risk of finding himself in a *worse* position. The reason is that the production abilities are

bounded by his production frontiers, and therefore should he decides to increase the production of good A, then a corresponding reduction in the production of good B is obligatory. By doing so he temporarily reduces his optimal production point.

By increasing the production of goods, he does not need, and simultaneously decreasing the production of goods he does need, the producer specializes.

However, essentially the two entrepreneurial actions (trading and production) are similar. In both cases his decisions depend on the other producers' preferences. The problem is, of course, that he does not know the preference ranking of the *other* buyers (producers).

In the simulation that follows, we will demonstrate that the price system solves this problem.

In the simulation, each one of the producers has a production frontier, which he cannot exceed. Let  $b_n[a]$  be the production frontier of the  $n$ th producer, i.e., while producing  $a$  units of A, he cannot produce more than  $b_n[a]$  units of B.

In the case of linear production frontiers, i.e., if the  $n$ th producer's production is limited by

$$\frac{a}{A_n} + \frac{b}{B_n} \leq 1 \quad (16)$$

then

$$b_n[a] = B_n(1 - a/A_n). \quad (17)$$

However, it can be generalized to any form of production frontier. In particular, it can be used even when specialization is taken under considerations [11].

Then, initially, before the traders begin their mutual interaction, every producer produces according to its preference ranking  $R_n(a, b)$ . Thus, initially

$$R_n^{(0)} = R_n(a_n^{(0)}, b_n^{(0)}) = \max_{b < b_n[a_n]} R_n(a, b), \quad (18)$$

i.e.,  $R_n^{(0)}$  is the highest ranking of producer  $n$ , which he reaches when he possess  $a_n^{(0)}$  and  $b_n^{(0)}$  units of A and B, respectively.

When the producers begin to interact, i.e., begin to trade, then initially when there is no single price in the market, they just bargain, but they do not have a relative price for comparison. However, as was explained in the previous section, eventually a price is determined, and the market is cleared. Thus, an iterative process begins.

Let  $m$  stands for the iteration number. Initially  $m = 0$ .

Once the price is determined, then it can be used in the entrepreneurial process of the next iteration.

If the price is determined by equating supply and demand (like in the stock exchange)

$$b_{Supply}(p^{(m)}) = b_{Demand}(p^{(m)}), \quad (19)$$

where the superscript  $(m)$  stands for the  $m$ th iteration, while the  $n$ th producer produced  $a_n^{(m)}, b_n^{(m)}$  in the  $m$ th iteration, then in the next iteration, he can randomly change these amounts a little to

$$a_n^{(m+1)} = a_n^{(m)} + \delta a_n^{(m)} \quad (20)$$

$$b_n^{(m+1)} = b_n^{(m)} + \delta b_n^{(m)}, \quad (21)$$

where  $\delta a_n^{(m)}$  and  $\delta b_n^{(m)}$  are random deviations under the constraints

$$b_n[a_n^{(m+1)}] < b_n^{(m+1)} \quad (22)$$

and

$$a_n^{(m+1)} \geq 0, \quad b_n^{(m+1)} \geq 0. \quad (23)$$

Then, the producer checks, not that the state  $\{a_n^{(m+1)}, b_n^{(m+1)}\}$  is preferred over the state  $\{a_n^{(m)}, b_n^{(m)}\}$  because clearly it is not, but whether there is a third state that he can reach by trading, provided that the price is lower than  $p^{(m)}$  (i.e., the price of the previous iterations). That is, he checks among all possible states  $\{a, b\}$  that are reachable by trade, i.e., states which keep

$$b - b_n^{(m+1)} \leq -p^{(m)}(a - a_n^{(m+1)}) \quad (24)$$

the one with the highest ranking and compare it to his current ranking. If he finds improvement, i.e., if mathematically

$$R_n(a_n^{(m)}, b_n^{(m)}) < \max_{b - b_n^{(m+1)} \leq -p^{(m)}(a - a_n^{(m+1)})} R_n(a, b), \quad (25)$$

then  $\{a_n^{(m+1)}, b_n^{(m+1)}\}$  are chosen to be the next iteration production goals; otherwise, this trial is rejected, and the previous iteration production goals  $\{a_n^{(m)}, b_n^{(m)}\}$  are kept.

Clearly, the fact that the producer evaluated that there is a state  $\{a, b\}$ , which can be reached by trading, doesn't mean that it will be reached. There are other players in this system, who also change gradually the amount of their production strategies. But the previous price is the only information that the traders can use to improve their production strategies. As can be seen from Eqs. (22)–(25), the traders use the price of the  $m$ th iteration to improve their production judgment regarding the next,  $(m+1)$ th one.

## 5. Simulation of entrepreneurial activity in production

We used a simulation to illustrate the market process with the presence of entrepreneurial activity.

In the simulation the market consists of  $N=800$  producers with the linear production frontier, i.e., Eqs. (16) and (17) are used when  $A_n$  and  $B_n$  have normal distribution with mean 85 and standard deviation 15 with a maximum value of 100, and to emphasize the effect of specialization, the ranking matrix (discrete utility function) was replaced with

$$R_n(a, b) = -(a - 105)^4 - (b - 105)^4 \text{ for } a \leq 100 \text{ and } b \leq 100. \quad (26)$$

In every iteration the deviations  $a_n^{(m)}, b_n^{(m)}$  were selected randomly with the probability

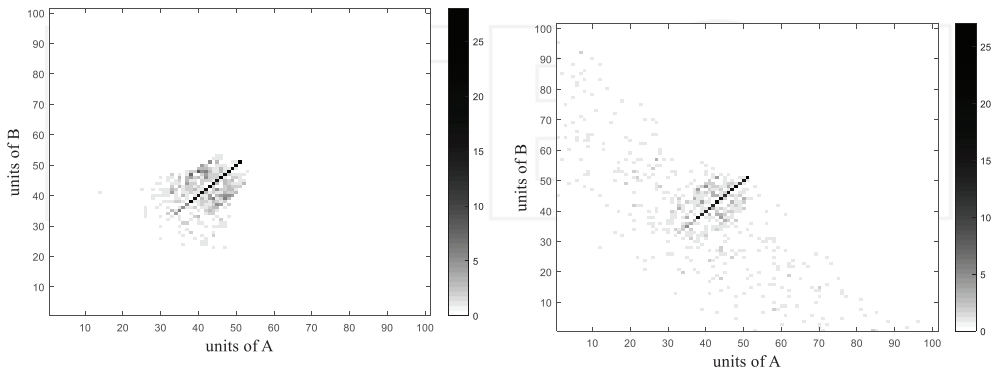
$$p(a_n^{(m)} = q) = p(b_n^{(m)} = q) = \operatorname{erfc}\left(\frac{q + 1/2}{Q}\right) - \operatorname{erfc}\left(\frac{q - 1/2}{Q}\right). \quad (27)$$

where  $q$  is an integer number. In this simulation  $Q = 80$ .

The result of this simulation is presented in **Figure 2**. In this figure the initial (prior to trading) and final (after 200 iterations) distributions are presented in a false color presentation. As could be expected, since the ranking matrix is symmetric, most traders prefer not to give precedence of one commodity over the next. From the same reason, and due to the linear production frontier, there is no fundamental difference after trading takes place. Indeed, there are more producers, who prefer to deviate considerably from their initial state; however, as **Figure 2** shows, they are the minority.

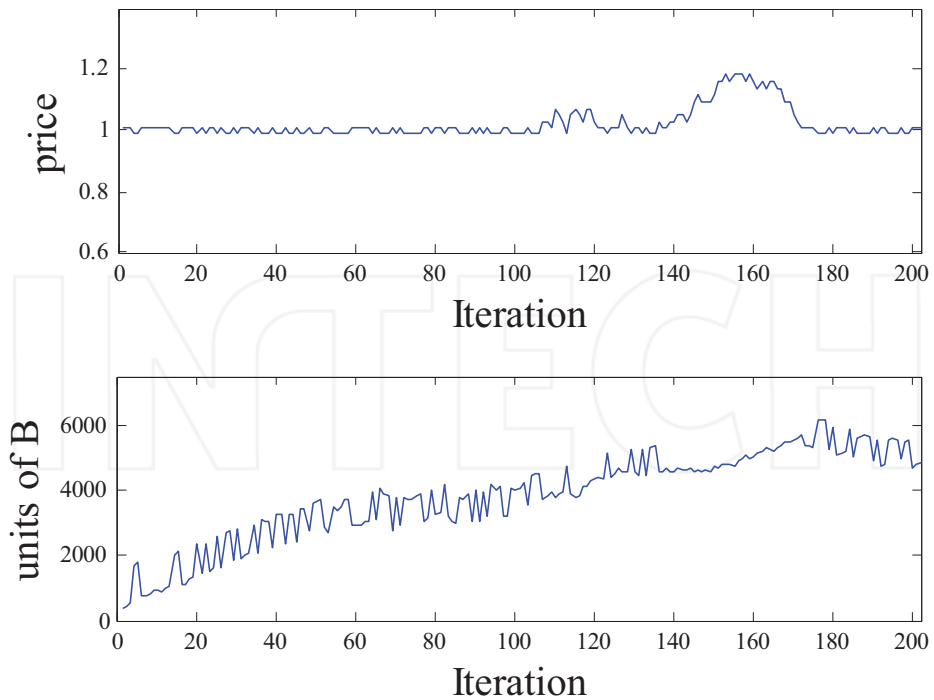
The dynamic of the process is illustrated in **Figure 3**. Despite the fact that there is no substantial difference in the market price, the gradual specialization increases the amount of exchange goods.

The effect of the specialization and the trading on the supply-demand curve is presented in **Figure 4**. While the intersection point remains at the price level  $p \cong 1$ , the amount of exchanged goods has increased considerably.



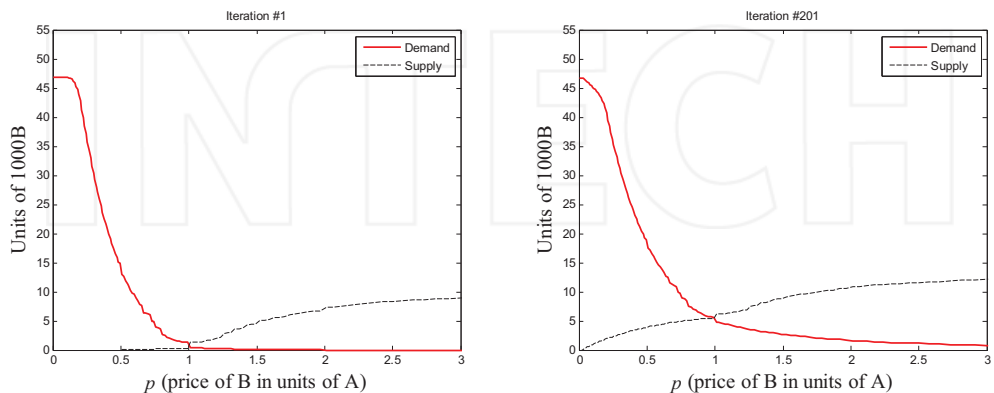
**Figure 2.** Left: a 2D histogram map of the producer's production after the first iteration. The false colors represent the number of producers. Right: after 200 iterations.



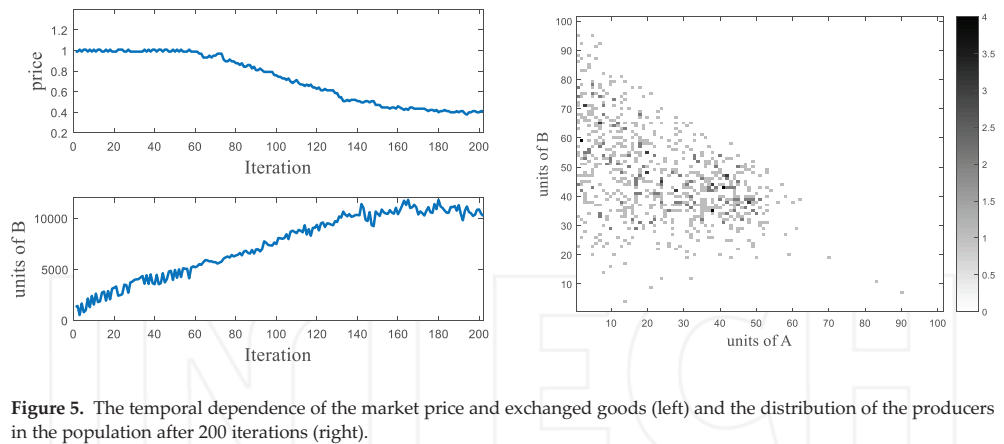


**Figure 3.** The temporal dependence of the market price of B in units of A (upper plot) and the amount of exchanged good (lower plot).

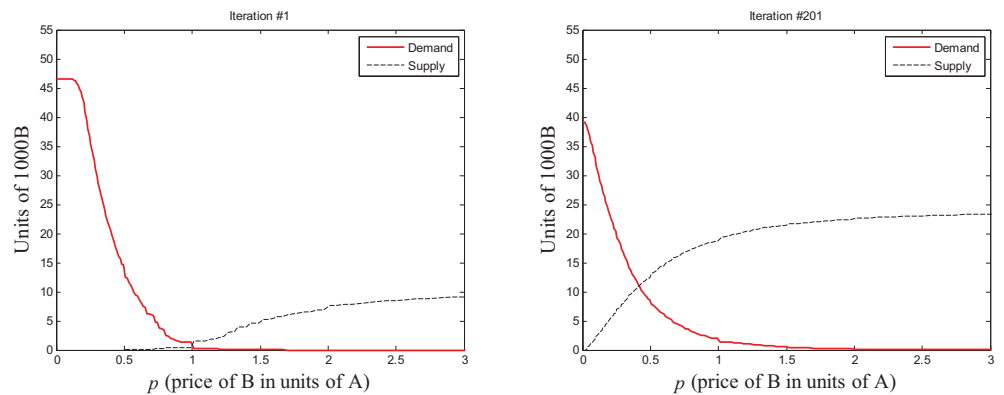
However, the dynamic results are different if the variations are considerably smaller. In **Figures 5–7**, the same simulation was taken for  $Q = 8.5$ , in which case, the dynamic is much more affected by the initial state and the arbitrariness of the first random transactions.



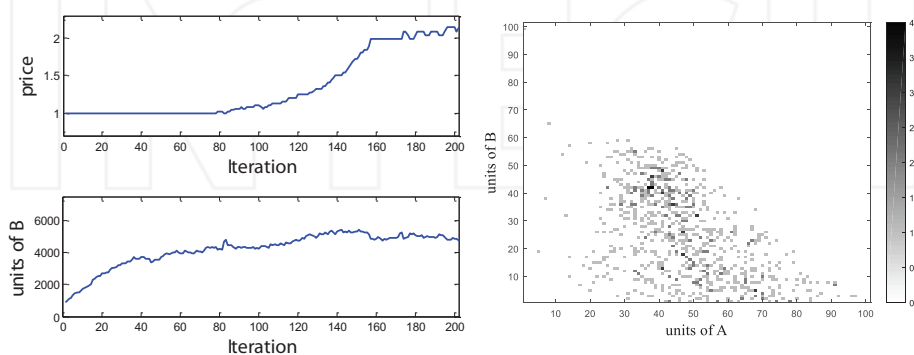
**Figure 4.** The supply-demand curves before trading and specialization (left) and after 200 trading iterations (right).



**Figure 5.** The temporal dependence of the market price and exchanged goods (left) and the distribution of the producers in the population after 200 iterations (right).



**Figure 6.** The supply-demand curves of the simulation of Figure 5 before trading (left) and after 200 iterations (right).



**Figure 7.** A different run of the same simulation that is generated in Figure 5.

Consequently, the price may gradually drift to different values. To return to the preferred price  $p = 1$ , the system has to experience a large perturbation, which has a very low probability in this case. Thus, as can be seen in **Figure 5** after about 90 iterations, a perturbation causes a sudden drift toward lower prices. This behavior is also shown in the supply-demand curves in **Figure 6** where in this case there is a clear change in the intersection point's price. As can be seen in **Figure 7**, a different run of the same simulation can present a drift toward higher prices. This is due to the sensitivity of the problem on the initial conditions (the population distribution) and on the specific trading decisions, which are also random.

## 6. Specialization

In the previous section, it was assumed that the production frontier is a linear function. This production frontier goes back to Ricardo's law of comparative advantage [15–17].

Despite its popularity [18–20], this production frontier ignores the effect of specialization. Superficially, it can be argued that if the producer is focused only on a single product, i.e., it produces only A or only B, then this producer is specializing in producing this single good. However, this analysis assumed that while he “specializes” in producing a single good, his production rate (production per units of time) was not improved. This assumption ignores the main feature of specialization, namely, that specialization increases the production rate (the production efficiency).

In Ref. [11] the effect of specialization on the law of association was presented. In this reference a mathematical presentation of the effect of specialization on the production frontier was introduced.

In general, the linear frontier was replaced with a convex one:

$$(a/A_n)^\alpha + (b/B_n)^\beta \leq 1 \quad (28)$$

where  $\alpha \leq 1$  and  $\beta \leq 1$  are parameters that characterize the specialization in producing A and B, respectively.

In case where  $\alpha = \beta$ , then this production frontier corresponds to the statement that specialization increases the good's production by a factor of (see Ref. [11])

$$F = 2^{1/\alpha-1}. \quad (29)$$

## 7. Simulation with specialization

We now apply the simulation of the previous section on the following production frontier, which considers specialization:

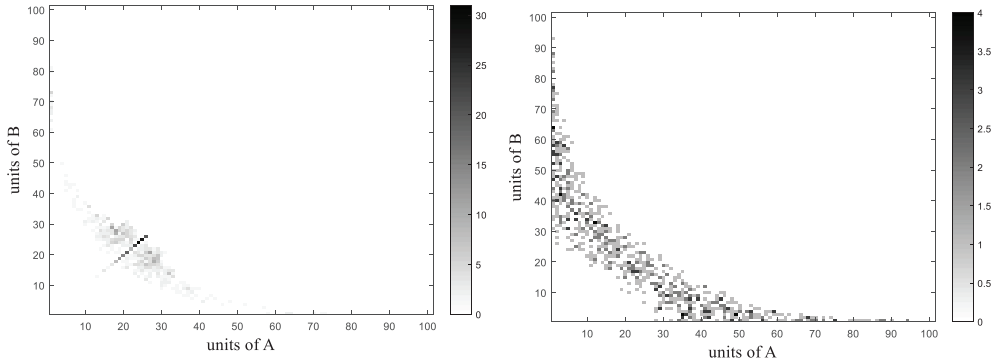
$$(a/A_n)^{0.5} + (b/B_n)^{0.5} \leq 1 \quad (30)$$

i.e.,

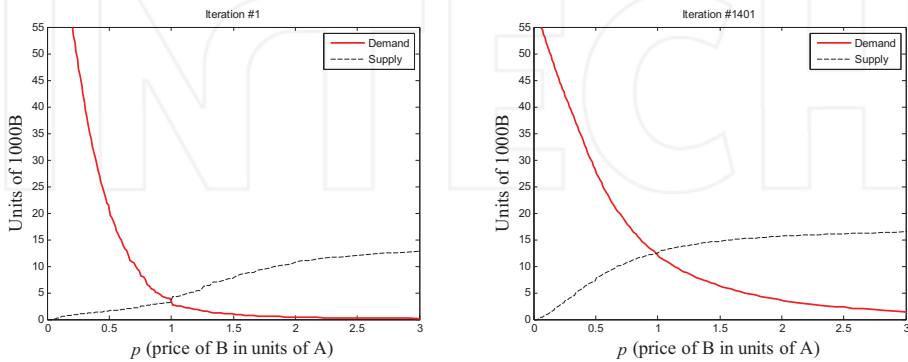
$$b_n[a] = B_n \left(1 - \sqrt{a/A_n}\right)^2. \quad (31)$$

with the same  $A_n$ ,  $B_n$ , and  $R_n(a, b)$  of the previous section. In this case specialization increases production, according to Eq. (29), by a factor of  $F=2$ .

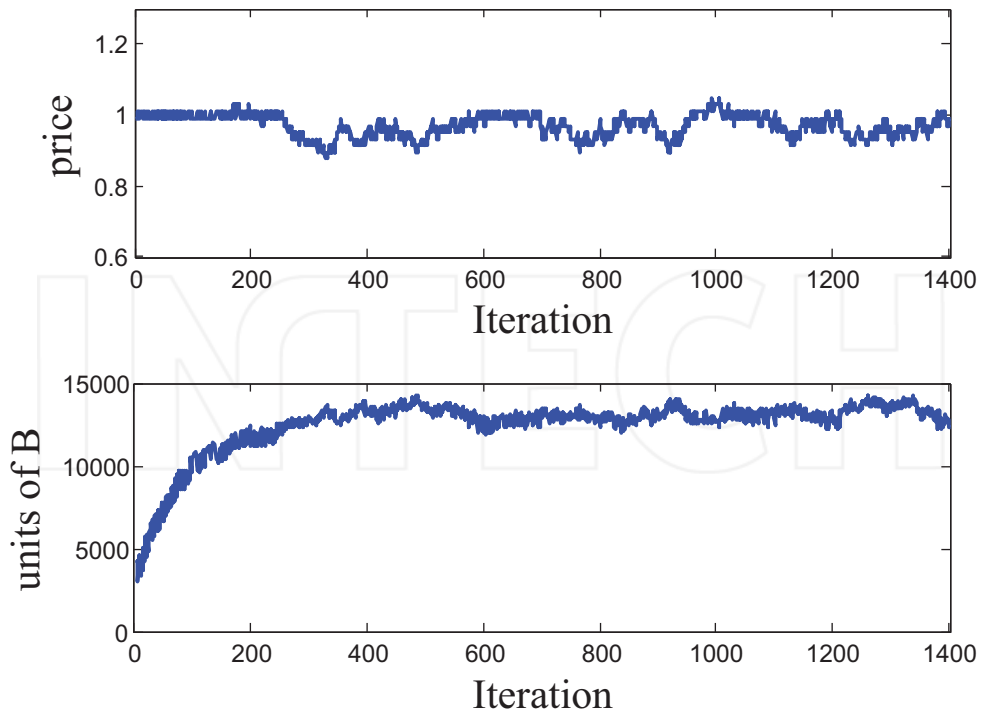
As was demonstrated in Ref. [11], curved production frontier, i.e., Eq. (28), causes instability in the initial state even when all the producers have exactly the same production frontier (this is not the case when they all have the same linear, i.e., Eq. (16), production frontier). Therefore, specialization and trading are encouraged. Moreover, the curved frontier depresses drifts, since any small drift highly encourages entrepreneur to change their production strategies accordingly, and due to the curvature, even small drift directly affects the producers. As was shown in the previous section—this is not the case in the linear production frontier scenario. In **Figures 8–10** the results of the simulation with  $Q = 80$  are presented. Similarly, the results of a similar simulation but with  $Q = 8.5$  are presented in **Figures 11 and 12**. As can be seen, unlike the linear production frontier



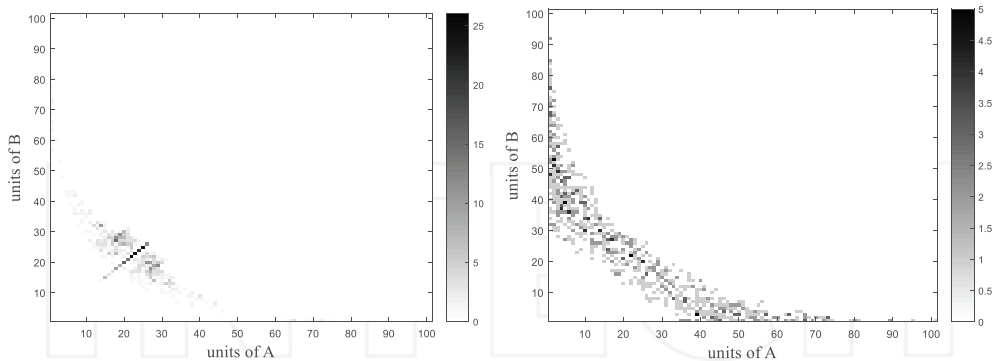
**Figure 8.** The effect of specialization on the producer's production histogram for  $Q = 80$ . Left: after the first iteration. Right: 1400 iterations later. The false colors represent the number of producers.



**Figure 9.** The supply-demand curves before trading and specialization (left) and after 1400 iterations (right).



**Figure 10.** The temporal dependence of the market price (upper plot) and the amount of exchanged good (lower plot).



**Figure 11.** Same as in Figure 8 but with  $Q = 8.5$ .

case, there is no qualitative difference between the two. The main difference is that large fluctuations (risk loving  $Q = 80$ ) help to keep the system at the optimal equilibrium value ( $p = 1$ ), while smaller fluctuations (risk aversion  $Q = 8.5$ ) do it less efficiently, and small drifts last longer (more than 700 iterations when  $Q = 80$  instead of less than 100 when  $Q = 8.5$ ).

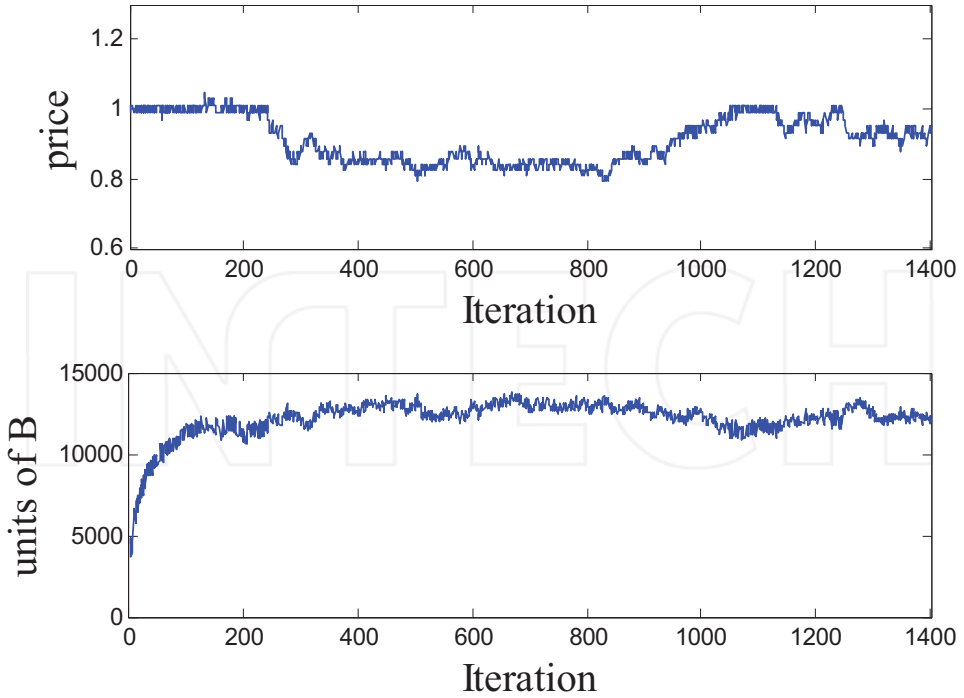


Figure 12. Same as in Figure 10 but with  $Q = 8.5$ .

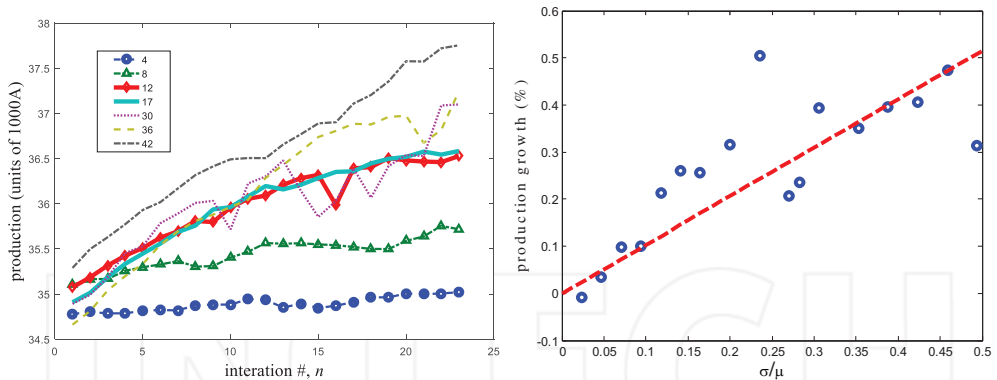
## 8. Production growth and entrepreneurship

In the previous section, we have seen that there is a major effect of the amount of risk the entrepreneurs are willing to take (which was quantified by the parameter  $Q$ ) on the stability of the equilibrium. However, it seems that in this simplified model, the amount of risk taken is irrelevant to the final equilibrium case. Nevertheless, the rate toward equilibrium is clearly related to the entrepreneur risk aversion parameter  $Q$ . On the left side of **Figure 13**, the total production parameter ( $M$  is the total number of producer, and  $p$  is the current market price)

$$\text{production} = \sum_{n=1}^M (a_n + b_n p) \quad (32)$$

is plotted for various values of  $Q$  as a function of the iteration number for the first 24 iterations. As this plot clearly suggests, the higher the parameter  $Q$ , the faster is the production growth.

On the right side of **Figure 13**, the rate of the relative production growth (PG)  $\frac{\Delta p}{p \Delta n}$  is measured as a function of the relative risk taken, i.e., as a function of the ratio between the production



**Figure 13.** Left: the production as a function of the iteration number for different values of  $Q$  (from 4 to 42). Right: the production growth rate as a function of  $\sigma/\mu$  (which is a relative evaluation of the risk aversion).

standard deviation  $\sigma$  ( $Q$ , in the above examples), and the mean initial production  $\mu$ . This plot suggests the following simple linear relation:

$$PG \cong C \frac{\sigma}{\mu} \quad (33)$$

where  $C = (1.0 \pm 0.2)\%$ .

## 9. Main conclusions

A simple market model was presented to illustrate how the market reaches equilibrium and clearance without the assumption of perfect knowledge. In fact, the model assumed that the traders and producers have no information about other producers' preferences, wealth, or production skills, and yet their knowledge about the past transaction prices and their entrepreneurial activity keeps the market oscillates randomly near equilibrium.

The producers use the past transaction prices to make entrepreneurial decisions regarding their future production strategies.

The amount of risk aversion, which is quantified in a single parameter, determines how stable the equilibrium is. The lower the population's risk aversion, the more stable is the equilibrium.

When the production frontier is linear, and the producers are risk averse, the equilibrium price can drift from its optimal value. Future research is needed to investigate the dynamic of these drifts and their sensitivity on initial conditions.

Moreover, to emphasize the effect of specialization, a convex production frontier was simulated as well. In this case, the equilibrium prices are much more stable and are less affected by the producers' risk aversion.



Nevertheless, the amount of risk aversion has a clear effect on the production growth of the economy. The lower the risk aversion is, the higher is the growth rate of the economy.

Another important general conclusion is that economic equilibrium is not a stationary process, at least not on the microscopic domain. It may be regarded as stationary only on the macroscopic level. Like molecule gas in a container, economic equilibria are generated by random interactions between entrepreneurs, which act without insight. Only on the macroscopic level, it seems *as if* deviations from equilibrium lure the actors (or particles) to correct the error.

## Author details

Er'el Granot

Address all correspondence to: erel@ariel.ac.il

Department of Electrical and Electronics Engineering, Ariel University, Ariel, Israel

## References

- [1] van Daal J, Jolink A. Equilibrium Economics of Léon Walras. London: Routledge; 1993
- [2] Marshall A. Principles of Economics, Great Minds Series. Prometheus Books; 1997
- [3] Gravelle H, Rees R. Microeconomics. Harlow: Pearson Education; 2004
- [4] Knight FH. Risk, Uncertainty and Profit. New York: Augustus M. Kelley; 1964
- [5] von Mises L. Human Action: A Treatise on Economics. Ludwig von Mises Institute: Yale University Press; 1949
- [6] Rothbard MN. Man Economy and State. 2nd ed. Scholar's Edition: Ludwig von Mises Institute; 2009
- [7] Hayek FA. Individualism and Economic Order. Chicago: University of Chicago Press; 1958
- [8] Kirzner IM. How market work: Disequilibrium, Entrepreneurship and Discovery. London: The Institute of Economic Affairs; 1997. p. 78
- [9] Kirzner IM. Competition and Entrepreneurship. Chicago and London: The University of Chicago Press; 1973
- [10] Debreu G. Representation of a Preference Ordering by a Numerical Function. In: Thrall, Davis, Coombs, editors. Decision Process. New York: Wiley; 1954. p. 159-165
- [11] Granot E. Ricardo's law of comparative advantage and the Law of Association: A subjective analysis. Chapter 3 in Economics and Development. Rijeka: INTECH; 2017

- [12] von Mises L. The Theory of Money and Credit. Yale University Press; 1953
- [13] McCulloch JH. Misesian Insights for Modern Macroeconomics. The Quarterly Journal of Austrian Economics. 2014;17:3-18
- [14] Abramowitz M, Stegun IA. Handbook of Mathematical Functions. New York: Dover Publication; 1972
- [15] Ricardo D. On the Principles of Political Economy and Taxation. UK: John Murray; 1817
- [16] Maneschi A. Comparative Advantage in International Trade: A Historical Perspective. Cheltenham, UK: Edward Elgar; 1998
- [17] Hollander S. The Economics of David Ricardo. Tronto Press: Toronto. Univ; 1979
- [18] Rothbard MN. Classical Economics: An Austrian Perspective on the History of Economic Thought. Vol II: Edward Elgar Publishing, Cheltenham; 2006
- [19] Krugman PR, Obstfeld M. Boston, MA. In: International Economics: Theory & Policy, Addison-Wesley. Boston, 8th ed. 2009
- [20] Murphy RP. Choice Cooperation. Independent Institute, Oakland: Enterprise and Human Action; 2015

INTECH



# Determinants of Established Entrepreneurs' Innovative Activity in Northern and Western Europe

Karin Širec and Dijana Močnik

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.71843>

## Abstract

For established entrepreneurs from Western European economies (WEEs) and Northern European economies (NEEs), we estimated relationships between firms' innovative activity and their owner-managers' educational level, the firms' international orientation, and their growth aspirations. International orientation proved to be positively and significantly related to innovative activity in both groups, but associations were stronger in NEEs. Established entrepreneurs with higher educational levels are more innovative than those with less education, with an exception for NEEs, where more innovative are entrepreneurs with a secondary instead of a postsecondary degree. Established entrepreneurs with growth aspirations are more innovative only for the NEEs. The empirical results confirm our two hypotheses for both groups of economies, whereas the third hypothesis which suggests that established entrepreneurs with aspirations for growing their firms are expected to be more innovative is confirmed only for the NEEs.

**Keywords:** global entrepreneurship monitor, innovative versus imitative activities, international orientation, educational level, firm growth aspirations

## 1. Introduction

Although the EU policy strives to unify the EU market as much as possible, extensive country and regional differences in economic growth and the prosperity between them still exist. Strengthening the knowledge of regional differences in entrepreneurial activity and its determinants is of utmost importance. When comparing entrepreneurial activity across regions, it is important to take into account that not all companies can be regarded as “entrepreneurial” [1–3] or “productive” [4]. Schutjens and Wever [5] as well as Koellinger [6] argue the difference between imitative and innovative types of entrepreneurial activity. The latter, innovative type, is uppermost in the minds of decision-makers throughout Europe. In the policymaking context, innovation is considered a prerequisite for economic growth [1, 7, 8]. An evident gap

exists in studies on entrepreneurial activity that simultaneously encompass regions and countries [9, 10]. Therefore, investigating determinants of entrepreneurship over regions (in our case, Western and Northern European economies) enables us to disentangle regional demography attributes (e.g., identifying ambitious entrepreneurs), institutional components (e.g., educational system), and specific regional attributes (e.g., international orientation). In recent years, the connection among innovation and international orientation, educational level, and growth aspiration has attracted increased interest among policymakers, researchers, and business leaders [6, 8, 11–15].

Prior studies lack a thorough investigation of the factors that stimulate innovative rather than imitative forms of entrepreneurial activity. They are certainly related to the phenomena of business opportunity recognition; therefore the current paper adds to the knowledge of the development of different types and levels of companies' innovation and focus on the determinants that might differ between Western and Northern European economies' established entrepreneurs. The reasoning behind expected differences of these two regions lies in the Innovation Union Scoreboard (IUS) 2014's results, showing four different performance groups, based on the average innovation performance in the EU. Three countries from our northern group (i.e., Denmark, Finland, and Sweden) fell into the group of "innovation leaders," with innovation performance being well above the EU average, whereas only Germany from the investigated western group belonged to this same category [16].

This paper focuses on country and regional differences in innovation activity. Our research is based on the Global Entrepreneurship Monitor (GEM). GEM's contribution to the knowledge and understanding of the entrepreneurial process is unique as it is the only existing data set that can provide consistent cross-country comparisons and information on entrepreneurial activity. As such, the importance of its findings is invaluable for policymakers as well as academics. GEM focuses in particular on the level of involvement in a country's early-stage entrepreneurial activity. But one needs to understand that many new entrepreneurs can be characterized as imitators, not "real" entrepreneurs in search of novelty; in fact their aim is not to innovate or grow their business [17]. At the regional level, our interest therefore lies in another group, called established entrepreneurs, by which we can investigate the innovative type of entrepreneurial activity as, in the Schumpeterian perspective, they will boost the employment growth and innovation at the company level and, consequently, growth at the regional level [18, 19]. According to van der Zwan et al. [20], the structural presence of entrepreneurial activities within a country depends strongly on the prevalence rates of established entrepreneurs. This means that established companies ultimately create certainty for employment and jobs.

Different authors claim that entrepreneurial innovativeness relates strongly to individual as well as environmental circumstances and differs significantly between countries. More developed countries have higher intensity of innovative rather than purely imitative entrepreneurs [1, 6, 8]. Also the presence of business opportunities in general depends on environmental factors such as technology advancement, rules of law, and demographics and also other society characteristics, such as values, customs, and urbanization [6]. For example, Morris [21] describes Northern European high-growth entrepreneurs as being very unlikely to allow fear

of failure to prevent them from starting a new business, whereas Western European high-growth entrepreneurs are among the least likely to have started their business in order to increase their incomes. They are the most likely to start their business in order to become more independent.

Our research concentrates on the relationship among various dimensions of entrepreneurship (e.g., educational level, firms' customers from other countries—international orientation, growth aspirations, about future employment) and their innovative versus imitative activity. Investigated variables of our research are in line with three broad areas of innovative performance as described in IUS 2014: enablers, firm activities, and outputs. Among the enablers, which refer to a firm's external drivers of innovation activity, human resources measured with entrepreneurs' educational level have been examined. From the firm activities, companies' international orientation has been explored. Finally, using output, entrepreneurs' growth aspirations have been taken into consideration. We derived data from the GEM research for 2001–2008. The NEEs that participated in the GEM and in which we were interested included Denmark, Finland, Iceland, Ireland, Latvia, Norway, Sweden, and the United Kingdom, whereas the WEEs comprise Austria, Belgium, France, Germany, Italy, the Netherlands, Portugal, Spain, and Switzerland.

This paper is divided into six sections. The next section presents the theoretical background and previous research. The following section describes research hypotheses, which is succeeded by the presentation of the data, variables, and models. Results are explained in the next section. The final section presents the discussion and conclusion.

## 2. Theoretical background and previous research

Entrepreneurship and innovation theories demonstrate that it is easier to find common points than to define limits between them; this might be one reason why we often see them as a single phenomenon.

Such understanding originates from the work of Schumpeter [22]. He defined an entrepreneur “as an individual carrying out new combinations—namely, innovations.” In his view the entrepreneur was the one who innovates. Schumpeter undoubtedly assigned the role of innovator to the entrepreneur and made a distinction between invention and innovation. He also explicitly differentiates the role of entrepreneurs and enterprise: “The carrying out of new combinations we call ‘enterprise’; the individuals who carry them out, we call ‘entrepreneurs’” [22]. In this way he emphasized the relevance of explicit human possessions: the ability to think, be creative, and innovate. Therefore, the entrepreneur becomes essential resource for an enterprise to exist. In order for an enterprise to grow, develop, and succeed, the entrepreneur needs to be innovative in constantly performing new combinations of existing resources [23].

Innovative activity in a given economy depends not only on individuals (entrepreneurs), networks of innovative enterprises and research organizations, suppliers, and customers but also on various institutional factors, such as the public financing system of research, the nation's system of schooling, training, and financial establishments. As such, innovation can

be seen as the outcome of mutual activities of various members of the whole system [24]. Thus, the functioning of these joint constituencies of the system of which the outcome is represented by innovation is greatly dependent on economy-specific formal (e.g., regulatory frameworks) and informal (e.g., rules, conventions, and norms) institutions [2, 8, 25]. As a result, innovation activities are not equally distributed in space, i.e., [2, 26–29], and we are faced with different development levels of regional innovation systems, i.e., [1, 8, 30–33].

Andersson and Ejermo [14], for example, found a positive relationship between the innovativeness of a firm and its accessibility to university researchers within regions where a firm's own research groups are located. They also found that, for a firm's innovativeness, the size of the firm's R&D staff is the most important internal factor, whereas intraregional accessibility to other firms' research is not important. That regional effect matter has also been argued by Ashem et al. [34], who presented a regional innovation policy model aimed to enable regional advantage.

Insights into the determinants of innovative versus imitative entrepreneurship are relevant for policymakers as increasing the share of the former (i.e., innovative entrepreneurial activity) is a major target for the EU's 2020 Entrepreneurship as well as Innovation Strategy Agenda [16, 35, 36]. Previous study results [9, 10] have suggested that accounting for the regional context is important. They have also confirmed the distinction between low- and high-ambition entrepreneurship within various regions. Therefore, we expect to identify the significant differences in the innovative activity of established entrepreneurs within Western and Northern European regions. Bosma and Schutjens [9] further suggest that (the process of) setting up new businesses generally relates to regional conditions and regional demography effects, such as urbanization, age, and education structure, whereas entrepreneurs' growth and innovation ambitions are subject to national institutional factors, including entrepreneurial and cultural attitudes. Thus, we aim to see whether regional institutional conditions affect a firm's innovative activity.

### 3. Research propositions

#### 3.1. Entrepreneurs' educational level and innovative activity

Education at individual as well as country level is strongly related to productivity. Therefore, economies investing more into education express higher levels of national wealth. Different types of education—formal, informal, job training, as well as work experience—present a higher level of human capital that clearly benefits individuals. Some studies have shown that each year of school raises an individual's wage by 5–7% on average. The percentage depends on the quality of school, education type, and so on, but more highly educated workers are undoubtedly better paid and—unless firms are throwing their money away—more productive, e.g., [37–39].

Millán et al. [12] recently demonstrated that a higher level of education positively affects the average entrepreneur's performance. When profitable opportunities for new economic activities exist, individuals with more human capital should more effectively identify and develop



them. Entrepreneurs' higher educational level positively affects the company's innovation activities.

The 2011 Eurydice survey "Entrepreneurship Education" [40] gathered information on the state of entrepreneurship education as well as on the associated national strategies, action plans, initiatives, and ongoing reforms. The study investigated 31 European countries. Results show the wide recognition of the entrepreneurship education importance, since almost half of the countries have integrated the objectives linked to the promotion of entrepreneurship education within their broader strategies. Especially Northern European countries went even further and launched also specific entrepreneurship education strategies. It needs to be emphasized that Scandinavian countries promote innovation and entrepreneurship at every educational level. Entrepreneurship is taught from primary school on as a cross-curricular skill and not as a separate class. Universities systematically teach entrepreneurship in many different classes and create projects for students that include the development of an entrepreneurial mind set [41].

The expected positive relationship of educational level and a firm's innovative activity implicates that a firm's knowledge is managed properly and efficiently, which is manifested in a firm's innovativeness [42]. We use the term knowledge management as a description of "everything from the application of new technology to the broader endeavour of harnessing the intellectual capital of an organization" [42]. Successful organizations are capable of making new value by creating knowledge, which is manifested in a firm's innovation (new products or services) [42].

Behind that reasoning, we expect that higher levels of educational attainment lead individuals to perceive and exploit innovative rather than imitative business ideas. Thus, our first research hypothesis (H1) reads:

**H1:** A higher educational level is significantly and positively related to firm innovative activity, more so in Northern Europe than in the western part of the region.

### **3.2. International orientation and innovative activity**

Internationalization has been defined by several different schools of thoughts. The monopolistic advantage theory proposes the internationalization when enterprises may use their established advantages abroad at no or very low cost. Product cycle theory suggests the internationalization as a strategy where enterprises protect their existing markets of mature products or services. The stage theory of internationalization describes the enterprise's internationalization as a result of development advancement. After accumulating a certain amount of knowledge and experience, enterprises start to work abroad and develop relationships across international boundaries [43].

Globalization raises the importance of global trade. Modern technologies allow smaller firms to compete on international markets. However, reasons for entrepreneurial internationalization remain quite different. Sometimes products and service might be more suitable for foreign markets. In the case of smaller economies, the size of internal markets might be the stimulating factor for going international. The intense local competition motivates them to pursue customers outside their countries. A broader leverage of high investments as well as

geographical factors and strategic partnership connections can also stimulate cross border activities [39, 44, 45].

International orientation and innovative activity are strongly interrelated. Williams and Shaw [13] stated that “successful internationalization requires innovation, and internationalization requires firms to have superior knowledge.” Knight and Cavusgil [46] claimed that “fast internationalisers are more innovative than domestic firms or slow internationalisers” and their entrepreneurial teams have more international experience. Andersson and Lööf [47] found that, especially for small firms, persistence in pursuing exports appears to be necessary and sufficient for gleaning learning effects from exports. The authors also found that such an effect of learning by exporting increases with the extent of small firms’ exports [48].

The reason we use international orientation as an indicator of a firm’s innovative activity stems from the general consideration that innovative products or services are easily exploited across countries [49]. According to Cerrato [49], the consequence of a more international presence leads to a higher level of innovation. The mediating role of the region is included in our research because of the recent empirical arguments that both the diversity and strength of knowledge generated within the region or brought into the region on the basis of international cooperation are crucial for the region’s innovative activity [41, 45, 50]. Regarding Andersson and Lööf’s [51] findings, for micro and small firms to be innovative, important determinants include skilled labor, affiliation to a domestically owned multinational corporation, and international trade with the G7 countries. As Kaufmann and Tödtling [52] argued, determinants of innovation for SMEs depend on characteristics of the region in which SMEs are integrated; thus, we divide the sample into two regions in order to address such distinctions.

A specific GEM measure assesses the extent to which entrepreneurs sell to customers outside their economies. Internationalization is—on average—lowest in the factor-driven economies and increases with the economic development level [53, 54]. Based on Porter’s typology [55], all the investigated countries in our sample are innovation-driven economies; the one exception is Latvia, which is an efficiency-driven economy. In line with the discussed circumstances, we presuppose a positive association between innovative activity and international orientation of established entrepreneurs. Our second research hypothesis (H2) reads:

**H2:** International orientation is significantly and positively related to firm innovative activity, more so in Northern Europe than in the western part of the region.

### 3.3. Growth aspirations and innovative activity

Entrepreneurship research and practice emphasize company growth as a measure of entrepreneurial success. One reason why society values entrepreneurs is their potential to create employment opportunities for others [19, 56]. Davidsson [57] argues that a determinant of perpetual entrepreneurship is firm growth. To Penrose [58] firms that are oriented to grow are better equipped to allure exceptionally qualified management, as well as outside investors, partners, and rivals. Since business growth is advantageous, it would be a good idea for entrepreneurs to pursue it [59].

The variable of firm growth aspirations is added to our model as the growth enables small firms to achieve a competitive advantage, which can be developed and is implicated by

innovation [19, 60, 61]. A positive but not significant relationship was estimated between a firm's entrepreneurial orientation and its growth aspirations for a sample of 1612 small- and medium-sized enterprises from Germany, Austria, Switzerland, and Liechtenstein [11]. Harrison et al. [62] studied the impact of process and product innovations on employment growth in manufacturing and services firms from France, Germany, Spain, and the United Kingdom (20,000 firms) for the 1998–2000 period. The results indicated that employment decreases with productivity growth in the production of old products, whereas it remains unchanged or rises with process innovations.

In our investigation, we sought to uncover an individual's unique capacity to be innovative and creative. We believe that essential factors for transferring ideas, knowledge, and experiences into something that is radically new or ameliorates a product or process are at least two. The first factor is determination and longing to innovate (innovation impulse), while the second factor comprises opportunities and the feasibility to innovate (innovation capacity). From this standpoint, the economic literature interprets innovation capacity of organizations [63] and innovation capacity of countries [64, 65]. Notwithstanding, the previous literature, according to our knowledge, has not researched and debated about the innovation impulse or innovation capacity of an individual as determinants related to his/her aspiration for growing a firm. We propose that individuals who declare a larger extent of innovation activity are more plausible to be engaged in growing their firms. Hence, the third hypothesis (H3) is:

**H3:** Firm growth aspirations are significantly and positively related to firm innovative activity.

All three hypotheses were tested for established entrepreneurs in nine Western European economies (WEEs) and eight Northern European economies (NEEs).

## 4. Data, variables, and models

### 4.1. Data

Research data were derived from the GEM research. Bosma et al. [53] fully explained the GEM study's content and procedures. GEM is a large-scale entrepreneurship research program launched with ten countries in 1997. In 2014, the coverage was extended to 73 countries [66]. For our research, we used GEM data pooled from Adult Population Survey (APS) collected for the period 2001–2008. Interviewing was done by the method of computer-assisted telephone interviewing (CATI). Our model is represented by a sample of 13,285 to 15,358 individuals from the nine WEEs and 6144 to 7618 individuals from eight NEEs.

### 4.2. Variables

In this section, we described the way we measured the variables included in our research. We used the GEM data already mentioned. In the following, we first presented the dependent (criterion) variable, which is innovative activity. Then we proceeded with main independent variables (predictors), which are educational level, international orientation, and firm growth aspirations. We built a model for established entrepreneurs from WEEs and NEEs combined as well as separately for the two groups of countries.

#### 4.2.1. *Dependent (criterion) variable*

We assumed the activity of established entrepreneurs being innovative or imitative according to given answers to the next questions:

- Were the technologies or procedures available more than a year ago? Interviewees selected the answer from two options: no (coded as 0) and yes (coded as 1).
- How many (potential) customers consider the product new/unfamiliar? Interviewees selected their answer from three options: all (coded as 1), some (coded as 2), and none (coded as 3).
- How many businesses offer the same products? Interviewees selected the answer from three options: many (coded as 1), few (coded as 2), and none (coded as 3).

We assumed as innovative (coded as 1) an established entrepreneur (an interviewee) who selected no to the first question, all or some to second question, and few or none to the third question. Interviewees that selected yes to the first question, none to second question, and many to the third question represented imitative established entrepreneurs (coded 0, which assumes the reference category).

#### 4.2.2. *Independent variables (predictors)*

In the binary logistic regression model, we included three independent variables and five control variables:

1. Educational level. Interviewees were able to choose the answer from the following options: some secondary (coded as 1), secondary degree (coded as 2), postsecondary (coded as 3), or graduate expanded (coded as 4). The fourth option represented the indicator of reference.
2. International orientation. Interviewees were choosing their answers from the following options: 76–100% (coded as 1), 26–75% (coded as 2), 11–25% (coded as 3), 1–10% (coded as 4), or none (coded as 5). We used the last option for the reference indicator.
3. Firm growth aspirations. Interviewees responded if they intend to recruit more than five employees in the next 5 years: no (coded as 0) or yes (coded as 1). The last option represented the reference indicator.
4. Technology sector (control variable). Interviewees' business and the technology sector were selected from among two given options considering the classification of the technology level proposed by OECD: no/low technology sector (coded as 0) or medium or high technology sector (coded as 1). The last option represented the reference indicator.
5. Firm type (control variable). Interviewees selected their answers from four options: extractive (coded as 1), transforming (coded as 2), business services (coded as 3), or consumer oriented (coded as 4). The representative of the reference indicator was the fourth option.
6. Skills (control variable). Interviewees answered whether they had the capacity, represented by knowledge, skill, and experience, necessary to establish a new firm. They selected the

answer from two options: no (coded as 0) or yes (coded as 1). Yes represented the reference indicator.

7. Year survey (control variable). Data for the survey was collecting in the period 2001 to 2008. The year of 2008 represented the reference indicator.
8. Gender (control variable). Respondents indicated their gender: male (coded as 1) or female (coded as 2).

#### 4.3. Binary logistic regression models

We built three pooled binary logistic regression models for eight consecutive years (2001–2008) in one dataset: the first model for nine WECs, the second model for eight NECs, and the third model for both groups combined. Pooling the years in one dataset allowed us to control the fluctuations in the distribution across countries over time. In the models, we assumed that the criterion variable is a linear combination of the eight predictors. The models for estimation read:

$$\begin{aligned} \text{Logit } [P(y = 1)]_{ji} = & a_j + B_{1jk} \text{ Educational level}_{kji} + B_{2jl} \text{ International orientation}_{lji} \\ & + B_{3j} \text{ Firm growth aspirations}_{ji} + B_{4j} \text{ Technology sector}_{ji} + B_{5jm} \text{ Firm type}_{mji} + B_{6j} \text{ Skills}_{ji} \\ & + B_{7jn} \text{ Year survey}_{nji} + B_{8j} \text{ Gender}_{ji} + e_{ji} \end{aligned} \quad (1)$$

where  $\text{Logit } [P(y = 1)]$  is the criterion variable (i.e., the binary logit estimate for innovative activity);  $a$  is the binary logit for the regression constant;  $B$  is the binary logit estimate for the regression coefficients of predictors;  $j$  is the index for the WEEs, NEEs, and combined model ( $j = 1, 2, 3$ );  $k$  is the index for three categories of educational level ( $k = 1, 2, 3$ );  $l$  is the index of four categories of international orientation ( $l = 1, \dots, 4$ );  $m$  is the index of three categories of firm type ( $m = 1, 2, 3$ );  $n$  is the index of eight categories of survey year ( $n = 1, \dots, 8$ );  $i$  is the index for the number of cases ( $N_{\text{WEEs}} = 13,285$  to  $15,358$ ;  $N_{\text{NEEs}} = 6144$  to  $7618$ ); and  $e_{ji}$  is the binary logit estimate for the error term.

By adding the control variables (technology sector, firm type, skills, survey year, and gender), we tried to improve the results presented in the next section.

## 5. Results

**Table 1** summarizes the results. The binary logit estimate for educational level is negative and significant, whereas it is positive for international orientation. Firm growth aspirations are negatively and significantly related to innovative activity only for the NEEs model, whereas this predictor proved to be irrelevant for the WEEs model and combined economies (when both groups were pooled together). As the WEEs and NEEs models' estimations are correct, in the following we focus on explaining the meaning of these models' regression coefficients. The empirical results confirm our H1 and H2 hypotheses for both groups of economies, whereas the H3 hypothesis is confirmed only for the NEEs. In the H1 hypothesis, we suggested that higher levels of education positively affect a firm's innovative activity. In the H2 hypothesis, we

Predictor	West European economies (WEEs) (j = 1) (N = 12,314*)				North European economies (NEEs) (j = 2) (N = 5095**)				West and North European economies (j = 3) (N = 20,935***)			
	B	Exp(B) (odds ratio)	Wald	p-Value	B	Exp(B) (odds ratio)	Wald	p-value	B	Exp(B) (odds ratio)	Wald	p-Value
Educational level	B <sub>1j</sub>		58,650	0.000			33,903	0.000			104,815	0.000
Educational level (some secondary)	B <sub>11j</sub>	-0.595	54,724	0.000	-0.822	0.440	27,984	0.000	-0.647	0.524	101,485	0.000
Educational level (secondary degree)	B <sub>12j</sub>	-0.403	21,484	0.000	-0.327	0.721	6850	0.009	-0.389	0.678	36,679	0.000
Education (postsecondary)	B <sub>13j</sub>	-0.197	4445	0.035	-0.514	0.598	13,825	0.000	-0.352	0.703	25,117	0.000
International orientation	B <sub>2j</sub>		131,062	0.000			65,210	0.000			209,617	0.000
International orientation (76–100%)	B <sub>21j</sub>	1033	69,962	0.000	1166	3210	41,125	0.000	1001	2721	109,840	0.000
International orientation (26–75%)	B <sub>22j</sub>	0.807	73,950	0.000	0.835	2305	29,511	0.000	0.779	2179	109,398	0.000
International orientation (11–25%)	B <sub>23j</sub>	0.579	21,769	0.000	0.931	2538	20,767	0.000	0.675	1963	46,996	0.000
International orientation (1–10%)	B <sub>24j</sub>	0.304	16,402	0.000	0.514	1672	20,218	0.000	0.408	1504	52,738	0.000
Firm growth aspirations (No)	B <sub>3j</sub>	0.061	0.492	0.483	-0.382	0.682	7638	0.006	0.030	1031	0.192	0.661
Technology sector (low technology) – 0.138	B <sub>4j</sub>	-0.138	1298	0.255	-0.884	0.413	30,478	0.000	-0.433	0.648	25,561	0.000
Firm type	B <sub>5j</sub>		11,460	0.009			31,353	0.000			51,142	0.000
Firm type (extractive)	B <sub>51j</sub>	-0.401	10,701	0.001	-0.969	0.379	28,673	0.000	-0.587	0.556	38,247	0.000
Firm type (transforming)	B <sub>52j</sub>	-0.072	0.996	0.318	-0.217	0.805	3128	0.077	-0.090	0.914	2492	0.114
Firm type (business service)	B <sub>53j</sub>	-0.131	2203	0.138	-0.406	0.666	8171	0.004	-0.310	0.734	20,468	0.000
Skills (No)	B <sub>6j</sub>	-0.081	0.594	0.441	-0.267	0.766	2855	0.091	-0.214	0.808	6821	0.009
Year survey	B <sub>7j</sub>		161,070	0.000			159,336	0.000			476,715	0.000
Year survey (2003)	B <sub>71j</sub>	-2776	41,357	0.000	-2079	0.125	41,406	0.000	-2083	0.125	159,045	0.000
Year survey (2004)	B <sub>72j</sub>	-1628	114,446	0.000	-1738	0.176	95,675	0.000	-1702	0.182	285,514	0.000
Year survey (2005)	B <sub>73j</sub>	-0.004	0.002	0.960	-0.230	0.794	2145	0.143	-0.081	0.923	1385	0.239

Predictor	Coefficient	West European economies (WEEs) (j = 1) (N = 12,314*)				North European economies (NEEs) (j = 2) (N = 5095**)				West and North European economies (j = 3) (N = 20,935***)			
		B	Exp(B) (odds ratio)	Wald	p-Value	B	Exp(B) (odds ratio)	Wald	p-value	B	Exp(B) (odds ratio)	Wald	p-Value
Year survey (2006)	B <sub>74j</sub>	-0.004	0.996	0.002	0.966	-0.022	0.978	0.024	0.878	0.032	1032	0.189	0.663
Year survey (2007)	B <sub>75j</sub>	-0.125	0.882	2054	0.152	-0.098	0.907	0.399	0.527	-0.090	0.914	1776	0.183
Gender (males)	B <sub>8ij</sub>	0.054	1.055	0.725	0.394	0.037	1.037	0.111	0.738				
Intercept	a <sub>j</sub>	-1614	0.199	87,633	0.000	-0.273	0.761	1008	0.315	-1173	0.309	85,283	0.000
-2Log Likelihood		7639,356				3047,352				12,677,829			
Nagelkerke R Square		0.091				0.179				0.118			
Model $\chi^2$		548,834				485,470				1233,768			
Model $\chi^2$ Significance		0.000				0.000				0.000			
Overall Predictive Accuracy (%)		88.7				89.9				89.6			

Notes: The reference category of the criterion variable in the estimation is 0 (imitative) by which respondents with the imitative activity are coded. Reference categories of the seven predictors are: educational level (graduate expanded; = 0), international orientation (none; = 0), firm growth aspirations (yes; = 0), technology sector (medium or high tech; = 0), firm type (consumer oriented; = 0), skills (yes; = 0), year survey (2008; = 0), and gender (female; = 0). In the model, there is no problem of multicollinearity which is confirmed by correlation matrices. These matrices are not included in the paper but are accessible on request.

West European economies (WEEs) include Austria, Belgium, France, Germany, Italy, the Netherlands, Portugal, Spain, and Switzerland; North European economies (NEEs) include Denmark, Finland, Iceland, Ireland, Latvia, Norway, Sweden, and the United Kingdom.

\*included in analysis (missing cases 4065; total 16,379);

\*\*included in analysis (missing cases 2265; total 7360);

\*\*\*included in analysis (missing cases 10,008; total 30,943).

Notes: The reference category of the criterion variable in the estimation is 0 (Imitative) by which respondents with the imitative activity are coded. Reference categories of the seven predictors are: educational level (graduate expanded; = 0), international orientation (none; = 0), firm growth aspirations (yes; = 0), technology sector (medium or high tech; = 0), firm type (consumer oriented; = 0), skills (yes; = 0), year survey (2008; = 0), and gender (female; = 0). In the model, there is no problem of multicollinearity which is confirmed by correlation matrices. These matrices are not included in the paper but are accessible on request.

West European economies (WEEs) include Austria, Belgium, France, Germany, Italy, the Netherlands, Portugal, Spain, and Switzerland; North European economies (NEEs) include Denmark, Finland, Iceland, Ireland, Latvia, Norway, Sweden, and the United Kingdom.

\*Included in analysis (missing cases 4065; total 16,379);

\*\*included in analysis (missing cases 2265; total 7360);

\*\*\*included in analysis (missing cases 10,008; total 30,943).

Table 1. Results of the binary logistic regression for the WEEs, NEEs, and combined established entrepreneurs, 2001–2008 (criterion variable: innovative activity = 1).



presupposed that established enterprises that export certain proportions of their products or services are more innovative (compared to those that do not export). Our H3 hypothesis suggests that established entrepreneurs that have aspirations for growing their firms are expected to be more innovative. In the following, we analyze the results in greater detail.

Some secondary education showed the highest negative and significant binary logit estimate for NEEs [ $B_{11}$  (NEEs) =  $-0.822$ , odds ratio =  $0.440$ ]. The odds ratio indicates that the likelihood of being innovative for an established entrepreneur with some secondary education is 56% smaller than an established entrepreneur with an expanded graduate-level education. This predictor in WEEs model has a smaller binary logit estimate and a higher odds ratio [ $B_{11}$  (WEEs) =  $-0.595$ , odds ratio =  $0.551$ ], which means that the likelihood of being innovative for an established entrepreneur with some secondary education is 45% less than for an established entrepreneur with an expanded graduate-level education. As indicated in **Table 1**, the odds ratios increase with higher educational levels in the WEEs and combined models, which mean that the probability of innovative activity (compared to imitative activity) of established entrepreneurs is higher an entrepreneur's higher educational level. However, in the NEEs model, we can see (in **Table 1**) that a secondary education degree creates a larger likelihood that an established entrepreneur is innovative [ $B_{13}$  (NEEs) =  $-0.514$ , odds ratio =  $0.598$ ] than a postsecondary education (the reference category). Thus, the likelihood of innovative activity is higher by 12% points for an established entrepreneur with a secondary degree compared to a postsecondary degree. Such results can be compared to the empirical research results of Ucbasaran et al. [67], who found that business owners with more experience, managerial, entrepreneurial, and technical capabilities (presented by the educational level variable in our case) identify and realize more business opportunity (presented by the innovative activity variable in our case).

The overall impact of international orientation proved to be a positive and significant predictor in all three models, although the regression coefficients were quite different. In all cases, the coefficients were the highest in the NEEs model. A positive relationship between innovative activity and a specific degree of international orientation was expected, as presupposed in our H2 hypothesis. As the reference category for comparison was no international orientation, an increasing value of regression coefficients was expected; this was true for the WEEs and combined cases, but not for the NEEs model. In the WEEs model, the highest positive impact had exports of 76–100% [ $B_{21}$  (WEEs) =  $1.033$ , odds ratio =  $2.809$ ]. The likelihood of being innovative in a WEEs' established enterprise is 2.8 times greater if a firm exports 76–100% of its products or services, compared to a similar firm not involved in exporting. In the NEEs model, this figure is even higher [ $B_{21}$  (NEEs) =  $1.166$ , odds ratio =  $3.210$ ]. Thus, the probability of being innovative is 3.2 times greater for an established enterprise that exports 76–100% of its products or services than a firm not involved in exporting. The value of regression coefficients for exports between 26 and 75% for both the WEEs and NEEs models was almost the same [ $B_{22}$  (WEEs) =  $0.807$ , odds ratio =  $2.240$  and  $B_{22}$  (NEEs) =  $0.835$ , odds ratio =  $2.305$ ]. Therefore, the likelihood of being innovative in a WEEs established enterprise is 2.2, whereas in the NEEs model, it is 2.3 times greater if a firm exports 26–75%. For the WEEs model, the results for another two categories of the predictor show that the likelihood of firm's innovative activity is 1.8 and 1.4 times bigger if a firm exports 11–25% and 1–10% of its products, respectively,



compared to a firm not involved in exporting. In the NEEs model (as shown in **Table 1**), the greatest likelihood of innovative activity in an established enterprise is expected in firms with 11–25% of exporting as its odds ratio amounts to 2.5. Thus, the probability of innovative orientation is 2.5 times greater if a firm exports 11–25% compared to a firm not involved in exporting. Our result confirms and further refines Palangkaraya's [68] findings of the positive correlation between innovation and export market participation among Australia's small and medium enterprises. The result can also be compared to Cerrato's [49] research findings that a stronger international presence among micro and small enterprises affects the greater level of their innovation.

Firm growth aspirations proved to be a significant predictor only in the NEEs model. The binary logit estimate was negative [ $B_3$  (NEEs) =  $-0.382$ , odds ratio =  $0.682$ ], indicating that the likelihood of established entrepreneurs with no growth aspirations being innovative is 32% smaller than the innovative orientation of established entrepreneurs that have firm growth aspirations. Our H3 hypothesis, which states that firm growth aspirations have a positive impact on innovative activity, was only partly confirmed as it was only valid for the NEEs model. This result for the NEEs is supported by Colombelli et al. [69] empirical finding of a positive association between firm growth and innovation for French industry. A positive but not significant relationship was estimated between a firm's entrepreneurial orientation and its growth aspirations for small- and medium-sized enterprises from Germany, Austria, Switzerland, and Liechtenstein [11]. In a way, our results can be compared to those of Harrison et al. [62], who estimated the impact of process and product innovations on employment growth in manufacturing and services firms from France, Germany, Spain, and the United Kingdom. Their results indicated that employment remains unchanged or increases with process innovations.

Regarding control variables, the results demonstrated that their inclusion in the models was reasonable as they proved to be additional indicators of innovative activity, although they were not significant in all cases. For example, the technology sector is a significant indicator for NEEs' established entrepreneurs [ $B_4$  (NEEs) =  $-0.884$ , odds ratio =  $0.413$ ], but not for the WEEs. Thus, the likelihood of innovative activity for established entrepreneurs from NEEs is 59% smaller if a firm operates in a low technology sector compared to a medium or high technology sector. However, technological classification does not contribute to the explanation of innovative activity in WEEs. In the combined model, this relationship also proved to be negative and significant, although the value of the regression coefficient was halved compared to that of the NEEs, which we consider to be incorrect.

Firm type for the extractive sector proved to be a negative and significant indicator in both cases. The likelihood of being innovative is 33 and 62% smaller if an established enterprise operated in the extractive sector compared to the consumer-oriented sector [ $B_{51}$  (WEEs) =  $-0.401$ , odds ratio =  $0.670$  and  $B_{51}$  (NEEs) =  $-0.969$ , odds ratio =  $0.379$ ]. The business service is another significant category of the firm-type predictor, but only for the NEEs model [ $B_{53}$  (NEEs) =  $-0.406$ , odds ratio =  $0.666$ ]. This means that a likelihood of being innovative is 33% smaller if an established firm operates in the business service sector than in the consumer-oriented sector.

The results indicate that the binary estimate for the 2003 and 2004 survey years were negative and significant (compared to 2008) (see  $B_{71}$  and  $B_{72}$  for WEEs and NEEs in **Table 1**). Thus, during these years, established entrepreneurs were less innovative than in 2008.

Skills are not a significant indicator of firm innovative activity in WEEs and NEEs models. It is a significant indicator in the combined model, which is considered incorrect. The results also show that the gender control variable is not a significant indicator of innovative activity either.

In summary, using three main predictors (educational level, international orientation, and firm growth aspirations) and five control variables (technology sector, firm type, skills, survey year, and gender), we can adequately explain the innovative activity of established entrepreneurs from Western European and Northern European economies.

## 6. Conclusion

According to IUS [16], the differences in innovation performance among EU member states are still high and diminishing only slowly. At the regional level, the innovation gap is even wider. IUS 2014 revealed considerable differences among member states, particularly in knowledge excellence, internationalization, and business innovation cooperation. This is why this paper sought to achieve a better understanding of the development of innovative versus imitative innovation activity. We highlighted determinants that differ between Western and Northern European economies' established entrepreneurs. The identified differences strongly support the need for the sound development and implementation of a smart specialization strategy, which should include innovation on a country as well as regional level. Countries and their regions need to focus their efforts on building economic strengths and developing innovative ways to face global competition. Continuous innovation is inevitably dependent on new knowledge creation—a process that is multidimensional in nature and “must be managed at individual and organizational level, as well as in the societal, cultural, economic and political context” [8, 70].

We empirically estimated that firms' differences in innovation effectiveness among EU countries are large, still present, and diminishing only slowly. We estimated the impact of educational level, international orientation, and firm growth aspirations on firms' innovative activity. Therefore, our aim was to contribute to comprehension of the relationships between the presented variables, which we believe is essential for policy decision-makers, entrepreneurs, as well as academics. In this paper, our aim has been to confirm the hypotheses of significant relationships between an innovative activity and the three identified predictors. The hypotheses were tested on a sample of more than 17,000 established entrepreneurs from WEEs and NEEs.

We empirically succeeded in confirming two of the three proposed hypotheses for both groups of economies, whereas the third hypothesis was confirmed only for the NEEs. The results of the binary logistic regressions also highlighted that associations among variables differed across economies and were higher for the NEEs.

In the H1 hypothesis, we suggested that the higher the educational level, the greater the firm's expected innovative activity. This expectation was confirmed. Namely, the results demonstrated that the likelihood of established enterprises' innovative activity increased as the firm owners' educational level increased. The only exception was for NEEs' established entrepreneurs with a secondary level of education, who experienced a stronger impact of innovative activity in their firms than those with postsecondary education (the likelihood of innovative

activity at the secondary level of education was 12 percentage points larger than at the postsecondary level).

We also confirmed our H2 hypothesis, which presupposed that more innovative establish enterprises that export a certain proportion of their products or services (compared to not exporting them). For all four categories of exporting, the likelihood of a firm's innovative activity increases as the proportion of exports increased compared to no exports in both groups of economies. The one exception to this was NEEs' established enterprises, where the likelihood of innovative activity was greater by almost 10 percentage points in terms of the smaller proportion of exports (11–25%) compared to a larger proportion (26–75%).

Our H3 hypothesis suggested that established entrepreneurs that have aspirations for growing their firms are expected to be more innovative. Firm growth aspirations proved to be the significant indicator of innovative activity only for NEEs' established entrepreneurs.

However, we need to address the limitations of our study. First, the innovation activity might be observed from a variety of aspects. The findings could be replicated using a different type of innovation activity (e.g., processes, product, or outsourcing innovation). In addition, other measures of internationalization could be used. Second, this study utilized GEM data. To present more sophisticated results, future research should encompass other national-level measurements in order to provide more precise distinctions and reasoning behind differences within regions and countries. Another interesting avenue for future work on firms' innovative activity might focus on the comparison of regions that differ significantly in the level and history of their entrepreneurial activity.

## Author details

Karin Širec<sup>1\*</sup> and Dijana Močnik<sup>2</sup>

\*Address all correspondence to: [karin.sirec@um.si](mailto:karin.sirec@um.si)

1 Faculty of Economics and Business, University of Maribor, Maribor, Slovenia

2 Faculty of Electrical Engineering and Computer Science, University of Maribor, Maribor, Slovenia

## References

- [1] Elenurm T, Alas R, Rozell EJ, Scroggins WA, Alsua CJ. Cultural prototypes of the successful entrepreneur: Comparison of Estonia and the United States. *Journal of Baltic Studies*. 2014;**45**(4 October):499-515
- [2] Hyeock-Lee I, Marvel MR. The moderating effects of home region orientation on R&D investment and international SME performance: Lessons from Korea. *European Management Journal*. 2009;**27**(5):316-326

- [3] Wennekers ARM, Thurik AR. Linking entrepreneurship and economic growth. *Small Business Economics*. 1999;**13**:27-55
- [4] Baumol WJ. Entrepreneurship: Productive, unproductive, and destructive. *Journal of Political Economy*. 1990;**98**:893-921
- [5] Schutjens VAJM, Wever E. Determinants of new firm success. *Papers in Regional Science*. 2000;**79**:135-153
- [6] Koellinger P. Why are some entrepreneurs more innovative than others? *Small Business Economics*. 2008;**31**(1):21-37
- [7] Danilda I, Thorslund JG, editors. *Gender and Innovation*. Oslo: VINNOVA Sweden and Tillväxtverket & Innovation Norway; 2011. Available from: <http://www.vinnova.se/upload/epistorepdf/vi-11-03.pdf> [Accessed: 2015-10-12]
- [8] Karo E. The evolution of innovation policy governance systems and policy capacities in the Baltic states. *Journal of Baltic Studies*. 2011;**42**(4 December):511-536
- [9] Bosma NS, Schutjens VAJM. Outlook on Europe: Patterns of promising entrepreneurial activity in European regions. *Tijdschrift voor Economische en Sociale Geografie*. 2007;**98**(5): 675-686
- [10] Bosma NS, Schutjens VAJM. Understanding regional variation in entrepreneurial activity and entrepreneurial attitude in Europe. *The Annals of Regional Science*. 2011;**47**(3):711-742
- [11] Rigtering JPC, Kraus S, Eggers F, Jensen SH. A comparative analysis of the entrepreneurial orientation/growth relationship in service firms and manufacturing firms. *Service Industries Journal*. 2014;**34**(4):275-294
- [12] Millán JM, Congregado E, Román C, van Praag M: The value of an educated population for an individual's entrepreneurship success. *Journal of Business Venturing*. 2014;**29**(5): 612-632
- [13] Williams AM, Shaw G. Internationalization and innovation in tourism. *Annals of Tourism Research*. 2011;**38**:27-51
- [14] Andersson M, Ejermo O. How does accessibility to knowledge sources affect the innovativeness of corporations? Evidence from Sweden. *The Annals of Regional Science*. 2005;**39**:741-765
- [15] Gundry LK, Welsch HP. The ambitious entrepreneur: High growth strategies of women-owned businesses. *Journal of Business Venturing*. 2001;**16**(5):453-470
- [16] EC (European Commission). *Innovation Union Scoreboard 2014*. ISBN: 978-92-79-34662-0, DOI: 10.2769/88936. Available from: [http://ec.europa.eu/enterprise/policies/innovation/files/ius/ius-2014\\_en.pdf](http://ec.europa.eu/enterprise/policies/innovation/files/ius/ius-2014_en.pdf) Accessed: 2015-12-20
- [17] Davidsson P, Delmar F, Wiklund J. Entrepreneurship as growth: Growth as entrepreneurship. In: Davidsson P, Delmar F, Wiklund J, editors. *Entrepreneurship and the Growth of Firms*. Cheltenham: Edward Elgar; 2006. pp. 21-38

- [18] Autio E, Kronlund M, Kovalainen A. High-Growth SME Support Initiatives in nine Countries: Analysis, Categorization, and Recommendations. Finnish Ministry of Trade and Industry: Helsinki; 2007
- [19] Širec K, Močnik D. Indicators of high potential firms' rapid growth: Empirical evidence for Slovenia. *Transformations in Business & Economics*. 2014;**13**(2A):448-461
- [20] van der Zwan PW, Verheul I, Thurik AR: The entrepreneurial ladder, gender and regional development. *Small Business Economics*. 2012;**39**(3):627–643
- [21] Morris R. High-Impact Entrepreneurship Global Report 2011. Ernst and Young, Center for High Impact Entrepreneurship at Endeavour. 2011. Available from: <http://www.gemconsortium.org>. [Accessed: 10-02-2015]
- [22] Schumpeter JA. *The Theory of Economic Development*. Cambridge, MA: Harvard University Press; 1934
- [23] Rebernik M. Business economics and entrepreneurship at the crossroads. *Ekonomický Časopis*. 2002;**50**(3):471-488
- [24] OECD. *National Innovation Systems*. Paris: Organization for Economic Co-operation and Development; 1997
- [25] Acs ZJ, Anselin L, Varga A. Patents and innovation counts as measures of regional production of new knowledge. *Research Policy*. 2002;**31**(7):1069-1085
- [26] Sweeney P. *Innovation, Entrepreneurs and Regional Development*. New York: St. Martin Press; 1987
- [27] Stohr W. Regional innovation complexes. *Papers of the Regional Science Association*. 1986;**59**:29-44
- [28] Hall P, Markusen A. *Silicon Landscapes*. Boston, MA: Allen and Unwin; 1985
- [29] Malecki E. Government funded R&D: Some economic implications. *The Professional Geographer*. 1981;**33**:72-82
- [30] Acs Z. *Regional Innovation, Knowledge and Global Change*. London: Pinter; 2000
- [31] Braczyk H, Cooke P, Heidenreich M. *Regional Innovation Systems: The Role of Governances in a Globalized World*. London: UCL Press; 1998
- [32] De la Mothe J, Foray D, editors. *Local and Regional Systems of Innovation*. Boston: Kluwer Academic Publishers; 1998
- [33] Padmore T, Gibson H. Modelling systems of innovation, part II, a framework for industrial cluster analysis in regions. *Research Policy*. 1998;**26**:625-641
- [34] Ashem B, Boschma R, Cooke P. Constructing regional advantage: Platform policies based on related variety and differentiated knowledge bases. *Regional Studies*. 2011;**45**(7): 893-904

- [35] EC (European Commission). Entrepreneurship 2020 Action Plan. 2013. Available from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:EN:PDF> [Accessed: 2015–12–20]
- [36] EC (European Commission). EUROPE 2020. A strategy for Smart, Sustainable and Inclusive Growth. COM(2010) 2020 final. Available from: <http://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf> Accessed: 2015–12–20
- [37] Tominc P, Rebernik M. Gender differences in entrepreneurial education and entrepreneurial activity in part of the Danube region. *Aktual'ni Problemi Ekonomiki*. 2012;**12**(138): 496–505
- [38] De Wit G, Teruel M. Determinants of High-Growth Firms. Scales Research Reports H201107. EIM Business and Policy Research. 2011. Available from: <http://www.entrepreneurship-sme.eu/pdf-ez/H201107.pdf> [Accessed: 2014–06–25]
- [39] Močnik D, Širec K. The determinants of internet use controlling for income level: Cross-country empirical evidence. *Information Economics and Policy*. 2010;**22**(3):243–256
- [40] EC (European Commission). Entrepreneurship Education at School in Europe; National Strategies, Curricula and Learning Outcomes. 2012. Available from: [http://eacea.ec.europa.eu/education/eurydice/documents/thematic\\_reports/135EN.pdf](http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/135EN.pdf) [Accessed: 2015–11–15]
- [41] Unger B, Zagler M. Institutional and organizational determinants of product innovations. *Innovation: The European Journal of Social Science Research*. 2003;**16**(3):293–310
- [42] Sallis E, Jones G. *Knowledge Management in Education Enhancing Learning & Education*. New York: Routledge; 2012
- [43] Westhead P, Wright M, Ucbasaran D. The internationalization of new and small firms: A resource-based view. *Journal of Business Venturing*. 2001;**16**:333–358
- [44] Kelley D, Bosma N, Amorós JE. *Global Entrepreneurship Monitor*. Boston, MA: Babson College; 2010, Global Report, 2011. Available from: <http://www.gemconsortium.org/report/47109> [Accessed: 2015–11–30]
- [45] Cantwell J. Innovation and international business. *Industry and Innovation*. 2017;**24**(1):41–60
- [46] Knight GA, Cavusgil ST. Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies*. 2004;**35**:124–141
- [47] Andersson M, Lööf H. Learning-by-exporting revisited: The role of intensity and persistence. *The Scandinavian Journal of Economics*. 2009;**111**(4):893–916
- [48] Basly S. The internationalization of family SME: An organizational learning and knowledge development perspective. *Baltic Journal of Management*. 2007;**2**(2):154–180
- [49] Cerrato D. Does innovation lead to global orientation? Empirical evidence from a sample of Italian firms. *European Management Journal*. 2009;**27**(5):305–315



- [50] Tavassoli S, Carbonara N. The role of knowledge variety and intensity for regional innovation. *Small Business Economics*. 2014;**43**(2):493-509
- [51] Andersson M, Lööf H. Small business innovation: Firm level evidence from Sweden. *Journal of Technology Transfer*. 2012;**37**(5):732-754
- [52] Kaufmann A, Tödtling F. How effective is innovation support for SMEs? An analysis of the region of upper Austria. *Technovation*. 2002;**22**(3):147-159
- [53] Bosma NS, Wennekers S, Amorós JE. Global Entrepreneurship Monitor, 2011 Extended Report: Entrepreneurial Employees across the Globe. Babson College: Babson Park, MA; 2012
- [54] Pete S, Nagy A, Matis D, Gyorfy LZ, Benyovszki A, Petru TP. Early-stage entrepreneurial aspirations in efficiency-driven economies. *Romanian Journal of Economic Forecasting*. 2011;**2**:5-18
- [55] Porter MJ, Sachs J, McArthur J. Executive summary: Competitiveness and stages of economic development. In: Porter MJ, Sachs PK, Cornelius JW, Mc Arthur J, Schwab K, editors. *The Global Competitiveness Report*. New York: Oxford University Press; 2002. pp. 16-25
- [56] van Stel A, Wennekers S, Hessels J, van der Zwan P. Global Entrepreneurship Monitor 2011: The Netherlands. Scales Research Reports A201211. EIM Business and Policy Research. 2012. Available from: <https://ideas.repec.org/p/eim/papers/a201211.html> [Accessed: 2015-12-12]
- [57] Davidsson P. Continued entrepreneurship: Ability, need, and opportunity as determinants of small firm growth. *Journal of Business Venturing*. 1991;**6**:405-429
- [58] Penrose ET. *The Theory of the Growth of the Firm*. New York: John Wiley; 1959
- [59] Markman GD, Gartner WB. Is extraordinary growth profitable? A study of Inc. 500 high-growth companies. *Entrepreneurship Theory and Practice*. 2002;**27**(1):65-75
- [60] Obeng BA, Robson P, Haugh H. Strategic entrepreneurship and small firm growth in Ghana. *International Small Business Journal*. 2014;**32**(5):501-524
- [61] Szczygielski K, Grabowski W, Woodward R. Innovation and the growth of service companies: The variety of firm activities and industry effects. *Industry and Innovation*. 2016;**24**(3):249-262
- [62] Harrison R, Jaumandreu J, Mairesse J, Peters B. Does innovation stimulate employment? A firm-level analysis using comparable micro-data from four European countries. *International Journal of Industrial Organization*. 2014;**35**:29-43
- [63] Prajogo DI, Ahmed PK. Relationship between innovation stimulus, innovation capacity, and innovation performance. *R&D Management*. 2006;**36**(5):499-515
- [64] Radosevic S. A two-tier or multi-tier Europe? Assessing the innovation capacities of central and east-European countries in the enlarged EU. *Journal of Common Market Studies*. 2004;**42**(3):641-666

- [65] Furman JL, Porter ME, Stern S. The determinants of national innovative capacity. *Research Policy*. 2002;**31**:899-933
- [66] Singer S, Amorós JE, Arreola DM. *Global Entrepreneurship Monitor 2014, Global Report*. Babson Park, MA: Babson College; 2014. Available from: <http://www.gemconsortium.org/report> [Accessed: 2016-01-18]
- [67] Ucbasaran D, Westhead P, Wright M. Opportunity identification and pursuit: Does an entrepreneur's human capital matter? *Small Business Economics*. 2008;**30**(2):153-173
- [68] Palangkaraya A. The link between innovation and export: Evidence from Australia's small and medium enterprises. *ERIA Discussion paper series*. 2012. Available from: <http://www.eria.org/ERIA-DP-2012-08.pdf> [Accessed: 2015-12-18]
- [69] Colombelli A, Haned N, La Bas C. On firm growth and innovation: Some new empirical perspectives using French CIS (1992-2004). *Structural Change and Economic Dynamics*. 2013;**26**:14-26
- [70] Rebernik M, Širec K. Fostering innovation by unlearning tacit knowledge. *Kybernetes*. 2007;**36**(3-4):406-419

INTECH



---

# **Business Intelligence: An Innovative Technological Way to Influence Corporate Entrepreneurship**

---

Reyes Giménez-Figueroa, Rodrigo Martín-Rojas and  
Víctor Jesús García-Morales

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70538>

---

## **Abstract**

Adaptation to dynamism and complex environments in today's Knowledge Society is key for firms to survive and improve their positions. This paper applies business intelligence (BI) to the firm to shape its organizational design and improve its performance. The paper also relates business intelligence to organizational performance management through organizational learning (OL), knowledge management (KM) and the technological competencies of the company's employees and managers. Theoretical study of the main current research serves as the basis for the development of several propositions to fill the gaps in knowledge of business intelligence. Finally, the paper presents conclusions about application of business intelligence in firms.

**Keywords:** business intelligence, corporate entrepreneurship, knowledge management, organizational learning, technological capabilities, organizational performance

---

## **1. Introduction**

The current environment is very hostile and dynamic for firms. Firms have numerous competitors struggling to achieve strong market positions. Organizations are therefore looking for tools to strengthen their customer outreach as well as innovative organizational designs to obtain more benefits [1].

Firms must thus continually update their knowledge on change occurring within firm, through initiatives such as information mobility or cloud computing. Such initiatives enable employees and managers to have constant connection with each other and with stakeholders and full access to all information obtained directly by the company to make better decisions [2].

These initiatives are producing innovative forms of entrepreneurship in firms, modifying their organizational design to obtain higher revenues. Our chapter focuses on the potential of business intelligence (BI) to improve corporate entrepreneurship (CE) by allowing firms to acquire knowledge that enables better decision making.

Given the importance BI is achieving in today's society and the limited scholarly literature connecting BI directly to business management, this study will focus on: (1) determining guidelines for artificial intelligence that relate it to BI; (2) presenting some BI tools that improve entrepreneurship; and (3) developing a series of propositions to improve business performance through innovative CE obtained with the aid of BI and its influence on each of the concepts analyzed in this study.

BI originates in the application of new technologies to business [1, 3, 4]. Together, business applications and technological infrastructure have produced the concept of technological entrepreneurship [5]. Technological entrepreneurship is part of CE, specifically, the part involving technological and process-innovative activities. We can thus view technological entrepreneurship as an innovative form of entrepreneurship that plays an important role in developed economies, as well as in the performance and revitalization of economies [5].

This paper develops the concept of technological entrepreneurship as an innovative form of CE. We venture to combine the concepts of "innovation" and "entrepreneurship" to define innovative CE. The OSLO Manual OECD [6] defines innovation as the implementation of a new or significantly improved product (good or service) or process, a new marketing method or a new organizational method in business practices, workplace organization or external relations." Entrepreneurs "are those business persons and owners who seek to generate value through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets" [7]. Combining entrepreneurship and innovation generates innovative entrepreneurship that materializes in innovative CE in the company as a whole: new firms based on new innovative ideas ([8], p. 2). Innovative entrepreneurship is the key to economic well-being and growth [9].

To achieve these goals, the first section establishes the theoretical framework. This section provides a brief description of BI, which is based fundamentally on artificial intelligence algorithms, neural networks and the research propositions developed from them. The methodology section then explains the analytical procedure used. Finally, the results and conclusions section presents the most significant conclusions, implications, limitations and lines for future research derived from this chapter.

## 2. Theoretical framework

The BI construct is a compound of several components of the firm. To involve every employee of the organization in the BI, this study focuses on three of these components at each level of the organizational hierarchy: operations, lower managers, and top managers.

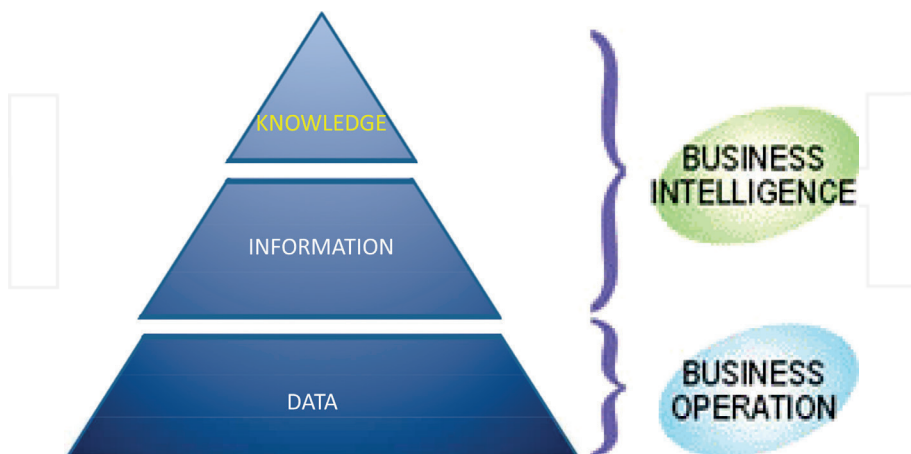
Since BI is increasingly important to the decision making and changes that firms undertake to surpass competitors and gain competitive advantages, BI can be seen as an innovative form of entrepreneurship.

We will thus study BI as a promoter of knowledge management (KM hereafter), organizational learning (OL here after) and technological capabilities (TC hereafter) within the firm. We will then relate these three distinctive concepts of contemporary firms to CE to determine the latter's influence on organizational performance and possible new designs that originate in BI.

## 2.1. The concept of business intelligence

BI is an interactive process for exploring and analyzing structured information on an area (usually stored in a “data warehouse”) to discover tendencies or patterns from which to derive ideas and conclusions [10, 11]. To perform a rigorous study, one must take into account that the data alone do not provide any information. The following pyramid shows the stages of data transformation that must occur for decision making and the relative value of these stages to the firm (**Figure 1**).

At the lowest level are the data, which taken alone are useless to the firm. The next level, information, is of some importance because it involves processed data. The highest level, knowledge, represents the goal to be achieved following analysis of the data and their transformation into information [3, 4, 10]. Using knowledge analysis, firms can anticipate future events to make more accurate decisions and compete with other organizations. The steps to be followed are thus: data, information, knowledge, and finally assimilated knowledge [13]. The process by which data are transformed into knowledge is shaped by the data sources. It is important to remember that transformation of data into information and then knowledge to be applied to a business plan or strategy [11] is determined by artificial intelligence through intelligent agents [4, 14, 15].



**Figure 1.** Transformation of data for decision-making. Source: Davenport and Prusak [12].

An intelligent agent is defined as “any system located in an environment that can perceive the surrounding medium and act based on that medium using a series of actuators, i.e., elements that react to the perception of a change to perform an action” ([16], p. 14). As intelligent agents have received much study in relation to KM and twenty first century decision-making technology [17], we can relate artificial intelligence as a form of innovation in entrepreneurship through technology.

Having analyzed the intelligent agents, we stress that they form part of artificial intelligence [18], the capability of machines to perform actions by simulating intelligent behavior, based on experience and study of the environment [14, 16]. If we consider artificial intelligence as a fundamental component of BI [17, 19], both enable the materialization of firms’ practical data as knowledge, favoring the firm’s entrepreneurship and development [20, 21].

BI is thus increasingly crucial in making good decisions to respond to the rapid and substantial changes occurring in firms [19]. Because BI originates in the firm’s technology, we can speak of BI as a form of innovative or technological entrepreneurship in the firm.

2.2. Business components of BI

BI can materialize in several components of the firm [19]. We study three of these, one for each level of the business hierarchy pyramid [22]. Our goal is to show that BI affects all parts of the organization (**Figure 2**). We choose the components most influential in the business world for improving firms’ decision-making and efficiency, as well as the components that are enabling the greatest development of artificial intelligence and thus of BI [19]. At the bottom of the pyramid, we find employees’ decisions and a series of tools used for them, such as enterprise resource planning (ERP) and customer relations management (CRM), tailored applications, data warehouses, and data mining—the tools discussed in this study. At the middle level of the pyramid, we find the analysts, who also possess a series of tools, such as the decision support system (DSS), which we will explain here, and the executive information system (EIS). Finally, at the tip of the pyramid, we find the top management, who use the balanced scorecard (BS).

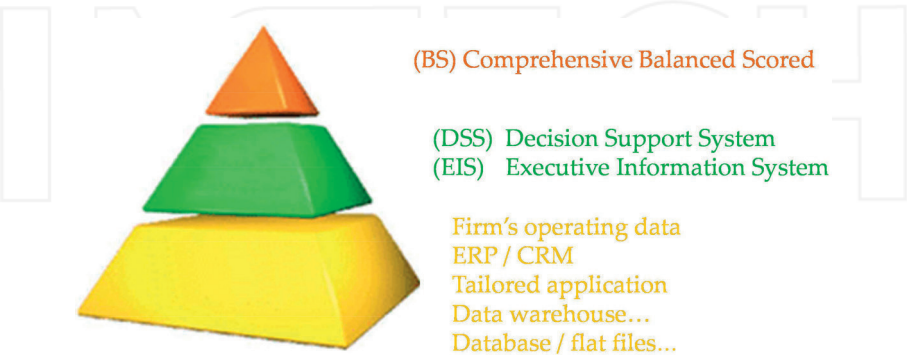


Figure 2. Pyramid of BI tools based on level in firm. Source: Sinnexus [19].

### *2.2.1. Balanced scorecard (BS)*

Since the BS is at the tip of the pyramid, this BI tool can be used to monitor the evolution of the firm's procedures, analysis and activities strategically, with focus on the different areas of the firm [23]. As defined by Kaplan and Norton [23] is a revolutionary tool to mobilize people to fulfill the company's mission by channeling the energies, abilities and specific knowledge held by people throughout the organization toward achieving long-term strategic goals. It thus enables both direction of both current and future performance.

Organizations decide which dashboard to use based on financial indicators (income and expenses), nonfinancial or intangible assets, learning development, relations with stakeholders, capabilities or competencies, etc.

### *2.2.2. Decision support system*

The DSS is a BI tool that has a series of reports that can be navigated, managed, and structured to lead to analysis of the firm's data. DSS has a set of important characteristics: dynamic, flexible, interactive reports that change as the firm's data change; no need for technical knowledge; quick response; integration of all systems/departments in the company; availability of the right information to each user according to profile; and availability of historic information.

### *2.2.3. Data mining*

Data mining emerged to explore large quantities of data with the help of statistical techniques and a series of search algorithms based on neural networks of artificial intelligence.

Since data mining searches for patterns in data, this tool will achieve more extensive information on customers, thereby reducing marketing costs and achieving retention of current customers. Further, such detailed information into account enables more accurate decision-making.

## **2.3. Influence of BI on KM and OL based on technology and TC**

### *2.3.1. Knowledge management*

According to Nonaka and Takeuchi [24], knowledge can be viewed in two ways. When viewed as static (stock), knowledge is usually called intellectual capital. A dynamic view of knowledge stresses knowledge flows composed of OL and KM. The field of knowledge as static has received extensive study over the years [12, 24, 25], but the dynamic view has not been treated in depth. This study thus focuses on knowledge as dynamic, since firms are continually changing and knowledge must be dynamic to enable them to face events that arise and demand OL processes in the firm.

KM and OL provide a dynamic image of intellectual capital reconceived knowledge flows [26].

To gain a position among the best firms, it is important to know how to manage knowledge. From the dynamic perspective, a good definition of KM is “the firm’s capability to foster and drive all of its competencies and capabilities” [26]. Bueno Campos ([27], p. 17) defines it as “the function that plans, coordinates and controls knowledge flows that occur in the firm relative to its activities and environment in order to create certain essential competencies.”

The firm must manage and strengthen its knowledge, strengthening that knowledge both in its different phases of acquisition, storage, transfer and use, and in the process by which the firm generates new knowledge (socialization, externalization, combination and internalization) [24]. Further, since this type of BI is having dramatic and increasing impact on knowledge in firms, development of BI may well provide more efficient KM.

The tools mentioned above (data mining, DSS and BS) have been studied as developers of knowledge, since they are responsible for converting data into information and performing the analysis that will transform this information into knowledge for proper decision-making. BI thus promotes KM.

Through artificial intelligence, intelligent systems and finally data, BI facilitates KM. Knowledge acquisition also becomes more fluid through BI tools, which store, manage and analyze knowledge, as for example through document management or web content analysis. We thus formulate the following hypothesis:

P1: BI motivates the development of KM.

### 2.3.2. *Organizational learning*

OL is the capability “within an organization to maintain or improve performance based on experience” ([28], p. 363). It is a process whereby members in an organization are stimulated to strive continually for new approaches and to acquire as well as to share knowledge that emerges from interactions with environments [29, 30]. OL is thus the process of increasing the knowledge created by individuals in an organized way and transforming it into part of the organization’s knowledge system [28].

OL complements the flow phase of KM. “It not only occurs over a period of time and among different levels of the firm (individual, group, organizational and interorganizational) but also creates tension between assimilation of new knowledge (feed-forward) and exploitation of what has already been learned (feedback)” ([31], p. 532).

In the case of technology-based firms or firms that foster development of BI, fostering OL is necessary to maintain a balance between activities of exploitation (feedback) and exploration (feedforward). Achieving this balance is quite complicated, however, as investment is difficult and learning involves imbalances [32].

Artificial intelligence, and consequently BI, are increasingly changing the way firms work. BI makes firms more efficient in terms of connections among employees [33] and exploitation of ongoing ways of training to control new data (BS, DSS or data mining). An educational system or OL program for the entire production staff is thus necessary to exploit BI [34, 35].

BI attempts to use the information achieved by technology applications in the firm to enable interoperability and organization of the flow of knowledge among applications. This means that BI attempts to enable communication not only among the different applications in the firm but also with customers, partners, or suppliers, such that these other parties can form part of the business system and improve its knowledge through OL processes motivated by the firm.

In conclusion, OL is indispensable in firms and closely related to entrepreneurship [29, 36, 37], since BI permits tools such as data mining or data warehousing that encourage learning for all personnel in the organization as a flow process/system.

Taking into account the information gathered here on OL and its relationship to BI, we propose the following proposition:

P2: BI motivates the development of OL.

### 2.3.3. *Technological capabilities*

Due to environmental dynamicity, we must define dynamic capabilities before we discuss TC. The term “dynamic capability” was coined by Teece et al. ([38], p. 510) as “the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments.”

TC are dynamic capabilities, and they grant a competitive advantage because firms are also inherently changing [37–39]. It is primarily in the field of innovation and technology that TC are especially motivated by BI.

If we focus on the field of technology, having examined the relationship between BI and technological knowledge, we can affirm that BI enables discovery and anticipation of trends when making decisions about change and technology based on the information explored and analyzed in the firm.

Westphal et al. [40], p. 5, thus define TC as “the ability to make effective use of technological knowledge.” As seen above, BI in firms increases technological knowledge. BI thus fosters the development of TC in the firm.

According to Martín-Rojas et al. [37], TC enable firms to have greater competitive advantage due to rapid adaptation to changing opportunities. Further, firms are more efficient when they acquire TC [36, 37, 41]. Therefore, BI through the firm’s development of TC will improve business performance.

The technological integration currently underway in society is creating greater development of TC in individuals [42] and allowing them to juggle several things at once [43]. For instance, the Smartphones gadget requires specific capacities in order to perform various tasks in parallel.

The ability to perform various activities in parallel on the same device is being fostered inherently and with increasing frequency. Further, business performance will develop to solve problems in companies using a single device. It is thus advisable for firms to have specific devices to improve their activities and train personnel with incremental TC [34] in order to control data integration within the firm.



Data integration enables the firm to share information among the different applications. To do so, however, employees must possess TC, since the data must be identified and metadata models built that require highly advanced knowledge to use that many people cannot use. Once the models are built, data can be transmitted through the database systems to grow the firm [44].

In conclusion, the relationship between BI and TC is quite close, since BI will only function correctly if one realizes that it manages changing data and requires workers to have the TC necessary to adapt to this change. That is, if the firm does not have specific TC, it will not be able to adapt effectively to BI.

This adaptation shows that the firm's TC are especially important when competing with different firms, making it necessary to innovate in and improve employees' technological knowledge continually to accelerate the process of developing their TC and motivating the idea of BI with a more positive and significant effect.

P3: BI motivates the development of TC.

#### **2.4. Influence of KM, OL and TC on innovative entrepreneurship**

As discussed above, in technology firms, where turbulence is practically an imperative, knowledge becomes indispensable for increasing the firm's innovation capability [45]. That is, knowledge requires a form of innovative entrepreneurship.

Organizations' members must acquire greater intellectual integration of knowledge through advanced training programmes and further training to respond innovatively to the entrepreneurial needs of their market [20]. For example, in a study of TFT-LCD firms, Hu [46] explains how good knowledge management in all its phases enables the firm to undertake small innovations that make better products for the market. This knowledge is not easy to acquire; entrepreneurs must invest tremendous effort. If they do not do make this effort, however, they will miss true innovations that permit them to face new challenges the firm confronts. If the firm is unable to dedicate time and resources to good KM, a competitive break will occur, with loss of current market position [47]. In firms that face a turbulent market and are in continuous change, such as technology-intensive industries where BI is becoming a key to their development, KM is especially important. It ensures the effective development of innovative entrepreneurship [46], which allows modification of the systems and processes of business development that lead to strategic flexibility, faster learning and more efficient adaptation to market opportunities [47].

KM thus enables acquisition, assimilation and use of new knowledge that improve the innovative entrepreneurship of the firm's personnel and of the firm in itself, improving the business results to the extent that the knowledge becomes more intensive and is developed better to improve the dynamic business process [48]. Knowledge is thus a strategic source of the organization's innovative entrepreneurship. The greater and more strategic the knowledge, the better the proactive innovative actions and search for new ideas in the firm resulting from its members' greater consciousness of the importance of innovation [49].

In sum, efficient KM in the firm promotes innovative entrepreneurship through change or flexibility of previously established models or the creation of new models that foster



performance and business effectiveness [50]. Such innovative entrepreneurship combines new knowledge obtained from applying BI in the firm to enable it to reflect innovative results materialized in processes or systems [51, 52].

#### P4. KM of technology encourages CE.

OL is needed throughout this process, since involving users as part of the comprehensive innovation process necessitates more planning than may be realized at the outset [34]. Thus, models of OL have been applied fruitfully to specific aspects of the innovative process [53, 54]. The most innovative organizations have effective learning systems, in which knowledge is managed efficiently and one learns to maintain today's competitive advantage while preparing for tomorrow. Such innovation requires high capability for learning and effective KM [55].

Entrepreneurs must learn these aspects of entrepreneurship, including use of technological knowledge to prepare for the competitive global market and the challenge of managing a business in its different dimensions, and to guarantee the solidity of the structural conditions for its development [56].

Nevertheless, the higher the degree of innovation, the greater the OL required [57]. More innovative products or services require a higher degree of OL [57, 58]. In dynamic and competitive environments such as BI businesses, the process of OL is even more essential as a mechanism to encourage innovative CE [5]. Furthermore, OL models are usually appropriate for the study of CE [29].

Moreover, CE requires an OL framework that involves searching for innovative activities, such as investing resources obtained through BI in exploration of alternative possibilities, attempting to understand the relationship between organizational characteristics and outcomes, and determining the viability of organizational change [9, 29, 32, 54].

OL also enables development of CE in technological organizations by enhancing the development of technological variables throughout the firm as a coordinating management process. The firm can thus become a cognitive entity in which new abilities, competencies and knowledge have been developed [29, 38, 59]. In addition, Simsek et al. [60] consider OL as a central mechanism likely to grant the firm an adaptive advantage via CE. All of this evidence suggests the following proposition:

#### P5. Technology-based learning encourages CE.

Business models are currently changing firms' way of acting in society by using web tools, specifically through web applications such as "Google." Applications have been developed because the firm's personnel have better TC or have acquired more technological knowledge, motivated fundamentally by the development of BI [4, 37, 43].

TC represents "the organization's expertise in mobilizing various scientific and technical resources through a series of routines and procedures which allow new products and production processes to be developed and designed" ([61], p. 508). They "reflect the firm's ability to make certain physical products or processes which enable the firm to serve a particular customer group" ([62], p. 520).

These TCs permit exploitation of technological opportunities for development of CE and generation of innovative competitive advantage in the firm [37, 61, 63].

In firms' focus on BI, industrial application of technology requires new capabilities in process technologies [64], which can compensate for average or potentially below-average technological know-how when firms seek to innovate technologically. Integration of business applications is thus a serious matter, as it integrates the levels of the firm's information system [2]. That is, TC enables the firm to integrate technological knowledge within and across its boundaries, an important determinant of heterogeneous competency [65]. It also encourages innovation capability [66] and CE [21, 37, 67].

Technological innovation systems thus increase the firm's TC, since they provide innovative ways to speed up the problem-solving process, with key elements such as technological infrastructure or TC [68] and CE [37].

Findings also show that TC including capabilities for exploring or exploiting technological opportunities, core technology capability, and autonomy of R&D decisions are particularly important to the firm's innovation capability in highly competitive industries, where technological knowledge is extremely important and BI application is becoming inherent [69, 70].

Given the current environmental dynamicity and uncertainty, firms with higher levels of information processing, communication and knowledge transfer are more likely to develop CE as an innovative way of doing, as these processes will result in more successful technological innovation than firms in these environments with lower levels of cooperative resources [65, 71]. All in all, we propose that:

P6. TC encourage CE.

## **2.5. Influence of innovative entrepreneurship on organizational performance**

Numerous studies identify a positive relationship between innovative entrepreneurial activity and territorial growth [72–74].

CE is a strategic variable in successful organizations [5, 75, 76], and it is positively related to the firm's growth and profitability [21, 77]. Organizations that engage in entrepreneurial activities achieve higher levels of growth and profitability than organizations that do not [75].

As a result, firms that exhibit CE are typically viewed as dynamic, flexible entities preparing or prepared to take advantage of new business opportunities when they arise [63, 78].

Nowadays, firms that exploit BI as a way of achieving better market positions have a strong incentive to be first innovators when the first-mover advantage is significant [11, 14, 32, 79]. Once an innovation is made, the entrepreneur must bring the innovation to the market in the shortest possible time, as the innovator's position of monopoly might otherwise be quickly eroded by imitators or superior innovations [80].

Innovative companies frequently develop strong, positive market reputations that ensure customer loyalty, enable them to exploit an additional basis for competitive advantage, or result in

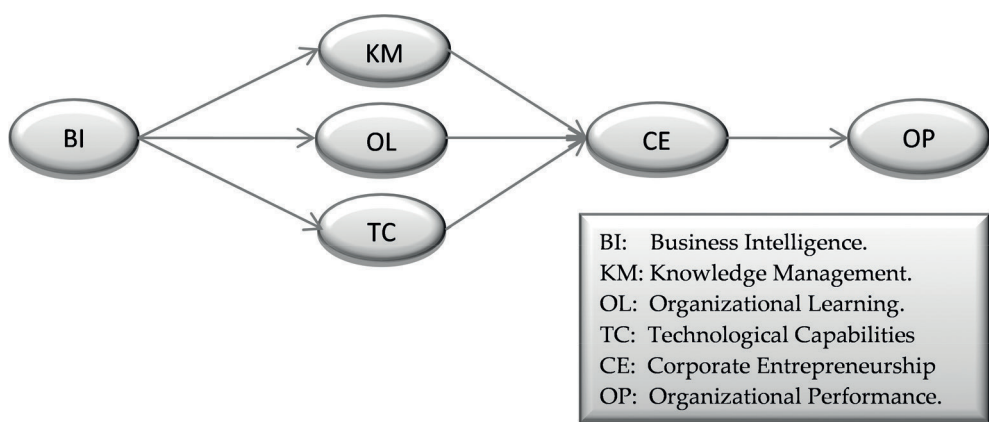
first-mover advantages that translate into superior firm performance. Such characteristics may well enable entrepreneurial firms to take advantage of the effects of learning and experience curves to improve their product, process or market strategies and achieve better organizational performance [81]. These entrepreneurial firms are willing to deviate from prior routines, strategies, business models and operating environments to embrace new resource combinations that hold promise as potential enablers of innovation [78], such as exploitation of BI in firms.

In the case of technological organizations, various current studies indicate a positive relationship between CE and organizational performance [5, 8, 9, 36, 37, 73, 82, 83]. These studies show that entrepreneurship aims to stimulate the emergence of productive entrepreneurial undertakings. Research also demonstrates that positive economic performance in high-tech or ICT companies depends on innovative entrepreneurship capital. Alternately, companies may license use of their technology to other companies in the industry to create new business and enhance their revenue and profits [69]. Since these technological opportunities in an industry are positively associated with increased CE, we can expect a positive relationship between CE and performance in terms of profitability and growth, enabling proposal of the following hypothesis:

P7. CE encourages organizational performance.

### 3. Methodology

The methodology followed to perform this study is called grounded theory. It attempts to discover theories, concepts, hypotheses and propositions by starting directly from data rather than from a priori assumptions drawn from other research [84]. Since grounded theory has been primarily theoretical, we performed an exhaustive search for articles specifically on BI in the field of telecommunications engineering of intelligent systems and related these studies to articles in the field of business management.



**Figure 3.** Proposed model. Source: Developed by the authors.

Further, due to the newness and minimal development of the topic, in addition to scholarly articles, we consulted numerous webpages to gather information on the new types of design firms are currently applying.

After reading and studying this information, we formulated a series of propositions that relate BI to each of the management concepts explained above (organizational learning, knowledge management and technological capabilities of the firm's employees and top managers). We will attempt to contrast these propositions empirically with theoretical development in this study to obtain results of interest for the scholarly community.

**Figure 3** represents the proposed model.

## 4. Results and conclusions

### 4.1. Results

We have achieved the study's initial goals. First, we were able to distinguish between artificial intelligence and BI, while observing that artificial intelligence is one of the main components of BI.

The second goal was to provide a series of tools (CMI, DSS and data mining) to develop BI. These tools were explained in the course of the study and are indirectly related to greater business development.

Finally, the third goal was to propose a series of propositions to improve business performance with the aid of BI. To do this, we demonstrated a series of relationships between BI and numerous specific components of business development which, when performed well, can lead to the firm's success.

To fulfill this goal and observe these relationships, it is worth stressing that:

The help of BI in the firm's knowledge management and organizational learning makes information more accurate and useful, improving business efficiency and thus business results (P1 and P2).

On the other hand, the firm's aptitudes, such as technological capabilities, are fostered by introducing BI in the firm. Aspects of the firm are changing every day, requiring the organization to adapt, and it will adapt correctly when it has sufficiently developed technological capabilities (P3).

The business structure assumes that using BI will be more effective for the businessperson and easier to install in the firm. We have thus developed other hypotheses that connect BI to business performance through the development of CE as an innovative form of entrepreneurship. CE has been encouraged, firstly, indirectly by BI through effective knowledge management within the firm or by managing the web application needed (P4); secondly, through development of organizational learning processes within the firm or technological

integration of BI (P5); and thirdly, by strengthening TC among the firm's stakeholders (P6). Finally, innovative CE has been shown to increase or improve organizational performance in the firm (P7).

#### 4.2. Conclusions

In dynamic environments, dynamic capabilities rest less on existing knowledge than on faster new knowledge creation through learning [85]. Firms should stimulate the development of opportunities that combine inventions generated internally and externally through efficient knowledge transfer and protection of intellectual property, and improved protection against imitation by rivals [86]. "Firms innovate through a continuous learning process by which they generate new knowledge" ([24], p. 3).

BI thus attempts to use the information traffic achieved with firms' current technological integration to achieve interoperability and organization of the flow of information between applications. This means that BI seeks to enable communication not only among the firm's different applications but also with other stakeholders that may form part of the business system.

This study thus proposes that BI influences company performance directly and indirectly: directly because it permits innovative development of entrepreneurship dependent on task interdependence in the organization, and indirectly through effective knowledge management, efficient organizational learning processes, and increased technological capabilities in the firm. All of these improvements materialize in data, business processes and applications, which are in turn innovative forms of entrepreneurship.

If we understand that entrepreneurial activity involves innovation [72, 87], entrepreneurs become critical to the innovation process, and entrepreneurial capability is a key element in knowledge transfer during the commercialization process. Such innovative corporate entrepreneurship enhances the potential for achieving excellent performance.

#### 4.3. Implications

This study has the three main implications:

Only after firm personnel develop technological capabilities through BI will firms achieve trustworthy and efficient use of the information within the company. Furthermore, doing work on time, without mistakes and more effectively enables firms to achieve higher entrepreneurial activity.

The information analysis performed provides not only easy visualization of data within the firm, but also rapid decision-making for managers supported by well-developed CE.

Such excellent decision-making—achieved by the impact of BI on CE through organizational learning processes, effective knowledge management and strengthening of technological competencies—increases the company's organizational performance and changes its current organizational design.

Finally, BI and the different propositions that emerge from this process develop as firms continually discover business models, modifying the firm's current organizational design. For instance, dosdoce.com [88] presents some innovative business models that integrate BI: (a) *micropayments* or fractioned content, "*carrier billing*" in which the customer makes purchases through the Smartphone, charging the expense to the phone bill; (b) *Streaming/Pay per View* in the hotel sector *ByHours*; (c) subscription to journals or newspapers; (d) *Freemium-Premium*, *Spotify*; (e) *Open Access*, *Wikipedia* or Open Access articles; (f) P2P ("*peer to peer*") *People's University*, which undertakes to provide a series of online academic content free, charging only for registration; (g) *MOOCs* or *Massive Open Online Courses*, free online courses, and other courses available for a set price; (h) *Bundles*, or inseparable products, such as the Microsoft Office package; (i) *Crowdfunding*, or financing a business idea from an investor or collaborator like *kickstarter* or *indiegogo*; (j) *cocreation*, *Lego Cuusoo*, where the customer creates a LEGO product which, with sufficient support and compliance with the requirements imposed by the company, could be produced as an official LEGO product; (k) gamification, which enables one to find and evaluate game-based solutions to develop behavior in nonludic situations; (l) *Direct sale*, whether B2C or B2B models; and (n) *Self-publication*, as with *Amazon Kindle Direct Publishing*, where authors can publish free and keep copyright of their books.

#### 4.4. Limitations

In addition to the problems posed by applying BI in firms (the high investment involved in introducing BI in the firm and the fact that employees are not accustomed to using the tool), it is important to mention another limitation of this study:

To study this topic, we used a grounded theory focus, for which we will attempt to achieve empirical results.

#### 4.5. Future lines of research

Studies such as Gartner [89] study the business results of organizations that use BI and data analysis and conclude that these trends will evolve more in the coming years. More research on these topics is thus advisable. It is also quite likely that the concept of BI will even fuse with the Internet of Things, since BI must increasingly analyze a quantity of data about which the firm will have to obtain the necessary information and which, as we have seen, is of vital importance for the firm's organization.

In conclusion, future development of this research could perform case studies of the application of BI in the firm, as in the case of Google, or demonstrate the propositions statistically and thus perform an empirical study to confirm the hypotheses.

### Acknowledgements

We acknowledge the financial support from Excellence Research Project with reference P11-SEJ-7988 from Andalusian Regional Government.

## Author details

Reyes Giménez-Figueroa, Rodrigo Martín-Rojas\* and Víctor Jesús García-Morales

\*Address all correspondence to: [rodrigomr@ugr.es](mailto:rodrigomr@ugr.es)

University of Granada, Granada, Spain

## References

- [1] Curto DJ. *Introducción al Business Intelligence*. Barcelona: UOC; 2012
- [2] Linthicum DS. *Enterprise Application Integration*. Canada: Addison Wesley; 1999
- [3] Medina-Soto JA. *Business Intelligence. Teoría y conceptos* [Internet]. 2005. Available from: <https://www.gestiopolis.com/business-intelligence-teoria-y-conceptos/> [Accessed: June 22, 2015].
- [4] Ramos S. Curso MS Business Intelligence – Componentes de una solución de BI, SolidQ [Internet]. 2011. Available from: <http://blogs.solidq.com/es/business-analytics/curso-ms-business-intelligence-componentes-de-una-solucion-de-bi-4/> [Accessed: July, 24 2015].
- [5] Antoncic B, Prodan I. Alliances, corporate technological entrepreneurship and firm performance: Testing a model on manufacturing firms. *Technovation*. 2008;**28**:257-265
- [6] OECD. *Oslo Manual. Guidelines for Collecting and Interpreting Innovation Data*. 3rd ed. Paris, France: European Commission: OECD Publishing; 2005. DOI: 10.1787/9789264013100-en
- [7] OECD. *Innovation and Growth. Rationale for an Innovation Strategy* [Internet]. 2007. Available from: <http://www.oecd.org/sti/inno/39374789.pdf> [Accessed: June 22, 2017]
- [8] Szabo KZ, Herman E. Innovative entrepreneurship for economic development in EU. *Procedia Economics and Finance*. 2012;**3**:268-275
- [9] Roig-Tierno N, Alcázar J, Ribeiro-Navarrete JA. Use of infrastructures to support innovative entrepreneurship and business growth. *Journal of Business Research*. 2015; **68**:2290-2294
- [10] Bustamante AA, Galvis EA, González M, García AA, Benavides LF. Soluciones de inteligencia de negocios en la práctica: apoyo a la toma de decisiones en proyectos educativos para población infantil vulnerable en el caribe Colombiano. *Revista UIS Ingenierías*. 2011;**10**(2):123-135
- [11] Computer hoy. “Qué son los wearables” “Cómo funcionan” [Internet]. 2014. Available from: <http://computerhoy.com/noticias/hardware/que-son-wearables-como-funcionan-16575> [Accessed: August 18, 2015]



- [12] Davenport TH, Prusak L. Working Knowledge. United States of America: Harvard Business Review Press; 2000
- [13] Beazley H, Boenisch J, Harden D. La continuidad del conocimiento en las empresas. Bogotá: Norma; 2004
- [14] Knight K, Rich E. Inteligencia Artificial. Madrid: McGraw Hill; 1994
- [15] Nilsson NJ. Inteligencia artificial: Una nueva síntesis. Madrid: McGraw-Hill; 2000
- [16] Hípola P, Vargas-Quesada B, Montes A. Descripción y evaluación de agentes. El profesional de la información. 1999;8(11):15-26
- [17] Lu P, Chen S, Zheng Y. Artificial intelligence in civil engineering. Mathematical Problems in Engineering. 2012;1-22
- [18] Wooldridge M, Jennings NR. Intelligent agents: Theory and practice. Knowledge Engineering Review. 1995;10(2):115-152
- [19] Sinnexus. Sinergia e Inteligencia de Negocio S.L. Sinnexus business intelligence información estratégica [Internet]. 2007. Available from: <http://www.sinnexus.com/empresa/index.aspx> [Accessed: July 24, 2015]
- [20] Tsai KH, Liao YC, Hsu TT. Does the use of knowledge integration mechanisms enhance product innovativeness? Industrial Marketing Management. 2015;46:214-223
- [21] Zahra SA, Nielsen AP, Bogner WC. Corporate entrepreneurship, knowledge, and competence development. Entrepreneurship: Theory and Practice. 1999;23(3):169-189
- [22] Mintzberg H. La estructuración de las organizaciones. 9ª ed. Barcelona: Ariel; 2009
- [23] Kaplan R, Norton DP. The Balanced Scorecard. Boston: Harvard Business Review Press; 1996
- [24] Nonaka I, Takeuchi H. The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation. United Kingdom: Oxford University Press; 1995
- [25] Winter SG. Knowledge and competence as strategic assets. In: Teece DJ editor. The Competitive Challenge: Strategies for Industrial Innovation and Renewal. Cambridge: The MIT Press; 1987. p. 159-184
- [26] Bueno Campos E. Dirección estratégica basada en conocimiento: Teoría y práctica de la nueva perspectiva. Barcelona: Ariel; 2002
- [27] Bueno CE. Gestión del conocimiento y capital intelectual: Experiencias en España. Madrid: IU Euroforum Escorial; 1999
- [28] Dibella A, Nevis EC, Gould JM. Understanding organizational learning capability. Journal of Management Studies. 1996;33:361-379
- [29] García-Morales VJ, Lloréns-Montes FJ, Verdú-Jover AJ. Antecedents and consequences of organizational innovation and organizational learning in entrepreneurship. Industrial Management & Data Systems. 2006;106(2):21-42



- [30] Nonaka I, Reinmoller P, Toyama R. Integrated information technology systems for knowledge creation. In: Dierkes M, Berthoin-Antal A, Child J, Nonaka I, editors. *Handbook of organizational learning and knowledge*. New York: Oxford University Press; 2001. p. 827-848
- [31] Crossan M, Lane H, White R. An organizational learning framework: From intuition to institution. *Academy of Management Review*. 1999;**24**(3):522-537
- [32] Roldán JL, Cepeda-Carrión GA, Galán JL. Los sistemas de inteligencia de negocio como soporte a los procesos de toma de decisiones en las organizaciones. *Papeles de Economía Española*. 2012;**132**:239-260
- [33] Ngai EW, Tao SS, Moon KK. Social media research: Theories, constructs, and conceptual frameworks. *International Journal of Information Management*. 2015;**35**(1):33-44
- [34] Leonard-Barton D. The case for integrative innovation: An expert system at digital. *Sloan Management Review*. 1987;**29**(1):7-19
- [35] Leonard-Barton D. Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal*. 1992;**13**:111-125
- [36] Martín-Rojas R, Garcia-Morales VJ, Garcia-Sanchez E. The influence on corporate entrepreneurship of technological variables. *Industrial Management & Data Systems*. 2011;**11**(7):984-1005
- [37] Martín-Rojas R, Garcia-Morales VJ, Bolivar-Ramos MT. Influence of technological support, skills and competencies, and learning on corporate entrepreneurship in European technology firms. *Technovation*. 2013;**33**:417-430
- [38] Teece D, Pisano G, Shuen A. Dynamic capabilities and strategic management. *Strategic Management Journal*. 1997;**18**:509-533
- [39] Garzón MA. Modelodecapacidadesdinámicas. *RevistaDimensiónEmpresarial*. 2015;**13**(1): 111-131
- [40] Westphal JD, Fredrickson JW. Who directs strategic change? Director experience, the selection of new CEOs, and change in corporate strategy. *Strategic Management Journal*. 2001;**22**:1113-1137
- [41] Lall S. Technological capabilities and industrialization. *World Development*. 1992;**20**(2):165-186
- [42] Maksymiv N. CNN Expansión [Internet]. 2010. Available from: <http://www.cnnexpansion.com/tecnologia/2010/07/01/tecnologia-integradora-una-tendencia> [Accessed: August 02, 2015].
- [43] Martínez-López E. *Integración de Aplicaciones Empresariales*. Mexico: Universidad Veracruzana; 2011
- [44] Pérez MA, Ortega DM, Losavio FA. *Integración de Aplicaciones Empresariales*. Venezuela: Universidad Central de Venezuela; 2006

- [45] Martín-Castro G. Knowledge management and innovation in knowledge-based and high-tech industrial markets: The role of openness and absorptive capacity. *Industrial Marketing Management*. 2015;**47**:143-146
- [46] Hu MC. Knowledge flows and innovation capability: The patenting trajectory of Taiwan's thin film transistor-liquid crystal display industry. *Technological Forecasting and Social Change*. 2008;**75**:1423-1438
- [47] Ravishankar MN, Pan SL. Examining the influence of modularity and knowledge management (KM) on dynamic capabilities: Insights from a call center. *International Journal of Information Management*. 2013;**33**:147-159
- [48] Jiménez-Jiménez D, Cegarra-Navarro J. The performance effect of organizational learning and market orientation. *Industrial Marketing Management*. 2007;**36**:694-708
- [49] Xie X, Fang L, Zeng S, Huo J. How does knowledge inertia affect firms product innovation? *Journal of Business Research*. 2016;**69**(5):1615-1620
- [50] Drucker PF. *Innovation and Entrepreneurship*. Oxford: Butterworth-Heinemann; 1997
- [51] Kogut B, Zander U. Knowledge of the firm and the evolutionary theory of the multi-dimensional corporation. *Journal of International Business Studies*. 1993;**24**(4):625-645
- [52] Tidd J, Bessant J. *Managing Innovation. Integrating Technological, Market and Organizational Change*. Chichester: Wiley; 2009
- [53] Cohen WM, Levinthal DA. Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*. 1990;**35**:128-152
- [54] Lant TK, Mezias SJ. Managing discontinuous change: A simulation study of organizational learning and entrepreneurship. *Strategic Management Journal*. 1990;**11**:147-179
- [55] Thomas JB, Sussman SW, Henderson JC. Understanding: 'strategic learning': Linking organizational learning, knowledge management, and sensemaking. *Organization Science*. 2001;**12**:331-345
- [56] Gillich GR, Amariei D, Gillich N, Amariei OI. Premio- an electronic platform for entrepreneurial training. *Procedia - Social and Behavioral Sciences*. 2009;**1**(1):2380-2384
- [57] García-Morales VJ, Jiménez-Barrionuevo MM, Gutiérrez-Gutiérrez L. Transformational leadership influence on organizational performance through organizational learning and innovation. *Journal of Business Research*. 2012;**65**:1040-1050
- [58] Senge PM, Roberts C, Ross RB, Smith BJ, Kleiner A. *The Fifth Discipline Fieldbook*. New York: Doubleday Publication; 1994
- [59] Berry MJ. Technical entrepreneurship, strategic awareness and corporate transformation in small high-tech firms. *Technovation*. 1996;**16**(9):487-498
- [60] Simsek Z, Lubatkin MH, Veiga JF, Dino RN. The role of an entrepreneurially alert information system in promoting corporate entrepreneurship. *Journal of Business Research*. 2009;**62**:810-817

- [61] Real JC, Leal A, Roldan JL. Information technology as a determinant of organizational learning and technological distinctive competencies. *Industrial Marketing Management*. 2006;**35**:505-521
- [62] Danneels E. Organizational antecedents of second-order competences. *Strategic Management Journal*. 2008;**29**:519-543
- [63] Woolley J. Technology emergence through entrepreneurship across multiple industries. *Strategic Entrepreneurship Journal*. 2010;**4**(1):1-21
- [64] Fontes M. Biotechnology entrepreneurs and technology transfer in an intermediate economy. *Technological Forecasting and Social Change*. 2001;**66**:59-74
- [65] Henderson R, Cockburn I. Measuring competence? Exploiting firm effects in pharmaceutical research. *Strategic Management Journal*. 1994;**15**:63-84
- [66] Linton J, Walsh S. The effect of technology on learning during the acquisition and development of competencies in technology-intensive small firms. *International Journal of Entrepreneurial Behaviour and Research*. 2013;**19**(2):165-186
- [67] García-Morales VJ, Bolívar-Ramos MT, Martín-Rojas R. Technological variables and absorptive capacity's influence on performance through corporate entrepreneurship. *Journal of Business Research*. 2014;**67**(7):1468-1477
- [68] Carlsson B. *Technological Systems and Economic Performance: The Case of Factory Automation*. Dordrecht: Kluwer; 1995
- [69] Martín-Rojas R, Fernández-Pérez V, García-Sánchez E. Encouraging organizational performance through the influence of technological distinctive competencies on components of corporate entrepreneurship. *International Entrepreneurship and Management Journal*. 2017;**13**(2):397-426
- [70] Huang KF. Technology competencies in competitive environment. *Journal of Business Research*. 2011;**64**:172-179
- [71] Walsh S, Linton JD. The measurement of technical competencies. *The Journal of High Technology Management Research*. 2002;**13**(1):63-86
- [72] Audretsch DB, Keilbach MC, Lehmann EE. *Entrepreneurship and Economic Growth*. Oxford: OxfordUniversity Press; 2006
- [73] Autio E, Kenney M, Mustar P, Siegel D, Wright M. Entrepreneurial innovation: The importance of context. *Research Policy*. 2014;**43**(7):1097-1108
- [74] Kelley DJ, Singer S, Herrington M. *The Global Entrepreneurship Monitor. 2011 Global Report*. London, U.K.: Global Entrepreneurship Research Association (GERA). 2012. p. 7
- [75] Antoncic B, Hisrich RD. Intrapreneurship: Construct refinement and cross-cultural validation. *Journal of Business Venturing*. 2001;**16**(5):495-527
- [76] Kanter RM. *The Change Master-Innovation & Entrepreneurship in the American Corporation*. New York: Simon & Schuster; 1983

- [77] Covin JG, Slevin DPA. Conceptual model of entrepreneurship as firm behavior. *Entrepreneurship: Theory and Practice*. 1991;**16**:7-25
- [78] Goodale JC, Kuratko DF, Hornsby JS, Covin JG. Operations management and corporate entrepreneurship: The moderating effect of operations control on the antecedents of corporate entrepreneurial activity in relation to innovation performance. *Journal of Operations Management*. 2011;**29**(1-2):116-127
- [79] Yin JZ. Technological capabilities as determinants of the success of technology transfer projects. *Technological Forecasting and Social Change*. 1992;**42**(1):17-29
- [80] Shan W. An empirical analysis of organizational strategies by entrepreneurial high-technology firms. *Strategic Management Journal*. 1990;**11**:129-139
- [81] Zahra SA, Covin JG. Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis. *Journal of Business Venturing*. 1995;**10**:43-58
- [82] Aparicio S, Urbano D, Gómez D. The role of innovative entrepreneurship within Colombian business cycle scenarios: A system dynamics approach. *Futures*. 2016;**81**: 130-147
- [83] Dirican C. The impacts of robotics, artificial intelligence on business and economics. *Procedia – Social and Behavioral Sciences*. 2015;**195**:564-573
- [84] Rodríguez-Gómez G, Gil-Flores J, García-Jiménez E. *Metodología de la investigación cualitativa*. Granada: Aljibe; 1996
- [85] Eisenhardt KM, Martin JA. Dynamic capabilities: What are they? *Strategic Management Journal*. 2000;**21**(11):1105-1121
- [86] Teece DJ. Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*. 2007;**28**(13):13-19
- [87] Acs ZJ. How is entrepreneurship good for economic growth? *Innovations: Technology, Governance, Globalization*. 2006;**1**(1):97-107
- [88] Dosdoce.com. *Nuevos modelos de negocio en la era digital*. Madrid: Liber; 2014
- [89] Gartner IT Glossary [Internet]. 2012. Available from: <http://www.gartner.com/it-glossary/> [Accessed: July 29, 2015]

---

## **Entrepreneurship and Sustainability as Key Elements for Innovation: A Brazilian Dilemma**

---

Eric Charles Henri Dorion, Pelayo Munhoz Olea,  
François Coallier, Cleber Cristiano Prodanov,  
Eliaana Andrea Severo, Julio Cesar Ferro Guimarães,  
Cristine Hermann Nodari, Ana Cristina Fachinelli,  
Vânia Beatriz Merlotti Heredia,  
Fernando Fantoni Bencke, Nilson Varella Rubenich,  
Paula Patricia Ganzer,  
Claudio Baltazar Corrêa De Mello,  
Adrieli Alves Pereira Radaelli, Cassiane Chais,  
Oberdan Teles Da Silva, Luana Folchini Da Costa,  
Vanessa Machado, Joel Tshibamba Mukendi and  
Vandoir Welchen

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70771>

---

### **Abstract**

Considering the socio-economic reality of Brazil and from the relevance of the issues related to entrepreneurship and organizational innovation in the country, the importance of sustainability for the organizations could become a solution for the integration of entrepreneurship with innovation. The objective of this research is to highlight the relevance of sustainability for organizations as a way to trigger the integration of entrepreneurship toward innovation in the Brazilian context. Various exploratory and descriptive researches on the dynamics of entrepreneurship, innovation and sustainability in the main organizations of the Serra Gaúcha (RS), Brazil were carried out through the Multidisciplinary Research Group on Innovation and Competitiveness, in partnership with a research Nucleus on Innovation, Entrepreneurship and Sustainability. The main results indicate that the key sectors of this Brazilian regional economy present less "innovation intensity," which are mainly characterized by internal organizational activities of innovation, preventing them to become "regional systems of innovation," and which presupposes the lack of sustainability. Those limitations can be characterized as "innovation ghettos." In that logic, the researchers have also demonstrated the presence of "ghettos of sustainability, ghettos of innovation, and therefore, ghettos of sustainability

and innovation” in the sectors of this Brazilian regional economy, but in differentiated and restricted perspectives

**Keywords:** entrepreneurship, sustainability, innovation, Brazilian organizations, sectors, economy, research academic, research group

---

## 1. Introduction

In the late 19th century in Brazil, the industrial development began encouraging the entrepreneurial character of the nation. In more than 100 years, the Brazilian industries have covered most of the regions of their country and have developed various areas of the civil society. But today, it is not possible to approximate and explain the role of entrepreneurship toward the practice of innovation, since many entrepreneurs still come to the market with similar ideas, creating some wealth, despite most of them are still not innovating [1]. However, Drucker [2] has suggested that innovation is directly related to the economic or social potential of entrepreneurship change, which consists in creating and using new products, processes, organizations or production systems. It represents the key to competitiveness and knowledge development [3], but it still occurs in very few Brazilian organizations [1].

In [4], Brazil is ranked in the 69th position among 128 countries, behind the economies of Panama, Colombia, Mongolia, South Africa and others. The Global Innovation Index assists in adapting policies for long-term development to increase productivity and generate employment. According to Ref. [4], the growth forecasts for 2016 were not optimistic as well as the economic recovery slowed down even in high-income countries like the United States, Japan and some European countries. At the same time, low- and middle-income countries face lower growth expectations than they were 2 years ago. Africa, Latin America and the Caribbean have reduced their growth rates to levels considered modest by the report, and for Brazil, this impact was mainly felt by the fall in commodity prices, which increases the economic fragility of the country. In this scenario, innovation is distant, since there is no wealth for investment in research and development [4]. The Central Bank of Brazil reports that, since 1980, the country has followed a sinusoidal trajectory with its economic growth (**Figure 1**), considering that the past 3 years are with negative results.

This reality has become a fact, since this country of Latin America has not evolved beyond its GDP, demonstrating that Brazilian organizations do not invest in innovation. It is important to note that Brazilian companies, research institutions and government are making an effort to keep on their agenda the generation of innovation. However, at a moment where Brazil has entered in a period of economic turbulence, it has become necessary for the country to overcome the short-term constraints and to stick to the commitments that generate results with innovation. An interaction and a stronger cooperation within Latin America could perhaps contribute to the recovery of the economy and consequently reach a higher level of innovations in the country [4]. An Innovation Survey (PINTEC) highlights that for the period of 2012–2014, Brazil had 132,529 innovation intense companies (industry and services). Those companies



Figure 1. Brazil's economic growth (1980–2014). Source: [5].

seek competitiveness and an improvement in financial performance, suffering a constant pressure on normative issues and legal impositions [6]. Still facing economic, social, political and environmental problems, the Brazilian industry has been declining nowadays. According to data released by the Brazilian Institute of Geography and Statistics (IBGE) in February 2017, the Brazilian industrial production fell by 6.6% in 2016 compared to 2015. In this context, the effort of companies to invest and generate innovations stayed at a minimum level of investment, due to the lack of both sustainability and expansion in productive capacity.

So, in a Brazilian context, what would be the link between a centenary background of entrepreneurship activity and an almost inexistent rate of consistent innovation intensity?

The investigation of the dynamics between the entrepreneurial reality, sustainability and innovations in the leading organizations of Serra Gaúcha (RS), Brazil constitutes the main mandate of the Multidisciplinary Research Group in Innovation and Competitiveness [7], in partnership with the Nucleus of Innovation, Entrepreneurship and Sustainability [8]. Both Groups are associated to the MSc and Doctorate Programs in Administration of the University of Caxias do Sul (RS), Brazil, and focus on the development of new research paths based on integration and interdisciplinary. One of their objectives is to develop new evaluation tools on the potential of Brazilian companies to allow a better recognition of business realities in terms of entrepreneurial development, sustainability and innovation in organizations.

As introduced by Schumpeter in 1934, the concept of entrepreneurship is considered as the main generator of companies' competitiveness as well as a guarantor for their development [9]. It constitutes the elements for the local leading organizations to generate the development



of a region and to improve the quality of life of a community [10]. In that perspective, the Brazilian entrepreneurs know how to take advantage of the opportunities of the local business dynamic, by improving their organizational characteristics that allow their development and competitiveness. However, data on the issues of entrepreneurship and innovation development in Brazil are contradictory, and no scientific link has yet been scientifically established [1]. However, the importance of innovation for business growth and the economic development of the regions is already recognized in the literature and is of common interest to all actors in a society of organizations [11, 12]. Porter [13], in his book "The Competitive Advantage of Nations," examines why some nations achieve success in international competition and others fail. The author reports that business success is based on its economic environment, the relevance of its government policies and the presence and efficiency of its support institutions. In this context, innovations have assumed a fundamental role in all the advanced economies of the world and are considered as essential for the growth and the development of a nation. However, since it is not possible to directly insert the practice of innovation into entrepreneurship and, since the Brazilian entrepreneurs do undertake action and also create wealth despite of not innovating [1]; why cannot we directly link entrepreneurship to innovation in most of the Brazilian economy?

A prosperous path to economic growth starts by enhancing the existing entrepreneurial potential in a country through support mechanisms that allow the economic development of the organizations [13]. The search for innovation is to ensure, if not enlarge, a market share of a company and to trigger impacts beyond the simple economic sphere. In this sense, and according to Lundvall [14], the innovation is the key to development and constitutes the economic and social advance of a region or a nation. Thus, the literature demonstrates that innovation can strongly contribute to the socio-economic development of a region, but does not guarantee its specific sustainable development [1]. In a strategic perspective, it is necessary for an organization to generate innovations as a part of its growth strategy, since it represents a basic standard for sustainable and innovative behavior toward its own development [15]. Through such dilemma, how to link the entrepreneurial effort to success in innovation? In that context, the results generated by sustainability could lead to a new and different level of innovation that generates organizational competitiveness and stability. Consequently, both sustainability and innovation can become critical to ensuring the competitiveness of organizations in the global context [16].

Concerns about sustainability and innovation are shown to managers as a new business strategy, since it provides a competitive differential, attracting the most demanding and frequent segments of society [17]. In order to ensure a "posture for innovation," a society of organizations [18] seeks to implement mechanisms of sustainable management, involving the commitment of the actors themselves, aligned with a corporate strategy [19]. In such scenario, a logic emerges between entrepreneurship and the actions focused on change and innovation [16, 20]. Any innovative management strategies implemented in a leading organization envision a sustainable endogenous action. It then confirms their activities and actions toward a sustainable growth, which generates a variety of direct and indirect impacts within and outside the organization, and ranging from the consumers and employees to the regional community [21, 22].

Nevertheless, such action is limited to the organization's own environment and does not grow in a socio-economic context. The Brazilian organizations innovate in isolation with no perspective of open diffusion [23, 24]. Who innovates does not divulge. Whoever undertakes imitates but does not innovate. Considering the socio-economic reality of Brazil and from the relevance of the issues related to entrepreneurship and organizational innovation in the country, the importance of sustainability for the organizations could become a solution for the integration of entrepreneurship with innovation. Such is our premise.

## 2. Theory

### 2.1. Entrepreneurship

There is an extensive theoretical basis produced on the economic approach to entrepreneurship, and the foundations are related to the various schools of economic thought, such as the works of Schumpeter, Kirzner and Knight. According to Schumpeter [9], the entrepreneur is the one who destroys the existing economic order by introducing new products and services, by creating new forms of organizations or by exploiting new resources and materials. According to the economist, the entrepreneur is considered as an engine of the economic system who perceives the essence of entrepreneurship in the use of new business opportunities and by associating this concept with innovation [25]. Such a view leads to a trend toward economic growth and a value system peculiar to it, by creating an environment for product consumption, profit, competitiveness and organizational development [26].

The work of the economists has demonstrated a tendency to concentrate on issues such as wealth, commerce and social welfare. However, some authors like McClelland [27], Stevenson and Gumpert [28] and Gartner [29] introduced new perspectives of study on entrepreneurship. McClelland [27] postulates that the psychological approach considers that the entrepreneur has specific characteristics and behavior. Stevenson and Gumpert [28] believe that entrepreneurship research should focus on what the entrepreneur does and not on what he is, since the entrepreneurial process can be considered as a set of behaviors that the entrepreneur develops. Gartner [29] postulates that an entrepreneurial organization may be driven by the perception of the opportunities and the oriented actions, where the actions of the entrepreneur must be the starting point for theorizing about entrepreneurship.

The social approach to entrepreneurship proposes different levels of analysis that are above the individual entrepreneur. It looks into the interpersonal network, the organizational structure, the population, as well as the institutional environment [30]. Thus, such approach aggregates the traditional focus given to financial and market conditions, by introducing the issue of socio-economic sustainability. Pirich et al. [31] postulate that to encounter innovation actions in conjunction with an entrepreneurship reality, three key elements must be met: (1) the economic antecedents and an incentive of open business behavior; (2) a sophistication and efficiency in spreading knowledge generation and (3) an adequate capacity of the organizations, their employees and the individuals in general. Therefore, since researches tend to explain and define the "entrepreneur" by using axioms from different disciplines [27], the field of entrepreneurship

can be studied through economic, psychological, social and organizational theories [29, 32, 33]. Consequently, the entrepreneurial perspectives of research include the study of the socio-economic forces that interfere in a regional economic development perspective, through certain axioms coming from the field of psychology, social sciences and organizational studies.

## 2.2. Sustainability

On one hand, a globalized and competitive market demands an increasingly strategic position, where companies are induced to establish defined strategies to maintain competitive advantage. On the other hand, consumers are pressing for quality, safety and different new products. In order to meet the pressures set by the consumers and the business world, companies are starting to pay attention to sustainability as a solution for growth. The role of the organizations in the development is an upward movement in an entire social system. It is characterized not only by endogenous economic and non-economic factors but also by induced and implemented exogenous elements, such as government policies and laws [34]. The idea of development is multidimensional and involves the economic, environmental, cultural, social and political dimensions [35, 36].

The concept of sustainability related to the use of available resources, whether natural, capital or human, has a process of historical construction that has resulted in indicators used by the various nations. In Brazil, “sustainable development” indicators are part of a series of international efforts to achieve the ideas and the principles formulated at the United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in 1992 [37]. The publication of “Indicators of Sustainable Development – Brazil 2015,” from IBGE, brings data on the Brazilian reality through environmental, social, economic and institutional perspectives [37]. In this context, the economic effects are relatively easy to predict due to the important amount of developed instruments, but the social and environmental effects are more difficult to assess in advance because they involve many more variables, uncertainties and interactions. According to Schot and Geels [38], sustainable development requires the combination of technical and social changes, since they are deeply related. Therefore, the authors raise the necessity to transform the conventional understanding on sustainability, by incorporating new axioms of study that may facilitate the understanding on sustainability and its implications [39].

## 2.3. Economic dimension

More recently, the concept of economic sustainability has appeared in the development of growth models. Until the 1970s, economic analyses only included the axioms of monetary flow and economic growth and relegating the limits of the natural environment to the background [40]. In 1971, Georgescu-Roegen [41] presented the idea that the economy must consider the law of entropy in the process of growth, given the fact that the expansion of the countries occurs by increasing the use of energy. Martine [42] analyzes the effects of energy consumption per capita, per country and relates it to the growth in population. The study concludes that the production and the consumption patterns of industrial economies continue to have a greater participation in their quality of life compared to the demographic growth of the developing countries. According to [43], one of the greatest challenges the world will face in this new

millennium will be to make the organizations protective and improve the quality of the environment. The author postulates on the necessity to establish performance standards based on a judicious use of economic instruments and harmonious framework regulatory policies, since the organizations that will take the lead on the environmental issue will have to cover high risks to get significant competitive advantages in the market.

Today, the Brazilian economy experiences an internal crisis of frightening socio-economic size. The International Monetary Fund has presented negative economic data for the last 18 months and foresees a downturn for the entire South American continent. IMF [44] reported that “[...] as the global recovery continues to struggle to gain its footing, growth in Latin America and the Caribbean has been marked down further and is likely to contract for the second consecutive year in 2016].” A further deterioration of the situation in Brazil could lead to a reduction in the demand for exports between trading partners in the region and an increase in the perception of risk, which could create more difficulties for the leading companies and become more vulnerable in an already fragile global market [44]. According to data from such survey, Brazil has shown the third worst growth performance projection in Latin America for 2015, 2016 and 2017, after Ecuador and Venezuela. Nevertheless, the situation is expected to improve in 2017, considering the proposed changes and measures by the Brazilian Government to boost fiscal sustainability, as well as the measures taken to liberalize and open the economy in order to significantly enhance the country’s competitiveness. IMF [44] also mentioned that growth in Latin America and the Caribbean is expected to remain below historical trends for a near future. In that context, it becomes relevant to rethink the dimensions of study about the companies, their economic performance and their real capacity to innovate.

## **2.4. Environmental dimension**

In the literature, the debates about the environmental dimension of sustainability mainly consider the aspects that touch on the renewable natural resources, the impacts caused in the environment and the environmental actions used by the organizations [6, 45, 46]. For many years, the environmental issue has been understood as something that was not part of the organizational context. Companies were seen as economic institutions that were concerned with resolving economic problems (what they produce, how to produce and to whom to produce for). The environmental problems were perceived as outside threats to corporate profitability and established business practices. By the mid-1990s, a new phase of integration of environmental issues began to be implemented in the organizations. It proposes (1) the progressive introduction of a sustainability perspective; (2) the proliferation of collective engagements; (3) a greater interaction between the public and private spheres and (4) a greater involvement of the organized civil society. This scenario postulates that companies begin to focus their activities and actions toward sustainable development. The premise is that everything that is done inside an organization generates a variety of direct and indirect impacts inside and outside of its core competence, affecting consumers, community collaborators and the environment [22].

Given the evolution of society toward an environmental conscience, the organizations started to adopt a different posture than the original one aimed at achieving a maximum profit [43].

Thus, since it was essential for the organizations to not only maintain the role of producers of goods and services but also to become responsible for the environment in which they are inserted [47], new managerial tools and the adaptation of the existing management systems were developed to give a more effective approach to the problem. From that moment, the environmental issue became strategic within the organizations [48]. According to Fisher [47], the concept of environmental responsibility as an organizational strategic vector has recently gained ground. The author postulates that the companies start to realize that the respect for the environment and the valorization of man are among the main factors that directly reflect their success as a way to gain competitive advantage in the market. The environmental dimension emerges as a viable alternative, allowing economic objectives to be maintained and incorporating environmental issues into the economic model of development [48]. Accordingly, the environmental dimension can become a new business strategy, as it provides a competitive edge and attracts the most demanding and environmentally conscious segments of society.

## 2.5. Social dimension

The social sustainability dimension, historically referred to as “social responsibility,” emerged as a way for the wealthiest to help the most in need [49]. The idea to let the organizations re-route some profit to “invest” in social development projects began to win support after World War II. It represented a new and stronger concept of the society of the organizations and it was socially making sense [18]. According to Melo Neto and Froes [50], social responsibility is a collective action aimed at fostering civility. The author postulates that social responsibility focuses on the “civic duty” of the organizations, which requires management, periodicity and systematization [47]. Considered as the “Father of Social Responsibility,” Bowen [51], in his book “Social Responsibilities of the Businessman,” initiated the modern era of the literature on social responsibility [52, 53].

A global movement of non-governmental organizations (NGOs) in search of values such as ethics, solidarity and trust has generated interest among various actors like the civil society, governments, investors, financiers, insurance companies, consumers and the media [54]. The diffusion of the concept of social responsibility in the organizations has occurred with greater scope with the creation of entities that disseminate and support companies in their actions of social responsibility. Generating profits for shareholders is no longer the sole concern of companies. Environmental, social, legal and ethical concerns have penetrated the strategic core of the companies, which have undergone a transition period in their way to re-think their strategies and their mission [55]. Any socially responsible company implements ethical practices with its established relationships, including the shareholders, clients, employees, suppliers or with the whole community. According to [56, p. 118], “[...a socially responsible company is the one that can generate profit as well as be beneficial for society.]”

Social responsibility actions enable the organizations to stand out from their environment. In addition, customers, suppliers, shareholders and stakeholders of the organization perceive those actions as a competitive edge, which makes them stand out from other competitors [57]. When a company is socially responsible, it attracts consumers and increases sales potential, generating greater profits for shareholders. Socio-economic sustainability is becoming a factor

of differentiation in organizational management, being characterized as a business opportunity [48]. According to [58], being socially responsible is one of the cornerstones of business sustainability and must be considered as important as the concepts of quality, technology and the capacity for innovation.

## 2.6. Innovation

The movement for sustainable development seems to be one of the most important social movements of this century. There are many voluntary initiatives related to sustainable development subscribed by the organizations. By committing themselves to sustainable development, entrepreneurs must necessarily change their way of acting in order to achieve economic sustainability and social sustainability, in a neoclassical perspective, in order to reduce their negative social impacts arising from a purely economic perspective. This requires a new way of looking at innovation, which leads to the idea of “innovation intensity” because of the implementation and the presence of sustainability [39].

Schumpeter [9] emphasizes the importance of innovations for the development of the economy of a country. The author postulates that the innovations introduced by innovative entrepreneurs constitute the main stimulus for the generation of a new economic cycle. Consequently, the innovation process is aimed at discovering, experimenting, developing, adopting new products, new production processes and new organizational forms [59, 60]. According to Drucker [2], innovation is the specific instrument of the entrepreneurial spirit. Dosi [60] postulates that the innovation is the search, the discovery, the experimentation and the adoption of new products, new processes and new organizational forms. Therefore, companies that want to increase their competitiveness feel the need to invest in practices aimed at the systematic development of new technologies, by seeking new ways to develop their activities, through the creation of new products, services or processes [61, 62].

In principle, innovation can be characterized as a type of change that introduces new organizational practices and they can be classified into four categories. The first one refers to products or services innovation, which represents the changes of a product or a service offered by an organization. The second one refers to process innovation, which represents the changes in the way products or services are created and distributed in an organization. The concept of management of innovation refers to the adaptations in the underlying mental models that shape the core competence of an organization. Finally, the concept of marketing innovation (competitive position) represents the changes in the context that the products or services are introduced in the market [12, 63]. Oslo Manual [64] introduces four main categories in its model: product, process, marketing and organization. According to Gallouj [65], the classification of Oslo Manual [64] brings the analysis of the restrictive definitions to the industrial sector, in addition to focus on technology innovations. However, considering the sectoral scope proposed and interpreted by Oslo Manual [64], innovations can occur in any sector of the economy. The adoption of an innovation respects a process where the deciders act to use innovation as the best available option. Rogers [23] points out the internal environment of the organization as one of the determinants that can contribute to the success or the failure of adopting a technology innovation. However, recent researches have linked social matters



with the concept of innovation; denominated as social innovation. It poses its focus on the structures, the objects and their effects, the initiative capacity of the individuals, the organizations, the communities and their social movements. Those researches allow a new discussion about the process of innovation transfer and its role on the public policy institutions [57].

A sustainable, innovative organization “is not one that introduces novelty of any kind, but novelties that addresses the multiple dimensions of sustainability on a systematic basis and that reaches out positive results for society and the environment” [66, p. 105]. The current sustainability phenomenon generates an increasing capacity to differentiate products and services [24] and to aggregate the contexts of work and life environment [57]. Such differentiation search passes through the process of innovation [2, 57, 60, 67, 68]. Consequently, it only makes sense to postulate that entrepreneurs will begin to incorporate issue on sustainability for strategy arguments because of societal pressure as an alternative to develop growth through innovation. Based on this, it seems obvious to foresee a new perspective of research that integrates the theories of entrepreneurship, sustainability and innovation.

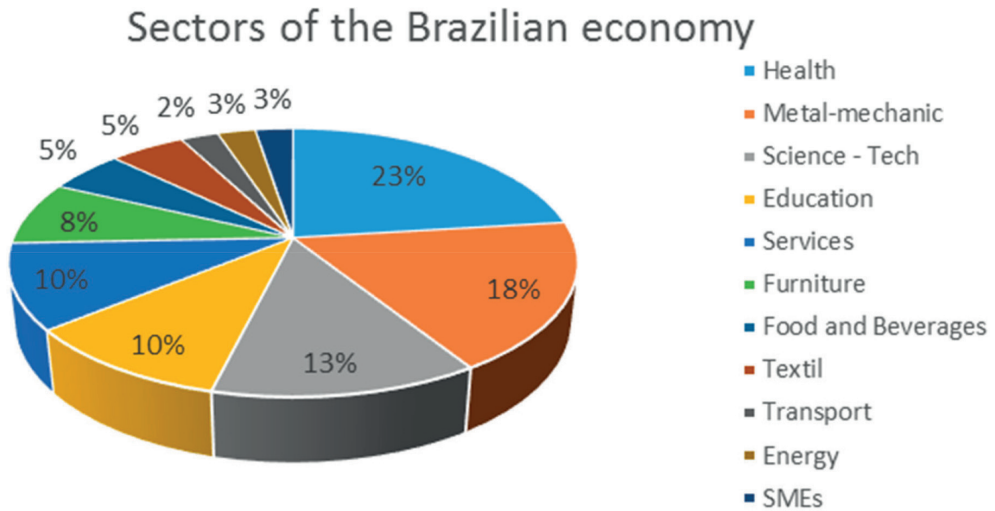
### 3. Method

The objective of this research is to highlight the relevance of sustainability for organizations as a way to trigger the integration of entrepreneurship toward innovation in the Brazilian context. Various exploratory and descriptive researches on the dynamics of entrepreneurship, innovation and sustainability in the main organizations of the Serra Gaúcha (RS), Brazil was carried out through the Multidisciplinary Research Group on Innovation and Competitiveness [7], in partnership with a research Nucleus on Innovation, Entrepreneurship and Sustainability [8]. Evidenced among the following concepts: entrepreneurship, sustainability and innovation, the approach of this research was qualitative and the method used was documentary research because it articulated subjects where the theoretical dimensions and bases are unknown [69]. That is, highlighted the relevance of sustainability for organizations as a way to make a solution of integration to entrepreneurship for innovation in the Brazilian context exemplifying one or more trends in the behavior of a given phenomenon.

In the first 12 years of activities of the research Group, 40 Master's and Doctoral dissertations were finalized, which offered a more concise and comprehensive look at the concepts of entrepreneurship, sustainability and innovation. The Group developed national and international academic and research activities, which have contributed to a clearer understanding of those themes. The object of the studies mainly focuses on leading sectors of the Brazilian economy, through the study of organizations situated in the southern region of Brazil. The researches refer to 11 sectors of the Brazilian economy (**Figure 2**).

The studies include the sectors of health, the metal-mechanic industry, technology, education, services, the furniture industry, the textile industry, the food and beverage industry (wine), the transportation and the energy industries and the MSE sectors. Most of the researches had a qualitative-exploratory character, with some key quantitative-descriptive ones. It generated



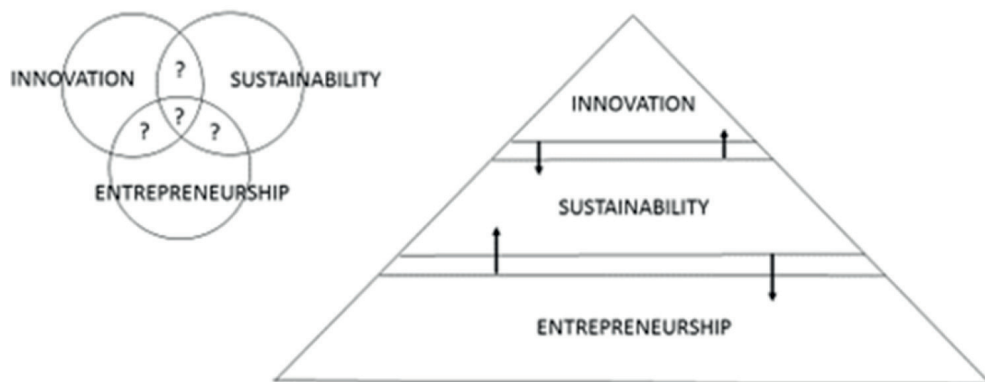


**Figure 2.** Distribution of the GMIC/NIES researches in the Brazilian economy. Source: The authors.

the production of numerous articles in indexed journals and conferences and books chapters from international publishers. In general, the recurrent research objectives focus on identifying, describing and analyzing the dimensions of the entrepreneurial reality and the characteristics of innovation and sustainability adopted by the leading organizations of the Serra Gaúcha, Brazil.

The Group's research activities were developed in three specific moments. The first period refers to the research activities related to the themes of entrepreneurship and innovation. The axiom of entrepreneurship was studied, based on Schumpeter's [9] concept of innovation and through three aspects: the profile, processes and systems, seen as reactive or proactive entrepreneurial realities. The second period, from 2010, coincides with the integration of the PhD course with the MSc program, where research on innovation has taken a different strand. In addition to studying innovation as a proactive entrepreneurial dimension, the Group has been researching innovation through its process, by integrating the causes and stages, indicators and process models, and finally the study of innovation as a system. During the third period, a concentration of internal innovations in the organizations, in a restricted scale, emerges from the research results in several areas of economic activity, but without demonstrating a sustainable effect. This lack of sustained diffusion of innovations, coupled with a high degree of entrepreneurial activity, has led to question the very essence of the concepts of entrepreneurship and sustainability as structuring elements for the generation of innovation. Porter [13] reports that business success is based on its economic environment, where innovation has assumed a fundamental role in all the economies of the world and is considered essential for the growth and development of companies and nations. Nevertheless, the author is lacking in explaining how to establish the link between entrepreneurship and innovation.

## Conceptual framework



**Figure 3.** Representation of the axioms of entrepreneurship, sustainability and innovation. Source: The authors.

The conceptual framework brings an integration of the axioms of entrepreneurship, sustainability and innovation and is supported by its economic, environmental and social relevance. The concept figure must dimension the cause-effect connections that may exist from one dimension to the other [70]. **Figure 3** introduces the integrated context of the researches carried out.

The classification of the entrepreneurial axioms is contextualized in four dimensions: (1) economic [9, 61, 71], (2) social [72, 73], (3) organizational [2, 73] and (4) psychological [2, 27]. In order to study the question of sustainability, the (1) economic [74, 75], (2) environmental [13, 48] and (3) social [43, 54] dimensions were addressed. Finally, the study about innovations in the leading organizations of Serra Gaúcha uses the categories listed according to Oslo Manual [64]: (1) products (services) innovation; (2) process innovation; (3) organizational management innovation and (4) marketing innovation, considering that those categories have a greater proximity to the research objectives.

It is important to note that for the organizations, both sustainability and innovation can become critical to ensuring competitiveness in a global context. Not only to innovate constantly but also to innovate considering the social and economic dimensions of sustainability [37, 39]. The application to those dimensions makes the innovation process more sophisticated and demanding, which requires any organization to make a greater effort to meet such requirement. This leads to new perspectives in management of innovation.

## 4. Results

The identification, the description and the analysis of the dimensions of the entrepreneurial reality, the characteristics of innovation and sustainability adopted by the leading organizations of the Serra Gaúcha present an eclectic panorama in terms of results.

In the health sector, studies demonstrate a structural shift from a technology-based economy to an “entrepreneurial health service” society. The results consider knowledge as a central resource, which is reflected by changes in the innovation process. Therefore, the innovation process is seen as a learning method to generate or to acquire new knowledge from the analysis of the local environment, where knowledge, skills and attitudes constitute the key elements in the identification and the execution of social and communicational actions. In a hospital context, the preponderant element for linking the dynamics of the innovations resides in the management of the environmental residues that constitute a stimulus to the improvement of the quality attributes of the health services. The surveys clearly show the presence of entrepreneurial activities, the employees’ concerns and their relevant actions toward the application of sustainability standards and the application of strategies and the creation and implementation of innovations to improve the quality of services to the population [76].

Researches in the metal-mechanical sector have demonstrated a relationship between the concepts of entrepreneurship, innovation and sustainability, both in historical and cultural contexts. The results show that the actions of the entrepreneurs are a demonstration of the strength of the attributes of the individuals, through the enhancement of opportunities and the use of the conditions that promote the economic development of the region, making it become one of the most dynamic sectors of the Brazilian economy [33]. In the region of Caxias do Sul, all entrepreneurs act either in micro, small, medium or large companies. The region represents the second metal-mechanical pole of Brazil, precisely because of this entrepreneurial force in the Serra Gaúcha region. The results identified the implantation of product and process innovations, which were all of incremental type and internal to each company. Large companies have sophisticated organizational innovation schemes, but they do not even represent 1% of the organizational population. The research corroborated with such position, considering that innovation is a new product or service, a new structure or administrative system, a new technological production process, a new plan or a program related to the members of the organization [77]. The research also pointed out the presence of environmental sustainability schemes, but exclusively within the large companies of the region. In addition, by having the duty to comply with the Brazilian environmental and capitalization laws, larger companies have developed strategies with a sustainability scheme to maintain a continuous flow of innovation, from the generation of ideas to internal applied research schemes [6, 21].

In technology development environments, the main results reveal a series of elements that preceded and influenced the constitution of the innovation environments and gave rise to different models, with their own characteristics. One main aspect that arises from the results is the entrepreneurial nature of the people who study, research and create new companies within the reality of a technology environment [78]. In addition, the researchers identified and analyzed the roles played by the university, the government and the business sector, as proposed in Etzkowitz’s [79] model. In that context, it was possible to evidence a new determinant in the constitution of the Brazilian science parks and technology incubators: leadership. It is considered as a new dimension of analysis to the triple helix model. Such concept emerges from empirical, spontaneous and endogenous movements of development and resides in any university management teams that generate a favorable environment for the promotion of entrepreneurship and innovation capable of creating and developing the necessary conditions for the implementation and the consolidation of scientific and technology environments [80].

The question of sustainability was identified as being present in the incubation and technology development environments in an incremental and discontinued way.

In the higher education sector, the researchers did not show an entrepreneurial specificity due to the nature of the economic branch and the rules and conditions that govern higher education institutions in Brazil [81, 82]. In terms of innovation, the dimension of innovation processes was evidenced through results that show antecedents for organizational learning, which impact as the outputs on the performance of the courses in the national education evaluation system [83, 84]. The most relevant aspects of the research show parity between the teaching practices and the practices of single and double learning cycles; through the informal relationships between the teachers and the outcomes of the course assessments and on the links between the companies, the non-academic professionals and student performance. Such reality is re-enforced through a pedagogical model that enhances such convergence [85]. From a sustainability perspective, the surveys did not present relevant data to identify a differentiated model.

In the service sector, the entrepreneurial issue occupied and demonstrated positive results with the proposed theories. Such convergence allowed verifying the presence of characteristics on the profile of the entrepreneurs, such as resilience [86]. The concept of innovation was identified in the study as a perspective for economic growth. The axiom of leadership appeared as a key element, considering the difficulties, the weaknesses and the socio-economic scarcities that Brazil encounters. The results showed the absence of a system of innovation in the creative industry in State of Rio Grande do Sul [87], which supports the idea that the entrepreneurial axiom is omnipresent in the Brazilian economic reality, but the concepts of innovation and sustainability for the services sector are almost inexistent. The research carried out in the Province of Quebec, Canada, in collaboration with the Ministry of Science, Innovation and Technology Development of the State of Rio Grande do Sul, shows a complete system of innovation and sustainability. The study allowed the Brazilian Ministry to confirm the absence of a system of innovation [10] and the necessity to have a structural perspective at the situation. The Canadian research has shown that the issue of sustainability is a key element in creating innovation environments and processes in a given region, through partnerships and by linking business creativity to the production of scientific knowledge and the economic development of the State [88].

In the furniture sector, research has demonstrated an entrepreneurial reality with industrial leaders and regionalism with this phenomenon. In terms of innovation, the results point out links between the use of specific resources (information system, people, knowledge management, alliance) and product innovation. It demonstrates that product innovation is the result of the use of specific resources, which constitutes the antecedents for innovation. The enterprises in the furniture industry have a joint research entity that look for information regarding the use of strategic resources, which extends their "innovative capabilities." Nevertheless, the business community has not yet consolidated integrated sustainability schemes for the advancement and the development of innovations [89]. Only the greater companies pretended to realize innovations, but only in an exclusive internal way. Such pattern shows that the companies do not use schemes capable of producing innovations that impact on global performance.

In the food and beverages industry, more specifically in the Brazilian wine industry, researchers have shown the formulation of strategies from both entrepreneurial and innovative perspectives, involving processes and ecosystems. The wine production in the southern region of Brazil presents a high level of associative and family entrepreneurship, with a large number of wineries that were established and are operated as a family business or as the result of regional association schemes [90]. In such entrepreneurial ecosystem, the wineries create connections through their association and develop entrepreneurial and innovative strategies with the actors involved and with different intensities of the local society. The associations serve as bridges between wineries, institutes, class entities and with local governments [91]. The study allowed observing that the oldest wineries are developing a structuring entrepreneurial process, aiming at the certification for “Appellation d’origine contrôlée,” in search of a quality brand based on the certification of Geographical Origin Indication. Such initiative corroborates with Schumpeter’s [9] vision, where the entrepreneur innovates to differentiate itself and conquer new markets. The study of the ecosystems allowed the identification of the actors that compose and interact in the associations, by using the association as a link between the wineries and all the government actors. Through the association schemes, the wineries strengthen their positioning and competitiveness in terms of sustainability. Being small and limited, the group manages to innovate because it has achieved a certain degree of internal sustainability.

In the textile sector, research results show that the entire industrial activity is the result of entrepreneurial action. In this context, researchers establish that innovations include incremental changes in procedures, techniques, materials and dissemination, according to Oslo Manual [64]. It can be considered that the rectilinear knitting sector presents innovations that allow characterizing an environment of change, which aims at the improvement and the qualification of the products and services offered to the customers. The study of the process innovations shows significant changes in machinery, production layout, software that aid in production control, production scheduling and techniques were highlighted [92, 93]. Innovations in marketing showed that more and more companies are willing to disclose their products through direct dissemination to customers. The organizational innovations that happen are incremental and internal to an organization, confirming that this sector of the economy do not present perspectives of sustainability.

Research in the transportation sector refer to the port and logistics matters, which are recognized as global entrepreneurial activities, coped with the presence of process innovations [94, 95]. Considering the frequency of innovations occurring in the sector, the requirement of the Agência Nacional de Transportes Aquaviários do Brasil—ANTAQ, which regulates the implementation of the country’s environmental agenda, generated a high number of innovations, mainly related to process innovations. This position confirms the presence of sustainability caused by the application of the National laws and regulations.

Research in the energy field presents opposing scenarios in terms of entrepreneurship and innovation. The omnipresence of laws and regulations does not allow room for creativity and change. The concern and position from the energy managers are to achieve a high degree of accuracy in their decision process. The research shows a greater determinant for the use of

forecasting model in their decision process, which contributes to companies that improve a forecasting strategy as a process innovation and consider the possibility of reaching forecast results that are closer to reality, to create an edge in such competitive market [96]. The behavior and trends that arise in the complex equation of the decision process and by predictive models presuppose a permanent search for sustainability to offer a permanent quality service to the community.

The MSE sector represents 93% of the private organizations in Brazil [97], being a crucial subject for studies. The Schumpeterian view argues that entrepreneurial action is the driving force behind the activities of all those companies and is the basis of the country's economy. In such context, research shows that most of the companies surveyed use performance indicators to monitor business management. The companies that had the highest sales increase are those that, in addition to the indicators have a clear definition of the business, have established goals and have information about the industry and the competition [98]. In terms of innovation and sustainability, research has shown the absence of both dimensions. Innovation is restricted to larger companies and is limited to an internal environment. The absence of sustainability demonstrates that there is a relationship between the two concepts.

## 5. Dilemmas

The researches on various sectors of the Brazilian Serra Gaúcha economy allow to point out the existence of a relationship between the concepts of entrepreneurship, innovation and sustainability through individual, social, cultural process and system perspectives. By using historical and cultural panoramas, it was possible to observe the manifestations of the entrepreneurs of the region of Serra Gaúcha and to assert that the attributes and the actions of those entrepreneurs constitute a demonstration of the strength for the potential of the opportunities and the use of the conditions that promoted the economic development of region. The presence of "entrepreneurship intensity" in this specific region and the concern for sustainability lead to a more "coherent" understanding of the innovation process, which is in fact still very poorly achieved in Brazil and little understood by the country's institutional leaders. The key elements of the researches also converged on the issues of the entrepreneurs' actions, considering that innovation represents the success of a business community that leads in terms of entrepreneurship and sustainability. In Brazil, innovation could generate new and differentiated organisations that could have a positive socio-economic impact in a fragmented and closed business society. Such results demonstrate the limitation of Chesbrough's [24] model to explain open innovation in the Brazilian reality. The identification, the description and the analysis of the conceptual trilogy are exposed through the region's own history, and the main results reveal a series of elements, events that preceded and influenced the constitution of the industrialization of the Serra Gaúcha region and gave rise to different models with their own specific particularities.

The positioning and the distribution of the results on entrepreneurship (**Figure 4** – on a scale 1–3–5) based on a "Etzkowitzian" perspective show peculiar private-public realities by sector of the Brazilian economy in relation to entrepreneurship intensity.



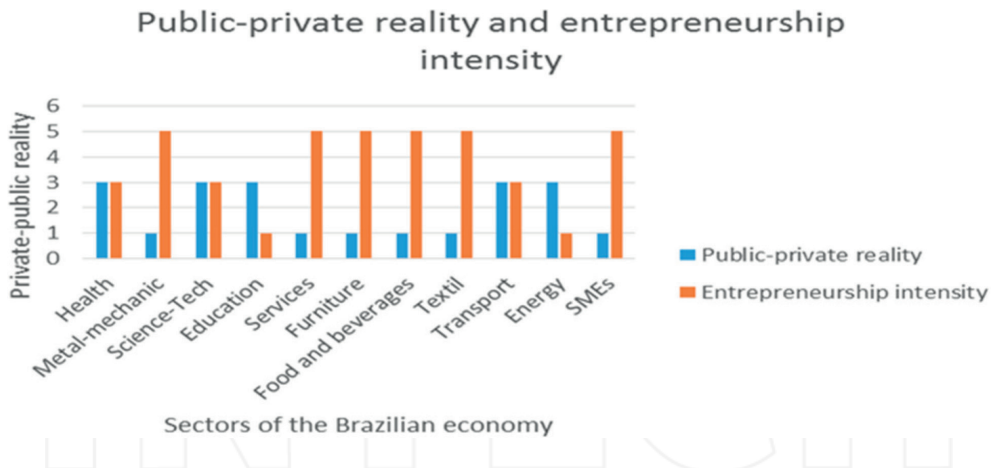


Figure 4. Public-private realities [79] and entrepreneurship intensities. Source: The authors.

Figure 4 presents two theoretically already known phenomena, but little considered in the Brazilian scientific community. First, the connection between the private-public nature of the organizations and the entrepreneurial intensity phenomenon. Second, the connection between the social nature of the organizations and the level of entrepreneurial intensity. The research confirms the link between entrepreneurial intensity and the private sector organizational nature, but does not exclude specific sectors of development, such as the health and transportation sectors. History may sustain the reasons why both these sectors show entrepreneurial intensity, whereas the education and energy sectors present other results. These issues are related to the Brazilian public sphere, where the management processes are highly bureaucratic and the methods of supervision do not encourage entrepreneurship intensity. Thus, their cases can be explained, not by the country's legislation but by the control on the governance and processes in the organizations of each sector, which reinforce the idea of including a fourth Helix to aggregate Dorion et al.'s [78] model.

To understand the matter of the organizations and sustainability, the practices of entrepreneurship adopted were pointed out in a historical perspective. According to the authors, many entrepreneurs from the industry have developed an entrepreneurial behavior because they were attentive to perceive the opportunities of the market. However, they did not know how to cooperate with each other, by sharing risks and learning from their mistakes. The results show their capacity to enhance skilful and firm behavior regarding issues involving their relationship with public power. This dimension raises the question of sustainability, considering that the actors did not go beyond business issues and became agents of economic development by their individual and collective actions that led to the development of the region in a peculiar way. The Brazilian Serra Gaúcha region managed to excel due to endogenous entrepreneurial intensity issues, nor for sustainability.

Figure 5 proposes a rationale between the issue of territorial coverage and sustainability intensity, on a scale 1–3–5. Researches in the health and energy sectors show the presence of



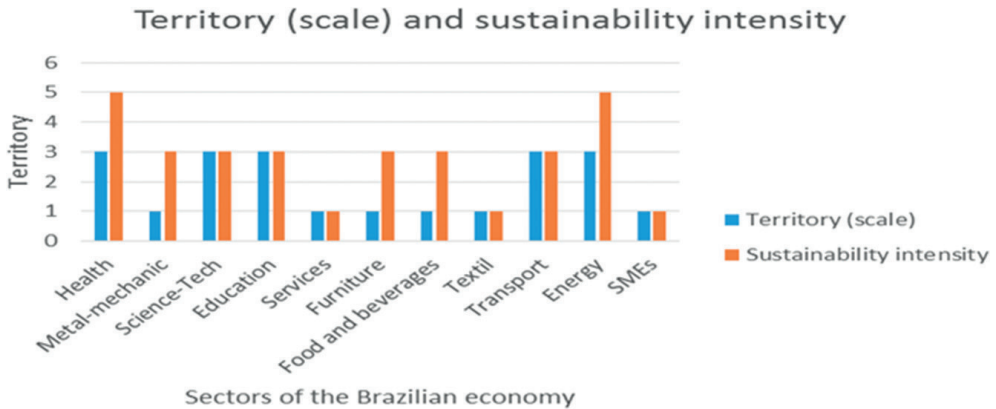
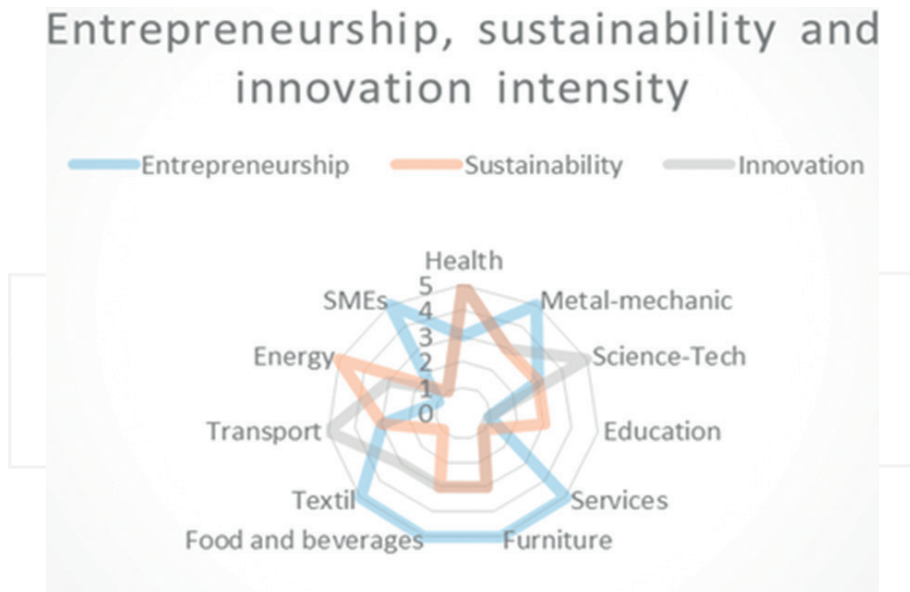


Figure 5. Territory (scale) and sustainability intensity. Source: The authors.

intra-organizational sustainability schemes at the regional level. The metal-mechanic industry, the technology development environments, the sectors of education, services, furniture, food and beverages, textile and transport point out the question of sustainability as an internal strategic element of the organizations. Researches in the metal-mechanic sector have demonstrated that cleaner production methods and environmental management practices are tools that aim at the efficiency of the production process, the use of its inputs and the generation of industrial waste. The furniture and textile sectors point out isolated process and product innovation actions and economic and environmental sustainability cases. Since entrepreneurship constitutes the engine of the sector, the creative industry sector did not show the presence of sustainability, but only some innovation actions in isolated initiatives.

There is consensus in the researches about the fact that entrepreneurship appears in all sectors of the studied activities, but with different intensities. Sustainability does contribute to the business innovations, but still it is not possible to explain to what extent and in what specific way. Each sector has its own rationale profile on entrepreneurship, sustainability and innovation. A trend radar shows opposite and convergent results among the sectors of the Brazilian economy.

The rationale between the concepts of entrepreneurship, sustainability and innovation, as presented in **Figure 6**, brings some reflections that can more clearly contextualize and explain those issues in Brazil. The sectors that most presented evidence of innovations refer to health, technology development and transportation environments, which all belong to the public sphere. Then, a higher degree of innovation intensity demonstrates a drive for economic, environmental and social improvements and growth. Based on a sustainable process of combining and recombining the capacities and preferences of the different agents integrated into a regional organizational reality; it is possible to design regional structural schemes on innovation that would give the necessary sustainability edge to make them survive through time. Such mobilization would allow a continuous development effort that produce regeneration



**Figure 6.** Entrepreneurship, sustainability and innovation intensities. Source: The authors.

patterns, necessary for regional long-term development schemes. Therefore, innovation becomes a learning process that generates or acquires new knowledge from the analysis of a specific sustainable environment.

The sectors of such Brazilian regional economy that presented less “innovation intensity” are characterized by internal organizational activities of innovation, preventing them to become “regional systems of innovation,” which presupposes the lack of sustainability. Those limitations can be characterized as “innovation ghettos” in order to establish the intensity necessary to generate innovation activities within a specific territory. Ghettos, as explained by its etymology, refer to the conditions of survival of a population, in a limited and a highly concentrated scale. In that logic, the researchers have also demonstrated the presence of “ghettos of sustainability, ghettos of innovation, and therefore, ghettos of sustainability and innovation” in the sectors of this Brazilian regional economy, but in differentiated and restricted perspectives.

Finally and in a managerial perspective, considering the trilogy of entrepreneurship, sustainability and innovation, the organizations may seek a sustainable competitive advantage to generate monopoly through a regional logic. In turbulent organizational environments such as Brazil, a regional perspective may present some structural advantages for business activity. Nevertheless, only the generation of entrepreneurial initiatives with the aim for innovation through sustainability will favor regional development. In that regard, to better understand the logic of regional development and its organizational reality, more researches need to be accomplished.

## Author details

Eric Charles Henri Dorion\*, Pelayo Munhoz Olea, François Coallier, Cleber Cristiano Prodanov, Eliana Andrea Severo, Julio Cesar Ferro Guimarães, Cristine Hermann Nodari, Ana Cristina Fachinelli, Vânia Beatriz Merlotti Heredia, Fernando Fantoni Bencke, Nilson Varella Rubenich, Paula Patricia Ganzer, Claudio Baltazar Corrêa De Mello, Adrieli Alves Pereira Radaelli, Cassiane Chais, Oberdan Teles Da Silva, Luana Folchini Da Costa, Vanessa Machado, Joel Tshibamba Mukendi and Vandoir Welchen

\*Address all correspondence to: echdorion@gmail.com

University of Caxias do Sul, Rio Grande do Sul, Brazil

## References

- [1] Dorion ECH, Severo EA, Olea PM, Nodari CH. Brazilian entrepreneurship reality: A trilogy of imitation, invention and innovation. In: Burger-Helmchen T, editor. *Entrepreneurship Creativity and Innovative Business Models*. 1st ed. Rijeka: InTech; 2012. p. 81
- [2] Drucker PF. *Innovation and Entrepreneurship*. 1st ed. New York: Harper & Row; 1985
- [3] Pinchot G, Pellman R. *Intrapreneuring in Action: A Handbook for Business Innovation*. 1st ed. San Francisco: Berrett-Koehler Publishers; 2000 176 p
- [4] GII. The Global Innovation Index: Winning with Global Innovation [Internet]. 2016. Available from: <https://www.globalinnovationindex.org> [Accessed: June 5, 2017]
- [5] BACEN. Trabalhos para Discussão [Internet]. 2015. Available from: <http://www.bcb.gov.br/pec/wps/port/default.asp> [Accessed: Jun 1, 2017]
- [6] Severo EA, Dorion ECH, Guimaraes JCF. Innovation and environmental sustainability: Analysis in Brazilian metal-mechanic industry. *International Journal of Innovation and Sustainable Development*. 2017;**11**(1):230-248
- [7] DGPB Lattes. GMIC. Grupo de Pesquisa Multidisciplinar em Inovação e Competitividade [Internet]. 2008. Available from: <http://dgp.cnpq.br/dgp/espelhogrupo/8779229096630659> [Accessed: June 1, 2017]
- [8] DGPB Lattes. NIES. Núcleo de Inovação, Empreendedorismo e Sustentabilidade [Internet]. 2006. Available from: <http://dgp.cnpq.br/dgp/espelhogrupo/5799667347677481> [Accessed: June 1, 2017]
- [9] Schumpeter JA. *The Theory of Economic Development*. London: Oxford University Press; 1961
- [10] Lain GC, Dorion ECH, Prodanov CC, Coallier F, Olea PM. The actors of innovation in the Province of Quebec, Canada. In: *IEEE International Conference on Management of Innovation and Technology*. Singapore: ICMIT; 2014

- [11] Christensen CM, Raynor ME. *The Innovator's Solution: Creating and Sustaining Successful Growth*. Boston: Harvard Business Press; 2003
- [12] Tidd J, Bessant J, Pavitt K. *Managing Innovation: Integrating Technological, Market and Organizational Change*. West Sussex: John Wiley & Sons; 2005
- [13] Porter, M. E. *The Competitive Advantage of Nations*. New York: Free Press, 1990
- [14] Lundvall BA. *National Systems of Innovation: Toward a Theory of Innovation and Interactive Learning*. London: A. Cassel Imprint; 1992
- [15] Mintzberg H, Ahlstrand B, Lampel J. *Strategy Safari*. Toronto: Free Press; 1998
- [16] Severo EA, Dorion ECH, Guimaraes JCF, Amaral de Souza IR, Severo PO. Trajetórias da inovação: uma análise na base de dados Scopus. *Espacios* (Caracas). 2016;**37**(1):1-15
- [17] Souza MTS, Parisotto IRS, Machado Junior C, Barbieri JC. Estudo bibliométrico de teses e dissertações de programas stricto sensu em administração sobre responsabilidade social empresarial. *RAEP, Administração: Ensino & Pesquisa*. 2013;**14**(1):63-98
- [18] Drucker PF. *Managing in a Time of Great Change*. Boston: Harvard Business School Publishing; 1995
- [19] Simpson GW, Kothers T. The link between corporate social and financial performance: Evidence from the banking industry. *Journal of Business Ethics*. 2002;**35**(2):97-109
- [20] Araújo MM, Moreira A, Assis G. Significado de responsabilidade social de empresas para o consumidor. *Revista Psicologia: Organizações e Trabalho*. 2004;**4**(2):85-116
- [21] Severo EA, Guimaraes JCF, Dorion ECH, Nodari CH. Cleaner production, environmental sustainability and organizational performance: An empirical study in the Brazilian metal-mechanic industry. *Journal of Cleaner Production*. 2015;**98**(1):118-125
- [22] Makower J. *Business for Social Responsibility: Beyond the Bottom Line – Putting Social Responsibility to Work for your Business and the World*. New York: Simon & Schuster; 1994
- [23] Rogers EM. *Diffusion of Innovations*. New York: The Free Press; 1995
- [24] Chesbrough H. *Open Innovation: The New Imperative for Creating and Profiting from Technology*. Boston: Harvard Business School Publishing Corporation; 2006
- [25] Global Entrepreneurship Monitor. GEM Brazil Report [Internet]. 2016. Available from: <http://www.gemconsortium.org/docs/2806/gem-brazil-2012-report> [Accessed: March 15, 2017]
- [26] Hisrich RD, Peters MP. *Empreendedorismo*. Bookman: Porto Alegre; 2004
- [27] McClelland DC. *The Achieving Society*. D. Van Nostrand: Princeton; 1961
- [28] Stevenson HH, Gumpert DE. *The Heart of Entrepreneurship*. Boston: Harvard Business Review; 1985
- [29] Gartner WB. Who is an entrepreneur? Is the wrong question. *Entrepreneurship Theory & Practice*. 1989;**13**(4):47-68

- [30] Thorton PN, Soriano DR, Urbano D. Socio-cultural factors and entrepreneurial activity: An overview. *International Small Business Journal*. 2011;**29**(1):105-120
- [31] Pirich A, Knuckey S, Campbell J. An interface between entrepreneurship & innovation New Zealand SMEs' perspective. In: *Druid Nelson & Winter Conference*; Aalborg University Press, Denmark: 2001
- [32] Bécharde JP. Understanding the field of entrepreneurship: A synthesis of the most often quoted contributions. In: *École des Hautes Études Commerciales (HEC)*. Canada: 1997
- [33] Mello CBC. Empreendedorismo e desenvolvimento econômico regional – As ações dos industriais de Caxias do Sul (1950–1970). *Oikos*: São Leopoldo; 2016
- [34] Myrdal G. What is development? *Journal of Economic Issues*. 1974;**3**(4):729-736
- [35] Elkington J. *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. Oxford: Capstone; 1997
- [36] França CL, Caldas EL, Silva IP, Vaz JC. Aspectos econômicos de experiências de desenvolvimento local: um olhar sobre a articulação de atores. *Instituto Pólis*: São Paulo; 2004
- [37] Instituto Brasileiro de Geografia e Estatística. Indicadores de desenvolvimento sustentável – Indicadores Brasil [Internet]. 2016. Available from: <http://www.ibge.gov.br/home/geociencias/recursosnaturais/ids/default.shtm> [Accessed: April 30, 2017]
- [38] Schot J, Geels FW. Strategic niche management and sustainable innovation journeys: Theory, findings, research agenda and policy. *Technology Analysis & Strategic Management*. 2008;**20**(5):537-554
- [39] Barbieri JC, Vasconcelos IFG, Andreassi T, Vasconcelos FV. Inovação e sustentabilidade: modelos e proposições. *Revista de Administração de Empresas*. 2010;**50**(2):146-154
- [40] Merico LFK. *Introdução à economia ecológica*. Editora da FURB: Blumenau; 1996
- [41] Georgescu-Roegen N. *The Entropy Law and the Economic Process*. Cambridge: Harvard University Press; 1971
- [42] Martine G. *População meio ambiente e desenvolvimento: verdades e contradições*. Editora da Unicamp: São Paulo; 1993
- [43] Tachizawa T. *Gestão ambiental e responsabilidade social corporativa: estratégias de negócios focadas na realidade brasileira*. São Paulo: Atlas; 2002
- [44] IMF – Latin America's Economic Slowdown Continues. *IMF Survey* [Internet]. April 27, 2016. Available from: <http://www.imf.org/external/pubs/ft/survey/so/2016/car042716a.htm> [Accessed: May 15, 2017]
- [45] Sinding K. Environmental management beyond the boundaries of the firm: Definitions and constraints. *Business Strategy and the Environment*. 2000;**9**(2):79-91
- [46] Khanna M, Anton WRQ. Corporate environmental management: Regulatory and market-based incentives. *Land Economics*. 2002;**78**(4):539-558

- [47] Fisher J. Social responsibility and ethics: Clarifying the concepts. *Journal of Business Ethics*. 2004;**52**(1):391-400
- [48] Tachizawa T, Andrade ROB. *Gestão sócio-ambiental: estratégias na nova era da sustentabilidade*. São Paulo: Campus; 2008
- [49] Stoner AF, Freeman RE. *Administração*. Rio de Janeiro: Editora Prentice-Hall do Brasil; 1995
- [50] Melo Neto FP, Froes C. *Gestão da responsabilidade social corporativa: o caso brasileiro*. Rio de Janeiro: Qualitymark; 2001
- [51] Bowen H. *Social Responsibilities of the Businessman*. New York: Harper & Row; 1953
- [52] Carroll A. Three dimensional conceptual model of corporate performance. *Academy of Management Review*. 1979;**4**(1):497-505
- [53] Carroll A. Corporate social responsibility: Evolution of a definitional construct. *Business Society*. 1999;**38**(3):268-295
- [54] Instituto Ethos. Sobre nós [Internet]. Available from: <http://www1.ethos.org.br/EthosWeb/Default.aspx> [Accessed: May 15, 2016]
- [55] Angelidis JP, Ibrahim NA. Social demand and corporate strategy: A corporate social responsibility model. *Review of Business*. 1993;**15**(1):7-10
- [56] Wright P, Kroll MJ, Parnell JA. *Strategic Management: Concepts and Cases*. Prentice Hall: Englewood Cliff; 1996
- [57] Klein JL, Camus A, Jetté C, Champagne C, Roy M. *La transformation sociale par l'innovation sociale*. Québec: Les Presses de l'Université du Québec; 2015
- [58] Ashley PA. Towards a territorial, multi-actor and multi-level approach for sustainable development cooperation and social responsibility policies. In: Dick Foeken TD, Leo de Haan LJ, editors. *Development and Equity: An Interdisciplinary Exploration by Ten Scholars from Africa, Asia and Latin America*. Brill: Leiden; 2014
- [59] Freeman C. *The Economics of Industrial Innovation*. London: Frances Print; 1982
- [60] Dosi G. The nature of the innovative process. In: Dosi G et al., editors. *Technical Change and Economic Theory*. London: Pinter Publishers; 1988
- [61] Damanpour F. Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*. 1991;**34**(3):1
- [62] Rothwell RR. Toward the fifth-generation innovation process. *International Marketing Review*. 1994;**11**(1):7-31
- [63] Bessant J, Tidd J. *Innovation and Entrepreneurship*. Chichester: John Wiley & Sons; 2007
- [64] Manual O. *The Measurement of Scientific and Technological Activities*. 3rd ed. Paris: ODCE; 2005

- [65] Gallouj F. Towards a neo-Schumpeterian theory of innovation in services? *Science and Public Policy*. 2007;**24**(1):19-31
- [66] Barbieri JC. Organizações inovadoras sustentáveis. In: Barbieri JC, Simantob M, editors. *Organizações inovadoras sustentáveis: uma reflexão sobre o futuro das organizações*. São Paulo: Atlas; 2007
- [67] Knight KE. A descriptive model of intra-firm innovation process. *Journal of Business*. 1967;**40**(1):478
- [68] Kline J, Rosenberg N. An overview of innovation. In: Landau R, Rosenberg N, editors. *The Positive Sum Strategy*. Washington: National Academy Press; 1986
- [69] Richardson JTE. *Handbook of Qualitative Research Methods for Psychology and the Social Sciences*. Leicester: PBS Books; 1996 203 p
- [70] Pecukonis EV, Cornelius L, Parrish M. The future of health social work. *Social Work in Health Care*. 2003;**37**(3):1-15
- [71] Knight FH. *Risk, Uncertainty and Profit*. Boston: Hart, Schaffner & Marx; 1921
- [72] Weber M. *The Theory of Social and Economic Organization*. New York: Falcon's Bring Press; 1947
- [73] Aldrich H. *Organizations and Environments*. Englewood Cliffs: Prentice-Hall; 1979
- [74] Mueller CC. *Manual de economia do meio ambiente*. Nepama UNB: Brasília; 2000
- [75] Barbieri JC. *Gestão ambiental empresarial*. Saraiva: São Paulo; 2004
- [76] Nodari CH, Olea PM, Dorion ECH, Claus SM, Camargo ME. The framework of the practice of innovation in primary healthcare: A case study. *Ciência & Saúde Coletiva*. 2015;**20**(10):3073-3086
- [77] Dorion ECH, Nodari CH, Olea PM, Ganzer PP, CBC M. New perspectives in entrepreneurship education – A Brazilian viewpoint. In: Sánchez-García JC, editor [Entrepreneurship – education and traini]. *Entrepreneurship Education and Training*. Rijeka: InTech; 2015. p. 247-260
- [78] Dorion E, Chalela LR, Lazzari F, Severo EA, Giuliani AC. Profiles of entrepreneurship and innovation: Debate on business incubators in Brazil. *World Review of Entrepreneurship, Management and Sustainable Development*. 2010;**6**(1/2): 17-34
- [79] Etzkowitz H. Innovation in innovation: The triple helix of university-industry government relations. *Social Science Information*. 2003;**42**(3):293-337
- [80] Bencke FF. *A experiência Gaúcha de Parques científicos e tecnológicos à luz da Tríplice Hélice [thesis]*. Caxias do Sul, Brazil: Universidade de Caxias do Sul; 2016
- [81] Panizzon M, Fachinelli AC, Dorion E. A inteligência distribuída como plataforma para o planejamento em universidade multicampi: estudo de caso sobre inovação em gestão. *Revista Gestao Universitaria na America Latina – GUAL*. 2014;**7**(1):169-190



- [82] Eberle L, Milan GS, Dorion ECH. Service quality dimensions and customer satisfaction in a Brazilian university context. *Benchmarking (Bradford)*. 2016;**23**(1):1697-1716
- [83] Borelli VA, Billig AO, Lampert L, Olea PM, Ganzer PP, Dias DTÁ, Souza A. Cursos superiores tecnológicos: Uma análise sob a ótica dos conceitos do pensamento sistêmico. *Espacios (Caracas)*. 2015;**36**(9):E-2
- [84] Rubenich NV. Antecedentes da aprendizagem organizacional em cursos superiores de tecnologia: a experiência brasileira [thesis]. Caxias do Sul, Brazil: Universidade de Caxias do Sul; 2016
- [85] Dorion E, Guimarães JCF, Severo EA, Reis ZC, Prodanov CC, Olea PM, Nodari CH. Innovation and production management through a just in sequence strategy in a multi-national Brazilian metal-mechanic industry. *Australian Journal of Basic and Applied Sciences*. 2015;**9**(1):100-107
- [86] Lima PP, Dorion E, Milan GS, Severo EA, Ganzer PP, Olea PM. Interface, Empreendedorismo e Resiliência: Um Estudo de Caso Ambientado na Flytour Viagens e Turismo Ltda. *RACE – Revista de Administração, Contabilidade e Economia (Online)*. 2014;**13**(1): 391-424
- [87] Cardoso EL. A indústria criativa no estado do Rio Grande do Sul: uma análise da produção do setor audiovisual a partir do modelo da hélice tripla [dissertation]. Caxias do Sul, Brazil: Universidade de Caxias do Sul; 2013
- [88] Lain GC, Dorion ECH, Prodanov CC, Olea PM. Ambientes de inovação: discutindo o ecossistema do Quartier de l'innovation. *Prâxis (Feevale)*. 2017;**14**(1):146-159
- [89] Guimarães JCF, Severo EA, Dorion ECH, Coallier F, Olea PM. The use of organisational resources for product innovation and organisational performance: A survey of the Brazilian furniture industry. *International Journal of Production Economics*. 2016;**180**(1): 135-147
- [90] Silva OT, Chais C, Pereira AA, Ganzer PP, d'Ávila AAF, Olea PM, Dorion ECH, Prodanov CC, Cruz MR. Inovação em Pequena Propriedade Rural: Uma Perspectiva Teórica. *Gestão e Desenvolvimento*. 2017;**14**(1):34-44
- [91] Mioranza G, Ganzer PP, Nodari CH, Olea PM, Dorion E. Rede de Cooperação e Competitividade: Uma Análise de Coopetição em Vinícolas da Serra Gaúcha. *Revista de Contabilidade, Ciência da Gestão e Finanças*. 2013;**1**(1):1-17
- [92] Ganzer PP, Quintana CG, Bertoni RB, Rocha JM, Olea PM. Análise de Gestão Ambiental em Uma Indústria de Malhas na Serra Gaúcha. *Global Manager (FSG)*. 2012;**12**(1):1-16
- [93] Ganzer PP, Olea PM, Espíndola MAS, Nodari CH, Dorion ECH. Inovação no Setor Têxtil: Um Estudo em Indústrias de Malharia Retilínea. *Revista Eletrônica Mestrado em Administração*. 2015;**7**(1):59-78
- [94] Quintana AC, Quintana CG, Marca LS. Estratégia de Sustentabilidade em Gestão Socio-ambiental: Um estudo de caso em uma empresa do setor portuário. *Revista Ibero-americana de Contabilidad de Gestión*. 2012;**10**(1):1-12

- [95] Quintana CG, Olea PM, Abdallah PR, Quintana AC. Port environmental management: Innovations in a Brazilian public port. *RAI: Revista de Administração e Inovação*. 2016; **13**(1):261-273
- [96] Homrich MC, Dorion E, Camargo MC. Forecast models and the nature of the decision process: The case of a Brazilian Electricity Distribution Company. In: 6th IEEE International Conference on Management of Innovation and Technology. 2012. Singapore: National University of Singapore. Available from: <http://ieeexplore.ieee.org/document/6225800>
- [97] IBPT. Confederação Nacional do Comércio de Bens, Serviços e Turismo [Internet]. 2014. Available from: <http://cnc.org.br> [Accessed: May 10, 2017]
- [98] Nunes AVS, Dorion ECH, Olea PM, Nodari CH, Radaelli AAP, Severo EA. The use of performance indicators for small and micro enterprises (SMEs): A Brazilian regional experience. *African Journal of Business Management*. 2012;**6**(2):8378-8389

INTECH

# Entrepreneurship and Consulting

Eva Hanuláková and Ferdinand Daňo

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70673>

## Abstract

For entrepreneurs, counselling means one of the ways how to overcome the challenges of developing markets and the environment through flexibility and creative innovation potential. It brings effects in the form of problem solving with the help of a counsellor and by adjusting the business entity to the change that this solution brings. All changes, suggested or implemented by counsellors, should contribute directly or indirectly to improving business performance and improving overall business performance. Therefore, the task and the aim of counselling are to find new solutions and optimize the entire corporate system, which is reflected in the savings and economic growth of a business as a measurable effect.

**Keywords:** entrepreneurship, consulting, trends, effects, innovations

## 1. Introduction

Dynamic discontinuities, rising dynamics, turbulence of business environment and its complexity require high flexibility, adaptability and effective coordination between particular corporate functions and the environment. Businesses often encounter problems in the course of their work which negatively affect their performance. The dynamics of that is highly influenced by the political and economic changes taking place at state level [1]. Contemporary trade is affected by integration and globalization processes and its manifestation [2]. The effect of such negative impacts influences the success or failure of business. Businesses find that they need more and more information, professional skills and capabilities. The pace of innovation is rapid in a way that corporations, trying to promote business activities only by their internal resources, are encompassing everything, but not a one thing is properly under control.

In order to respond adequately to the dynamics of the business environment, companies can use various modern tools and methods. These include counselling as well that fulfils

its function of upgrading, revitalizing and improving overall corporate performance and maintaining a favourable market and industry position. At the same time, it brings effects not only for the company itself but also for its customers.

The aim of the chapter is to highlight the importance and benefits of business advisory services. In economically advanced countries, counselling is really a service that helps businesses to manage their troubled situation through changes to greater efficiency and prosperity. The services of counsellors are sought not only by those companies who have problems but also by well-established ones. At present, the rationale for the use of counselling continues to grow. The dynamics of the competitive environment, its rapid qualitative changes and the global character of the markets generate the demand for advisory services.

Counselling is a useful professional service that helps businesses analyse and address practical issues in different areas of their work. Current modern counselling is characterized by a number of trends and tendencies leading to perspectives of growth and the development of advisory services potential. Successful are those businesses that do not only act as production and sales but as providing value to the customer [3]. Marketing managers in companies and organizations need to use its tools much more intensively in the upcoming years [4].

For this reason it is also necessary to mention the changing position and the role of marketing in companies. Marketing becomes an integrating element of all other departments in the interests of effective interaction with a customer that helps to overcome the challenges of market and environment development through the flexibility and creative innovation potential of the business. While marketing, together with innovations, is considered to be business functions that bring revenue to business, its implementation often requires a considerable amount of money. In this context, not only marketing productivity is the issue but also the question of the effectiveness of marketing activities, which goes hand in hand with its professional implementation in practice. The ambition of this chapter is therefore to clarify these milestones with regard to marketing counselling.

## **2. The theoretical basis of counselling and its importance for entrepreneurship**

There are several definitions of “counselling” and two basic approaches to ponder counselling in the professional literature. The first is characterized by a broad functional approach. Such an approach regards counselling as a method of giving practical advice and helping to improve management practices as well as individual management performance and performance across the organization. The second approach emphasizes the professional side of counselling considering it to be a specific professional service. P. Block understands the counselling very broadly: according to him, anyone who acts in a role of “support” could counsel [5].

In general, counselling can be defined as providing services and/or handing over know-how in a certain field by qualified specialists or specialized organizations. It is performed on the

basis of a rigorous systematic and conceptual approach, using the diagnosis of relevant areas, activities and problems and the subsequent assessment of different options for solving a given problem or task. Counselling means activities that aim to make the outcome/result of people or organizations acting differently and more effectively. Counselling is characterized by the fact that its results (recommendations and/or solutions) are provided to someone who has the choice (may or may not accept recommendations/solutions as counselling outcomes).

Generally speaking, businesses turn to counsellors when they feel the need to be advised or find a solution to the problem, provided they do not have their own capacity or appropriate professional competence. There are several ways (reasons) of using advisory services:

- Fixing a specific problem.

It is probably the most common reason why clients turn to consultants. The need for expert advice and/or impartial assistance arises in various situations. The counsellor can either contribute to solving this problem or to minimize the problem and its negative impacts on the business.

- Obtaining or expanding client capabilities.

Clients often turn to consultants if they do not have enough time and staff to deal with a particular problem. Employees cannot address the problem either due to lack of experience, lack of qualification or being busy with other projects. The advantage is that the consultant leaves the client's organization after the service was provided. Clients turn to consultants and seek their help, which is based on a temporary basis. It is therefore not necessary to recruit new employees.

- Getting information.

Businesses often need new, up-to-date information for their further decision-making or their own business activity. The counsellor then performs function of an informant. The client is provided with the information the counsellor has in his/her database or he/she obtains it from available sources or ways that client has no access to. The counsellor can not only get this information for the client but also process and evaluate it.

- Need for new ideas.

It happens often that the company has a problem with which management and employees are too closely connected to that they do not see its context and do not perceive all its aspects and dimensions. They are simply not able to find an effective solution. External counsellors with relevant competencies can be useful and helpful to resolve such a problem. By not being internalized in the client's organization, it has the prerequisites for it to be able to permeate all the circumstances of the problem, determine its nature and causes and recommend solutions.

- The need for an impartial and unbiased opinion.

This fact is partly related to the previous situation, but more often it refers to the policy of a particular company. For example, the management of a company may believe that the proposals and recommendations submitted by its own staff are not unbiased. For example, an

unbiased advice from a consultant may be necessary in a situation where company faces a serious decision and its possible adoption. Another example may be a situation where there is a risk that the management decision of an enterprise will be based or influenced by lack of expertise, operational blindness, lack of information and so on.

- The need for organizational change.

Deep-rooted ideas and habits are a big problem in a situation where the company faces significant organizational change. In this case, the consultant is expected to have the knowledge and experience leading to this change. The main contribution of the consultant to the strategy of change in the client's organization lies in the fact that he/she possesses the necessary qualification, advisory technique and alternative point of view. Through his/her activity and approach, he/she influences the behaviour of those involved in managing changes in the business.

- Need to diagnose the problem and find its solution.

Diagnostic skills and abilities represent one of the most important professional competencies of counsellors and are an expression of their professionalism. It is for this ability that consultants are in demand. The subject of diagnosis may be the internal situation of the business or the external environment in which the company operates. Diagnosis may be complex, but it may be narrowed and limited to one problem or circuit of problems. After the diagnosis and specification of the problem, the client can ask the counsellor for suggestions on how to deal with it.

- The need for education.

Clients often use advisory services to educate their employees. Many consultants provide lecturing and trainings as complement to their main activity—consulting activity. Vocational trainings can be focused on new methods, techniques and technologies. The trainings can focus on improving the professional skills of the client's employees. Lecturing and training can be done as part of the counselling activities or separately from these activities.

- Introducing new methods and systems.

Every organization needs to work as efficiently as possible. In this context, the client expects the consultant to introduce new organizational, planning and controlling methods and systems. The consultant can tailor these procedures and systems to "tailor-made" it to the client. When finding solutions, the consultant can use a variety of creative techniques. Creative counselling is very important for recognizing potential solutions and making them accessible to the client by working in their terms.

There are a number of signals that indicate the need for consulting services [6]:

- Absence of a written business plan.
- Inexplicably low morale.
- Regular, repeated increase in expenditure.

- Regular shortage of cash.
- Chronic delay of supply of goods.
- Loss of market position.
- Burnout staff.
- Excessive workload without achieving goals.
- Continued defects in deliveries.
- Lack of information about competition or the market.

M. Kubr, as the usual motives or reasons for using advisory services, states the following [7]:

- Curiosity.
- Uncertainty.
- Need to have an alibi.
- Improving the achieved results.
- Learning.

P. Block defines the areas in which the consultant can help the client [5]:

- Solving a specific technical or business issue.
- Teaching clients how to solve a similar problem in the future independently.
- Improve the way the organization manages its resources, uses its systems and cooperates internally.

Current modern counselling is characterized by a number of trends and tendencies leading to perspectives of growth and the development of the potential of advisory services. Five basic approaches to modern counselling can be identified:

- Counselling as a profession.
- Counselling as a service.
- Counselling as a method.
- Counselling as a change.
- Counselling as an ecosystem.

### **2.1. Counselling as a profession**

The development of counselling towards profession and *professionalism* is part of an intensive effort that seeks to create a profession out of counselling. Consultants as professionals follow the main trends in theory and practice. At the same time, they create a specialized group with their own working methods, their own set of standards of behaviour and their own workflows.



## 2.2. Advice as a service

The product of advisors and advisory organizations is consulting services. These are specific expert services provided by qualified experts and/or specialized organizations to solve a specific problem.

Advisory services fall into the category of business services. From the point of view of the effects of their actions leading to changes in production systems, productivity and efficiency, consultancy services are part of the intensive knowledge services. They are characterized by the application of a high level of knowledge aimed at solving the problems of business process-related clients with highly qualified employees with a high level of education and professional qualification—advisory, consulting of information technology, legal, accounting, architectural-engineering research-development, advertising, market research, marketing and personal services. Counselling services are very innovative; they use predominantly internal and implicit sources of innovative activities and have very strong contacts with suppliers and clients [8].

## 2.3. Advice as a method

Advisor's approach is conceptual and strictly methodical: from problem identification and diagnostics, through collection, analysis and evaluation of relevant data, investigation and diagnosis of resolution of the problem. Counsellor uses a variety of methods; creative steps; looks for new, tailor-made solutions; identifies and verifies individual alternatives or assists the client in implementing and controlling the chosen alternative. This procedure is referred to as counselling.

## 2.4. Counselling as a change

Traditional perception of counselling is usually associated with the role of a counsellor in which he/she acts as someone who advises others. It does not take into account other aspects, areas, procedures and tasks of advisory performance, such as implementation, monitoring and control, outsourcing, etc. At present, however, advice is expected to be more than just "good advice." Counselling is no longer judged by what it does (giving advice), but through the changes it brings [9]. The common aspect of consulting contracts is that they assist in planning, designing and organizing change/changes in the client's business.

## 2.5. Advice as a system

The classic model of counselling is outdated, and modern counselling is currently a system consisting of six elements and relationships between them. The elements of the counselling system are:

- On the demand side: (1) individual clients, (2) businesses and organizations and (3) contracts/projects.
- On the supply side: (4) consulting industry, (5) consultancy providers and (6) individual consultants.

Relationships between the elements of the counselling system are based on the life cycle of the counselling process, selection, relationships, changes, portfolio, professionalism and reputation [9].

These approaches to advanced counselling complement and support each other. Professionalism and service are the basis for the common use of methods and procedures in a particular process. They create a complex system based on balanced methods, practices, styles and principles with the aim to recommend or find a solution to a specific problem and reach a change in the organization of the client.

Counselling brings effects in a problem solution by the counsellor's help and adjusting to the change that this solution inevitably brings. As part of counselling, there are specializations for each functional area of the company, including marketing counselling. Marketing consulting generally represents a comprehensive approach in the field of management consulting (or economic consulting), which offers methods and procedures aimed at effective marketing performance, improvement of the management procedures and strengthening of the competitiveness of the company. The characteristic feature of marketing consulting is that it deals with the relationships of a particular company with its business environment (customers, competitors, suppliers, purchaser and public) as well as with the internal environment of the company itself (its organizational structure, relations and atmosphere of management and marketing culture). Marketing consulting performs the following functions:

- Diagnostic function: Considered to be the core of consulting and marketing consulting and helps clients to identify and understand the nature of the problem.
- Information function: Based on the information the counsellor provides about the identified problem, the client is able to make strategic reactions to the problem.
- Evaluator: The consultant evaluates alternative solutions to the problem/problems of the client and expresses the opinion/qualified estimation regarding the priority of the proposed solution, in active cooperation with the client.
- Therapist: Consulting services create solutions that are related to the symptoms of something "unhealthy" in the company.
- Implementation function: The counsellor is involved, directly or indirectly (e.g. through lectures, trainings, etc.), in the implementation process of the chosen solution to the problem.

The role and purpose of marketing consulting are to find new solutions and optimize the entire marketing system, which is reflected in the savings and economic growth of the company as a measurable effect. However, marketing advisory also helps with such measures like image improving, customer loyalty, etc. where it is difficult to measure the effect of counselling.

### **3. Materials and methodology**

Counselling and marketing consulting services are economic and highly professional activities that affect the competitiveness of companies by causing changes in the corporate system

as well as the utility and efficiency of business and business activities. In spite of its long tradition in the world, the counselling in the conditions of the Slovak Republic began to write its history only after 1989. Its origin and introduction here were directly related to the transition to the market economy and the manifestation of a new phenomenon of competition. After several decades of planned economy and manufacturing-oriented economic policy, during the past 20 years, the Visegrád Four (V4) countries (Poland, Hungary, Czech Republic and Slovakia) have been experiencing a shift towards a market economy combined with intensification of service activity [10]. Most businesses found themselves in an environment of profound changes that varied in depth and intensity. There has been a significant diversion from the supplier's market to the customer's market. Markets have acquired a global character. Businesses have had to learn to respond flexibly to these changes. However, entrepreneurs and business managers have not always been able to solve the problems themselves. These facts represented the main reasons for the development of counselling not only as a discipline but above all a service that aimed to find ways for companies to compete and improve their position in the market and in the industry.

In the light of the above, it raises a number of questions: What is the state and level of use of marketing counselling by companies operating in the Slovak business environment? What criteria do companies apply for choosing providers of such services? What are the expectations of entities established in the Slovak business environment from these services and their providers? What does marketing advice provide to businesses concerning their own performance? How do businesses evaluate relationships with marketing consultants?

Finding answers to these questions was the purpose of an empirical survey aimed at using marketing advice by companies operating in the Slovak business environment. The survey was conducted in two stages—(1) a quantitative survey in 2016 and (2) a qualitative survey in 2017—and was part of a broader consultancy-focused research on counselling.

Within the quantitative survey, 500 domestic and foreign business entities established in Slovakia were addressed. The sample was specified by the criterion of using marketing advisory. Only those businesses that used marketing advisory, i.e. 222 from the businesses addressed, were involved in the survey. Respondents were owners of companies, directors and marketing department managers, depending on the size of the company and its organizational arrangements.

The aim of the quantitative survey was to clarify and assess the situation in the field of marketing consultancy in the business environment in the SR. On the basis of this, the main research problem was formulated: What is the state and level of use of marketing consulting by enterprises established in the Slovak business environment? From the basic research problem, the following partial descriptive (descriptive) research problems have been formulated through structured genesis:

- What are the attitudes and approaches of businesses to marketing consulting?
- What are the areas in which marketing consulting is applied?
- What is the frequency of the use of marketing consulting?

- What are the businesses' expectations from marketing consulting?
- What are the benefits of marketing consulting for businesses?
- What criteria for choosing a provider of marketing consulting are applied?
- What are the limits and barriers to applying marketing consulting from the point of view of the companies surveyed?

In formulating the conclusions, we relied on the hypotheses that we set out on the assumption that marketing advice provides effective help to businesses in solving marketing and business problems. Greater specialization of external consultants enables higher economic efficiency. Based on the above, we have determined the following descriptive hypotheses that have been formulated in relation to descriptive research problems:

- H1: Marketing consulting has become a regularly used service to help businesses.
- H2: In practice, there are several reasons for using marketing consulting. This is in particular inadequate quality of internal performance, pressure to reduce costs, higher objectivity, more qualified and professional approach and achieving a long-term competitive advantage.
- H3: The use of specialized external consulting subjects' services enables businesses to respond flexibly to changes and turbulence in the business environment, to adapt to trends and new marketing perspectives, to mobilize creative innovation potential and to focus on creating and delivering value to customers.
- H4: The high price, negative experience and underestimation of the benefits are major limitations in the use of marketing consulting.

All respondents said they considered marketing consulting to be useful and effective, provided it is done professionally, cheaply and quickly.

Concerning the intensity of the use of marketing consulting services, this service was bought by all 222 respondents more than once; the regular use of these services was declared by 37% of users. The most frequently used marketing consulting services were the following: web site creation (94%), marketing research (81%), public relations (62%), online marketing (45%), advertising (44%) and mystery shopping (30%) (**Table 1**).

The biggest effects of marketing consulting reported by respondents are as follows: better knowledge of customers and competitors (90%), introduction of new ICT (85%), information needed for their business activity (84%), competitive pricing policy (66%), higher quality of products (60%), development of new products (53%), better brand reputation (50%), improved customer image (50%), more satisfied customers (46%), improving customer relationships (44%), improving the strategy in relation to customers and competitors (42%), higher sales (35%), new business opportunities (35%) and lower marketing and business costs (30%) (**Table 2**).

All respondents plan to continue to use marketing consulting. On the part of marketing consultants, however, they expect a price reduction for their performance (95%), an acceleration

Most frequently used marketing consulting services	Percentage of using
Web site creation	94
Marketing research	81
Public relations	62
Online marketing	45
Advertising	44
Mystery shopping	30
Source: own processing.	

**Table 1.** The most frequently used marketing consulting services in the Slovak business environment.

The greatest effects of marketing consulting	Percentage of using
Better knowledge of customers and competitors	90
Introduction of new ICT	85
Information needed for their business activity	84
Competitive pricing policy	66
Higher quality of products	60
Development of new products	53
Better brand reputation	50
Improved customer image	50
More satisfied customers	46
Improving customer relationships	44
Improving the strategy in relation to customers and competitors	42
Higher sales	35
Source: own processing.	

**Table 2.** The greatest effects of marketing consulting from the point of view of the Slovak business environment.

of the delivery time of the service (88%) and solutions that (a) contribute to higher revenues (95%), (b) ensure differentiation and the source of competitive advantage (52%) and higher product quality (50%), (c) reduce customer claims and complaints (49%), (d) increase customer satisfaction (45%), (e) increase customer loyalty and (F) reduce the loss of customers (40%).

When selecting provider of consulting services, respondents are equally interested in the references and the price for these services. As for the shortcomings of marketing consulting services, respondents cited especially high prices and time consumption (75%). The results of the survey confirmed H1–H4 hypotheses.

In the next stage, we conducted a qualitative survey where we used the interview method on a sample of 30 respondents. They were managers of marketing staff but also the owners,

directors and executive directors who are in charge of purchasing such service. The interview had several stages (preparation, introduction, fixation, interview itself, conclusion and termination). The conversation always took place with only one person in the form of a semi-structured interview. The interview included observations that enabled the respondent's non-verbal communication to be monitored. The interview was conducted in the respondent's work environment. The average length of one interview was 65 minutes. Within both interviews and observations, we did not record all the findings, but only selective entries were realized. As a means of support of the validity of a qualitative survey, the following triangulation has been chosen:

- Two research methods: interview and observation.
- The investigated situation was monitored by two researchers.
- We have evaluated the obtained data from the point of view of the clients of the consulting services (clients) and from the point of view of the consultants (consultants).

In a qualitative survey, we chose the procedure of constant comparison of the phenomena investigated, in which we did not establish the hypothesis. We wanted to know in particular the attitudes, opinions and expectations of the respondents from the marketing consulting, the reasons and areas of their further use/termination of the service, the reasons for the decision on the selection criteria of the consultant, the intensity of the relations with the consultancy providers and the ideas for improving the qualities of subject providing marketing consulting.

As in the previous survey, respondents, in their statements within the qualitative survey, stated that marketing consulting is perspective and is useful and they plan to continue using it. According to respondents, the customer and the competition are the biggest reasons for the use of marketing consulting services. Negative or even reluctant attitudes towards marketing consulting have been observed only sporadically. The results of the quantitative survey have shown a massive predominance in the use of specialized marketing consulting services. We were interested in the reasons for which respondents do not use general marketing consulting at the same intensity. The reasons for which more intensive services are not being used or general marketing consulting is not being used at all as well as other marketing services are not being used, include lack of information on these services; a narrowed/distorted view of marketing itself; lack of finances, experience and insight into these capabilities on the part of internal capacities; and also a restrained approach to purchasing such services and postponing them "at a later date."

Providers of marketing consulting are uniquely chosen on the basis of references because they are a guarantee of experience for them. The references provided by the advisor are not validated. The equivalent criterion for choosing a consultant is the price. It suits them if they can continue to work with the current counsellor as it saves time and money for choosing a new one, and moreover, the original provider understands them better, understands their environment and is able to adapt himself/herself better.

Counselling is important to them, but they do not think about it. It can be said that they anticipate it more than demand it.

In terms of long-term cooperation, they expect from the service providers' price reduction, individual approach and less time to implement the project. They also expect better service providers' orientation in the problem and new solutions that will be better than previous ones.

The gestures, mimics and visions of respondents during a qualitative survey have shown their positive impressions/attitudes, thoughts, increased attention, readiness and openness. For some topics, especially as regards the price and the education of an advisor as the criteria for choice, we were surprised by their awkwardness but also concentration.

#### 4. Conclusions and recommendations

It can be said that marketing consulting has become a common service in our country. Consultants consider it beneficial and useful with the prospect of further growth. Nevertheless, it is still a young and dynamically evolving service, which is confirmed by our finding as well. It is the limitations of both actors of counselling process (buyer and consultant), which restricts the intensive and complex use of marketing consulting services.

In particular, buyers are unaware of, misunderstand, or underestimate these services, which do not allow them to use their full potential as well as the potential of marketing itself. Also limited financial options, the reluctance to spend funds on these services have their share on the restrictions in terms of the perspective of its more intensive use. When selecting a service provider, the cost approach over the corresponding qualification prevails, with the exception of the repeated purchase of consulting services from the original provider. Clients expect effects from the consultancy on the economic side (revenue growth, more customers, increased sales, etc.) as well as noneconomic indicators (brand awareness, customer loyalty, better customer and partner relationships). We have also experienced symptoms of management schizophrenia, in terms of the cost of consulting services, the intensity of their use and the effects of their use.

On the part of the advisory service providers, these limits are manifested in particular in the absence of continuous cooperation and post-contract control, lack of communication with the client and the absence of feedback.

The core of effectiveness of marketing consulting is an effective guidance approach. It identifies two critical aspects of problem solving in the contracting organization, which are:

1. Technical aspect.
2. Qualitative aspect.

Both critical aspects are the basic prerequisites for the final result of the consulting activity with respect to finding effective solutions and optimizing the entire marketing and business performance.

The technical aspect of counselling addresses the nature of the problem that is (will be) the subject of counselling and the way in which this problem can be assessed and resolved. Therefore, an effective counselling requires intensive systematic and disciplined work,



based on a thorough counselling diagnosis of solid facts and subsequent counselling therapy in the form of search for real and pragmatic solutions.

In the case of counselling diagnostics, consideration should be given to the fact that the business is an unknown object for the consulting firm and the diagnosis is processed for commercial purposes [11]. The counselling therapy expresses ways to solve business problems by external counselling subjects. It consists of searching for and proposing effective measures with regard to the diagnosis result—a diagnosis and also of research, formulation and verification of procedures, approaches, methods and techniques that lead to the achievement of desired results (therapies) in areas that are the subject of counselling diagnostics.

Without therapy, diagnostics would not make sense, and therapy without diagnosis would be unhelpful and would not have the desired effect. Therefore, the diagnostic and therapeutic phases form the core of the counselling process and counselling activity as a whole. It should be emphasized that both the diagnosis and the therapeutics must be focused not only on the identification and solving of the marketing problems themselves but also on the identification of the causes of these disorders and their sources.

Experience shows that defects in effective counselling process occur both on the part of providers of advisory services and on their buyers' side. In order to eliminate the aforementioned defects of an effective marketing counselling process on the part of providers of counselling, it is desirable that the relatively well-established process of counselling diagnosis with the emphasis on establishing a diagnosis in marketing is applied to the counselling process on two levels:

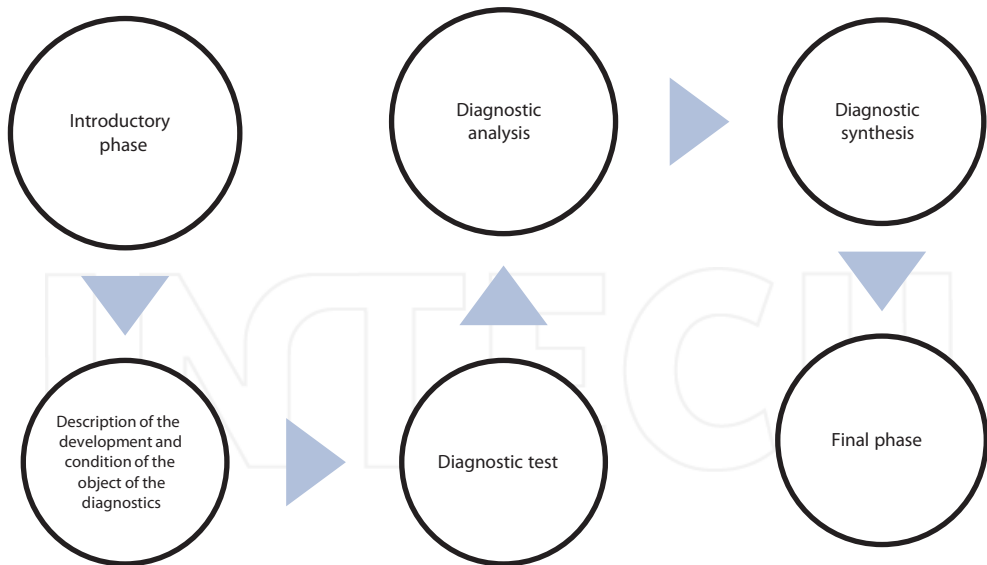
1. Diagnostics and diagnosis of marketing as a leading management concept based on the value of the business and the value provided to the customer.
2. Diagnostics and diagnosis of marketing as a business function.

The following algorithm can be used to diagnose an enterprise's marketing activity (**Scheme 1**):

1. Introductory phase.
2. Description of the development and condition of the object of the diagnostics.
3. Diagnostic test.
4. Diagnostic analysis.
5. Diagnostic synthesis.
6. Final phase.

The individual steps of the diagnostic activity are explained in the following text:

1. Introductory phase
  - Selection of object of the diagnostics: marketing as the leading management concept and marketing as a business function and business philosophy:



**Scheme 1.** Algorithm of the diagnostics of the company's marketing activity. Source: own processing.

- Marketing diagnostics as a leading management concept begins at the top of the business goal pyramid assessing the vision and mission of the business and their evaluation in relation to the goals set followed by diagnostics of corporate integrity, identity, culture and work atmosphere.
  - Marketing diagnostics as a business function starts with diagnostics of marketing organization and its position within the corporate organizational structure and continues with diagnostics of the marketing environment, diagnostics of the marketing planning system, diagnostics of marketing mix tools and diagnostics of customers.
  - Selection of behavioural characteristics of the diagnosed object: diagnostics of marketing strategy/diagnostics of marketing implementation.
  - Selection of diagnostic methods and procedures: depending on the behaviour characteristics of the diagnosed object; proper selection of methods of diagnostics is the determinant of effective diagnostic activity.
  - Formulating the test criterion: the expressions and limits of the normal behaviour of the diagnosed object.
2. Description of the development and condition of the diagnosed object
- Measuring the behaviour of the diagnosed object.
  - Description of the development and state of behaviour of the diagnosed object.

### 3. Diagnostic test

- Comparison of the behaviour of the diagnosed object with the test criterion and identifying faults and shortcomings (abnormalities).
- Naming the existence/non-existence of a problem/failure in marketing.
- Classification of the problem type: structured, unstructured and poorly structured.

### 4. Diagnostic analysis:

- Analysis of the frequency, intensity and demonstration of the problem(s) and analysis of the consequences of problems.
- Prediction of the further development of the problem and analysis of causes of the problem.

### 5. Diagnostic synthesis

- Formulation of the problem in terms of its severity, the urgency of the solution and the main cause.

### 6. Final phase

- Coordination of the counsellor and the client in proposing of corrective actions.
- Diagnostic test of progress: verification of the effectiveness of corrective actions.

The mentioned process of consulting diagnostics aimed at marketing is characterized by the following tendencies:

- Already in the initial phase of the counselling process, it is possible to recognize what is and is not a marketing problem/disorder and to distinguish it from problems/disorders of another type.
- An enterprise is understood as an entity that defines its vision, mission and goals (existence, survival).
- Marketing is considered in terms of interaction with other business functions and entrepreneurial activity.
- Marketing is viewed as a set of mutually dependent tools, activities and operations that allow the existence (survival) of an enterprise.
- Marketing is considered from a procedural point of view.
- Identification of existing, potential or future change represents the core of counselling diagnostics and the starting point of counselling diagnostic therapy.

The position of counselling diagnostics or diagnosis in marketing is determined by the following initiatory effects:

- Fault recognition, i.e. deviations/changes from the ex post state (i.e., "disease" formation).
- The need for ex ante business potential verification (i.e. prevention and development activities).

An important determinant of effective diagnostic activity in counselling is the time factor [12]. The teamwork plays a dominant role here. The project manager (project leader) is the most responsible person for fulfilling the projects' goals. His key role, however, lies in the synergy with project and support teams. He has to work with the people he usually did not choose and who have different interests and abilities [13, 14]. A large part of the management activities are related to the actual process management over time and the coordination of the various work areas associated with the communication between the participants in the project. The participation of the consultant's customer is also a necessary condition for the diagnostic activity. The last but not least important area is the creation of interpersonal relationships, motivation of project team members to eliminate potential conflicts. Therefore, the ability to influence others and excellent communication skills are necessity.

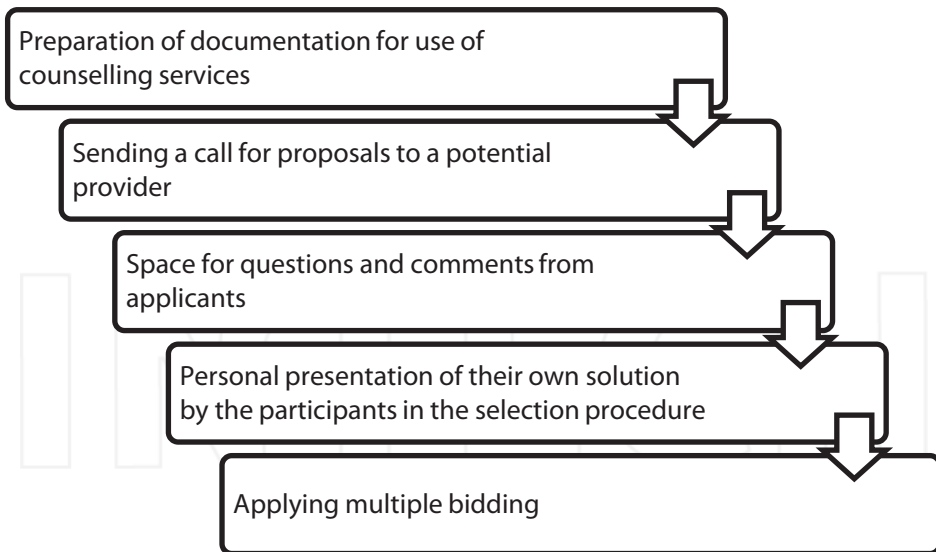
The qualitative aspect of counselling expresses the relationship between the counsellor and the client: the way employees in the contracting organization respond to changes and how the counsellor can help them to implement changes. The rate of participation between the consultant and the client is one of the key determinants of an effective counselling approach. In general, counselling is considered to be participatory if:

- Client works together with the consultant.
- Project and the relevant action plan determine when and how the client's staff work with the consultant.
- Progress is assessed, together with important issues and the project plan, i.e. its methodology is adapted flexibly to a particular situation.
- Consultant prepares the client for active cooperation by providing information and training.
- Consultant consistently applies a participatory approach at all levels in the contracting organization.

The most common reason for the continuation distortion and eventually distortion of the effect of the whole counselling process on the part of the counselling service providers is problems associated with the choice of the provider. These issues are both procedural and substantive.

From the procedural aspect of the ordering of counselling services, it is worth highlighting in particular the absence of a system and standards in the area of selection of counselling service providers and time factor. Many companies have no experience with the selection of providers, which has a negative impact on the entire counselling process. It is advised to have this process standardized, which can result in minimizing errors associated with the choice of a provider. In the framework of a selection procedure (not a competition in a public tender), the customers of the counselling services can apply the following algorithm (**Scheme 2**):

1. Preparation of documentation for the use of counselling services: this is exclusively an internal phase. It is necessary to define in particular the scope of the assignment and the financial possibilities corresponding to this assignment. Last but not least, it is important



**Scheme 2.** Algorithm of the choice of consulting services provider. Source: own processing.

to define the timeframe for the execution of the contract, as well as the place and manner of performance of the contract. It is appropriate to process the abovementioned facts in the form of documents for the selection of the provider/providers of advisory services. They represent a minimal but sufficient basis for the next procedure when ordering counselling service.

2. Sending a call for proposals to a potential provider: the invitation may be sent to them in writing by post or electronically or both ways. The optimal content of this call is the following: the objective and purpose of the tender, the conditions for participation in the tender, the content of the tender, the price specification, the deadline and method of posing the additional questions and comments, the selection criteria of the provider, the date and place of the service, evaluation of offers, declaration of results and design of contract. The content of this call is appropriate for larger orders/projects. In the case of smaller contracts/projects, some parts may be omitted. In the case of larger and more complex or potentially sensitive projects, it is appropriate to ask candidates first to take part in the selection procedure for a confidentiality statement and to ask them to complete the prequalification questionnaire. The call must be sent in proper time. It is advised to address several subjects.
3. Space for questions and comments from applicants: in order to avoid misunderstandings concerning the tender, it is appropriate to provide the applicants with the time and space for their questions and input comments.
4. Personal presentation of their own solution by the participants in the selection procedure.
5. Applying multiple bidding (especially pricing).

From the factual point of view, it is necessary to focus especially on the criteria for participation in the competition, which must be aligned with the nature of the existing problem and with the specific requirements of the client. The choice of the consultant service provider to its customers is one of the significant determinants of the quality of their relationship. There are no generally valid rules or criteria that will guarantee the right choice for the choice of an advisory service provider.

In practice, several criteria have proved successful:

- **References.** They reflect the professional competence and experience of a consultant. Clients can request them from an applicant or directly from their previous clients or check them in writing or by phone.
- **Cost of counselling services.** The question of price should not be dominant when choosing a provider of counselling services and should not overcome professional competence, quality or good relationships. However, it should be noted that only a few clients can afford to ignore the price of the offer. The counsellors should use rates according to standard practice. Also, the method of pricing must be agreed before the work begins. If it is in place, the client may recognize the requirement for higher fees (e.g. timing).
- **Professional integrity.** It should be a basic prerequisite for choosing a particular (individual) counsellor representing particular counselling agency. It connects counsellor's professional behaviour and professional ethics. If the client has any doubts about this criterion, particular counsellor should not be considered at all.
- **Professional competence.** It should be a necessary prerequisite for choosing a particular counsellor. It refers to the degree and type of the higher education of a counsellor and their further education, length and type of practice in counselling, references from previous clients, membership in a professional association and other professional activities of the counsellor (e.g. publications, participation in professional conferences, etc.). Lack of education and qualification of a counsellor in the counselling process rules out the effective and professional approach that the client assumes and expects when entering into the counselling relationship. It may also result in insufficient knowledge and skills regarding the use of appropriate techniques, programmes and procedures, which will ultimately affect the outcome and success of the entire counselling process.
- **Mutual trust.** It creates the basis for mutual relationships between the counsellor and the client. The client believes in counsellor's integrity and professional judgement. The counsellor believes the client's word and likes to work with him.
- **Project concept (offers).** The professional competence of the counsellors is not the only and sufficient criterion for their choice. They must also demonstrate their competencies through their own approach to the project (problem, task) to be addressed.
- **Ability to fulfil commitments.** The counsellors must be able to deliver what they committed to, including supervision and control in the counselling process.
- **Ability to mobilize additional resources.** The client should consider whether and to what extent the counsellor is willing and able to go beyond the originally agreed range of assignment, if this necessity occurs during work.

- The counsellor's image. It is created by the clients' perception of the counsellor. Sometimes the reputation of the counsellor is a substitute for applying a more specific criterion, but sometimes it is only a complement to other criteria.

One of the conditions for mastering the relationship between the counsellor and the client is effective communication. The counsellors can bring the best solutions for the client: but if they do not inform the client about them effectively, the benefits of such solutions will be zero.

The modified model of an effective marketing consulting process consists of five stages: the zero stage and the three main stages and the post-counselling phase, each of which contains two counselling phases.

#### 0. Zero stage.

1. Initiation. The first step is the basis of an effective counselling process. It occurs on the part of the client (buyer) when the client becomes aware of a particular problem, disorder or lack of marketing performance that can be more or less obvious. What follows is the clarification of what the client expects from such a service and from its provider (i.e. purpose and benefits), on the basis of which the tender documents are processed as a call.
2. Consultant selection. At this stage, the client is first contacted by potential consultants, initiating a contract/project, bidding by applicants and presenting them. The roles and relationships between client and consultant are clarified. The zero stage ends with the choice of the counselling service provider.

#### A. The diagnostic stage.

3. Initial diagnostic phase followed by preliminary diagnostics or the so-called pre-diagnostics of the situation/problem, identifying and defining the problem and determining the conditions for its solution. The consultant then draws up an offer/project plan, including a contract, with the client. Once the proposed conditions have been agreed, the contract/project is officially proposed and signed.

4. Diagnostics itself presents a key step in the entire counselling process. It is about creating presumptions for diagnostics processing. On the basis of the facts based on the real status and situation, the consultant performs the following operations:

- Diagnostic analysis (analysis of the quantity, intensity and manifestations of a problem/problems, analysis of the consequences of problems, prediction of further development of the problem, analysis of causes of problems and their sources).
- Diagnostic mission (praxeological verification of the analysis conclusions).
- Diagnostic synthesis (formulation of the problem in terms of its severity, urgency of the solution and main cause).

Diagnosis is then established and verified, the details of the problem are examined, and the diagnosis is summarized. In counselling practice, it often happens that it is not possible or not appropriate to separate the diagnostic phase from the next stage that solves the problem. This



is particularly so because the operations and procedures usually used in the diagnostic phase can only be implemented in a pragmatic way. At the same time, it increases the likelihood that all work and diagnostics will actually be effective.

#### B. Therapeutic stage.

5. Implementation proposal. Consultants develop alternatives to solutions, which they evaluate from different viewpoints (causes and sources) and draw the client's attention to the benefits and possible risks associated with the implementation of individual solutions. They will submit them to the client, who will jointly review the strengths and weaknesses of the diagnosis. Based on the assessment of the different solutions, the consultant will propose and develop a plan for the implementation of the chosen solution and submit it for approval to the client.

6. Implementation. Consultant provides synergy even when implementing the chosen solution. This phase often brings many surprises regarding the feasibility of the chosen solution. The role of the consultant lies in the additional diagnosis and correction of the proposed solution. The implementation phase also involves the (pre)training of the client and the beginning of the intensive realization of the chosen therapeutic steps on the basis of the (definitive) diagnosis, usually by the client's own capacities (**Scheme 3**).

#### C. Stage of termination of counselling activities.

7. Evaluation of counselling activity. In this step, the consultant provides the client with a final report on the order/project in which he/she assesses the diagnostic activities, the course of the contract/project and its milestones; summarizes the variants/therapeutic steps in the form of proposed solutions with an emphasis on the alternative chosen, its benefits and (potential) risks and describes participation in its implementation.

8. Perspective of counselling relationship. At the end of this stage, the commitments with the client are balanced; the future possible cooperation and the termination of the counselling activity are outlined.

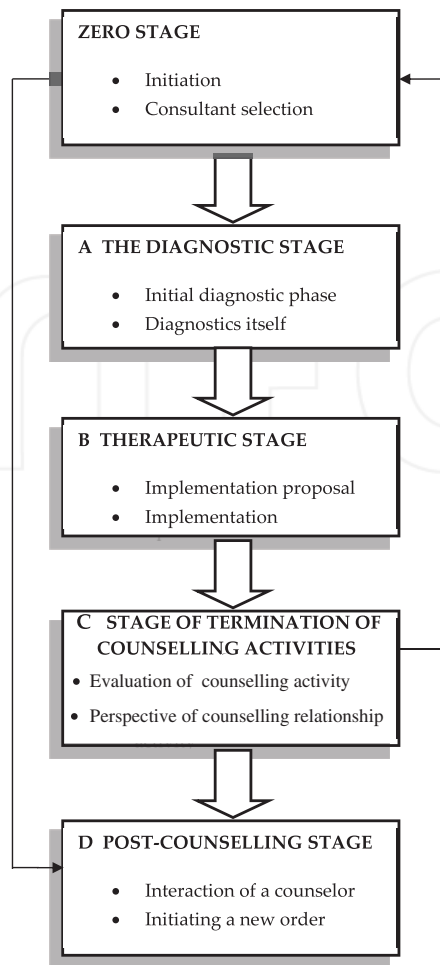
#### D. Post-counselling stage.

9. Interaction of a counsellor. Consultant maintains contact with the client even after the end of the contract/project, provides him/her with possible cooperation (based on free consulting capacity) and monitors the effectiveness of the proposed and implemented measures or the course of their implementation and the client's satisfaction with his/her services.

10. Initiating a new order. The client or consultant may initiate a new order or modify the original order. In this case, the second step of the null phase is omitted.

Throughout the counselling process, intensive communication and collaboration take place between the consultant and the client. One form of this interaction can be consultation days, fulfilling the information, evaluation and control functions.

The modified model of the counselling process is characterized by higher efficiency than the classic model by:



**Scheme 3.** The modified model of an effective marketing consulting process. Source: own processing.

- Simplifying the phasing of the steps of the individual stages of the counselling process.
- Integrating the methodical (technical) aspect of the counselling process with a higher level of participation of both its actors (consultant-client).
- Counselling diagnostics is linked to counselling therapy with a view to identifying causes and sources of disruptions in marketing and entrepreneurial activity.
- Considering the zero life cycle of the counselling process with the aim of minimizing errors and defects in its further stages.
- Expanding the life cycle of the counselling process to post-counselling activities.

- Guaranteeing continuous, intensive and effective communication between the consultant and the client at each stage of the life cycle of the counselling process.
- Is based on the principle of feedback and multiple control throughout the life cycle of the counselling process.
- Containing added value in the form of counselling in both the therapeutic and post-counselling phases.
- Assuming the transfer of responsibility for the resulting effect of counselling to the consultant through active and intensive participation at all stages of the life cycle of the counselling process.

The modified efficient counselling model is more transparent, motivating and flexible than the classic one. It can be recommended for each type of marketing counselling. It examines and evaluates all parameters of marketing effectiveness. It can be implemented in the form of total or functional diagnostics and therapeutics of corporate marketing as well as the revision of marketing efficiency.

## Acknowledgements

The paper was elaborated as part of the project VEGA no. 1/0380/17 "Economic efficiency of electromobility in logistics," solved at the Faculty of Commerce, University of Economics in Bratislava.

## Author details

Eva Hanuláková\* and Ferdinand Daňo

\*Address all correspondence to: [eva.hanulakova@emcg.sk](mailto:eva.hanulakova@emcg.sk)

University of Economics, Bratislava, Slovakia

## References

- [1] Križan F, et al. Potential food deserts and food oases in a post-communist city: Access, quality, variability and price of food in Bratislava–Petržalka. *Applied Geography*, 2015, 62, pp. 8-18. <http://awwwwap.georg.dx.doi.org/10.1016/j>
- [2] Francová Z, Breveníková. Interdependence of trade and trade science development, In: *The Proceedings of the 5th International Scientific Conference on Trade, International Business and Tourism: Application of Knowledge in Process of Business Dynamization in Central Europe*, 2014, Mojmirovce. Slovak Republic, 2014, pp. 134-145

- [3] Lesáková D, et al. Strategický marketing. Bratislava: Sprint 2 s. r. o., 2014. 350 p
- [4] Miklosik A, Vokonova D. Examination of selected variables relationship to the research results position. *Actual Problems of Economics*. 2013;6(144):354-361
- [5] Block P. Staňte se špičkovým poradcem. Praha: Grada Publishing; 2007. 347 p
- [6] Cohen WA. Staňte se úspěšným poradcem, Brno: CP Books, a.s., 2005. 284 p
- [7] Kubr M. Management Consulting: A Guide to the Profession (four edition). Geneva: International Labour Office, 2002. 904 p
- [8] Kubičková V. Inovácie a inovačné aktivity podnikov služieb. Bratislava: Vydavateľstvo EKONÓM, 2009. 162 p
- [9] Topping G, Czerniavska F. Business Consulting. A Guide to How it Works and How to Make it Work. London: Profile Books Ltd.; 2005. 264 p
- [10] Melikova Y, et al. Trade in services and tertiarisation of the Visegrad Four economics. *Post-Communist Economies*. 2015;27(1):1-22. DOI: 10.1080/14631377.2015.992219
- [11] Neumannová A, et al. Podniková diagnostika, Bratislava, Iura Edition, 2012. 201 p
- [12] Gruber D. Time Management. Praha: Management Press; 2002. 175 p
- [13] Němec V. Projektový management, Praha, Grada Publishing; 2002. 182 p
- [14] Rosenau MD. Řízení projektů. Praha: Computer Press; 2000. 344 p



# Family Business: Experience from the Czech Republic

Vojtěch Koráb and Anastasia Murinova

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.71020>

## Abstract

The chapter deals with problems of small family-owned companies in the Czech Republic. The main aim of the chapter is to describe a family business in the Czech Republic. The partial aims of the chapter are as follows: presentation of family business definition used in investigation of Czech family businesses and model of successful transfer of power to the next generation called “relay.” This chapter uses a research methodology of the secondary as well as primary data collection. In the frame of secondary data collection, the data were obtained from the company’s websites as well as from the official Amadeus database and those by the Czech Statistical Office. The collection method of primary data was based on interviews with the company’s founder and his children and on the questionnaire survey. So gained interview results were transformed into the paper form and then transcribed. The research case study was analysed and focused on the case. This chapter states the results of qualitative research regarding a small family-owned company, called Kaláb—Building Company, Ltd. The concerning research part has the form of a case study. Two models are given in discussion of research results: (1) strategy of small family-owned enterprise and (2) power delegation in a family-owned enterprise.

**Keywords:** family business, succession management, family business definition, family ties, two-circle model of family business, family system, strategic process, successor, incumbent

## 1. Introduction

The problems of family-owned enterprises and family businesses are quite common nowadays, but only little attention is paid to this business segment in the Czech Republic. This, in some measure, arises from the fact that business itself is relatively new and young discipline in Czechoslovakia, respectively in the Czech Republic. The expanding business activities have also brought a development of family-owned enterprises in its train. Many traditional business families, feeling a challenge for continuity within the new environs, wanted to pick up

the threads of family tradition and tried to follow up the fame of the former fathers and forefathers. The others launched into business with illusion of easy reachable million profits and the like. There were various types of traps lurking for the businessmen, for example legislation gaps, but especially a catastrophic lack of business activity experiences itself. Those facts caused many faults and only a small number of businessmen and family-owned enterprises held out the running of business up to the present time.

However, the situation in the field of family-owned enterprises improves rather quickly in the Czech Republic in the last time. Due to a responsible approach to investment of private means, the family businessmen being concentrated on the own aims are far more flexible in comparison with managers delegated from outside. The owners usually have many obligations not only towards the enterprise but also towards the successor(s) and above all towards the whole family. Family-owned enterprises show very sensitive approach to administration of the own property. A communication within the family triangle is usually decisive for managing the enterprise and market and for the further development. The enterprise itself represents a life work of a businessman, and when ceasing to function, the responsible family members are struggling to rescue company far more obstinately and persistently in comparison with the other enterprises.

Thereby, this chapter aims to describe the family business in the Czech Republic and define tendencies in specification of that. Partial aims are as follows: to present the family business definition used in investigation of Czech family businesses and model of successful transfer of power to the next generation called "relay." The object of the research focus on describing of the specifics of family business as an economical phenomenon. The subjects of the research are definitions, strategies and succession of the family business enterprises.

## **2. Family business in the Czech Republic**

### **2.1. The applied methodology**

The chapter presents the theoretical and practical part in the topic of family business definition, its perception and analysis of weaknesses and strengths in the framework of the investigation of Czech family businesses. In addition, the chapter performs the results of theoretical and practical knowledge from the field of strategy and power delegation between the generations. The chapter uses a research methodology of the secondary as well as primary data collection. The theoretical part is based on the analysis of secondary literature sources. For insight into family business' phenomenon, it was decided to study the historical sources of the family business concept development during the twentieth and twenty-first centuries after evaluating them with the help of Vallone's three key principles of determination of family business. The chapter is also prepared on the basis of research of the most cited scientific papers relating to the definition of family business with the help of general theoretical scientific methods, in particular, analysis, synthesis, analogy, comparison, generalizations, deduction and methods of expert estimates. In addition, according to aim, also a SWOT analysis is applied to find out the basic strengths and weaknesses of family business. The practical part is based on primary research



using qualitative methods. In the frame of secondary data collection, the data were obtained from the company's websites and other materials as well as from the official Amadeus database and those by the Czech Statistical Office. The collection method of primary data is based on the case study with using of interviews with the company's founder and his children. That case study was conducted, namely the face-to-face structured interviews, which belong to the verbal form of questioning methods commonly employed in qualitative research. The study supposed the use of open-ended questions due to the nature of the collected data favoured as a means to illustrate findings and support the developed theory described above. The questions for pilot study were formulated on the several main concepts that are based on field of power delegating in small family-owned enterprises. Interviews were conducted by an interviewer using an audio recorder. The following factors influenced the choice of data collection method resulting in interviews: importance to reach a particular person, high confidence that the right person has responded, obtaining a great level of detail, ease of use for respondents, low expenses/financial implications and simplicity of data coding. At the beginning of the interview, the interviewer explained the purpose of the interview and the importance of the respondent's participation. The gained audio interview results were transformed into the paper form and then word-for-word transcribed. The research case study was analysed and focused on the case. In the analysis of respondents' answers, statements were decompound and compared with each other using content analysis; the authors were inspired by the Constant Comparative Method known from the approach of Grounded Theory.

### 3. Theoretical solution approach

#### 3.1. Definition of a family-owned enterprise

The literature deals with many definitions regarding a family-owned enterprise. The majority of them are based on measurement following from the number of statutory body members descending from the given family in comparison with total number of statutory body members; the family controlled authorized capital and the whole sum of the authorized capital. The most acceptable definition of a family-owned enterprise will be probably that one presented in Ref. [1]. This definition may be interpreted as follows: "Family-owned enterprises are those, held by a group of people, being in a family relationship." This definition specifically enables to research also the small- and micro-family-owned enterprises in the Czech Republic, playing the role of natural persons and cooperating with family members. However, it is necessary to investigate the type of family relationship in this case. On the basis of the assessed definitions owing to the family-owned enterprises, the following definition applied to the Czech environs may be assigned: "A family-owned enterprise is that one owned and possibly controlled by family or families or by selected family member(s), whereas its delivery to the next generation is supposed." This definition presumes an enterprise establishment under the § 5 of the Act No. 513/1991 Sb. (Commercial Act), where an enterprise is understood as a complex of material, personal and non-material business components. The term "family" is not explicitly defined within the Legal Code of the Czech Republic. In general, a family is above

all an institution constituted by marriage. The authors have defined the family as “a group of persons mutually associated not only by matrimony or relational bonds, but also by a common life-style.” It is worth noting that the development of the family business theory and the theoretical researches devoted to definitions of family business are gaining a momentum.

However, there are some key tendencies. For example, the results, which were received in the development of family business theoretical definition, are significant. In addition, the theoretical researches shed some light on how the family business can differ from the non-family one. Thereby, following questions are considered now: why the family business exists, what factors do it more or less successful in survival, growth and creation of long-term economic values. The definition of research object is the fundamental requirement for an advance in any area. In addition, as it was previously noted, the theoretical definition of family business has to begin with a question: what the family business is. The special literature shows that no unified definition exists for “family business,” which is exclusively applied to all areas. This fact suggests that the debate on this topic is not exhausted. If we look at this problem from the perspective point of view, we will find out two systems in the family business layering at each other: the system of family and the one of firm, called the “The Model of two circles.” The integral part of those systems is the objectives, priorities and expectations. The family world is characterized by a strong emotional aspect; the corporate world requires rationality and results. Families are the cornerstones of human communities [2]. They are of different sizes, but they often have rigid internal relations as a common feature. It is known that family business is a traditional method of business in the private sector. The goal of family enterprises is not to get rich as fast as possible, but rather to build something that will last and provide sustenance not only to the present generation but also to those of future.

Before starting to analyse different definitions, it is significant to state why having a generally accepted definition within the family business academia is primary for future extension of that field [3]. Most of the definitions were created to suit of certain research. Heck and Trent [4] maintained the argument of having a widely acknowledged definition by stating that “a proper definition and count of family businesses is important to future research and current policy, practice, service and education. Promoting definitional consensus among researchers may increase the likelihood of theory development, in-depth empirical analyses, comparative studies and replication [4].” Furthermore, distinction in definitions obstructs the comparison of international investigations of family business. Using a common definition would therefore allow making clearer and comparable statistics of this entity, especially in case of its contribution to the economy [5]. Vallone [6] has the same opinion that an elaboration a generally accepted definition would “circumscribe the field of investigation, and obtain a comparable sample for international researches; to individualize the presence and the specific characteristics of the family business in comparison to nonfamily business; in addition, it means to be able to compare more easily the empirical studies.” To fully understand the development of family business study and its definition, it was decided to overlook historical tape of that field development.

### *3.1.1. Main principles of family business definition by Vallone*

One of the most interesting studies belongs to C. Vallone, who published his literature review paper in 2013 [6]. He concluded that there are three key principles in the family business

discussion: the degree of ownership, the intention to the succession and the involvement of the family members in the business. He understands ownership as “the percentage of capital possessed by the family (by shares or quota) or the dominant influence represented by the family members’ ability to affect the remarkable and strategic choices.” According to that expression determining the family business, family must have full control or must be the most influential unit in making strategic decisions. Concerning the expectation of transferring the firm to the next generations (succession), Vallone states that “family business should concern only the companies managed by a family where the second generation is present or where there is a precise wish to transfer the business and family culture and the management to heirs, so that it is possible to exclude occasional business initiatives managed by two brothers, or by an individual with the aid of the partner.” He claims that because there are many examples, where husband and wife manage the business but not intend to transfer the business to the next generation. There are many explanations; therefore, for instance, they have no children or none of their children wants to keep on the business like the parents. In this way, in spite of full ownership of the firm, the “familiarity” thereof is slack due to the absence of intention to transfer the firm and business culture to the next generation [4]. Another most essential element of family business, according to Vallone, is the involvement of the family members in business. This element occurs as a decisive aspect in differentiation between the family business and non-family one, especially in case of small business. Therefore, the author proposes to include this element as an attribute of family business because most of family companies are small companies, where founder works in the continuous way with the relatives [3]. Nevertheless, Vallone in his work concludes that constant involvement of family members or their relatives in the business is not crucial because it can lead to a limiting effect, that is, elimination of some big companies which are hired not only by/to the non-family members but also have external employees.

### *3.1.2. Definition of family business with the help of historical analysis*

For understanding the historical tendencies of comprehension of family business, it was decided to follow the main historical investigations in that area and evaluate results with the help of Vallone’s three key principles, which relate one of the most catchall determinations of family business. For understanding the historical tendencies of comprehension of family business, it was decided to follow the main historical investigations in that area and evaluate results with help of Vallone’s three key principles, which relate one of the most catchall determinations of family business. If we look through the history, it is an interesting fact that family business is one of the favourite subjects of business historians, and nowadays, it represents one of the promising subfields of the business history [7]. The family business started to attract business historians during the 1990s [8]. According to A. Colli, there can be described as some “reactions” against the dominant Chandlerian approach interpreting the persistence of family capitalism as a dominant form of ownership and management in large, capital-intensive firms of the Second Industrial Revolution as a signal of inefficiency and backwardness [9]. As she notes, the recent accent on family companies and family capitalism does not mean that business historians noted it as unworthy of attention. In business research before the 1990s, there was a lot of research studies about family business at both the “micro” level, that is, about the dynamics internal to family enterprises, and the “macro” level, that is, the

research regarding the relationships between family enterprises and the more general environment as well as respective national economies [9]. Donnelley was likely the first to define the family business [10]. His definition included one or more of the following conditions: (1) existence of family relationships as a key factor in succession; (2) the presence of family member among board of directors; (3) reflection of family values in business; (4) actions of family member reflected on reputation of business; (5) the presence of relatives involved and who felt obligated to hold stock for more than financial reasons and (6) entering the firm being a part of family member's career decisions. Donnelley's definition reflected on early consulting observations of family business, but it was difficult in meaning, empirically complicated to implement and so, it was not utilized in subsequent research studies [11]. Many definitions were created in that period, but they did not explain how the family business differs from non-family one. Classical family systems of theory developed from clinical work with actual families, but that theory did not include any specific recognition that owning and operation business might change the family life [11].

The most cited definitions of family business during the twentieth and twenty-first century are evaluated with help of Vallone's three key principals of determination of family business: the degree of ownership (designated by code A), the intention to the succession (designated by code B) and the involvement of the family members in the business (designated by code C) [6]. For uncertain principle of determination, the code D is used. Family business researchers are confronted with a definitional dilemma similar to those facing entrepreneurial researchers [12]. Some researchers argue that at least one of family members should be active in the management/or ownership of the firm, others think that there should be at least two active members of family. Still others require the family business with family members of different generations active in the business [13].

Some scholars see the family as the owner of at least 51% of the stock, whereas the others suppose the family has to have an influence on decision-making in business. It could be said that clear definition of family business will not be set up soon and agreed by most scientists because of wide difference of definition options. Despite that the research shows that the most generally used attribute in the studied definitions during the twentieth century is the criterion of ownership equalling to 58%. The authors of many researches support it because most of scholars state that ownership is the main tool in legalization and keeping the power to influence a firm. The number of definition criteria occurrences is in absolute terms as well as in relative terms. The total percentage exceeds 100% because that most definitions use multiple criteria. Involvement of the family members in the business is the second most used criteria, respectively 51% of them. Intention to the succession is in 15% of the identified definitions as less used criteria of family business. Thereby, it can be observed that criteria for family business describing "intention to the succession," unfortunately, is not considered severely in many definitions because those criteria could help distinguish small family business from non-family business firms.

### *3.1.3. Family business definition investigations*

During the last few years, it could be observed that such huge diversity of family business definition leads to problems in practice [14]. It is not only about comparativeness of researches'

results, dealing with “family business” (under this concept, many different types of business can be seen) but also particularly about comparativeness of statistic data about family business. Because of that, in the end of previous century, scholars tried to make an order in that chaotic situation. First of those were Astrachan and Shanker, who recommended, based on their research, to use three definitions of family business that vary by the level of involvement of families in business [15]. Despite the fact, that the attempt seemed to be auspicious, in practice, it completely did not take hold. As it was confirmed, the majority of family business definition are based on ownership criterion, slightly less are related to involvement of the family members in the business. These definitions specifically enable to research also the small- and micro-family-owned enterprises in the Czech Republic, playing the role of natural persons and cooperating with family members. Nevertheless, it is needful to investigate the type of family relationships in this case. On the basis of the assessed definitions owing to the family-family enterprises, the following definition applied to the Czech suburbs may be assigned: “A family-owned enterprise is that one owned and possibly controlled by family or families or by selected family member(s), whereas its delivery to the next generation is supposed.” The term “family” is not precisely defined within the Legal Code of the Czech Republic. However, a family is constituted by marriage. The author has defined the family as: “a group of persons mutually associated not only by matrimony or relational bonds, but also by a common life-style.” According to the Civil Code of the Czech Republic [16], the family business is considered as an establishment, where the spouses, or at least one of them, are working together and where the other relatives up to the third degree or those related to husbands and connected via brothers-in-law up to the second stage are working, and where some of those people are the owners of such establishment. Those of them who are constantly working for the family or family business are viewed as family members involved in the family business operation [17].

### *3.1.3.1. Family ties of representative wine family enterprises in the Czech Republic*

For the understanding of family business concept, it is necessary to display a determination and structure of family business relationships [5]. Here, the research conducted by Petlina [18] should be mentioned, where the purpose of research was to determine the family ties within wine trading business. The object of research was focused on the family wine trading business in the Czech Republic, in particular in the region of South Moravia as an economical phenomenon. The subject of research was based on family ties within the selected families as representatives of the family wine trading business in the Czech Republic. On the basis of conclusions about family business definition that mentioned above, it was found out by Petlina that greater percentage of the statistical sampling has shown the seventh family situation within the family wine trading business in the Czech Republic (“Father + Sons,” 25%). The “Spouses” as the main managers of the family business ranked second; this kind of family ties has got 20.2%. The third place is shared by the first and twelfth types of family ties within the family wine trading business or, there are situations, where managers of business are brothers and parents with a son relatively; those have got 11.9% each. The fourth position belongs to the type of family tie, where the management of family wine trading business is shared by father and his sons. The rest of family ties within the family wine trading business have shown the values as follows: the family tie “Grandfather + Son + Grandchild” has got

6% of the statistical sampling; the family tie "Father + Posterity" has got 4.8%; the family tie "Parents + Posterity" has got 3.6%; the family ties "Brothers + Granddaughter," "Cousins," "Father + Daughter," "Father + Son + Brother-in-law" and "Parents + Son + Son-in-law" have got each the same value equalling to 1.2% of the statistical sampling related to family ties within the family wine trading business.

All the values were rounded to the nearest tenths. Considering that the third quartile (Q3) equals to 10 ( $n = 13$ ), it is clear that the cases with data lower than the value of indicator are equal to 75% of the values of selection. The third quartile splits the lowest 75% of the data from the highest 25%. Those highest cases (25% of the data) are as follows: "Brothers" (11.9%), "Parents + Son" (11.9%), "Spouses" (20.2%) and "Father + Son" (25%). It was confirmed that this respondent was the representative of family wine trading business in the Czech Republic, particularly in the Viničné Šumice, a village in South Moravian region. He has reported to have run his business since 2003, but their family tradition of wine production and sale has already been supported by five generations. During the course of interview, it was found out that managers of the firm are parents and their son. The owner of business is Mother who is engaged in accounting and strategic planning and in the firm production as well. The Father is then the main wine grower and cellar man. The son is in charge of marketing and communication with the exterior, graphic design and printing of labels and leaflets and he manages the projects of "Svatomartinské" (wine) and "Vinné želé" (wine jelly). During the intensive period of vintage and various actions, the whole family and many a close and distant relatives are helping for the development of their family wine business. Thus, the interview has confirmed that the family wine trading business exists, and it is not only a mere marketing tool for customer acquisition. One note should be said regarding the materials related to family ties within the family business, where the mentioned member, the "Son," has emphasized to prefer rather a family business in which a son or the sons are engaged. It can be the result of a phenomenon when the son is associated with the next generation and business succession.

#### 4. Particularities of a family-owned enterprise

When wanting to define the difficulties or problems of a family-owned enterprise, we must deeply penetrate into the core thereof. That means, we must thoroughly analyse single components mutually influencing the whole process and taking part in the existence thereof. Those specific forces typical for each of such component are the main sources of problems, the family-owned enterprise must withstand. When focusing this problem on a system of view, we will ascertain that there are two crossing systems within the family-owned enterprise, as Leach said in Ref. [19]. Though both of the systems are created by the same persons, each thereof depicts a world of its own. The integral parts of this systems are their own goals, priorities and expectations. A family world is characterized by strong emotions and the business world demands rationality and results. There is one of the main problems following from this initial outline, that is, the family members must learn to grasp the measure of changes within the systems, they are moving in. It is not only the change of this relation, they must grasp, they must also modify the norms, expectations and the entire behaviour. This scheme may be



extended and supplemented anytime in order to obtain a better illustration of the idea related to the whole complex of elements defining the system of a family-owned enterprise. Anyway, the result of such effort will always give a “model of three spheres,” in which the mutual relationship between the family, ownership and controlling will appear.

## 5. Difficulties faced by family business

When trying to define the difficulties encountered within the family business, we must first penetrate deep into the essence of the whole problem. It means, it is first necessary to focus our interest on a detailed analysis of how the individual components interact with contribution to the own existence. When looking at this problem from the perspective point of view, we will find out that there are two systems colliding in the family business, namely the system of family and the one of the firm. Those two systems are very tightly connected with each other. They are, to say, tied by an umbilical cord. Each of those different systems is based on a varied foundation. The integral parts of those systems are their own objectives, priorities and expectations. Thus, if two different systems are connected in this way, it is clear that a conflict zone occurs. This scheme of two systems can be further extended and complemented by the element of ownership. This scheme shows interdependence between three systems: family, ownership and management [17]. The strengths and weaknesses of the Czech family business are not much different from those of family business in the Western economies.

## 6. SWOT analysis of family business in the Czech Republic

On the basis of research conducted by Petlina [18], a final SWOT analysis was compiled identifying the strengths and weaknesses of family business firms in the Czech Republic including various internal factors and opportunities as well as threats based on external factors. Those analyses resulted below showing the strengths and weaknesses together with opportunities and threats in comparison with non-family business firms. The carried out analyses suggest that the family business, as an economic phenomenon in the Czech Republic, is healthy, economically stable and in the phase of growth. The family business has a number of strengths and there are many opportunities providing a potential for further growth. The great asset of family business is the team of long-term-employed family members with knowledge and experience in the given field and the efforts to keep family traditions of high-quality production or service. The family business has always focused on meeting of customers' needs. It is reflected in the flexibility in work, time and money of family members as employees and also the pride and confidence in the own business and its outputs. The result thereof is recognition and confidence in the family business products by local customers. The weaknesses of family business in the Czech Republic can be divided into internal and external parts. Internal pressures emanate from the very nature of these institutions. Major internal pressures are divided into the emotional and managing



parts. The course thereof is “engagement” of family in the business system. The emotional problems can paralyze all the fields of business spoiling the interpenetration between the family/enterprise systems. Thereby the main weaknesses of family business are considered to exist, and the family business has no direct influence thereon, although sometimes, it may be controlled indirectly. Such weaknesses do negatively affect the competitive position in the business market. In this context, we can mention three main areas of weaknesses: public opinion attitude, investment institutions and fiscal matters [18]. Another challenge for family business is its growth [20]. The author Sorenson is convinced that an important instrument for family business lies in overcoming such obstacles by means of quality education, counselling and research in this area [21].

### **6.1. Strengths of family business in the Czech Republic**

The strengths of family business follows from its own essence and may increase its competitiveness [22]. Those strengths are as follows: (1) a mutual agreement between the individuals sharing common interests arising among family members working in the family business on one hand and interests of owners on the other hand; (2) commitment leading to the fact that all family members striving to achieve a mutual benefit are ready to submit themselves to the given demands under the certain personal sacrifices. A family considers the business as its “own” creation; (3) flexibility regarding the work, time and money: a family enterprise can devote all its time that is necessary for a successful firm development; (4) long-term plans allowing to reduce the risks and making it easier to cope with unforeseen circumstances. Family business firms tend to planning of long-term visions; (5) stable corporate culture: the corporate culture of family business is still compared with other non-family companies. Managers are holding the office for a relatively long time being intrinsically involved in the business success. This also applies to non-family managers; (6) quickness in decision-making: certain powers of family members are clearly defined. This is a typical feature for family business considered as a great advantage; (7) pride and confidence: a strong foundation and commitment of family members within the family business are evident in the relationship to clients; (8) efficiency: the family business can effectively and successfully utilize the resources being at its disposal [17].

### **6.2. Weaknesses of family businesses in the Czech Republic**

There is a tight link between the phenomenon of weaknesses and strengths of the family business. The weaknesses of family business are as follows: (1) strong ties within a family: a decision-making within the family business is usually fast, but the family ties make the family business more conservative in relation to the risks [2]; (2) reluctance to external sources of financing: a strong responsibility to the family can be the reason of reluctance to external financial sources. Consequently, the family business firms used to have a motto: “I will buy only under supposition of earning.” This can be compared with mistrust in return on equity in non-family business companies; (3) necessity of high-quality communication channels functioning between the family and family business: it can be claimed that one of the keys to succession will be a communication between the firm and family; (4) high

potential for conflicts: various conflicts may occur within the family business, such as those between generations or founder(s) and successor(s), interfamily conflicts, those between siblings, family and employees, family and managers, no family employees, conflicts connected with professionalization of the family business, conflicts between non-family manager and family employees; (5) reduced ability to respond to global opportunities: family business firms belong to the category of lower-sized (local) firms rather than to the global ones [23–25].

## 7. Family enterprise strategy

Johnson and Scholes speak about following steps regarding the process of an enterprise strategy: strategy analysis, fixing of the entire (corporate) strategy, analysis of strategy relating to the single strategic business units (SBU) and strategy definition of each SBU [26]. The whole process of strategy is crowned by its implementation. The limitation mentioned earlier is one of the very frequent opinions published today. However, the opinion of the term called “strategy” was varying during the past few centuries.

Merwe’s definition of “strategy” going back to the seventeenth and eighteenth centuries related to a “bulwark, maneuver and delivery” [27]. After the stormy social changes of the nineteenth and twentieth centuries, it was difficult to draw a line between the “military strategy” and the “basic strategy,” the latter especially related to planning and utilization of all resources. Consequently, the term of strategy was implemented into the business as well. A modern business strategy is supposed to deal with bringing into consonance the firm activities with the environs in which it operates. A strategic management should ensure a long-lasting performance of the firm. Strategic management includes the formulation of strategy, its implementation, evaluation and control.

We have seen how the family and enterprise systems overlap each other. The research by Basco and Pérez shows that firms combining both of those systems in their strategic decisions may achieve better business results [28]. The scanty research results by Goel dealing with strategy of family-owned enterprises show that strategic decisions should be chosen in context of the family ownership complexity [29]. A family-owned enterprise strategy namely includes the complexity of inner business dynamics and outer environs, as well as family interests, goals and problems in the field of heritage, culture and sibling relationships. Further, this research speaks about a poor aspect of the internal family system mechanisms.

Lindow et al. have introduced the term “strategic fit,” the idea of which is that a research in the field of family-owned enterprises must include the balance of dynamics between both the business and family activities; all these ought to be monitored in the environs of both the systems [30]. Mustakallio et al. claimed that a family vision depending on family social interactions relates to the quality of strategic decisions [31]. Astrachan then speaks about more family elements influencing the process of strategic creation and acceptance [32]. Those elements are, for example, the sequence of kids’ birth or the family psychological factors, such as adaptability, rigidity, cohesion, and so on. We can see that the strategy of family-owned enterprises may be viewed under various angles.

## 8. Succession in a family-owned enterprise

Griffeth et al. stated that family-owned enterprises, though being successful in business for a certain time, must break through one great obstacle, lying in the continuation of business and power transfer between the generations [33]. The future of a family-owned enterprise always depends on the owner's competence and the measure of how he is able to face the challenge of the family bond preservation across the generations. Goel puts interesting questions in his work regarding the choice of a successor in the family-owned enterprise [29]. For example, he asked that whether the successors are chosen with regard to support a certain strategy and whether the founder's kids could fall into a stereotype. He also considered the preferences or influences playing a role within the family system in relationship to the chosen business strategy. What seems like to be better for the founder? Astrachan [32] mentioned an ascertainment according to which the successor's training was allegedly influenced by the relationship between successor and incumbent. In case that this relationship is poor or imperfect, such power delegation to successor may be unsuccessful. The work by Griffeth et al. presents power delegation as a process, in which senior positions are being calculatedly opened or possibly fulfilled [33]. This process exaggerates a project management of organizational needs, evaluation of skill and solution of the found development needs. Dyck et al. compared this process with a relay race [34]. There are four main factors in such relay race: sequence, timing, baton-passing technique and communication. All these factors have to be solved at one stroke for the race to turn out well. The authors argue with the fact that succession is determined by sequence. This allegedly means that with regard to the present firm state and its future development, a successor will be chosen in a view of the adequate qualification and skill in order to be able to overtake the control of enterprise from the present incumbent. Second, it is also necessary to choose the right timing for the power transfer to the next generation. This means that both successor and incumbent have taken into consideration the given circumstances and now they are ready to pass and overtake the baton. For three, it is necessary to choose appropriate techniques for the baton passing. The last part of relays is a good communication ensuring a successful result. However, Griffeth et al. warned of a sole focusing on planning the succession, which may ignore one critical factor, namely a motivation of the potential successor to continue the work in family-owned enterprise.

Le Breton-Miller et al. are just the authors having concentrated themselves on the problem of successor's motivation and passing of the family-owned enterprise into the hands of next generation [35]. As they state, only every third family-owned enterprise succeeds to continue the business in second generation and only 10–15% survive until the third generation. The said authors have noted the fact that many a thinkers deal in the literature with various parts of the given problem complex related to power delegation, successor's quality, family context or incumbent. They extrapolated an integrated model, having worked out the neglected courses of study, which may influence the long-lasting succession lifetime. There is a non-family context contained in industry and competitive environs of the enterprise influencing and controlling the strategy, organization and internal policy. The family-owned enterprise alone based on this strategy then influences the process of succession. The context of industry and the social context, both of them are principally predetermined and so not governable,

which results in a “predetermined” successor’s choice. The other elements may be modified by the enterprise in a way to improve the process of succession. The ownership structure and the board composition will then determine a suitable successor. In the view of staff, the most important persons in the enterprise context are the COE incumbent and the successor(s). Here, it is not only the mutual relationship between them, which is very important, but also the incumbent’s personality, his approach of training and care for the successor(s). Naturally, a successor must fulfil certain preconditions and features, such as management competence, skill, motivation, age, and so on. Family context is then influenced by surrounding social context (social norms, laws, values, etc.), having great effect on family relationships and distribution of the roles. The family context then contains family relationships, role distribution, respect, confidence, management of family financial means and effect control. As stated by the authors, the core of this model includes various phases of heritage process, influenced by business context on one hand and by family context on the other hand. The phases of heritage model are developed in time and include a feedback, which can change the behaviour. The first phase includes the principal rules. This, for example, includes a vision creation and rules for selection and training of successors, the role of owner(s), managers and family members. The second phase includes the development and progress of successor(s). Here, it is to emphasize education, training programs, knowledge transfer, practicing outside the firm, and so on. In case of more successor candidates, it is necessary to do their continuous assessment and training modifications, eventually to extend or narrow the candidates’ circle. The third phase includes selection. Here, the selection criteria of the previous phase are to be checked up. A selection, namely, represents no one-stage process. It is a sequence of more decisions, following one after another. The fourth and last phase of this process lies in “installment” of the chosen successor(s) into the position(s). This phase is accompanied with capital transfer within or between the generations.

Griffeth et al. defined factors that may influence the participation of a family-owned successor by working up of a Successor Retention Model [33]. Those defined factors include the relationship between the successor and his parents, conflict as a consequence of power struggle between incumbent and heir, conflict between the parents’ and business roles, generation gaps, experience of childhood, relationships within the family or business features and successor’s character. The model thereof including three phases (anticipatory socialization, full time employment and management) leads to two decisive points. The first one follows after the anticipatory socialization, when heir considers and decides, whether to accept the full-time job in the family-owned enterprise; the phase of full-time employment leads to the point, whether to enter the family-owned enterprise as its owner, respectively a manager.

The previous text presents various views and principles of succession power transfer based on the literature. The question left behind is, whether the family involvement is somehow measurable or whether it reflects in finances of the enterprise. Mazzola et al. tried to find out a relationship between the family involvement in the firm ownership and its profitability [36]. They detected an existence of a positive relationship between the return on equity (ROE) indicator and the family involvement. The more family members are involved in the management, the better ROE indicator there is. However, on the other hand, the greater number of involved generations is it then the worse results of ROE indicator are achieved. The next chapters, drawing

on the literature searches regarding the process of power delegation to next generations, will work out a simple theoretic model based on a family-owned enterprise. This model could serve as an example for small family-owned enterprises, how to delegate powers to the next generations and the process of power delegation will be evaluated by means of the ROE indicator.

## 9. Case study focused on the Kaláb—Building Company, Ltd.

The basic information describing this family-owned enterprise was gained from its [www.kalab.cz](http://www.kalab.cz) Internet homepage, the Czech Trade Register Database ([www.justice.cz](http://www.justice.cz)) as well as from numerous conversations held with the owner and family members during the last years. The monitored family-owned enterprise, Kaláb—Building Company, Ltd., operates on the construction market of the Czech Republic since 1993. The owner, Jiří Kaláb, worked in various positions for a great state-owned enterprise until November 1989 (the point of the Velvet Revolution). Stepwise, he attained the position of a site manager. Immediately after the Velvet Revolution, he started to pay up interest on his skills, he founded an enterprise of his own, namely a limited company (s.r.o.). During the history of its existence, this family-owned enterprise has taken some awards (circa 27) in the categories like TOP SME, Construction Firm of the Year, Construction of South Moravian Region, and so on. The last prize was awarded by the Chairwoman of the House of Commons of the Czech Republic in February 2013. This prize was awarded to small businessmen and small family-owned enterprises taking care of the quality and good reputation of the Czech craft and service. Straight away, he engaged his family: wife, daughter and son. Later, Mr. Jiří has ascertained that business made together with family members brings about advantages, but disadvantages as well. Therefore, he has started to drive a family pyramid in order to master the incurred conflicts. The levels of his pyramid are shown below. The values at the bottom of this pyramid show not only the values confessed by the family but also those on which the family business is based. Those values are as follows: honour, morality, social feeling and charity. The pyramid middle level contains the target including a long-time enterprise orientation. Mr. Jiří has not planned any immediate profit achievement. He wanted to conduct the enterprise in such a way in order to be able to pass it to his offspring. The upper pyramid level contains the acts. Mr. Jiří's attempt was to apply the values and target in the everyday life of his enterprise. This was rather surprising discovery as the author of research has supposed to find target or strategy at the top of the pyramid suspiciously. The function of family-owned enterprise since the beginning and up until today is based on the interaction of family, enterprise, cooperation of children and creation of mutual respect among the family members, namely also among those family members who were not involved in business. The offsprings have married and their partners are not involved in business so far. The business has functioned rather well since its founding, in spite of relatively great competition on the building market. The enterprise was focused on smaller structures in the field of civic amenities and light industry constructions. The enterprise took never part in any large transport infrastructure building in the Czech Republic.

The family-owned enterprise, Kaláb—Building Company, Ltd., is doing quite well. It has achieved outstanding results in 2006 and 2009. The result of 2009 is very interesting as this

was a period of economic crisis in the Czech Republic and in Europe as well. “This state was caused by a great personnel shock in the early 2008,” according to Mr. Tomáš (successor). The former business manager specifically left the company and almost all employees of the commercial department followed him. This led to a great company restructuring, and the crew was reduced on the whole. However, this personnel shock ironically meant a good preparation for the economic crisis coming at the turn of 2008 and 2009 and practically lasting up to the present time. The results before 2009 would have been rather different, if quoted in the old Czech currency. The euro development showed specifically great differences during the followed up years. Based on excellent net incomes of 2009 and 2006, the ROE indicator was quite high especially due to the huge net profit and low equity capital. Thus, this concrete example did not show any significant influence on the ROE indicator due to employment of greater family members’ number. The excellent results of 2009 and 2006 were caused by other circumstances, though the family engagement might have contributed to an improvement. The ROE indicator of other years moved around the values of 10 or 12%. Gradually, Mr. Jiří has come to a stage where he has started to think of who of the offsprings should be his successor. A tension has appeared between Tom, the son, and Marie, the daughter, as they both wanted to take part in the future business. The analysed small family-owned enterprise has no sophisticated strategy in writing. In literature, so frequently mentioned family protocol or family council is missing in the business conduction. The knowledge of whole business strategy has been transferred from the founder to the successor. Everything is based on the family pyramid quality of the shared principles, transformed into deeds. The all-family lunch is fulfilling the communication role and so unifying the family strategy is one of the business strategies that play a very important role. Also, the results of this research are confirmed in the literature, see for example, the work by Carlock and Ward [37].

### **9.1. Strategy model of a small family-owned company Kaláb—Building Company, Ltd.**

The strategy model of a small family-owned enterprise describes nothing else than the fact that the family strategy must intersect, otherwise it will not function together. Further, we can see the strategy emerging from the enterprise. The enterprise foundation is based on articles of partnership, and the enterprise is governed by the general assembly. Naturally, there is a crew creating an important part of the enterprise. The general assembly members and/or the employees may have their origin in the family. The family strategy, on the contrary, has been determined by the family alone. A definition of the family strategy should follow from the family council. The family itself and the family council as the whole are influenced or “governed” by a family protocol. Both the enterprise strategy and the family strategy may arise parallel or, on the contrary, there will be created a preferable strategy (of the family or firm) from which the other one will be derived. This model is described below as an example related to the followed up construction company of Kaláb—Building Company, Ltd. The Kaláb Company is carrying out its strategy updating every February on the top management’s two days’ meetings. Not all top management’s members are simultaneously members of the family. Yet but still, they have considerable influence on how the resulting version of strategic goals will look. The other managers are acquainted with that strategic goals’ wording consequently. Yet, the most important decisions related to the whole firm policy of next



years, decisions of who will manage the firm or how the profit will be distributed, have been accepted a day before on the Kaláb family council. Such family council proceeds quite formally. There is an external consultant moderating it, who simultaneously records the single goals or proposals. Besides the owner, Jiří Kaláb, and his wife, only the kids are admitted. At the end of this family council's meeting, the results have been shortly presented to the rest of family, namely the kids' partners and their offsprings. There is a principal ruling within the family saying that no partners of the kids take part in the company running. Though the family protocol has no written form, it is rooted and accepted as naturally valid." With extension of the family and growing number of family members engaged in the work for the firm, it will be most likely necessary to draw up such family protocol," Mr. Tomáš (successor) admits. As we can see on the example of this construction firm, the small family-owned enterprise strategy is functioning quite well, though it is not formally, but it has been formalized and utilized by the years of its functioning. This concrete enterprise, thus, has chosen a method of functioning in which the most important and principal decisions are made by the family council, and the firm strategy is created consequently. In this way, the intersection of both strategies is attained.

## 9.2. Model of power delegation in a small family-owned enterprise

We can distinguish a model of power delegation, the example for which we will take a work term from sports relating to a relay race and we will call it "Passing the Baton." When leading a conversation with founder of the above enterprise, we have ascertained that, though having not ever heard of the searching by Dyck et al., *Passing the Baton: The Importance of Sequence, Timing, Technique and Communication in Executive Succession* [34], he has applied this model of power passing to his successor in a non-scientific form. The model has three main parts. Two determining parts are given by the family and enterprise systems; both ought to be taken into consideration for the core, meaning the very power passing. The core, as the third part of power passing, includes two lines: incumbent and successor. The shapes of those two lines may be described as follows.

Line I (incumbent): incumbent may be the founder or an umpteenth owner of the family-owned enterprise within further and further generations. The incumbent first of all starts with the firm foundation and its development. The second and further incumbents then "only" take care for the development. After a certain time, incumbent comes to a point in which he would like or should to delegate power to his successor. So, he finds himself in a "SPACE FOR HANDING OVER OF BATON," like the sports athletes do. This phase is characterized by a situation in which both athletes—incumbent and successor in this case—are running together for a certain time. As soon as the baton (power) is passed, they are still running together, but incumbent begins to decelerate. This does not mean his being ousted at all, as he can still mentor and support the successor, whereas he simultaneously can go in for his hobbies.

Line II (successor)—looking at a relay race, we can see that, before the first athlete (incumbent) runs into the space of baton handing over, the second one (successor) already starts his running, in order to gain the speed securing his proper baton passing. This is depicted



in the part of TRAINING, where successor must cultivate his knowledge and gain skill (i.e., to gain the speed) so that the power may be delegated properly. Consequently, successor finding himself in the “SPACE FOR HANDING OVER OF BATON,” where both are running together, he is taking over the baton (power). After the passing/overtaking, both athletes are still running together, but successor begins to accelerate. Then, he comes to the part where successor is running alone and allows the business to flourish. In this phase, successor may still accept the incumbent’s advice and help. During the course of this process, a right timing of the single parts and a feedback are necessary for the enterprise to survive and to go on. It is necessary to say that the power passing to successor was not accompanied with transfer of property in the company of Kaláb—Building Company, Ltd. Founder is still the owner, and successor conducts the business by a power of attorney, the feature of which follows from the Legal Code of the Czech Republic. A transfer of ownership (property) would be suitable in the phase, when owner is made sure that successor has managed the business running. The moment, when incumbent decelerates and successor accelerates, seems to be a suitable point for the ownership transfer.

## 10. Conclusion

This chapter describes most important research results in the area of family business in the Czech Republic. Followed family business definition was applied into the chapter: “A family-owned enterprise is that one owned and possibly controlled by family or families or by selected family member(s), whereas its delivery to the next generation is supposed,” with respect to family ties. Family ties of representative wine family enterprises in the Czech Republic were presented, and the object of research was focused on the family wine trading business, in particular in the region of South Moravia. The subject of research was based on family ties within the selected families.

Most important difficulties faced by family business and SWOT analysis of family business in the Czech Republic were presented in the chapter.

Model of power delegation in a small family-owned company was developed. It states the results of qualitative research regarding a small family-owned company, Kaláb—Building Company, Ltd. The model of successful transfer of power to the next generation called “relay” was presented. Today, successor is conducting the business alone, and the financial results show that he is successful in his office. Further, the results show that a family-owned enterprise may be well and the power delegation to successor may be carried out successfully, even if having no written strategy or sophisticated documents, like family protocol or family council. This is valid twofold for small family-owned enterprises.

## Acknowledgements

This chapter was supported by Project “Podnikání v éře Průmyslu 4.0” [FP-S-17-4634].

## Author details

Vojtěch Koráb\* and Anastasia Murinova

\*Address all correspondence to: korab@fbm.vutbr.cz

Brno University of Technology, Faculty of Business and Management, Brno, Czech Republic

## References

- [1] Arquer J. La empresa familiar. Navarra: Ediciones Universidad de Navarra S.A; 1979 380 p
- [2] Hodgets M, Kuratko F. Effective Small Business Management. 4th ed. USA: Dryden Press; 1992
- [3] Hanuska M. Family businesses and their performance (master's thesis). Prague: University of Economics; 2014. Retrieved from: <https://www.vse.cz/vskp/id/1259099>
- [4] Heck R, Trent E. The prevalence of family business from a household sample. Family Business Review. 1999;12(3):209-219. DOI: <https://doi.org/10.1111/j.1741-6248.1999.00209.x>
- [5] Mandl I. Overview of Family Business Relevant Issues: Final Report. Vienna: Austrian Institute for SME Research; 2008
- [6] Vallone C. Contribution on Family Business Definition. In The Firm's Role in the Economy: Does a Growth—Oriented Business Model Exist? Bari: Cacucci; 2013 [Online] [cit. 30-06-2017]. Retrieved from: <http://hdl.handle.net/10281/46789>
- [7] Colli A, Rose MB. Family business. In: Jones G, Zeitlin J, editors. Handbook. Oxford: Oxford University Press; 2008. p. 194-218
- [8] Jones G, Rose MB. Family capitalism. Business History. 1993;35(4):1-16. DOI: 10.1080/00076799300000126. International Small Business Journal. 1993;(1):25-36
- [9] Colli A. Business history in family business studies: From neglect to cooperation? Journal of Family Business Management. 2011;1(1):14-25. <https://doi.org/10.1108/2043623111122254>
- [10] Donnelley RG. The family business. Harvard Business Review. 1964;42:93-105
- [11] Zachary K, Rogoff E, Phinisee I. Defining and identifying family entrepreneurship: A new view of entrepreneurs. In: The Dynamics of Entrepreneurship: Evidence from Global Entrepreneurship Monitor Data. Oxford: Oxford University Press. 2011. p. 57-76. DOI: 10.1093/acprof:oso/9780199580866.003.0004
- [12] Lansberg L, Perrow EL, Rogolsky S. Family business as an emerging field. Family Business Review. 1998;(1):1-8. DOI: 10.1111/j.1741-6248.1988.00001.x

- [13] Brockhause R. Entrepreneurship and Family Business Research: Comparisons, Critique, and Lessons. *Entrepreneurship: Theory and Practice*. Baylor University; 1994. p. 25-38
- [14] Koráb V, Hanzelková A, Mihalisko M. Rodinné podnikání: způsoby financování rodinných firem, řízení rodinných podniků, úspěšné předání následnictví, 1st ed., Ser. 166. Brno: Computer Press; 2008
- [15] Astrachan JH, Klein SB, Smyrnios KX. The F-PEC Scale of family influence: Construction, validation, and further implication for theory. *Entrepreneurship: Theory and Practice*. 2005;(3):321-339. DOI: 10.1111/j.1540-6520.2005.00086.x
- [16] Občanský zákoník České republiky. Zdánlivé manželství a neplatnost manželství. Rodinný závod. (Act No. 89/2012 Sb., §§ 700-707); 2014. [Online] [cit. 2015-03-08]. Retrieved from: <http://www.czechlegislation.com/89-2012-sb>.
- [17] Tagiuri R, Davis J. On the goals of successful family companies. *Family Business Review*. 1992;5(1):43-62. DOI: <https://doi.org/10.1111/j.1741-6248.1992.00043.x>
- [18] Petlina A. Family Business in the Czech Republic: Actual Situation. *Trendy Ekonomiky a Managementu*. 2015;9(23):32-42
- [19] Leach P. Guide to the Family Business. 2nd ed. London, UK: Kogan Page; 1996. 239 p
- [20] Friedman S, Dunn J, Cicirelli V, Weisner T. Sibling relationships and intergenerational succession in family firms. *Family Business Review*. 1991;4(1):11-25. DOI: <https://doi.org/10.1111/j.1741-6248.1991.00003.x>
- [21] Sorenson R. Conflict management strategies used in successful family businesses. *Family Business Review*. 1999;12(2):133-146. DOI: 10.1111/j.1741-6248.1999.00325.x
- [22] Koráb V. Determinants of development and patterns of family-owned companies behaviour in rural space. In: *Aktuálne problémy podnikovej sféry*. 2012. p. 229-234
- [23] Fock S, Wessel S, Hardwick J. The impact of family conflicts on the development of the Chinese entrepreneurially managed family business: The Yeo Hiap Seng case in Singapore. *Journal of Small Business Management*. 1998;19(1):1-19
- [24] Kets de Vries MF. Family Business: Human Dilemmas in the Family Firm. London, GB: International Thomson Business Press; 1996
- [25] Levinson H. Conflicts that plague the family business. *Harvard Business Review*. 1971;49
- [26] Johnson K, Scholes K. Exploring Corporate Strategy. Text and Cases. 4th ed. Vol. 1997. London UK: Prentice Hall; 873 p
- [27] Van Der Mierve AP. Project Management and Business Development: Integrating Strategy, Structure, Processes and Projects. *International Journal of Project Management*. 2002;20(5):401-411. [https://doi.org/10.1016/S0263-7863\(01\)00012-6](https://doi.org/10.1016/S0263-7863(01)00012-6)

- [28] Basco R, Pérez Rodríguez MJ. Studying the family enterprise holistically: Evidence for integrated family and business systems. *Family Business Review*. 2009;**22**(1):82-95. DOI: <https://doi.org/10.1177/0894486508327824>
- [29] Goel S, Mazzola P, Phan PH, Pieper TM, Zachary RK. Strategy, ownership, governance, and socio-psychological perspectives on family businesses from around the world. *Journal of Family Business Strategy*. 2012;**3**(2):54-65. DOI: 10.1016/j.jfbs.2012.03.005
- [30] Lindow CM, Stubner S, Wulf T. Strategic fit within family firms: The role of family influence and the effect on performance. *Journal of Family Business Strategy*. 2010;**1**(3):167-178. <https://doi.org/10.1016/j.jfbs.2010.08.004>
- [31] Mustakallio M, Autio E, Zahra SA. Relational and contractual governance in family firms: Effects on strategic decision making. *Family Business Review*. 2002;**15**:205-222. DOI: <https://doi.org/10.1111/j.1741-6248.2002.00205.x>
- [32] Astrachan JH. Strategy in family business: Toward a multidimensional research agenda. *Journal of Family Business Strategy*. 2010;**1**(1):6-14. DOI: <https://doi.org/10.1016/j.jfbs.2010.02.001>
- [33] Griffeth RW, Allen DG, Barrett R. Integration of family-owned business succession with turnover and life cycle models: Development of a successor retention process model. *Human Resource Management Review*. 2002;**16**(4):490-507. <https://doi.org/10.1016/j.hrmr.2006.08.006>
- [34] Dyck B, Mauws M, Starke FA, Mischke GA. Passing the baton: The importance of sequence, timing, technique and communication in executive succession. *Journal of Business Venturing*. 2002;**17**:143-162. [https://doi.org/10.1016/S0883-9026\(00\)00056-2](https://doi.org/10.1016/S0883-9026(00)00056-2)
- [35] Le Breton-Miller I, Miller D, Steier LP. Toward an integrative model of effective FOB succession. *Entrepreneurship: Theory and Practice*. 2004;**28**(4):305-328. DOI: 10.1111/j.1540-6520.2004.00047.x
- [36] Mazzola P, Sciascia S, Kellermanns FW. Non-linear effects of family sources of power on performance. *Journal of Business Research*. 2013;**66**(4):568-574. <https://doi.org/10.1016/j.jbusres.2012.01.005>
- [37] Carlock RS, Ward JL. *Strategic Planning for the Family Business*. UK: Palgrave; 2001. 270 p. DOI: 10.1057/9780230508750

---

# Investment in Microenterprises for Scaling up Business Growth: Evidence from Social Business Project

---

Farhana Ferdousi and Parveen Mahmud

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.72126>

---

## Abstract

Promoting entrepreneurship among the youth and women is an emerging global trend for inclusive sustainable development. This study aims to unlock the potential of social business investments in microenterprises for turning unemployment into entrepreneurship and scaling up business growth. According to Prof Yunus, “social business is selfless business to solve social problems” based on seven principles. The study has selected 264 enterprises of Nobin Udyokta (NU) meaning new entrepreneurs under Nobin Udyokta Project (NUP) of Grameen Telecom Trust (GTT). NUs and GTT have co-investments under equity participation for at least one or more than 1 year. NUs are basically emerging micro entrepreneurs, who are often disproportionately burdened with multi-dimensions of poverty and lack of working capital, which inhibits business growth. Findings of regression analysis show that social business fund can significantly influence the growth of NU enterprises and increased investment can also create more employments. Therefore, this study is having value to the promoter, advocates, investors in social enterprises, and policy makers seeking strategy for reducing poverty and unemployment through entrepreneurship for sustainable development leaving no one behind.

**Keywords:** youth entrepreneurship, sustainable development, social business, Nobin Udyokta (NU), Grameen Telecom Trust (GTT)

---

## 1. Introduction

Micro, small, and medium enterprise (MSME) growth is considered as an engine for generating employment, enhancing more inclusive growth and sustainable economic development. Therefore, a growing attention has been observed by the governments and developmental partners worldwide for facilitating the growth of such MSME. “Poor people are like bonsai trees. They could have grown into giant trees if they had been supported by the right environment for growth” [1]. For sustainable development, it is imperative that microenterprises'

needs for business development services (BDSs) should be sufficiently addressed, e.g., larger and timely credit, training, information, technology, marketing, and consultancy. But, access to finance remains the major constraint for the microenterprise development in Bangladesh. For several decades, microfinance institutions, government agencies, and commercial banks are providing inclusive financial services. Yet, high interest rate, small size of the loan, and weekly or monthly repayment system put debates over the impacts of such loan. Against such backdrop, social business fund along with various technical assistance provided by various Grameen Companies through Nobin Udyokta Program not only provides an opportunity for second-generation microcredit borrowers to grow their business more sustainably but also helps to attain the goal of sustainable development goals (SDGs). This new forms of equity financing for the poor entrepreneurs will not only promote inclusive and sustainable economic growth but also provide opportunity for full and productive employment and decent work for all (SDG:8) which will ultimately end poverty in all its forms everywhere (SDG:1). These aims will be achieved, if the businesses of the Nobin Udyokta grow sustainably. Therefore, the present study has attempted to investigate whether the invested capital has contributed to the firms' growth by increasing total assets as well as number of employment. The research will finally be expected to answer the following research questions:

1. Does access to social business fund enhance growth of the microenterprises?
2. Is there any significant relationship between enterprise growth and employment generation?

### **1.1. Nobin Udyokta Program (NUP)**

Nobin Udyokta Program (NUP) is an innovative social business program for turning unemployment into entrepreneurship. Father of Microcredit and Social Business, Nobel Laureate Professor Muhammad Yunus introduced this program since 2014. Based on seven social business principles determined by Professor Mohammad Yunus, four Grameen Companies [Grameen Telecom Trust (GTT); Grameen Trust (GT); Grameen Kalyan (GK); and Grameen Shakti Samajik Byabosha Ltd. (GSSB)] participated in financing NU program. Potential Nobin Udyoktas are usually children of Grameen Bank borrowers whose age limit is 18–35 years, although women entrepreneurs are relaxed from this age bar. The role of Grameen companies is like venture capitalist firm. They identify potential entrepreneurs, incubate, and provide necessary supports for the promotion of their new ventures. Nobin Udyokta programs are the joint investment of the new entrepreneurs and Grameen Company. Innovative feature of this social business investment is that no profit will be taken by the venture capitalist firm, except the processing cost of the funds which in turn helps the business growth and creates more opportunities for more NUs. Inspired by the slogan “We Are Not Job-Seekers, We Are Job-Givers” (Prof Yunus), the NUP is designed for creating a world without poverty using social business as a tool.

### **1.2. Grameen Telecom Trust (GTT)**

Grameen Telecom Trust (GTT) began its journey in 2010, which is the flagship company to implement and facilitate the germination of social business in Bangladesh. In 2006, with an insight of building an equitable and sustainable world, Professor Muhammad Yunus pioneered

alternative of conventional business named social business focusing on three goals: zero poverty, zero unemployment, and zero carbon emission utilizing youth, technology, and good governance. GTT strives to transform societies through engaging in social business focusing to make a poverty-free world. Besides NUP and Joint Ventures investments in Grameen Danone Foods Ltd., Grameen Health Care Services Ltd., Grameen Distribution Ltd., Grameen Fabrics and Fashion Ltd., and Softy Sanitary Napkins, GTT has pioneered Social Business Learning and Innovation Fund (SBLIF) to innovate, incubate, and translate new ideas into action. Once new ideas are proven through pilot implementation to address a social cause in a sustainable manner, prototype seeds are ready for planting through replication and scaling up. GTT is already operating 10 SBLIF initiatives to address diverse social problems. Under SBLIF, GTT has initiated NUP program support through “Grameen Poshra” to facilitate market access of products of Nobin Udyokta’s rural artisans, through value chain development, digital marketing, and micro franchise outlets. Furthermore, investment recoupment from the profit generated from the SBLIF initiatives has commenced which is being accumulated for creating a fund for building a Social Business Village. GTT has also Social Business Learning Centre for advocacy, training, and inspiring to undertake social business to leave a signature behind through touching lives, making positive changes for a sustainable world.

## **2. Review of literature**

### **2.1. Entrepreneurship development and employment generation through Nobin Udyokta Program**

The economy of Bangladesh is emerging with enormous entrepreneurial potentials, as one-third of her population belongs to the ages between 18 and 35 years. Every year nearly 2 million people are entering into the labor force, while only 1 million get employed in domestic and overseas job markets (source: Bangladesh Bank), leaving rest half unemployed. Without entrepreneurial effort from the youths, it is really a big challenge to create new employment opportunities for them. Moreover, one of the most pressing challenges of new entrepreneurs in their early stages of venture is having access to the friendly capital to materialize their innovative ideas or to bring high growth prospects into their innovative venture. Therefore, with adequate flow of venture capital investment fund in the economy, entrepreneurship process can be boosting up. Therefore, Professor Mohammad Yunus initiated Nobin Udyokta program, which aims to support the enterprise of the Grameen Bank’s borrowers’ children who wants to pursue his or her endeavor as entrepreneur. A lack of management skills is quite a universal constraint among rural, micro, or informal entrepreneurs. Nobin Udyokta Program not only helps entrepreneurs to expand his or her business and runs it better but also helps to manage the business properly in the areas of marketing and accounting and to expand their operations. Therefore, following the path of Grameen Telecom Trust, several other Grameen companies, namely, Grameen Shakti Samajik Byabosha Limited, Grameen Kalyan, and Grameen Trust, have also joined in the program to accelerate the impact of this NU program and created a social business fund and NU division with dedicated staff to operationalize the program.



Up to May 31, 2016, statistical overview of the NU program and employment generation is given in **Table 1**.

## 2.2. Access to finance and entrepreneurship development

Most business development services do not target the micro- and small-scale enterprises most often run by rural/disadvantaged entrepreneur. Findings of the recent interview of Eva Majurin of ILO identified that SMEs face almost similar difficulties in all countries—these include access to finance, skills, access to power, and registration procedure. The report also mentioned that Bangladesh does not have an entrepreneurship development strategy, and the ILO is working with the government and the private sector to develop one [2]. Professor Mohammad Yunus, through his relentless effort to develop entrepreneurship from the bottom of the pyramid, has initiated NU program among the second generation of the Grameen's borrower. Although social business fund is not similar with microcredit, the impact on growth on microenterprises could be similar or more robust than the microcredit because social business fund has overcome the problems of mandatory weekly or monthly repayment system of microcredit. Most of the previous literature has found relationship between access to finance and enterprise growth as a proxy of entrepreneurship development [3–7]. The Grameen Companies providing fund for the Nobin Udyokta Program are playing the role like venture capitalist firm. Samila and Sorenson [8] emphasized on venture capital as one of the important instruments for entrepreneurship development. Using a panel of US metropolitan areas from 1993 to 2002, they find that an increase in the local supply of

Name of NU investing company	Grameen Telecom Trust	Grameen Shakti Samajik Byabosha Limited	Grameen Trust	Grameen Kalyan
No of NU	2187	1812	1256	403
Classification of NU				
Male	2148	1727	1232	303
Female	39	85	24	29
NU firms in operation	1833	1604	1069	332
Average business size	4,35,425	3,35,949	1,34,243	1,62,832
Total investment (BDT)	199,546,370	608,739,864	144,435,000	
Equity contribution breakdown				
Company	32%	39%	33%	43%
NU	68%	61%	67%	57%
Wage-based new employment creation	1862	Not available	1080	498

Source: "Nobin" a quarterly publication by Grameen Telecom Trust.

**Table 1.** Statistical overview of the NU program (May 31, 2016).

venture capital (VC) positively affects (i) the number of firm starts, (ii) employment, and (iii) aggregate income. Focusing on the advantage of venture capital, they mentioned two basic benefits. (1) Likelihood of potential entrepreneurs to initiate new start-ups will be increased once the supply of venture capital increases. (2) Venture capital firm increases the likelihood of transferring tacit knowledge to their own employees and beneficiaries through demonstration effects. Soerenson and Audia [9] also found similar outcomes of venture capital through demonstration and training effects. Jain and Kini [10] also found that firms financed by venture capital grew faster in sales and in employment. As the evidence from firm-level studies generally suggests that venture capitalists produce value through their pre- and post-investment roles (i.e., through the selection and advising of portfolio companies). The literature on wealth and entrepreneurship suggests that insufficient financial resources may prevent many from starting their own businesses. Without capital infusions, many capital-constrained entrepreneurs would find it impossible to develop their businesses [8]. Besides firms' growth, employment, and income generation, access to fund or venture capital may engender entrepreneurship through spinoffs.

### 3. Hypothesis development and conceptual framework

Literature review shows evidence of the relationship between entrepreneurship development and access to finance or venture capital. Social business fund being a new form of financial instrument for inclusive entrepreneurial growth, the present study also is an attempt to analyze and address the above mentioned research question and objectives. Thus, the study develops the following hypotheses and conceptual framework (**Figure 1**):

Hypothesis 1: There is a significant relationship between access to social business fund and growth of microenterprises.

Hypothesis 2: There is significant relationship between firms' growth and employment generation.

The study will also include two more general assumptions that general education and experience in business operation increase analytical ability to assume opportunities and pursue innovative ideas. Therefore, the following hypotheses have also been developed.

Hypothesis 3: General education has significant relation with enterprise growth.

Hypothesis 4: Business experience has significant relation with enterprise growth.

Since investing company (venture capitalist) is taking care of their business through mentoring, training, and systematic monitoring, the influence of education and experience was assumed to be less significant. Preliminary analysis (using regression model) did not find any significant impact on education and business experience, therefore, these two hypotheses (3 and 4) have been dropped from the model, and the revised model includes only two independent variables as follows: social business fund as investment.

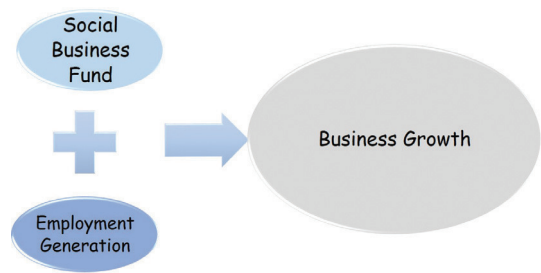


Figure 1. Conceptual framework.

4. Methodology of the study

This study has taken data from 264 respondents who have taken fund from Grameen Telecom Trust for minimum of 1 year. So that changes due to using social business fund can be observed and measured in quantitative terms. Among 264 respondents, 61 have been selected from Gaibandha, 65 from Jessore, 82 from Rangpur, and 53 from Thakurgaon. Information on the amount of investment, asset growth of Nobin Udyokta’s firm, education, and experience of the Nobin Udyokta has been collected from the annual closing report of Grameen Telecom Trust. Regression model has been adopted to see the relationship among the firms’ growth, investment in NU, and employment generation. STATA 12 version statistical software has been used to analyze the data.

Based on the result of Hausman specification test, ordinary least square method was confirmed for determining relationship between firm’s growth and investment and employment. Ordinary least square (OLS) model applied in this study is given below:

$$\ln Y = a + \beta_1 \ln X_1 + \beta_2 \ln X_2 + e \dots \tag{1}$$

where  $Y$  is the growth of the firm (total asset of the firm has been taken as a proxy of the firm’s growth);  $X_1$  is the investment in terms of amount of social business fund allocated to NU;  $X_2$  is the employment generation (1 = increase in employment, 0 = no change in employment);  $\beta$  is the coefficient;  $\ln$  is the natural log;  $a$  is the intercept; and  $e$  is the error term.

5. Findings of the study

This study analyzed the impact of Grameen Telecom Trust investment on Nobin Udyokta (NU) in order to scale up their microenterprises. The study observed growth impact of 264 firms, which have taken social business fund from Grameen Telecom Trust and utilized them for supporting their ventures for at least 1 year and more. In **Table 2**, overall description of the variable is provided. Although robust growth cannot be measured within 1 year of investment, prospects of investment could be inspiring for scaling up the NU’s small enterprises.

Variable	Obs	Mean	Std. dev.	Min	Max
Investment	264	127422.4	82976.65	30,008	840,006
Education	255	9.639216	2.512025	0	16
Experience	255	6.972549	3.929901	1	20
Total asset	264	483,949	449592.9	81,667	4,841,984
Employment change	264	0.318182	0.4666551	0	1

**Table 2.** Descriptive statistics.

Regression analysis shows that the dependent variable “growth” of the firm is significantly related with investment, which represents that for each unit of invested fund, 79% growth will be achieved by the NU firm (**Table 3**). This is supported by our model as the model is significant at 99% confidence interval (p value is <0.001) and hypothesis 1 is accepted. Growth of the firm is also expected to increase (by 12%) due to increase in employment, which is also supported through our model as the p value is less than 0.05. The result of  $R^2$  suggests that 56% of the variance in firms’ growth can be accounted for by the variables in the regression model. Normality test, Breusch-Pagan test for heteroskedasticity, and multicollinearity test were also conducted, and all were in line with the theory.

Although robust growth has not been achieved, yet as the program duration is very short, only 1 year,  $R^2$  is not strong enough. But positive regression coefficients might help us to expect that if social business funds are generated to the capital-constrained entrepreneur, the more economic activities will create more employment opportunities, and firm’s growth will continue to be scaling up. Samila and Sorenson [8] based on their research findings also suggested to increase the local supply of venture capital, as they appear to increase both employment and aggregate income in the region. Belke et al. [11] in cross-country panel data analysis also find evidence of employment growth with improved labor-market performance in the presence of venture capital.

Since the prime objectives of NU program are not to create job seekers rather create job givers, the increased investment in new entrepreneurs’ (NU) firm will not only help to reduce unemployment from the rural community but also help their business to grow sustainably. Rural or informal economy is very often rife with long hours, little pay, job insecurity, limited-to-no

Predictor/independent variable	Dependent variable: firms’ growth			
	Coefficient	Standard error	t Value	Sig
ln social business fund	0.792059	0.0464856	17.04	0.000
ln employment	0.12023	0.0537561	2.24	0.026
Constant	3.663851	0.535842	6.84	0.000

$R^2 = 0.563$ ; adjusted  $R^2 = 0.5597$ ; Prob > F = 0.000; number of observation = 264; F (2, 261) = 168.23.

**Table 3.** Predictors of firms’ growth.

benefits, and difficult working conditions [12, 13]. Majority of the Nobin Udyokta operates their business in rural/informal economy, which is mostly characterized by the issue of unemployment, employment inequity, and wage discrimination. Chen et al. [12] posit that building poor or micro entrepreneurs' economic security is fundamental to poverty reduction and that efforts need to focus on the creation of decent work for the youth in the rural economy involving adequate income, employment rights, opportunities for advancement, and social protection. Social business fund could be such an instrument for poverty reduction and rural development as well. Sanders [14] argued that in response to widespread global economic hardship, poverty-reduction measures are abundant with public work programs and microfinance being the most established; therefore, social enterprise, as a newer poverty-reduction model, is gaining growing attention.

## 6. Conclusion

Sustainable micro entrepreneurship development is a function of adequate access to financial services, various support services, information related with business and management knowledge and skills, efficient market mechanism, etc. Most of the above mentioned instruments are very often an illusion to micro entrepreneurs, especially those that operate in rural/informal economy. Since social business focuses on inclusive business or believes in development from the bottom of the pyramid and addresses issues compatible with sustainable development goals (SDGs), this study could be a milestone for such social enterprises who want to have investment in social purposes. The present study finds a significant positive relationship with investment in micro enterprises and growth of the firm. Growth in physical assets and working capital is an engine for new entrepreneurs' firms. Generating more employment is a promise by the new entrepreneurs, which will further help their enterprise to be scaled up. Thus, more investment is expected from the social enterprises, government partners, and developmental and philanthropic organizations along with sound entrepreneurship development policies and strategies to fight against poverty and unemployment. The initiative of Grameen Telecom Trust (GTT) could be a role model for other stakeholders for achieving an equitable and sustainable development goal.

## 7. Future research

This is the first empirical initiative to measure the impact of Nobin Udyokta Program, although the program is in an infant stage to see the adequate impact. But now the scope is broadening as the program is moving very fast to keep pace with the demand and emerges as a popular and alternative tool of financial access. Moreover, the research includes only the contribution of Grameen Telecom Trust (GTT). Contribution from other Grameen companies can also be included in future research to see the wider impact. Only financial intervention by Grameen companies is considered for this study. The impact of other technical interventions and the extent of innovation can also be addressed through future researches. According to Prof Yunus, "A dollar in charity has one life; a dollar in social business can be invested over and

over again.” In the future, journey of social business program, lessons learned from direct and indirect impact, and researches can establish the power of social business as an alternative tool for sustainable development goals.

## Author details

Farhana Ferdousi<sup>1\*</sup> and Parveen Mahmud<sup>2</sup>

\*Address all correspondence to: [dfferdousi@gmail.com](mailto:dfferdousi@gmail.com)

1 School of Business, Southeast University, Dhaka, Bangladesh

2 Grameen Telecom Trust (GTT), Bangladesh

## References

- [1] Yunus M. Halving Poverty by 2015: We can Actually Make it Happen—Commonwealth Lecture 2003 [Internet]. 11 March, 2003. Available from: [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwj1z\\_WniZ7-VAhUHOY8KHRr6CXyQFggsMAE&url=https%3A%2F%2Fwww.kcl.ac.uk%2Faboutkings%2Fprincipal%2Fdean%2Fakc%2Farchivedhandouts%2Fgeneral%2Fdocs0708%2FAutumn%2FYunusCommonwealthLecture2003.doc&usg=AFQjCNF7Hzz26D6Sji\\_4qWXUf34yDt7V\\_g](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwj1z_WniZ7-VAhUHOY8KHRr6CXyQFggsMAE&url=https%3A%2F%2Fwww.kcl.ac.uk%2Faboutkings%2Fprincipal%2Fdean%2Fakc%2Farchivedhandouts%2Fgeneral%2Fdocs0708%2FAutumn%2FYunusCommonwealthLecture2003.doc&usg=AFQjCNF7Hzz26D6Sji_4qWXUf34yDt7V_g) [Accessed: 01-06-2016]
- [2] Majurin E. Entrepreneurship: A Way to Combat Unemployment, the Daily Star [Internet]. 7 June, 2016. Available from: <http://www.thedailystar.net/business/entrepreneurship-way-combat-unemployment-1235488> [Accessed: May 2016]
- [3] Akinbola OA, Ogunnaike OO, Tijani AA. Micro financing and entrepreneurial development in Nigeria; the mediating role of marketing. *Arabian Journal of Business and Management Review*. 2013;1(6):7-19. DOI: 10.12816/0003648
- [4] Aftab M, Naveed TA. Role of microfinance institutions in entrepreneurship development in district Gujrat, Pakistan. *Journal of Global and Scientific Issues*. 2013;1(1):53-69
- [5] Olu OJO. Impact of microfinance on entrepreneurial development: The case of Nigeria. In: *International Conference on Economics and Administration*, November 2009; Faculty of Administration and Business, University of Bucharest, Romania. p. 536-545
- [6] Tariq M, Aleemi AR, Qureshi MA, Shakri IH. Role of microfinance providers (MFPs) on the economic and social welfare of the people in Pakistan. *Journal of Business Strategies*. 2015;9(2):33-46
- [7] Ferdousi F. Impact of microfinance on sustainable entrepreneurship development. *Development Studies Research*. 2015;2(1):51-63. DOI: <http://dx.doi.org/10.1080/21665095.2015.1058718>

- [8] Samila S, Sorenson O. Venture capital, entrepreneurship, and economic growth. *The Review of Economics and Statistics*. 2011;**93**(1):338-349. DOI: 10.1162/REST\_a\_00066
- [9] Sorenson O, Audia PG. The social structure of entrepreneurial activity: Geographic concentration of footwear production in the United States, 1940–1989. *American Journal of Sociology*. 2000;**106**(2):424-462. DOI: <https://doi.org/10.1086/316962>
- [10] Jain BA, Kini O. Venture capitalist participation and the post-issue operating performance of IPO firms. *Managerial and Decision Economics*. 1995;**16**(6):593-606. DOI: 10.1002/mde.4090160603
- [11] Belke A, Fehn R, Foster N. Does venture capital investment spur employment growth? CEPS Working Document. 2003;**197**:24
- [12] Chen M, Vanek J, Lund F, Heintz J, Jhabvala R, Bonner C. Progress of the World's [Internet]. 2005. Available from: [www.unifem.org/](http://www.unifem.org/) [Accessed: 17 February 2013]
- [13] United Nations. The Millennium Development Goals Report [Internet]. 2012. Available from: [www.un.org/](http://www.un.org/) [Accessed: 28 May 2013]
- [14] Sanders CK. Employment options for low-income women: Microenterprise versus the labor market. *Social Work Research*. 2004;**28**(2):84-92. DOI: <https://doi.org/10.1093/swr/28.2.83>

INTECH



---

# Social Entrepreneurship in an Inclusive Business Model: A New Business Model for Sustainable Agroforestry

---

Cecilia Mark-Herbert and Brita Prejer

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70295>

---

## Abstract

Business's role in society is expanding; they are held accountable not only for their (traditional) business conduct but also for institutional development that leads to alleviation of poverty as well as institutional development. The aim of the case study is to identify critical factors for the implementation of an inclusive business model. These factors are contextualized at a regional and local level as a part of an ongoing agro-food project. The forestry company's operations in Lao PDR, offers an understanding of challenges related to political, social and financial sourcing conditions in needs of an inclusive business model. Creating the shared values relates to creating job opportunities, embracing gender aspects and engaging in institutional development in marginalized communities. A key factor in the development is a social entrepreneur, who re-creates a new community of practice by coordinating corporate strategies with local and regional needs. This case study offers a narrative of the development of a new context bound business model that positively influences the development of a multinational enterprise, an industry, a local community and academic understanding of what might become a dominant discourse for industrial upgrade and sustainable development.

**Keywords:** agroforestry, entrepreneur, local knowledge, stakeholder network, sustainable enterprise business model

---

## 1. Challenges for developing an inclusive business model

The notion of a "triple bottom line", (TBL), continues to grow in importance [1]. It refers to the fact that modern business models are expected to address not only economic objectives but also social and environmental values [2]. Contemporary understanding of corporate models for sustainable development also assumes the understanding that the stakeholder toward

whom the corporation is responsible needs to include a wide set of stakeholders including society at large. Porter and Kramer [4] refer this as the creation of “shared value”.

Assuming that corporations not only accept the notion of being held accountable for the past and current actions but also embrace forward looking understandings of corporate social responsibility (CSR), what is expected of the new business model? In order to include a vast number of stakeholders’ interests the model would have to be inclusive [3], in other words connected to the context in which it is developed. Developing a new business model is not merely a minor modification of existing theories, it refers to an entirely new epistemological chapter [5], new models where corporate the *raison d’être* is closely connected to societal needs [6]. The call for inclusive business models is associated with corporate challenges as well as opportunities. Communicating awareness of social and environmental values in strategic documents without enacting these values would quickly be labeled as greenwash. The corporation thus has to find ways to operationalize CSR on a strategic level as well as in daily operations. This is especially challenging for large corporations and multinational companies that, due to their complex and extensive character [7, 8].

The fastest growing markets of today are those in emerging economies [9, 10]. These markets have inspired Prahalad and Hart [7] to develop a conceptual model called base of the pyramid (BOP) that focuses on adapting business models to the local conditions. It is not a question of bringing western systems to developing economies. It is rather about innovation and fundamental changes of strategy to create business models that are economically sustainable and in line with the needs of local communities [7] in order to move beyond philanthropy and focus on common prosperity, referred to as “shared value” by Porter and Kramer [4].

*The aim of this study is to identify critical factors for the implementation and management of an inclusive business model.* These factors are contextualized at a regional and local level in an emerging economy setting as a part of an ongoing agro-food project in a multinational corporation.

In short, the empirical study that is presented on the following pages has its roots in a corporation, Stora Enso, that was willing to rethink their business model (the name happens to be “RETHINK”), two entrepreneurs that knew all about the context in which the model was developed and researchers that are fortunate to get the data about the ongoing project aimed at sustainable development [11]. After reviewing the literature, challenges for development of an inclusive business model seemed to outnumber the possible advantages and the empirical study started with doubts; how can this be done in practice? How can the existing corporate structure and values be adapted to the local and regional conditions? This case study offers a narrative of the development and implementation of a new business model. The context for the forestry-based business model is one of the poorest countries in Asia, Lao PDR. The case offers clarity to our questions, but before presenting the empirical case, a short presentation of approach, key concepts and an empirical background.

## 2. Approach: a holistic view on a case bound case study

Based on the research objective and the realization that a holistic approach would offer a context bound understanding of the phenomenon (an inclusive business model), a single case

study was selected. A flexible research design gave room for an abductive process in which literature reviews and empirical work were interwoven. In what Robson [12] refers to as real world research, studies of contemporary phenomena, it is challenging to decide on particular fixed frameworks and tools *ex ante*, so a flexible design, meaning constantly reconsidering both theoretical framework and empirical research conduct, has led to mind-breaking empirical findings and an awareness of alternative conceptual frameworks that could have been used. We had an epistemological starting point of the triple bottom line and understanding of the importance of stakeholder theory. These starting points were complemented with vast reviews of the entrepreneurship literature, in particular that related to social entrepreneurship.

The selected case study was a commission project that filled our needs in terms of the following criteria: a corporation that had or was in the process of developing an inclusive business model, willingness to share data about the process, and an additional criterion can be added that we were not aware of the importance of at the time of making research plans. It relates to the context in which this business model is developed and managed, the cultural, financial, social and environmental context offered by business operations in Lao PDR.

Primary data collection was carried out in ten semi-structured personal interviews with various stakeholders representing groups that were part of or influenced by Stora Enso's Rethink project. Stakeholders were identified with support from employees of Stora Enso and the recent UNDP report [13] about the project. The interviews were summarized and made available for the interviewee when that was technically possible. A number of interviews were carried out with the assistance of a translator.

The process of qualitative data analysis is context bound and not fully predictable, and in particular, when working with narratives, new categories can occur that contribute to the initial contextual framework. Narrative analysis based on multiple information sources is applied in this project, and various techniques, such as matching and organizing data in tables and graphs was used to facilitate categorization [14]. Efforts made to ensure research quality includes the understanding of creating construct and internal validity through triangulation of data, external validity through caution in generalizing the results and reliability through the use of rigorous research conduct including a case protocol.

### 3. A conceptual framework

Corporate social responsibility represents an evolving research field that offers a wide set of terms and theories, some of which are complex and indistinct [15, 16]. This section expands on CSR as a conceptual framework and underlines ideas and concepts that can extend the understanding of management in socially complex environments.

Ultimately, CSR is about the role of business in society and the fact that companies "have an obligation to work toward meeting the needs of a wider array of stakeholders" ([17], p. 244). Society at large, in particular media and NGO's hold businesses accountable for issues that were not seen as business responsibilities twenty years ago [18]. External pressures, expectations, from wide set of stakeholders may thus serve as motives for rethinking a business model.

### 3.1. An inclusive business model

Corporate social responsibility is expressed in relationships between business and society, in strategies, conduct and communication. A strategic approach to CSR implies a focus on how to achieve competitive advantage through finding intersecting points of interest between business and society. A concept developed to describe this phenomenon is creating shared value (CSV) [4]. CSV is based on the idea that “a business needs a successful community, not only to create demand for its products but also to provide critical public assets and a supportive environment” ([4], p. 66). However the implementation and management of CSV is a complex process which depends on a firm’s culture context and strategy [19], and there is still a need for examples of how the strategy can be operationalized.

CSR may also be interpreted from a less instrumental perspective, leaving the strategic management behind, focusing on ethical or political aspects of corporate conduct. A political CSR view [20, 21] highlights the importance of adapting CSR to the context [17, 20, 22] for creating the shared value. Local institutions and culture inevitably have an effect on operations of the firm and sets the structure of the company’s responsibilities [20]. Societal needs such as health care, security, logistical networks and education are commonly seen as primary responsibilities of governments—but in the perspective of political CSR these needs are incorporated in an extended stakeholder definition and interpretation of corporate responsibilities. The extended interpretation of platforms for CSR is interpreted by McElhaney [23] as different levels where corporate conduct influences society (**Figure 1**).

**Figure 1** illustrates that CSR can be expressed in various ways, ranging from local engagement at a facility, influencing the immediate community, to political CSR expressed in powerful positions influencing industrial development in a long-term perspective. Accordingly, continued globalization and increasing international trade may lead to corporate opportunities to contribute to sustainable development in local as well as global development [17] but it would assume an inclusive corporate model. The change agents that may develop an inclusive business model can be referred to as social entrepreneurs.

### 3.2. Corporate social entrepreneurship

Michelini and Fiorentino [9] present corporate social entrepreneurship (CSE) and inclusive business models as potential strategies for creating shared value and finding new business opportunities. The concept of a new business model, in this particular context, implies that “the triple bottom line” and “shared values” are operationalized and implemented, not only in long-term strategies, but also in the actual daily operations and management of day to day business.

CSE is the process in which a basis for shared values is identified. An inclusive business model is formed when the local community is involved as a business partner in operations to generate long-term value for the company and the community [9]. Both of these concepts highlight the discussion of management and the various ways of approaching a new business environment.

The strategy of social entrepreneurship (**Table 1**) suggests that there are central elements of responsiveness and innovation in the process of finding business opportunities in a socially challenging context.

World	Transform multiple industries				
Industry	Transform an industry			Take responsibility for our full impact (social, environmental, and economic) Take responsibility to adjacent industries Take responsibility for global conditions (climate change, global inter-dependence etc.)	
	Be a beacon to others		Develop codes of conduct for the industry Build strong coalitions to effect and enforce these codes		
Community	Be a good neighbor				Innovate and demonstrate restorative business practices Influence the industry indirectly by serving as an example
	Give something back	Support local communities (philanthropy, in direct programs, employee matching and volunteering) Reduce waste, consumption and emissions			
Company	Run a good business	Provide access to tools/ product Disaster relief			
	Company	Community	Industry	World	

Figure 1. Corporate Social Responsibility as platforms for creating values ([23], p. 22).

Our interpretation of social entrepreneurship relates to context bound [28] entrepreneurial activities with embedded social purposes [29] that may be carried out by an individual or a group of individuals [25]. These entrepreneurial activities are carried out in specific organizational and institutional context, which points to difficulties to generalize. As expressed by Austin et al. ([26], p. 16) *“What might be deemed an unfavorable contextual factor for market-based commercial entrepreneurship could be seen as an opportunity for a social entrepreneur aiming to address social need arising from market failure”*.

### 3.3. The importance of context

A stable institutional environment is crucial in market development [30]. An institutional environment may refer to financial and legal institutions, political governance, educational systems and many other resources that in the case of many emerging economies are under-developed. Shortcomings of these systems imply increased corporate costs but also opportunities for corporate management to develop and get access to resources, so-called inclusive networks [31]. An inclusive network implicates interactions between individuals, communities, organizations and companies and can serve as a structure for creating predictability in an unstable environment thus creating opportunities for economic activity. One way of gaining access to an inclusive network is to implement an issue focused view of stakeholders [31], which implies that the firm identifies and addresses issues that are of interest to various stakeholders, and thereby develop and participate in issue driven networks. Social entrepreneurship may thus be based on a common interest and it is not only adapting to the context, it also influences the context [28] for example a local market or community.

Perspective	The contribution points to...	Sources
The transition to the sustainable enterprise	The importance of looking at social entrepreneurship in corporate governance	Keijzers [24]
Social entrepreneurship as an "untidy concept"	The use of the concept social entrepreneurship with different meanings, which points to needs for defining the concept when using it. The authors also point to difficulties to generalize due to the context bound nature of the concept	Peredo and McLean [25]
Exploratory comparative analysis of business entrepreneurship and social entrepreneurship	Commonalities and differences between social and commercial entrepreneurship. Revised social entrepreneurship framework with Social Value Proposition (SVP) in the center	Austin et al. [26]
The important role of entrepreneurship in sustainable development	Outline of research done and suggestions for future directions in the research area concerned with sustainable development and entrepreneurship	Hall et al. [27]
Impact of context on entrepreneurship, social embeddedness	Needs for contextualizing the field of research for entrepreneurship	Welter [28]
Motives and outcomes from a social and commercial perspective	Differences and similarities between social and commercial objectives	Austin et al. [29]
Corporate social entrepreneurship as the base for new business models	Various approaches to value creation in low-income communities: social business models and inclusive business models	Michellini and Fiorentino [9]

**Table 1.** A few academic perspectives on social entrepreneurship.

#### 4. Empirics: "Rethink", Stora Enso's inclusive business model in Laos

The forest-based industry has some specific characteristics that make it particularly interesting from the perspective of CSR [32]. Forest areas cover about 30 % of the land of world ([33], p. 11); and as stated by Mikkilä ([33], p. 11) "millions of people interact frequently with the forests and are directly or indirectly dependent on them". Accordingly, the resource based character of the forestry industry implies that forest companies inevitably have an impact on the socio-economic conditions in the area in which they operate [33]. Hence, there is a clear connection between the forest industry and poverty alleviation as a large number of individuals' livelihoods depends on land and forest-based resources.

One of the world's largest industry groups in the pulp and paper sector today is the Nordic forestry company Stora Enso. The group has about 30,000 employees in 35 countries and is active within four major business areas: printing and reading, renewable packaging, biomaterials and building and living [34]. Stora Enso sources most of its wood from Sweden, Finland, the Baltic countries and Russia but is increasingly focusing on markets and plantation sources in Latin America, China and Southeast Asia [34]. The objective of the expansions is to meet an increased demand for pulp and paper products in these areas. In 1999 the Stora Enso group published their first environmental and social policy, and in 2011 the group introduced a

whole new corporate model called “Rethink” [11]. However, the company has received extensive critique from various stakeholders for not taking enough responsibility for the socio-economic effects of their operations. The expansion of *Eucalyptus* plantations in China has been particularly noted and criticized by NGOs and media. In China, the substantial amount of land utilized has led to land conflicts with local populations caused by great dissatisfaction associated with the pricing of land and the handling of land rights by governmental local authorities [35].

With lessons learned from China, Stora Enso decided to expand their operations into the country of Lao PDR in 2006. Lao PDR offers a close to perfect biological setting for running successful *Eucalyptus* plantations, but it also possess a rather unique set of challenges, related to the institutional environment. Despite a growing economy in the urban areas, the rural parts of Lao PDR are still suffering from poverty. An extensive bureaucracy and corruption have prevented economic development from reaching the rural parts of the country, where lack of knowledge leads to continued extensive use of shifting cultivation that causes food insecurity and extensive deforestation. In addition, there are great challenges related to the remains of the Vietnam War. These remains are unexploded ordinance (UXO), cluster bombs that have a high failure rate (30%) and therefore pose a risk of explosion when removed [36]. These UXOs limit the land use for cultivation and other uses.

#### 4.1. The development of an agroforestry model

As Stora Enso started to plan for possible activity in Lao PDR (hereby referred to as Laos), the first step was to investigate the availability of land. Stora Enso hired Mr. Fogde as a consultant due to extensive local knowledge and thirty years of experience from the forest industry in Laos.

The investigation showed that there were plenty of suitable land, but Mr. Fogde indicated that the business model could not be structured in the traditional way as the ground had to be cleared from UXO to ensure safety and a long-term perspective in using the land. The next step in the process was to conduct a socio-economic study in the area. The study consisted of visits to the villages, surveys and interviews with the members of the villages were conducted. Ms. Axelsson, who had her educational background in South East Asia science, was one of the persons who conducted the study, and at a later stage she was hired by Stora Enso as the CSR and HR-manager in Laos.

The beneficial conditions for forestry in the country in combination with the socio-economic survey formed the basis of the business model. Through positive experiences at Stora Enso’s testing-operations in Thailand the idea of implementing agroforestry became relevant. By combining *Eucalyptus* with rice in the plantations and hiring locals as daily workers, the villages could get access to yields of rice that are significantly higher than yields from shifting cultivation, also known as “slash and burn”, which is the traditional method. Moreover, including the villagers in the fundamental part of the business model decreases the risk of conflicts as the villages have a traditional right to the land surrounding the village. As the majority of land in Lao PDR has not undergone any classification or division of property, the



process of determining which land that belongs to the villagers has to be conducted by Stora Enso in collaboration with villagers. This, however, serves as a benefit when applying for land concessions from the government as the inclusive approach increases trustworthiness and makes it possible to avoid the prevailing procedures characterized by corruption. After the completion of an in-depth socio-economic study in the region, the structure of the business model developed. As the rotation period of a *Eucalyptus* tree is seven years, the model came to include seven steps (Figure 2).

After land concession is granted and UXO are cleared, the Eucalyptus trees are planted with the intercrop, in this case, rice. Planting is managed by staff recruited from agriculture and forestry-based educational programs in the country, together with local villagers who are educated by managers in the planting of rice and Eucalyptus. Growing rice is possible for the first two years but then has to be replaced by cash crops and suitable grazing crops for livestock.

4.2. The role of social entrepreneurs

Mr. Fogde’s 30 years of experience in Laos, serving as the COO of Stora Enso Laos, has resulted in a wide network of contacts and an understanding of the social and institutional mechanisms of the country. Insights from a socio-economic study, carried out by Ms. Axelsson, gave a detailed insight in to the social opportunities and challenges of the region. Their vast understanding and the corporate ambitions from headquarters of Stora Enso served as key enabling factors for developing a best practice beyond legal requirements, as a counter weight to projects in other countries that had failed to meet expectations on social and environmental sustainability.

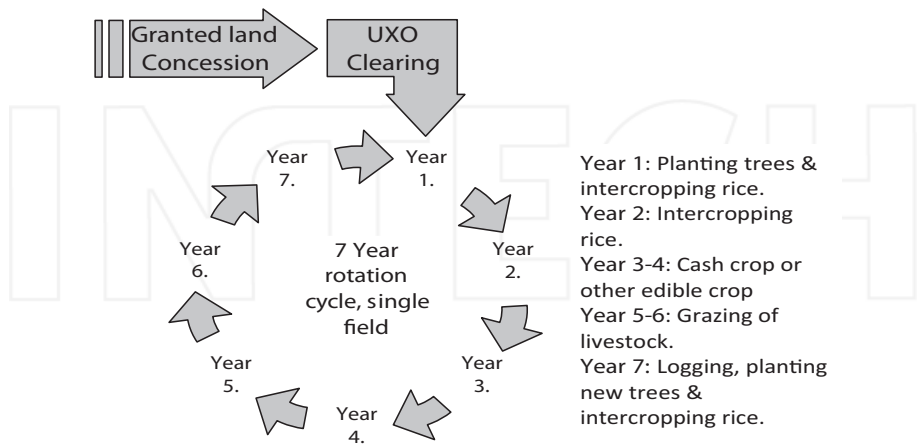


Figure 2. A seven-year rotational model of the agroforestry model with Eucalyptus and rice/cash crop/grazing ([11], p. 31).

Due to the socio-economic conditions and the expectations from Stora Enso, the team, led by Mr. Fogde and Ms. Axelsson realized that the business model had to be built *from the bottom up* in the process of getting land concession, building a functional organization and finding employees. For example the administrative process started with a discussion with the village chief who communicated to members of the villages, and then to the office of the district. Also, an organization structure and a policy of hiring locally, from Laotian universities on senior level, and villages on junior level, were developed. To include village members they were offered to work and paid per hour during planting and harvesting season. Moreover, built in to the idea of organization structure was the possibility of communication through all the levels of the organization as the senior roles could handle English and Lao, and the junior roles could handle Lao and the local language of the villages. Also, in order to increase the direct communication the districts and plantations were visited by one of the head offices managers every ten days.

## 5. Critical factors for an inclusive business model

Agroforestry is not a new concept, but the use of agroforestry on an industrial scale is new. What started on a limited acreage is gradually scaled up to an industrial scale. This is in this process that the inclusive business model is developed. The agroforestry business model illustrates a rationale for the operationalization of triple bottom line [2] and how including stakeholders early in the development process can create what Porter and Kramer [4] refer to as shared values.

The critical factors and the inclusive aspects of the model are illustrated in **Figure 3**. These four critical factors can serve as a starting point when discussing the development and management of new business models in emerging economies (or BOP, as worded by [7]) . The factors can be seen as phases in a process of developing an alternative business model, as well as a process of internal acceptance of alternative corporate governance.

A number of interdependent factors influence the implementation of the new business model. The first factor, **corporate commitment**, requires changing fundamental parts of the existing business model aiming for sustainable development. In this case the change was driven by the new corporate identity and experience from situations where the traditional model had led to conflicts and critique from external stakeholders.

**Identifying** key resources for the development of a new business model can not only be managed at a corporate level, as it requires a local and national connection as well. One of the most critical factors from this perspective is the involvement of social entrepreneurs and individuals who possess the local knowledge and have experience from running business in the country.

In the continued process, the **inclusion** of stakeholders in a dialogue to develop an understanding of shared values enables access to a network, for example with NGO's, civil society and government departments. Hence, the identification of shared values is not only a strategy of developing the business model itself. The identification of shared values may also offer

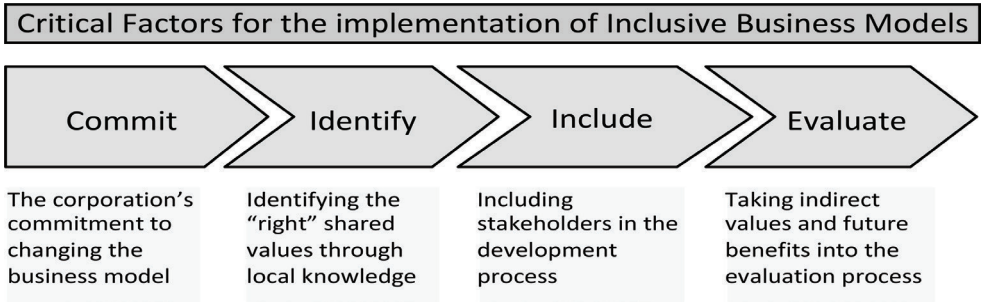


Figure 3. Critical factors for implementing an inclusive business model as a process of value creation in accordance with the triple bottom line ([11], p. 48).

access to an inclusive network from other sectors and serve as grounds for legitimacy [10]. In this case the inclusive network supports the development of the business model and facilitates the exchange of knowledge between sectors.

This case supports the understanding that inclusive business models are characterized by high start-up and transaction costs [9]. It may, on the other hand, generate indirect values that can lead to long-term benefits for the company as suggested by Keijzers [24]. Typical benefits can be an enhanced corporate image, local support for continued operations, extended experience from new operational methods and ultimately competitive advantage.

One of the most critical factors is related to **social entrepreneurship**, the key roles of two social entrepreneurs with local knowledge and has experience from running a business operation in the country. The involvement of a social entrepreneur enables an effective *identification* of the most crucial points of intersection between the company and the community, what Austin et al. [26], calls the Social Value Proposition (SVP). These entrepreneurs also ensure the *inclusion* of various stakeholders in the process, aimed at benefiting the local community.

However, the traditional way of measuring the success of a business model is based on the economic efficiency and does not include long-term benefits and indirect values. This is a central problem as evaluations made in the early process can be crucial to the future of the development of a new business model. Therefore, an evaluation tool that takes the indirect values into account is a critical factor for the continued development of inclusive business models. The **evaluation** method is not only to evaluate traditional economic indicators but also to take into account the future values generated through the inclusion of social issues and the values associated with reputation and brand image. The evaluation method must not replace existing measures but serve as a complement in order to facilitate the communication with headquarters, the board of directors and investors.

6. Research contributions

This case study may provide an answer to the call for empirical examples of where social entrepreneurs “rise to the challenge” ([27], p. 446) and a transition of an enterprise ([24], p. 357) especially in identification and inclusion of key stakeholders in the process.

It illustrates that inclusive business model is tailored to the context in which it is developed and managed in order to be an inclusive business model. This shows that there are no simple answers to the question of how corporations may alter a traditional conduct to contribute to the society in which they operate, to alleviate poverty, raise educational levels, contribute to a more even distribution of wealth and serve as parts in creating shared values. An inclusive business model thus require corporate responsible intents and management is enacted in a dialogue with a wide set of stakeholders [3].

The entrepreneurship literature points to the importance of contextualization (e.g. [28]), and the importance of keeping the Social Value Proposition at the center of the context [26]. Our findings also show that the social entrepreneurs take the role as change agents, for example in the process of land concession with a wide set of stakeholders' needs in mind and corporate hiring with gender awareness, which points to adaptation made by "the context" as well.

The Stora Enso case offers insights in challenges and opportunities perceived so far in their efforts to develop and implement an inclusive business model. So far the transformation of corporate conduct has transformed a local community but it has a potential value to an entire industry—and possibly with contextual adaptations to other industries on a world market in McElhaney [23] CSR landscape illustration (**Figure 1**). This project has neither investigated the internal or external assessment of the new business model, nor the consequences of what happens if the social entrepreneurs no longer are in office. Our suggestions for future research therefore include a call for other empirical studies of inclusive business models, the role of social entrepreneurs and the continued studies of various perspectives of corporate ambitions to "*Rethink*".

## Acknowledgements

We gratefully acknowledge the support and generosity of the Royal Swedish Academy of Agriculture and Forestry without which the present study could not have been possible to share with you. We would also like to thank SIDA for providing initial funding for the project, everybody at Stora Enso in Laos for generously sharing their TBL ambitions, especially Peter and Helena, and all the community interviewees that have generously shared their story with us in this project and encouraged us to communicate their entrepreneurship in developing an inclusive business model.

## Author details

Cecilia Mark-Herbert<sup>1\*</sup> and Brita Prejer<sup>2</sup>

\*Address all correspondence to: [cecilia.mark-herbert@slu.se](mailto:cecilia.mark-herbert@slu.se)

1 Swedish University of Agricultural Sciences, SLU, Uppsala, Sweden

2 Syngenta Nordics, Landskrona, Sweden

## References

- [1] Cronin JJ, Smith JS, Gleim MR, Ramirez E, Martinez JD. Green marketing strategies: an examination of stakeholders and the opportunities they present. *Journal of the Academy of Marketing Science*. 2011;**39**:158-174
- [2] Elkinton J. *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. 2nd ed. Oxford: Capstone Publishing Ltd; 1998
- [3] Porter ME, Hills G, Pfitzer M, Patscheke S, Hawkins E. *Measuring Shared Value—How to Unlock Value by Linking Social and Business Results*. Massachusetts: FSG—Shared value summit Cambridge; n.d.
- [4] Porter ME, Kramer MR. Creating shared value: How to reinvent capitalism and unleash a wave of innovation and growth. *Harvard Business Review*. 2011;**2011**:62-77
- [5] Bawden R. Systemic development at Hawkesbury: Some personal lessons from experience. *Systems Research and Behavioral Science*. 2005;**22**(2):151-164
- [6] Bocken N, Short S, Rana P, Evans S. A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*. 2014;**65**:42-56
- [7] Prahalad CK, Hart SL. The fortune at the bottom of the pyramid. *Strategy + Business*. 2002;**26**:2-14
- [8] Rainey D. *Sustainable Business Development—Inventing the Future through Strategy, Innovation and Leadership*. Cambridge: Cambridge University Press; 2006
- [9] Michelini L, Fiorentino D. New business models for creating shared value. *Social Responsibility Journal*. 2012;**8**(4):561-577
- [10] Wilson C, Wilson P. *Make Poverty Business. Increase profits and reduce risks by engaging with the poor*. Sheffield: Greenleaf Publishing Ltd; 2006
- [11] Levall S, Prejer B. *Inclusive Business and Shared Values: Case Study of Stora Enso in Lao PDR*. Uppsala: Swedish University of Agricultural Science, Department of Economics; 2013 <http://stud.epsilon.slu.se/5818/> [Accessed 4 February, 2015]
- [12] Robson C. *Real World Research*. 2nd ed. Maldon, MA: Blackwell Ltd.; 2002
- [13] UNDP (United Nations Development Programme). *Socioeconomic Impact Assessment. Stora Enso Plantation Project Lao People's Democratic Republic*; 2011 Available at: [http://www.la.undp.org/content/lao\\_pdr/en/home/library/poverty/socioeconomic-impact-assessment--stora-enso-plantation-project-1.html](http://www.la.undp.org/content/lao_pdr/en/home/library/poverty/socioeconomic-impact-assessment--stora-enso-plantation-project-1.html)
- [14] Pentland B. Building theory with narrative: From description to explanation. *The Academy of Management Review*. 1999;**24**(4):711-724
- [15] Garriga E, Melé D. Corporate social responsibility theories: Mapping the territory. *Journal of Business Ethics*. 2004;**53**(1-2):51-71

- [16] Matten D, Moon J. "Implicit" and "Explicit" CSR: A conceptual framework for a comparative understanding of corporate social responsibility. *Academy of Management Review*. 2008;**33**(2):404-424
- [17] Jamali D, Mirshak R. Corporate social responsibility (CSR): Theory and practice in a developing country context. *Journal of Business Ethics*. 2007;**72**:243-262
- [18] Porter ME, Kramer MR. Strategy & society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review*. 2006;**2006**:78-93
- [19] Pfitzer M, Bockstette V, Stamp M. Innovating for shared value. *Harvard Business Review*. 2013;**2013**:3-9
- [20] Husted BW, Allen DB. Corporate social responsibility in the multinational enterprise: Strategic and institutional approaches. *Journal of International Business Studies*. 2006;**37**(6):838-849
- [21] Scherer AG, Palazzo G. The new political role of business in a globalized world: A review of a new perspective on CSR and its implications for the firm, governance, and democracy. *Journal of Management Studies*. 2011;**48**(4):899-931
- [22] Fraser ED, Dougill AJ, Mabey WE, Reed M, McAlpine P. Bottom up and top down: Analysis of participatory processes for sustainability indicator identification as a pathway to community empowerment and sustainable environmental management. *Journal of Environmental Management*. 2005;**78**:114-127
- [23] McElhaney K. *Just Good Business; The Strategic Guide to Aligning Corporate Responsibility and Brand*. San Francisco: Berrett-Koehler Publishers, Inc.; 2008
- [24] Keijzers G. The transition to the sustainable enterprise. *Journal of Cleaner Production*. 2002;**10**:349-359
- [25] Peredo AM, McLean M. Social entrepreneurship: A critical review of the concept. *Journal of World Business*. 2006;**41**:56-65
- [26] Austin J, Stevenson H, Wei-Skillern J. Social and commercial entrepreneurship: Same, different or both? *Entrepreneurship Theory and Practice*. 2006;**30**(1):1-32
- [27] Hall KJ, Daneke AG, Lenox JM. Sustainable development and entrepreneurship: Cast contributions and future directions. *Journal of Business Venturing*. 2010;**25**:439-448
- [28] Welter F. Contextualizing entrepreneurship – Conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*. 2011:165-184
- [29] Austin J, Stevenson H, Wei-Skillern J. Social and commercial entrepreneurship: Same, different or both? *Revista de Administração (São Paulo)*. 2012;**47**(3):370-384
- [30] Reficco E, Márquez P. Inclusive networks for building BOP markets. *Business & Society*. 2012;**5**(1):512-554

- [31] Roloff J. Learning from multi-stakeholder networks: Issue-focused stakeholder management. *Journal of Business Ethics*. 2008;**82**:233-250
- [32] Mikkilä M, Toppinen A. Corporate responsibility reporting by large pulp and paper companies. *Forest Policy and Economics*. 2008;**10**:500-506
- [33] Mikkilä M. The many faces of responsibility: Acceptability of the global pulp and paper industry in various societies, *Dissertationes Forestales* 25. Finland: Faculty of Forestry, University of Joensuu; 2006 <http://www.metla.fi/dissertationes/df25.pdf> [Accessed 9 February 2014]
- [34] Stora Enso. Global Responsibility Report (Helsinki Libris Oy). 2011. [http://www.storaenso.com/media-centre/publications/annual-report/Documents/Stora\\_Enso\\_Global\\_Responsibility\\_Report\\_2011.pdf](http://www.storaenso.com/media-centre/publications/annual-report/Documents/Stora_Enso_Global_Responsibility_Report_2011.pdf) [Accessed 9 February 2014]
- [35] Toppinen A, Li N, Tuppurä A, Xiong Y. Corporate responsibility and strategic groups in the forest-based industry: Exploratory analysis based on the global reporting initiative (GRI) framework. *Corporate Social Responsibility and Environmental Management*. 2012;**19**:191-205
- [36] Clarke K. Hazardous ground-cluster munitions and UXO in the Lao PDR, UNDP Lao PDR, Vientiane. 2009. [http://www.undplao.org/newsroom/publication/UNDP\\_LAO\\_Hazardous%20Ground\\_03June2009\\_FINAL.pdf](http://www.undplao.org/newsroom/publication/UNDP_LAO_Hazardous%20Ground_03June2009_FINAL.pdf) [Accessed 9 February, 2014]

INTECH



---

# Entrepreneurship with Social Responsibility

---

Anna Križanová, Katarína Moravčíková and  
Jana Klieštiková

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70609>

---

## Abstract

Since the second half of the twentieth century, the society's thinking about the behavior of companies has gradually begun to change. Companies are expected to use their power and finances to influence life around themselves, especially their quality. The corporate social responsibility (CSR) concept is a very progressive management approach that focuses on long-term goals and long-term returns. CSR seeks to harmonize relationships with stakeholders, which the company identifies and implements activities that go beyond legal and ethical standards. A socially responsible company performs something extra volunteer, conducts dialog with its stakeholders, and invests in improving relationships. The Department of Economics of the University of Žilina conducted a marketing survey entitled "Perceptions of Corporate Social Responsibility and its Communication by Companies". The survey was conducted to find out how companies in Slovakia use the CSR concept and what is the level of their communication about this concept in relation to the external environment. Anonymous questionnaire method was used to obtain this data. The method of induction and deduction was used to process the obtained data and the phenomena investigated and to generalize and produce conclusions. Mathematical and statistical methods were used to evaluate survey data, and the synthesis method was used to create recommendations for companies.

**Keywords:** entrepreneurship, corporate social responsibility, Slovak companies

---

## 1. Introduction

The issue of corporate social responsibility (CSR) is becoming an increasingly important element of strategic business management under the conditions of today's globalized market. Society expectations of companies' performance are constantly rising. At present, companies have a competitive advantage, that are able to actively respond to ever-changing customer

expectations and implement socially responsible aspects into their business, so that customers perceive the CSR concept as an added value of the company. Companies should feel a certain commitment to advocate for the society in which they operate, because the business sector is part of civil society and they need other members to successful operation. Socially responsible companies strive not only to meet their traditional economic goals but also to fulfill the social and environmental aspects of their activities, in practice, by voluntarily setting high ethical standards, avoiding corruption, trying to minimize the negative impacts of their business on the environment, striving to be good employer, supporting the region in which they operate. They strive to realize on the three main pillars – economic efficiency, environmental responsibility and social engagement – in the long term and as firmly as possible.

## 2. Corporate social responsibility

The modern history of corporate socially responsibility began to develop in the 1950s when the ideas of responsible entrepreneurship had fully penetrated the managers' professional literature. Howard R. Bowen, who wrote the book *Social Responsibilities of the Businessman* in 1953, is considered to be the first theorist of this concept. At the end of the 1960s and 1970s, under the influence of turbulent social change in the western society, and due to the boom of social sciences a number of definitions which were less emphasized by the manager's personality in the corporation, and more focused on the interaction between the company and the socio-economic system. In the 1980s, interest was transferred from the theoretical societal theories of corporate responsibility to empirical research of social responsible companies [1]. Also, due to the attempt to operationalize this concept, it has been fragmented and various alternative concepts have begun to emerge [2]. At the turn of the millennium, voluntary associations of responsible companies, non-governmental organizations and the European Union contributed to the definition of CSR. The rapid development and wide range of this concept results in a very high terminological disunity, as there is currently no single global definition [3]. Bowen [4] defines social responsibility as "the commitment of entrepreneurs to strive for such strategies, to make such decisions or to perform activities that are desirable in terms of the goals and values of our society." According to the European Union [5], corporate responsibility is "the voluntary integration of social and environmental interests into day-to-day business activities and interactions with business stakeholders". Kotler and Lee [6] define social responsibility as "a commitment to improve the society's well-being through voluntary corporate activities and corporate resources".

Bussard et al. [1] set out the basic characteristics of this concept, highlighting in particular:

- *willingness* – socially responsible companies voluntarily develop activities and accept commitments that go beyond their obligations defined by the legislative provision,
- *active collaboration and open dialog with all stakeholders* – this commitment goes beyond the obligation of companies to behave responsibly towards their shareholders, but also applies to other stakeholders, whether employees, customers, suppliers or local communities,

- *corporate engagement* – corporate socially responsible enterprises, that create new positive trends in society, have incorporated socially responsible business into their corporate strategies and take them into account in creating business values or goals,
- *systematicity and long-term time horizon* – corporate social responsibility is a long-term issue. The CSR concept should be part of the strategic planning, ongoing monitoring and evaluation of companies. Socially responsible companies are not focused only on short-term economic goals and profits, but they also focus on long-term goals and long-term sustainability,
- *credibility* – only trusted social responsibility will enable the company to take full advantage of the benefits of CSR principles and also identifies the four main assumptions for achieving public confidence – individuality, authenticity, transparency, and consistency,
- *company operation with respect to the so – “Triple-bottom-line business”* – corporate social responsibility is a modern concept of business that is on three pillars and therefore, as one of the basic ideas emphasizes, that companies should not only focus on maximizing profits and economic growth, but their attention must focus on addressing social and environmental issues,
- *responsibility towards society and companies commitment to contribute to the development of life quality* – corporate responsibility is an ethical imperative to work for the benefit of society.

## 2.1. Fields of corporate social responsibility

Corporate social responsibility is a modern business concept that leads to a wider view of business and is built on three basic pillars, so called “triple-bottom-line” – economic, social and environmental pillar [7]. A company that adopts the concept of social responsibility does not only try to achieve profits in its business but its approach is more complex because it takes into account all three pillars and applies voluntarily, over and above its legislative responsibilities, some principles in three basic areas, such as the economic, social, and environmental area [7]. The economic pillar of CSR focuses primarily on company transparency, establishing good relationships with interest groups that affect the economic activity of the company. These are investors, owners, customers, suppliers, business partners, and entities that are significant to a company in this area. Company activities in this area relate to corporate governance, responsible customer access, relationship with suppliers and other business partners, and marketing and advertising [7]. The social area should be divided into two areas – internal and external. The internal area is also called the social policy of the company, and the external area is primarily concerned with philanthropy, altruism, cooperation with the local community. Company social policy and its tools must work towards building a partnership with an employee about that an company thinks as a co-entrepreneur, giving him/her opportunities to exploit his/her active abilities, expanding his/her skills and skills, and achieving business goals by reaching his/her satisfaction. Activities within the framework of internal social policy concern engagement and communication with employees, remuneration for work, education and development, health and safety, work-life balance, outplacement, and equal complexity [8]. The external social area is mainly focused on philanthropy and cooperation with the local

community. Philanthropy is understood as a summary of activities that lead to the conscious support of others (individuals, groups, and organizations). It differs from altruism, which is an individual initiative and mostly focuses on the immediate surroundings. Philanthropy tries to solve the problems of the weaker or the handicapped people in a broader context, conceptually and tends to organize itself into the whole care system for these problematic groups. Possible tools for working with the local community can include community support, collaboration with schools, or stakeholder engagement [9]. Environmental issues have become more and more important in recent years. Business leaders should be aware that corporate responsibility in this area is to be applied within the company itself as well as towards the external environment that the company affects in some way, whether it is landscape, noise, resource use, emissions, waste or traffic load. Company activities in the environmental field concern environmental policy, energy and water, waste and recycling, products and packaging and shopping [7].

## 2.2. Tools of corporate social responsibility

Kotler and Lee [6] outline six CSR tools that can help society to promote society's health, security, education and employment, improve the environment, social and economic development, and other basic human needs and desires. Support can take place in a variety of forms – from grants, paid advertising, through sponsorship, technical expertise, material contributions, business volunteers to access to distribution channels. These tools include:

**Campaigns expanding awareness about social issue** – the company develop an initiative to raise awareness and, above all, the public's interest in social issue through campaigns, and to persuade it to support them by donating time, volunteering, financial or non-financial gifts. It uses research publishing, statistics, encourages proactive access, and effort to learn about the issue additional information in brochures or websites. This activity is carried out by the enterprise itself or cooperates with nonprofit organizations that address this issue.

**Cause-related marketing** – marketing activities associated with a publicly beneficial project. A company spends a certain amount of revenue from a particular product on a social or non-profit organization. At the same time, it tries to wake up the buyer's interest, which increases the revenues of the company and also the non-profit organization. Campaigns of this type are usually conducted only for a short period of time [10]. A company should try to make its behavior and initiatives as authentic and trustworthy as possible.

**Social marketing** – represents the development and implementation of a behavioral change campaign that aims to improve public health, safety, the environment, or the welfare of society. These campaigns mostly focus on health issues (breast cancer, prostate cancer, and eating disorders), accident prevention (traffic safety), environmental problems (electricity savings and air pollution) and public involvement issues (blood donation and animal rights).

**Corporate philanthropy** – direct contribution by a company to charity or a social problem, most often in the form of cash grants, subsidies, or contributions in kind. Corporate philanthropy is the promotion of publicly beneficial projects beyond the company activity to

promote a good idea across the society or in a particular community. A company can realize activities related to corporate philanthropy along with nonprofit organizations.

**Corporate volunteering** – an initiative where a company supports employees, business partners and franchise members to volunteer their time to support local organizations and address social issues. Employees have support from the company to work as volunteers for some time on projects and activities created by company or a non-profit organization with which a company collaborates [11]. Alternatively, they have the opportunity to choose what volunteer initiative they are involved in. Volunteers can provide physical work, training, teaching or counseling.

**Corporate social responsibility practices** – a company voluntarily carries out business activities and investments that improve the conditions in the local community, whether socially or environmentally. These activities take place mainly within the company and relate to manufacturing processes, employee development and behavior.

Kuldova [3] assigns two other tools to these tools, namely:

**Fair trade** – the objective of this partnership between producer and buyer is to support disadvantaged producers in developing countries by controlling fair trade conditions, respecting labor law, not using child labor in production, protecting the environment, but also spreading awareness of the situation of these manufacturers in developed countries. The manufacturer is guaranteed a minimum subscription and the minimum purchase price increased by the so called a social surcharge, which will ensure a fair price that could otherwise not be achieved.

**Outplacement** – support and assistance in placement of redundant workers on the labor market. The aim is to mitigate the negative effects of redundancies.

### 2.3. Benefits and deficiencies of corporate social responsibility

For many companies, CSR is a means to improve the image, competitive advantage, or differentiation. CSR is participated to creating value for the company as well as branding and builds customer loyalty and behavior after purchase. According to Hansen company, it is the reward for a company to stimulate customer buying behavior. The customer is the central determinant of who will be “rewarded” and who will be “punished”. Through his/her purchasing decisions influences the profit of companies which compete on the market and indirectly also the direction the economy is taking are affected. Not only companies get benefits from CSR. Stakeholders also became the profit parties [12]. The most important benefits for companies implementing CSR concept ideas in their day-to-day practice are cited by several authors:

*CSR contributes to creating a good business environment* – employees feel more involved with the company, increase their confidence in decision-making, motivation and productivity [13].

*CSR increases attraction for investors* – investors are interested in corporate CSR performance indicators that would support their decision to provide financial assistance [14].

*CSR builds trust and good name of company as well as brands from the perspective of the customers* – the resulting image that the public creates about a company is emerging as a mosaic of many features and attributes, including engagement in individual areas of CSR [14].

*CSR allows to gain a competitive advantage and increase customer loyalty* – CSR activities can be seen as a distinctive element from the competition through which the company can reach a potentially interesting group of people who appreciate these activities and they are willing to pay more for a socially responsible product [6].

*CSR reduces costs* – most CSR activities require company funding. On the other hand, CSR activities are linked to innovations that can help the company reduce costs and increase efficiency [13].

*CSR improves risk management and reduces the cost of risk management* – applying CSR to day-to-day company practices brings to companies better risk management, reducing the risks in the environmental, economic or even media field [14].

*CSR can attract new partners* – potential business partners consider for long-term cooperation not only prices but also other factors such as product quality, ability to deliver goods on time and in the right place, solvency and payment terms in business [13].

*CSR allows to become a “preferred supplier”* – companies can become required suppliers through active access to responsible business [13].

*CSR allows to increase the performance of the supplier-customer relationship* – responsible access to partners contributes to building mutual trust, improving the quality of products and services and, ultimately, to achieving higher profits within the framework of business cooperation [6].

In spite of all the benefits, however, a company must also take into account the obstacles that may prevent it from putting the CSR concept into practice. The most common obstacles include [1]:

- adopting a corporate socially responsibility into a company strategy is a costly entry investment,
- CSR is characterized by its own language and covers all areas of company, from product design through management of all components of the company to external communication,
- CSR is based on the mutual cooperation of all three sectors of society. Some companies may be afraid to find trusted and proportionate partners to work with.
- unclear standards and tangles of codes applicable to different areas of activity may result in a conflict of priorities in meeting the objectives of a responsible business strategy.

## 2.4. CSR communication

Communication about CSR initiatives and performance is a critical factor for successful companies. This type of communication provides information to interest groups who are interested in buying the products of this company, want to invest into this company, or want



to support corporate activities in their community. The goal is to communicate CSR progress in a meaningful way that will have a positive impact on the company and will attract stakeholders. CSR communication can provide additional benefits to a company, namely a higher level of customer satisfaction and loyalty, a better reputation for the company, brand and product, more motivated and productive employees, better relationships with the community and public authorities, or better access to finance [15]. CSR communication can include information on the production of safe and quality products/services, on keeping customer satisfaction, early invoicing, local supplier support, information beyond the company's core business, honest price information, adherence to marketing and advertising ethics, and consumer rights beyond the purchasing contract, hard criteria for the selection of business partners or information on working and living conditions [14]. The tools, means, channels and media through which the company can communicate its CSR initiatives and activities with external stakeholders include the CSR report, information packages, POS materials, vendor training, events, website, social media, brochures, newsletters, mailing lists, and advertising media [12, 15, 16].

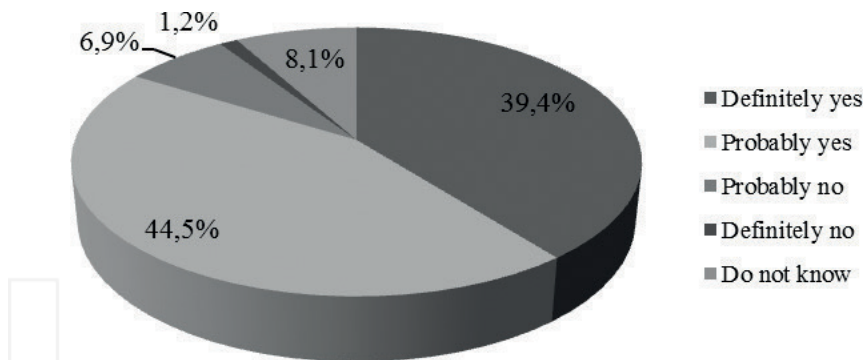
### 3. Entrepreneurship with social responsibility in Slovakia

Corporate social responsibility has been actively promoted in Slovakia since 2000, especially by non-governmental organizations that have since remained the main advocates of this concept at national level. The key carriers of the CSR concept with the largest commitment to promoting CSR in practice are multinational corporations in the Slovak business sector.

The Department of Economics of the University of Žilina conducted a survey among the representatives of companies in Slovakia entitled "Perceptions of Corporate Social Responsibility from the perspective of companies in Slovakia". The survey was conducted electronically via e-mail between October and December 2016 on a total sample of 434 companies randomly selected from a database of companies operating in Slovakia. Respondents were business owners, business executives, CSR employees, marketing department staff, and PR department staff. Most micro-companies participated in the survey, i.e. enterprises with fewer than 10 employees, namely 63.4%, followed by small companies (22.4%), large companies (8.1%) and medium-sized companies (6.2%). In terms of existence, most companies was category 6–10 years old (29.3%) and 21 and more years old (27.2%). Within the legal form, the largest representation had the commercial corporation (82.7%), of which 93% were limited companies. In terms of industry, retail and wholesale (21%) and information and communications (14.7%) had the largest representation.

The results of the survey show that the concept of Corporate Social Responsibility is known to Slovak companies, as 68.7% of respondents stated this fact. Companies in Slovakia also know economic, environmental and social responsibility terms, as 75.6% of the companies surveyed expressed their positive opinion. Most Slovak companies are socially responsibly. In our survey, 83.9% of the respondents expressed a positive opinion from the total number of companies, with 39.4% of respondents saying "definitely yes" and 44.5% of answers "probably yes" (Figure 1).

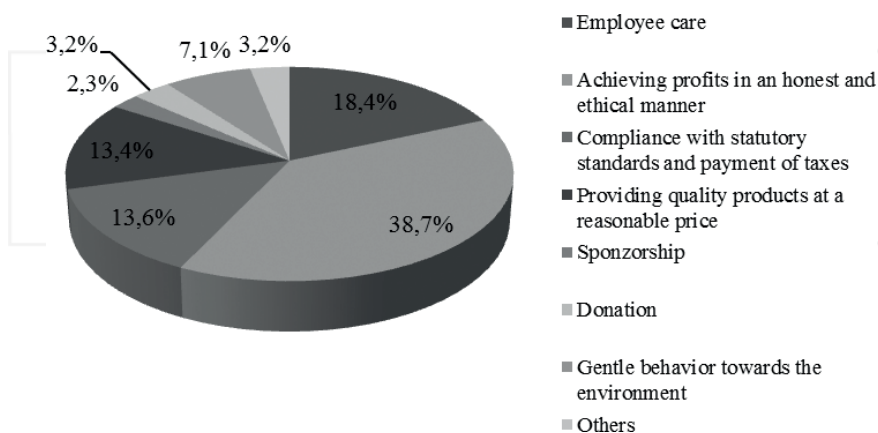




**Figure 1.** Expressions of Slovakia companies, whether they are socially responsible. Source: authors.

The survey also shows that almost half (43.5%) of surveyed companies are involved in all three areas of corporate social responsibility. In two areas are 25.8% of companies and only 19.8% of companies are involved in one. Although the elaboration of the CSR strategy is a crucial step, because it analyzes the stakeholders and identifies the key areas of CSR, only 11.1% of the companies addressed have a written CSR strategy and up to 82.3% do not have this strategy. Respondents consider the most important manifestation of their corporate social responsibility, in particular achieving the profits in an honest and ethical manner, namely 38.7%. Other important manifestations include employee care (18.4%), compliance with statutory standards and tax payments (13.6%) and the provision of quality products at a reasonable price (13.4%) (**Figure 2**).

The reason, why companies behave in a socially responsible way, the management's internal conviction was most often mentioned (50%), followed by efforts to improve relations with interested groups (7.6%) or better customer relations (7.8%). Corporate social responsibility



**Figure 2.** Reasons why companies in Slovakia behave socially responsible. Source: authors.

has five phases: defensive, charitable, promotional, strategic and system phase. A large number of respondents (45.6%) could not determine the phase of their company. Of the companies that could identify it, 15% said the charity phase, 13.4% promotional phase, 10.1% strategic phase, 9% system phase and 6.9% defensive phase. The respondents were also asked to determine the impact of CSR implementation on their customer relationships. Two-fifths of them said that CSR had a positive impact on customer relationships, with 4.6% of respondents reporting a significant impact. More than two-fifths were unable to determine the impact of CSR on their customer relationships and the negative impact did not come from any respondent (**Figure 3**).

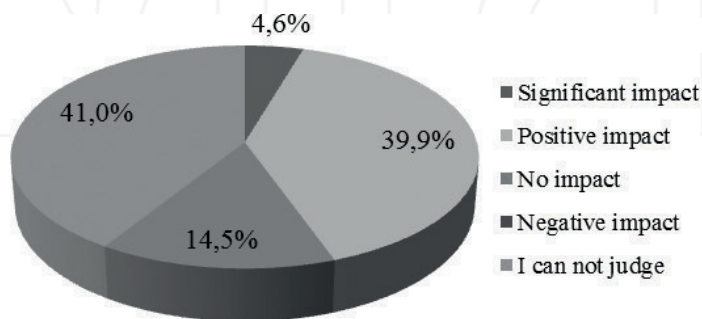
Companies in Slovakia (26.5%) inform their external environment about their CSR activities and projects in very small extend. These companies use mainly the Internet (18.7%) and social networks (14.7%) to communicate with their external environment. The least used tool for informing about CSR activities and projects is the CSR report (**Figure 4**).

In the case of changing or expanding the information tools for external environment about CSR activities and projects, the respondent stated in particular an internet site (28.6%) and social networks (15%). In this case, the least considered tool is the CSR report (3.7%) and newspaper articles (4.6%). Nearly two-fifths respondent do not consider about changing or expanding of tools (39.9%).

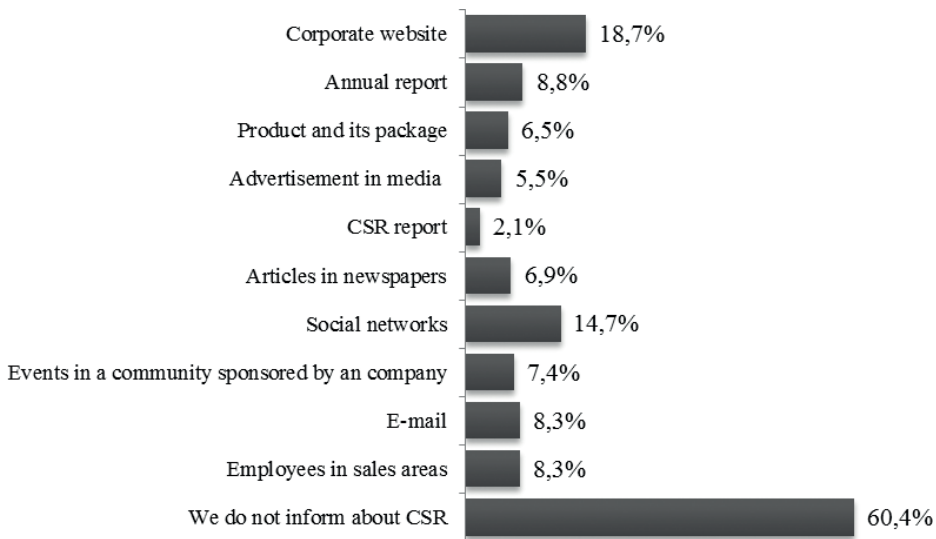
On the basis of the above, it is possible to state that the companies in Slovakia know the CSR concept and the majority of companies are involved in activities related to the CSR concept, but they do not pay more attention to it because a large part of the companies cannot determine the phase of CSR in which they are located and they do not know the impact of this concept for relationships with their customers. They cannot make full use of the benefits of the CSR concept, because only a very small part of Slovak companies communicate information about their CSR activities and projects.

Based on the survey results, we wanted to determine whether socially responsible behavior depended on selected company identification data. We have set three hypotheses:

*Hypothesis 1:* There is no statistically significant dependence between the size of the company in the Slovak Republic and its socially responsible behavior.



**Figure 3.** Impact of CSR company strategy in Slovakia on customer relationships. Source: authors.



**Figure 4.** Communication channels by which companies in Slovakia inform about CSR. Source: authors.

*Hypothesis 2:* There is no statistically significant dependence between the existence of the company in the Slovak Republic and its socially responsible behavior.

*Hypothesis 3:* There is no statistically significant dependence between the legal form of the company in the Slovak Republic and its socially responsible behavior.

To verify the statistical hypotheses, the  $\chi^2$ -independence test was used and we used the SPSS software 16.0 to calculate it. At the chosen  $\chi^2$  – independence test, the zero hypothesis is rejected if the P-value is below the significance level. If the P-value is equal or higher than the significance level, we cannot reject the zero hypothesis. The difference can only be the result of choice and there is no relationship between the variables. We determined the level of significance of the test  $\alpha = 0.05$ . We take into account the Pearson Chi-square value when verifying the hypotheses through the  $\chi^2$  – independence test and the p-value of the test is in the tables labeled Asymp. Sig.

We found that the P-value is higher than the chosen significance level when testing the first hypothesis. It means that  $H_0$  is not objectionable. We can argue that there is no statistically significant dependence between the size of the enterprise and whether the company is socially responsible in the Slovak Republic (**Figure 5**).

In the second hypothesis we found in the test that the P-value is higher than the chosen significance level. It means that  $H_0$  is not objectionable. We can argue that there is no statistically significant dependence between the existence of the company and whether the company is socially responsible in the Slovak Republic (**Figure 6**).

Based on the results of  $\chi^2$  – the independence test we found in the third hypothesis that the P-value is higher than the chosen significance level. It means that  $H_0$  is not objectionable. It can

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2,212 <sup>a</sup>	4	,697
Likelihood Ratio	2,615	4	,624
Linear-by-Linear Association	,541	1	,462
N of Valid Cases	434		

Figure 5. Calculation of hypothesis testing 1. Source: authors.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8,795 <sup>a</sup>	8	,360
Likelihood Ratio	8,598	8	,377
Linear-by-Linear Association	,667	1	,414
N of Valid Cases	434		

Figure 6. Calculation of hypothesis testing 2. Source: authors.

be argued that there is no statistically significant dependence between the legal form of the company and whether the company is socially responsible in the Slovak Republic (Figure 7).

With regard to the results of the verification of statistical hypotheses, it can be stated that company identification data such as size, existence and legal form of an company do not affect whether the company is social responsible. In this case, the company's decision on whether to be or not to be socially responsible depends on the internal conviction of management.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2,281 <sup>a</sup>	4	,684
Likelihood Ratio	2,083	4	,721
Linear-by-Linear Association	1,379	1	,240
N of Valid Cases	434		

Figure 7. Calculation of hypothesis testing 3. Source: authors.

#### 4. Entrepreneurship with social responsibility in abroad

Unlike Slovak companies most companies in Malta have developed a CSR strategy and identified the brand's reputation as a keynote. The concept of CSR has a relatively large impact on the economy and society in Central European countries, where CSR concept will become a more mature in the future and more and more companies will be implementing it according to corporate representatives. They also identified the main issues and the most useful tools in implementing CSR and the most important benefits of the concept.

PWC company [17] has launched a survey called “Corporate Responsibility Practices Survey” in Malta in the first quarter to find out how companies in Malta have a sense of CSR and how they evaluate its practices. The survey included 45 questions and assesses: internal and external awareness, social responsibility and regulation, compliance and disclosures. Participation in this survey was open to all companies in Malta. The survey covered a wide range of sectors. The financial and insurance sector was actively involved in this survey, followed by manufacturing and information and communication sectors. In terms of size, a large part of companies was with a staff of 10–50 (26%) and a staff of 100–250 (26%) and the smallest part of companies was with a staff of 300–500 (4%). In terms of turnover, the most involved companies most had annual turnover of 0–2 mil. € (28%) and companies with a turnover of 10–20 mil. € (14%). Companies with an annual turnover of 2–5 mil. €, 5–10 mil. €, 50–100 mil. €, 100 and more had a similar 12%. The smallest representation had companies with a turnover of 20–50 mil. € [17].

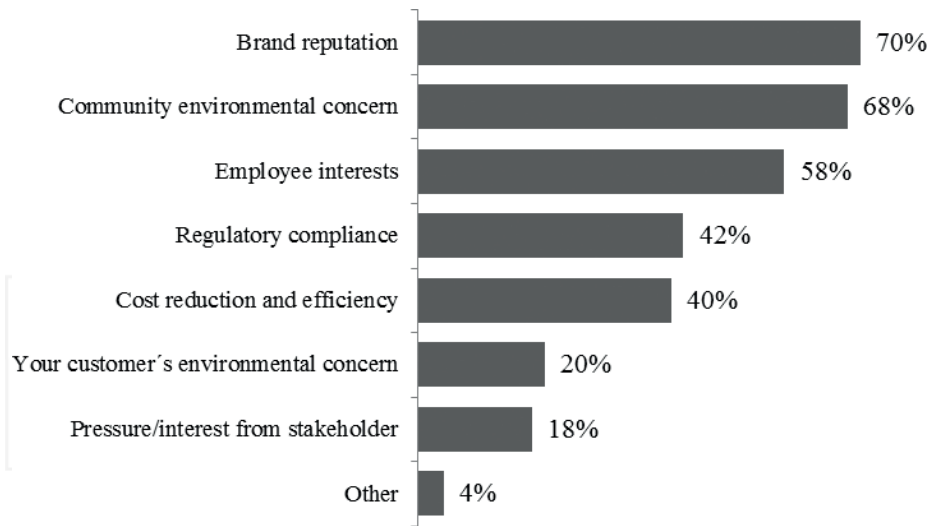
The survey results show that 60% of companies have a CSR strategy or program, 38% expressed negative, and 2% have not been able to comment. Nearly half of the participants (48%) claim to have a department identified as responsible for corporate responsibility. This function appears to be the most common within the Public Relations/Marketing Department or the responsibility of a dedicated CSR team established for this purpose [17].

Participant companies feel strongly about the impact of corporate behavior on their image and brand reputation (70%). Companies state that this is not motivated by their stakeholders (18%). It is clear that stakeholders are not yet as influential as in other countries when it comes to expectations of responsible behavior. The drivers for action on corporate responsibility are mostly internal forces arising from the company’s corporate values (58%) and the belief that they should do their part for the environment and the community (68%) [17] (**Figure 8**).

At present, for 58% of companies the implementation of the CSR concept in their company is very important and 2% is even extremely important. In the next 5 years, this state of affairs will change and for 56% will be very important and for even 20% of companies will be extremely important. By contrast, 34% of companies said that CSR for their company is neither important nor unimportant and for 6% is very unimportant. In the next 5 years, this situation should change, as for 20% of companies CSR will be neither important nor unimportant and very unimportant for just 4% of businesses [17].

In 2015, Deloitte company [18] conducted a survey called “CSR managers in Central Europe” to find out how the CSR concept has an impact on the economy and society in the Central European countries. This is the first survey to uncover CSR practices in 10 Central European countries, namely Bulgaria, the Czech Republic, Kosovo, Lithuania, Latvia, Romania, Serbia, Slovakia, Slovenia and Hungary. The survey was conducted from July to September 2015 and 179 company representatives from 10 Central European countries expressed views on it. In terms of size, most enterprises with a total of 250 or more employees (63.1%) were involved in the survey. The majority of companies surveyed have a CSR concept implemented within 5 years (60.9%), almost a third (27.9%) from 5 to 10 years and 10.6% of companies over 10 years.

According to this survey, 84% of respondents think that their business has contributed to addressing the country’s social problems in recent years. Thirty-six percent of respondents definitely agree with this argument and 48% rather agree. On the other hand, 13% of the



**Figure 8.** Main driving forces behind Malta companies' CSR efforts. Source: PWC company [17].

respondents did not agree and 2% did not comment on this issue. The results of the survey showed how the position of the CSR will develop from the point of view of the representatives of the addressed companies. The possibility that the concept will become more ripe, as the business model will include social and environmental problems, was highlighted by company representatives from Romania (50%), Serbia (41%) and Lithuania (41%). The possibility that the concept will go ahead and more and more companies will implement it, officials from Bulgaria (60%), Lithuania (59%) and Slovakia (58%) said. The possibility that the concept of CSR will have the same position was highlighted by representatives from Czech (42%), Hungarian (35%) and Slovak (32%) companies. The question was not answered in particular by Hungarians (10%), Romanians (8%) and Slovenia (8%). As the main problem that will hinder the implementation of CSR in individual countries over the next 15 years, corporate representatives have identified "perceptions of CSR as sponsorship", which has been identified by 59% of representatives. Other problems include "lack of government incentives" (52%), "company reluctance to invest" (46%), "lack of communication with the public" (35%) or "insufficient consumer pressure" (24%). In the opinion of the CSR managers polled, the most useful in CSR implementation are tools and methods enabling employee involvement such as corporate volunteering (36%), ethical programmes for employees (29%) or dialog with stakeholders (35%). Respondents also named social campaigns (29%) and pro-ecological programmes (29%) as useful initiatives. Managers pointed to socially responsible investing (40%) and inter-sectorial cooperation (32%) as tools that are underused and worth popularizing. Sustainability and CSR activities bring internal and external benefits to companies. According to the respondents, internally they ensure a stronger employee involvement (65%) and a better ethical awareness (46%). Externally, they improve the companies' reputation (65%) and recognition of the brand as socially responsible (51%) [18] (**Figure 9**).

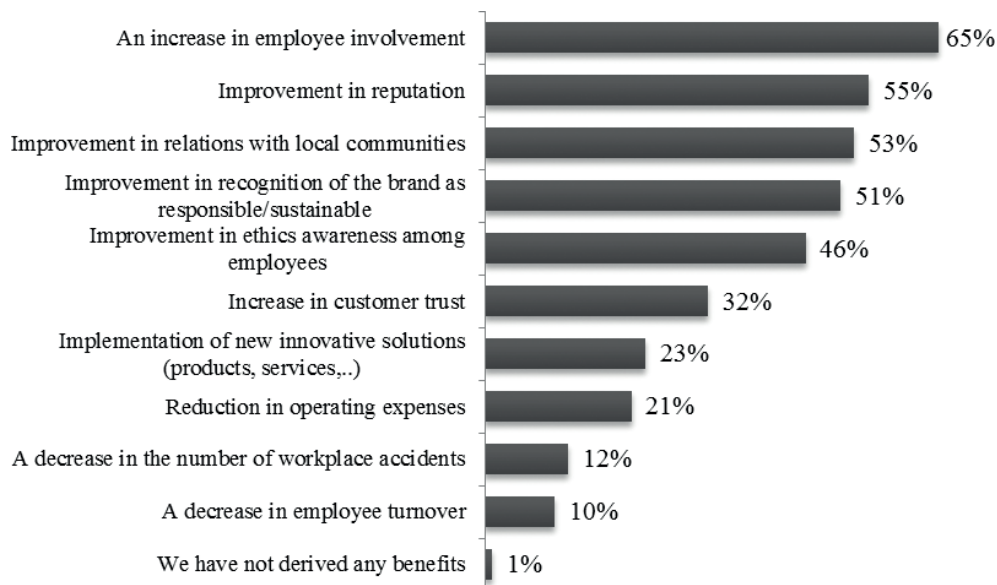


Figure 9. CSR implementation benefits by companies in Central European countries. Source: Deloitte company [18].

Based on the information from these surveys, it can be said that the concept of CSR is perceived positively by companies in Malta, as evidenced by the fact that a large part of companies have a CSR strategy and almost half of them have a CSR department. For almost a third of companies, the implementation of the CSR concept is very important, and considers the improvement in brand reputation as the most important asset. For most companies in Central Europe, the CSR concept is important, because according to them, have contributed to solving social problems. According to the respondents, the concept will become more mature in the future and more and more companies will implement it. As well as companies in Malta, Central European companies have also identified as the most important external benefit of the concept the improving reputation of companies. A significant internal benefit is to increase employee involvement.

## 5. Conclusion

The issue of corporate social responsibility is becoming an increasingly important element of strategic business management under the conditions of today's globalized market. Society expectations of business performance are constantly rising. One of the twenty-first century trends in company competitiveness is the management style that is associated with the so called the fight for a good thing. Currently the companies have the competitive advantage that are capable of actively responding to the ever-changing customer expectations and involving socially responsible aspects in their business.

A relatively large number of companies in Slovakia know the concept of CSR and most companies in Slovakia are socially responsible. Factors such as size, existence and legal form of



company do not influence whether the company is socially responsible. This is confirmed by the fact that the main reason for the implementation of CSR by companies is the internal conviction of management. On the other hand, however, companies do not develop further activities aimed at improving this concept, because a large part of companies do not have a CSR strategy, cannot determine the impact of CSR implementation on customer relationships and also do not know the CSR phase of an company. Despite the fact that companies carry out social, economic and environmental social responsibility activities, a small part of the company inform their external environment about these activities and projects. A recommendation for companies in Slovakia, based on this information, is to develop a CSR strategy that analyzes company stakeholders, identifies key CSR areas, and defines main objectives for these areas. Another recommendation is to measure the success of CSR activities, to which companies can use the SROI approach that measures change in relation to social, environmental and economic results. The last recommendation is to implement CSR communication. The companies should focus on means of communication such as websites, social networks or the product and its packaging. Unlike the Slovak companies, most companies in Malta have a developed CSR strategy and a department dedicated to activities and projects within this area. The concept of CSR is important for companies in Malta and will be of even greater importance in the future. Central European companies have said the CSR concept has helped solve social problems and, in their view, the concept will become more mature in the future and more and more companies will implement it. The biggest benefit of the CSR concept is improving the company's reputation for the companies in Slovakia, Malta and Central Europe. Based on the above, it can be said that companies perceive the CSR concept positively, its implementation is important to them as well as to society, and in the future its importance will grow and become more developed.

## Acknowledgements

This contribution is a partial output of scientific grant VEGA no. 1/0024/15 The Fundamental Research Perception of Corporate Social Responsibility as a Value for Customer.

## Author details

Anna Križanová\*, Katarína Moravčíková and Jana Klieštiková

\*Address all correspondence to: anna.krizanova@fpedas.uniza.sk

Department of Economics, Faculty of Operation and Economics of Transport and Communications, University of Zilina, Zilina, Slovak Republic

## References

- [1] Bussard A, Marcek E, Mikus M, Buncak, M. Spolocensky zodpovedne podnikanie [Internet]. 2005. Available from: <https://www.employment.gov.sk/files/slovensky/ministerstvo/spolocenska-zodpovednost/csr-nahlad-vseobec.-dobry.pdf> [Accessed: June 28, 2017]

- [2] Carroll AB. Corporate social responsibility evolution of definitional construct. *Business and Society*. 1999;38(3):268-295. DOI: 10.1177/000765039903800303
- [3] Kuldova L. *Nový pohled na společenskou odpovědnost firem*. Plzeň: NAVA; 2012. 176 p. ISBN: 978-80-7211-408-5
- [4] Bowen HR. *Social Responsibilities of the Businessman*; Iowa city: University of Iowa press. 2013. 248 p. ISBN: 978-1-60938-196-7
- [5] European Commission. Green Paper – Promotion a European Framework for Corporate Social Responsibility [Internet]. 2001. Available from: [europa.eu/rapid/press-release\\_DOC-01-9\\_en.pdf](http://europa.eu/rapid/press-release_DOC-01-9_en.pdf) [Accessed: June 28, 2017]
- [6] Kotler P, Lee N. *Corporate Social Responsibility*. USA: John Wiley & Sons; 2005. 307 p. ISBN: 978-0-471-47611-5
- [7] Trnkova J. *Společenská odpovědnost firem – kompletní průvodce tematem a závěry z průzkumu v ČR* [Internet]. 2008. Available from: [www.csr-online.cz](http://www.csr-online.cz) [Accessed: June 28, 2017]
- [8] Prskavcova M. *Společenská odpovědnost firem, lidský kapitál, rovné příležitosti a environmentální management s využitím zahraničních zkušeností*. 1st ed. Liberec: Technická univerzita v Liberci; 2008. 161 p. ISBN: 978-80-7372-436-8
- [9] Kucharcikova A, Tokarcikova E, Durisova M. Human capital efficiency in trading company. In: Loster T, Pavelka T, editors. 9th International Days of Statistics and Economics; September 10-12, 2015; Prague, Czech Republic. Melandrium Company; 2015. pp. 892-901. ISBN: 978-80-87990-06-3
- [10] Corejova T, Weick L. B2B market research in the context of regional disparities. In: Bucek M, Capello R, Hude R, et al., editors. 3rd Central European Conference in Regional Science; October 07-09, 2009; Kosice, Slovakia; 2009. pp. 160-167
- [11] Svec M, Olsovska A, Mura L. Protection of an “average consumer” in the digital society – European context. In: Matus J, Petranova D, editors. International Scientific Conference on Marketing Identity; November 10-11, 2015; Smolenice, Slovakia. Trnava; 2015. pp. 273-282. ISSN: 1339-5726
- [12] Du S, Bhattacharya CB, Sen S. Maximizing business returns to corporate social responsibility (CSR): The role of CSR communication. *International Journal of Management Reviews*. 2010;12(1):8-19. DOI: 10.1111/j.1468-2370.2009.00276.x
- [13] Kunz V. *Společenská odpovědnost firem*. 1st ed. Praha: Grada Publishing; 2012. 201 p. ISBN: 978-80-247-3983-0
- [14] Pavlik M, Belcik M. *Společenská odpovědnost organizace*. 2nd ed. Praha: Grada Publishing; 2010. 208 p. ISBN: 978-80-247-3157.
- [15] Industry Canada. *An Implementation Guide for Canadian Business* [Internet]. 2014. Available from: <https://www.ic.gc.ca/eic/site/csr/> [Accessed: June 24, 2017]

- [16] Tehemar SAZ. Communication in CSR. 1st ed. The eBook Company; 2014. 61 p. ISBN: 978-87-403-0640-8
- [17] PWC. Corporate Social Responsibility Practices Survey [Internet]. 2013. Available from: [https://www.pwc.com/mt/en/publications/assets/csr\\_survey\\_2013.pdf](https://www.pwc.com/mt/en/publications/assets/csr_survey_2013.pdf) [Accessed: June 28, 2017]
- [18] Deloitte. How CSR Has Influenced Central European Societies and Economies [Internet]. 2015. Available from: [https://www2.deloitte.com/content/dam/Deloitte/Lt/Documents/strategy/LT\\_CSR\\_Managers\\_Report.pdf](https://www2.deloitte.com/content/dam/Deloitte/Lt/Documents/strategy/LT_CSR_Managers_Report.pdf) [Accessed: June 25, 2017]



---

# Importance of Corporate Governance in Socially Responsible Behaviour of Enterprises

---

Hussam Musa, Zdenka Musová and  
Lenka Debnárová

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70536>

---

## Abstract

Many organisations have already realised that if they want to be successful, they must have a sense of responsibility not only for their business activities, but also for the whole society. That approach is entirely consistent with the basic idea of the concept of corporate social responsibility (CSR). In the economic area of the CSR concept, corporate governance plays an important role. Based on the OECD definition, corporate governance (CG) is a system by which business corporations are directed and controlled. The chapter provides the first comprehensive survey of corporate governance, the way to estimate the level of CG to individual companies on the Slovak capital market through our own corporate governance index. In analytical part of this chapter, we investigate disclosure of corporate governance in selected enterprises in Slovakia for the period 2011–2015 and on the basis of this information we prepare a corporate governance index. The corporate governance index helps assess the level of compliance with CG principles in companies whose securities are listed on the Bratislava Stock Exchange. The chapter fulfils a need for advancing knowledge on corporate governance and provides a practical framework for responsible behaviour of shareholders and managers in socially responsible enterprises.

**Keywords:** corporate social responsibility, corporate governance, corporate governance index, Bratislava Stock Exchange, Slovakia, survey

---

## 1. Theoretical background

Responsibility in business again come to the fore and the current period is one of the factors that can significantly contribute to achieving stability and sustainable growth in the global economic environment. Enterprises should build their position on the principles of transparency and

integrated approach to sustainable products and services, and the active cooperation of all stakeholders contribute to the overall well-being of society and the entire planet.

Responsible behaviour is not a one-off or short-term matter; it has to be a long-term consistent business philosophy. It often involves radical changes in the thinking of owners, managers and employees of companies, who apart from their own corporate interests and needs and wishes of customers also factor in long-term interests of the society.

Modern history of corporate social responsibility (CSR) began in the 1950s with the first definition by CSR theorists Bowen [1] who perceived it as obligations of businessmen to pursue those policies, to make those decisions or to follow those lines of action which are desirable in terms of the objectives and values of our society. Other authors supported this idea, elaborated it and supplemented it with additional dimensions [2–6]. In the 1980s, various alternative conceptions of social responsibility developed and commitments of companies widened in relation to all stakeholders [7–9].

Social responsibility is based on the triple-bottom-line which comprises '3P': profit–people–planet. It is a philosophy in business which says that overall performance of a company should be measured by its combined contribution (1) to the economic prosperity, (2) to the quality of the environment and (3) to the social capital [10–13]. Based on the triple-bottom-line, there are three basic areas of the responsible behaviour of companies – economic, social and environmental. Each of them includes various activities from which company can choose based on its specialisation and stakeholders' requirements. In the economic field, CSR emphasis on transparency in the business and building good relations with stakeholders who can influence economic activity of the company, especially with the customers, suppliers, shareholders, investors and business partners [14].

Corporate governance (CG) also plays an important role in the economic area of the CSR concept, particularly in relation to shareholders and employees. Corporate governance has become a significant factor in managing organisations in the current global and complex environment. In order to understand CG, it is important to highlight its definition. There is no single accepted definition for corporate governance but it can be defined as a set of processes and structures for controlling and directing an organisation. It constitutes a set of rules, which governs the relationships between management, shareholders and stakeholders [15]. The term "corporate governance" has a clear origin from a Greek word "kyberman" meaning to steer, guide or govern. From a Greek word, it moved to Latin, where it was known as "gubernare" and the French version of "governor". It could also mean the process of decision-making and the process by which decisions may be implemented [16].

Corporate governance includes all types of firms and its definitions could extend to cover all of the economic and non-economic activities. Literatures in CG provide some form of meaning on governance, but fall short in its precise meaning of governance. Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return to their investment [17]. Roubíček [18] states that the term corporate governance can also be understood as an inner organisation of a company, that is, the structure of competency of the advisory board and the board of directors and relations between shareholders and the

management. According to Mallin [19] optimal management of a trading company means protecting its creativity, freedom and flexibility and ensuring its continuous ability to create wealth and welfare which is essential to the civil society. Authority is the brain of the company cultivating executive to share the values with all shareholders and other parties involved. Klírová [20] considers the assessment of business performance the main function of CG from wider perspective than executive, that is, taking into consideration interests of all parties legitimately involved, and in this way influencing the creation of business strategy by its activity and its implementation with the aim of satisfying these interests. OECD's [21] definition characterises the basis of CG very well – the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as the board, managers, shareholders and other stakeholders and spells out the rules and procedures for making decisions in corporate affairs. Monks and Minow [22] also support this idea and define corporate governance as relations between different parties during influencing the governance and performance of companies, while shareholders and management are the primary parties and employees, customers, suppliers, creditors and other interest groups are the secondary. According to Mallin [19], the objective of corporate governance is to ensure that the firm is managed in the best interest of shareholders and other stakeholders of the company. CG supports transparency and accountability, which are key attributes for investors for the proper management of the company.

The objective of creating and improving the corporate governance of companies is the development of best practice based on the principles of good processed into a wide variety of policies and codes. The first formulation of the CG principles was in 1992, when Sir Adrian Cadbury, a member of the Institute of Directors, wrote the Cadbury Code of Best Practice of Great Britain, in which he emphasises the principles of information openness, fairness and responsibility in the terms of CG [23]. Later, in 1999 OECD composed basic principles of management and governance. As a result of various accounting scandals at the end of the millennium, European Commission issued Action Plan: European company law and corporate governance – a modern legal framework for more engaged shareholders and sustainable companies in 2003. At the same time The US Government accepted Sarbanes-Oxley Act with the aim to increase investors' protection by enhancing demands on the accuracy and correctness of published financial documents. OECD has updated the original principles in 2004 and added a separated principle laid down by the national regulator, which should promote transparent and efficient market, comply with the laws and clearly define the division of responsibilities among different supervisory, regulatory and law enforcement institutions. OECD principles became the basis for the creation of national codes of corporate governance in the most developed countries of the world. OECD updated and composed new G20/OECD principles of corporate governance with the aim to increase the confidence of companies and investors in the capital market in September 2015 in Ankara [24].

In Slovakia, Central European Corporate Governance Association (CECGA) has yet again initiated and achieved the revision of the National Code of Corporate Governance in cooperation with the representatives of Public Administration (the respective ministries) and the Bratislava Stock Exchange in 2016 [25]. The foundation for this revision was, besides the new



G20/OECD principles, the recommendations of the European Commission for the area of corporate governance (CG) related to independent members of the organisations' bodies, remuneration and reporting (recommendations No. 2004/913/ES, 2005/162/ES, 2009/385/ES and 2014/208/EU). The Guidelines of the UNO on human rights of 2011 were also taken into consideration.

Corporate governance is becoming more difficult with the growing globalisation. Results of inappropriate governance in (not only multinational) companies came out mainly during the crisis and fully influenced not only companies themselves, but also the global economy. The failure of using CG principles, insufficient transparency and information asymmetry were also the reasons for the negative development. Information asymmetry or the imperfection of information is considered as one of the reasons for the failure of the market mechanism and the price system in allocating production sources. Stiglitz [26] defines it as a situation in which various information are available for different people (or market entities). In this context the information asymmetry emerges not only between managers and shareholders, but also between investors and all stakeholders of the company. Each group follows its own interests with the aim to maximise its own benefit which is the main motive for the information asymmetry formation. One of the ways to eliminate information asymmetry is responsible implementation of corporate governance principles, which many authors of foreign studies confirm [27–29].

Level of adherence to corporate governance principles can also indicate the development of capital market and business environment of a country. Implementation of CG principles has probably positive impact on a variety of corporate management's areas [9, 16–17, 31]. Mallin [19] and Claessens and Yurtoglu [32] summarise these positive impacts as follows:

- better access of the company to the external funding sources. Access to the funding sources stimulates higher investments, higher growth and the creation of new jobs;
- lowering the costs of capital and related higher company valuation; company's attractiveness for investors will increase which leads to growth and higher employment;
- improvement of operational performance thanks to better source allocation and more effective governance which creates wealth in general;
- better relations with all company's stakeholders – responsible implementation of CG principles can generally minimise the occurrence of financial crises which imply economic and social costs.

## 2. Data and methods

The chapter aims to investigate disclosure of information on corporate governance in companies whose securities are listed on the Bratislava Stock Exchange and on the basis on this information to compile own corporate governance index, through which it is possible to assess the level of compliance with corporate governance principles in these companies in Slovakia for the period 2011–2015.

	2011	2012	2013	2014	2015
The number of shares issuers	87	92	84	47	48
The number of bonds issuers	11	11	11	13	11
The number of issuers of shares and also bonds	6	6	7	6	6
Total number of issuers	104	109	102	66*	65*

\*The issuer does not have information disclosure obligations to receive a security for trading on a multilateral trading system. For this reason, we have excluded companies in the multilateral trading system.

**Table 1.** The number of shares issuers and bonds issuers.

The subject of our research was companies whose securities are listed on the Bratislava Stock Exchange over the period 2011–2015. There were registered 87 share issuers and 11 issuers of bonds in 2011, according to data from the National Bank of Slovakia. The total number of companies in 2011 was 104 due to the fact that some companies issue shares and also bonds. The total number of issuers in 2012 was 109 companies and in 2013 was 102 companies. The issuer on the Bratislava Stock Exchange does not have information disclosure obligations to receive a security for trading on a multilateral trading system. For this reason, we have excluded companies on the Multilateral Trading Facility. There were 66 companies in 2014 and 65 companies in 2015. The number of companies which quote their shares and bonds is in **Table 1**.

We obtained the information from the companies' annual financial reports which are available in the Central Register of Regulated Information (hereinafter "CERI"), the Register of Financial Statements (hereinafter "RUZ") and on the companies' websites. We researched the disclosure in the Register of Financial Statements for 2013. The amendment to the Accounting Act No. 431/2002, as subsequently amended (hereinafter "Accounting Act"), which entered into force on 1 January 2014, introduces a new obligation for issuers to publish the annual financial report in RUZ pursuant to § 23, paragraph 2 of this Act. The Act on Stock Exchange No. 429/2002, as subsequently amended (hereinafter "the Act on Stock Exchange"), has been amended as well. According to § 45, paragraph 1 of this Act, the issuer is required to provide regulated information in CERI of the National Bank of Slovakia. This legal obligation is fulfilled when the issuer has entered regulated information in RUZ. For this reason, we have extended our evaluation to include information disclosure in RUZ.

We have compiled our own corporate governance index in order to complete for an overall assessment of the level of corporate governance in individual companies. Authors of foreign studies [27–30] also used a corporate governance index in determining the level of corporate governance, but often without specifically indicating its method. In our case, we could not take over one of the models, but we have compiled own index suited to the Slovak capital market standards and disclosure by companies. This index uses ordinal measures of various evaluative criteria. The criteria were as follows:

- a. disclosure of the current annual report in Central Register of Regulated Information,
- b. disclosure of the current annual report in Register of Financial Statements,
- c. disclosure of the current annual report on the companies' websites,
- d. the scope and clarity of the information about corporate governance in annual report according to § 20 of the Accounting Act,
- e. the scope, clarity and quality of information in the corporate governance statement,
- f. information about board members, such as names, experience, responsibility and functions,
- g. information about the structure and amount of remuneration for individual members of the board,
- h. information about risk management, defined predictable risks and risk quantification,
- i. information about the establishment and activities of an Audit Committee, or the failure to establish one,
- j. information about the establishment and activities of a Remuneration Committee or the failure to establish one and
- k. information about the establishment and activities of a Nomination Committee or the failure to establish one.

During the evaluation of corporate governance criteria there were several problems and limitations. Legislation in force does not require the company to disclose information on the website of the company. Obligations for companies that were the subject of the survey are to disclose information for the current accounting period in CERI or RUZ. In order to appreciate the efforts of the company to inform stakeholders through the website, corporate governance index also took account of this fact. The company, which released information in CERI, RUZ and on its website also, reached the highest score in that category. Assessment of the level and quality of information in the Statement on Corporate Governance was another criterion. Particular of the Statement on Corporate Governance are specified in § 20 of the Accounting Act. Some companies in structuring the Statement on Corporate Governance followed the legal requirements, but the content of the information was insufficient. Other companies used the statement forms prepared by Central European Corporate Governance Association (CECGA). Due to the objective assessment of the quality of information in the statement we did not evaluate the structure of statements on corporate governance, but the quality of the information, that is, whether the company said only general information or comprehensively and concisely explain each point of statement, together with deviations from the Code. The obligation to establish an audit committee is required by § 19 of the Accounting Act. Based on this legal requirement, the entity does not have an audit committee if its supervisory board performs the activities of the audit committee or the parent company has established a committee. The assessment of whether the company has established or has not established audit committee would not provide us an objective assessment. Therefore, we evaluated a comprehensive

disclosure of the audit committee – information on the establishment of the Committee, the explanation if the committee is not established, description of activities and results of the work of the committee during the reporting period. We did the same with the other two committees.

We have compiled corporate governance index for each reporting company with aim to estimate levels of corporate governance. The corporate governance index consists of the criteria, which are to be assessed by ordinal character based on their importance. Weightings are assigned to each criterion and are determined on the basis the expert estimation and theoretically supported by Saaty's method of determining the weights. The Saaty's method compares pairs and evaluation is entered into a matrix  $S = (s_{ij})$  in the following way:

$$(s_{ij}) = \begin{cases} 1 - i \text{ and } j \text{ are equivalent} \\ 2 - i \text{ is slightly preferred over } j \\ 5 - i \text{ is strongly preferred over } j \\ 7 - i \text{ is very strongly preferred over } j \\ 9 - i \text{ is absolutely preferred over } j \end{cases} \quad (1)$$

The values 2, 4, 6 and 8 are the intermediate stage evaluation. For ease of calculation used method of least squares logarithmic:

$$F = \sum_{i=1}^k \sum_{j>i} (\ln s_{ij} - (\ln v_i - \ln v_j))^2 \rightarrow \min \quad (2)$$

Conditions for validity:  $\sum_{i=1}^k v_i = 1$ .

The solution is the geometric mean of the row of the matrix S:

$$v_i = \frac{\left[ \prod_{j=1}^k s_{ij} \right]^{1/k}}{\sum_{i=1}^k \left[ \prod_{j=1}^k s_{ij} \right]^{1/k}} \quad (3)$$

where  $i = 1, \dots, k$ .

To an objective assessment of the importance of each criterion in corporate governance index criteria, we assigned weights by expert estimate that are as follows:

$$\begin{aligned} \text{CG index} = & 0.095*(a + b + c) + 0.079*d + 0.159*e + 0.079*f + 0.079*g + 0.079*h \\ & + 0.079*i + 0.079*j + 0.079*k \end{aligned} \quad (4)$$

Individual assessment criteria were given a score and assigned a weight according to their degree of importance. We set the value of coefficients based on expert estimation and supported by Saaty's method of determining the weights. We identified through expert estimation that

criterion “the scope, clarity and quality of information in corporate governance statement” as the most important criterion in the index. Other important criteria with lower value of the coefficient were: “disclosure of the current annual report in CERI”, “disclosure of the current annual report in RUZ” and “disclosure of the current annual report on the companies’ websites”. Other criteria were the same coefficients with respect to their significance in comparison with the mentioned higher ranked criteria in the index. Each monitored company was scored using a weighted sum of the evaluated criteria. This allowed corporate governance comparisons across companies. We have compiled Saaty’s matrix, which is shown in **Tables 2** and **3**, which is evaluated 11 criteria in the index and their importance in pairwise comparisons.

	a	b	c	d	e	f	g	h	i	j	k
A	1	1	1	2	0.33	2	2	2	2	2	2
B	1	1	1	2	0.33	2	2	2	2	2	2
C	1	1	1	2	0.33	2	2	2	2	2	2
D	0.5	0.5	0.5	1	0.33	1	1	1	1	1	1
E	3	3	3	3	1	3	3	3	3	3	3
F	0.5	0.5	0.5	1	0.33	1	1	1	1	1	1
G	0.5	0.5	0.5	1	0.33	1	1	1	1	1	1
H	0.5	0.5	0.5	1	0.33	1	1	1	1	1	1
I	0.5	0.5	0.5	1	0.33	1	1	1	1	1	1
J	0.5	0.5	0.5	1	0.33	1	1	1	1	1	1
K	0.5	0.5	0.5	1	0.33	1	1	1	1	1	1

**Table 2.** Saaty’s matrix.

Category	Percentage	Rank
Disclosure of the current annual report in CERI	11.5	2
Disclosure of the current annual report in RUZ	11.5	2
Disclosure of the current annual report on the companies’ websites	11.5	2
Quality of information in the corporate governance statement	6.1	5
Information about board members	22.9	1
Information about the structure and amount of remuneration	6.1	5
Audit Committee	6.1	5
Nomination Committee	6.1	5
Remuneration Committee	6.1	5
Information about risk management	6.1	5

**Table 3.** Weighting of each index criteria based on Saaty’s method.

Corporate governance index with weights set through Saaty's method is as follows:

$$\begin{aligned} \text{CG index} = & 0.115*(a + b + c) + 0.061*d + 0.229*e + 0.061*f + 0.061*g + 0.061*h \\ & + 0.061*i + 0.061*j + 0.061*k. \end{aligned} \quad (5)$$

### 3. Results

Aiming to emphasise the importance of applying the principles of corporate governance also in the regulated Slovak market, we carried out a research in the period of 2011–2015 in companies, whose securities are listed on the Bratislava Stock Exchange. Outcomes of the research then became the foundation for creating corporate governance index which is the determining indicator of the level of adherence to corporate governance principles in Slovakia.

#### 3.1. Disclosure of information in the context of corporate governance

One of the basic governance framework in Slovakia is the framework on disclosure and transparency. It is in the interest of the companies eliminate information asymmetry, which occurs mainly between managers, shareholders, investors and other stakeholders.

According to § 34 of the Act on Stock Exchange, as subsequently amended, the companies that issue securities are required to publish the Annual Financial Report, which shall include information on corporate governance, no later than 4 months after the end of the financial year. During the reporting period, there were companies that failed to meet this legal obligation and did not publish the information in CERI, RUZ and even on their website. In annual comparison 2011–2013, the proportion of these companies remained almost unchanged (25 companies) and in 2013 the number dropped by only one company. After the exclusion of companies without information obligations, we noticed a significant decreased in the number of companies that did not disclose information in CERI, in RUZ and on company's website either.

In 2011 there were 23 companies (about 22%) that disclosed the current annual financial report in CERI or on the website. In 2011 and 2013, researched companies preferred disclosure in CERI. Inverse trend was recorded in 2012, which was dominated by disclosure of documents on the company website. We appreciate the on-year increase in the proportion of companies that published documents in CERI and on their website also. This share decreased from 53.8% in 2011 to 24.6% companies in 2015. This fact indicates the effort to inform all stakeholders on the part of most companies in Slovakia, which in the long term can contribute to the improvement of transparency in the Slovak capital market.

During the evaluation of the transparency in 2013 we took into account the disclosure in RUZ, for example, companies can disclose information in CERI, on their website and in RUZ. The share of companies, that disclose documents in 2 of 3 options, was at 67.6%, that is, 69 companies. The companies preferred to publish documents in CERI before in RUZ. In the year 2013, only eight companies published annual reports in RUZ. For the mentioned period, we noticed only one company that published the documents in CERI, on the website and in RUZ.

	2011	2012	2013	2014	2015
No information is published in CERI, in RUZ and on company's website either	25	25	24	0	2
Annual report is published in one of the three options (CERI, RUZ, company's website)	23	8	8	6	4
Annual report is published in two of the three options (CERI, RUZ, company's website)	56	76	69	21	16
Annual report is published in CERI, RUZ, company's website	0*	0*	1	39	43

\*Companies have an obligation to publish information in RUZ since 2015.

**Table 4.** Disclosure of information (the annual report).

During the monitored years 2014–2015, we did not list companies that do not have the information obligation (Multilateral Trading Facility). Interesting is the growing trend of companies that have published information in CERI, RUZ and even on their website. The number of companies mentioned was 43 (66.2%) for 2015 (**Table 4**).

### 3.2. Content of the annual report and the statement of compliance with corporate governance

The annual financial report includes the annual report, financial statements and the statement of the financial statements' fairness made by the issuer's executives. According to § 20 of the Accounting Act, the annual report includes the Statement on Corporate Governance as well. Nevertheless, there are still a large percentage of companies that in their annual report did not mention any information about corporate governance. As shown in **Table 5**, trying to inform shareholders and investors was apparent mainly in 2012, when 64 companies disclose basic information on corporate governance through their annual reports and companies also provided comprehensive information. The share of companies reporting minimum basic information in their annual report was 54.8% in 2011 and increased to 61.5% in 2015.

The most important area of our research was to evaluate the content of the Statement on Corporate Governance. Companies can write their statement based on the requirements of the Accounting Act or use the statement form for the Statement on Corporal Governance Code drafted by CECGA, which allows companies to comprehensively inform on the level of implementation of the corporate governance principles. Some companies wrote the statement, which contained only a reference to the internal company materials, the laws or information were general. We conclude that these companies consider drafting the statement on corporate governance as a formal matter (**Table 6**).

	2011	2012	2013	2014	2015
No information about CG	47	39	53	31	25
It contains partial information on CG	43	64	27	20	22
It contains information on CG and compliance with the Code	14	6	22	15	18

**Table 5.** Content of the annual report.



	2011	2012	2013	2014	2015
No specific information on CG	57	61	68	28	30
The statement contains a brief explanation of each item	40	28	12	25	25
The statement contains an explanation of each item and the reason for deviation from compliance with the Code	7	20	22	13	10

**Table 6.** Statement on corporate governance.

### 3.3. Composition and remuneration of board members

According to the Code, Principle IV, paragraph 5, the company discloses information about its board members, including their qualifications, selection process and their independence. This obligation is also imposed by the Accounting Act, § 20, paragraph 6. Based on the recommendations of the Code and the Accounting Act, we evaluated the disclosure of information about the board members. The negative fact is that there are still companies which do not even publish basic information on the composition of their boards. The number of these companies was at 27 in 2011, increased to 33 companies in 2013 and then in 2015 the mentioned companies were only 10 (**Table 7**).

In context with the identified failures in corporate governance we also included in the survey information on the remuneration of board members. The disclosure on remuneration of board members is still an area that most companies have carefully protected. As can be seen from **Table 8**, about 60% of companies did not disclose at least cumulative data and no further information on the remuneration of board members.

Some companies paid remuneration to board members despite losses shown during the reporting period. This may encourage managers to take a higher risk and thus adversely affect the performance of the company. The risk of moral hazard for a member of a board who is not punished for their failure is very high. The method of adjustment of remuneration

	2011	2012	2013	2014	2015
No information	27	31	33	9	10
Only the names of board members	64	64	57	46	43
Published the names of board members, together with the qualifications, roles and responsibilities and managerial posts	13	14	12	11	12

**Table 7.** Composition of board members.

	2011	2012	2013	2014	2015
No information	61	63	65	47	51
Cumulative data about remuneration	34	39	32	15	10
Disclosed the amount of remuneration of board members and managers of the company or remuneration disclosed for individual boards of the company	9	7	5	4	4

**Table 8.** Remuneration of board members.

	2011	2012	2013	2014	2015
No specific information	72	82	69	43	38
Basic information about risk management and defined predictable risks	16	10	11	8	8
Comprehensive information about risk management and risk quantification	16	17	22	15	19

**Table 9.** Information on risk management.

and incentive system in companies has a significant impact on risk management and for this reason we took into account information about risk management in the survey. Risk management methods, defined predictable risks and in some cases the quantification of risks is very valuable information for shareholders and potential investors. The Code, Principle IV, also recommends disclosure of information on ex-ante risks to the extent that is necessary to fully inform investors about serious and predictable risks associated with the company. Favourable results were observed in the proportion of companies providing sufficient information about risk management as well as predictable risks. The proportion of companies increased from 15.38% (16 companies) in 2011 to 29.23% (19 companies) in 2015. According to the Accounting Act § 20, the company has to describe the risk management systems in its annual report. However, the most of monitored companies did not state any or insufficient information on risk management. The number of the companies is shown in **Table 9**.

### 3.4. Audit, remuneration and nomination committees

Other criteria that were included in the survey related to the area of establishment of committees as recommended by the Code. The Audit Committee should make proposals and recommendations on the performance of internal control and external audit. According to § 19 of the Accounting Act, an audit committee is mandatory for companies that issue securities on a regulated market. The Audit Committee does not have to be set up separately if the supervisory board carries out activities normally done by this committee. It is surprising, that despite the legal obligation, approximately 50% of companies did not provide information on the Audit Committee in its annual report during the years 2011–2013. On the positive side, the share of these companies fell to 38.46% in 2015. Clearly disclosed information on the establishment and functioning of an Audit Committee during the reporting period had only 19, 13, 17 and 8 companies (**Table 10**).

	2011	2012	2013	2014	2015
No information	51	55	50	31	25
Information on whether the committee was or was not established (reasons why it was not established)	34	41	35	27	32
It is established, a description of the activities of the committee and the results of its activities	19	13	17	8	8

**Table 10.** Audit committee.

	2011	2012	2013	2014	2015
No information	88	87	80	53	51
Information on whether the committee was or was not established (reasons why it was not established)	12	18	17	10	10
It is established, a description of the activities of the committee and the results of its activities	4	4	5	3	4

**Table 11.** Remuneration committee.

	2011	2012	2013	2014	2015
No information	91	92	85	58	56
Information on whether the committee was or was not established (reasons why it was not established)	12	16	16	8	7
It is established, a description of the activities of the committee and the results of its activities	1	1	1	0	2

**Table 12.** Nomination committee.

According to principle V of the Code, it is recommended to establish other committees in companies as well: The Remuneration and Nomination Committees. In general, the survey results in evaluation of these two committees are not favourable but after considering the annual comparison, slight tendency to improve the disclosure was noted.

Approximately four (modus) of the companies did not provide any information on the Remuneration Committee, whose main role is to propose and make recommendations on the remuneration of board members and management. The Remuneration Committee was set up in 8 banking and insurance companies. Approximately 80% of companies do not disclose information about the Remuneration Committee (**Table 11**).

Even less attention is paid to the Nomination committee. Most of the companies (approximately 85% of the companies) do not report on whether the Nomination Committee was or was not established. Over the period 2011–2013, only one company set up the Nomination Committee and two companies in 2015. The number of the companies is shown in **Table 12**.

### 3.5. The number of board member, proportion of women and employees on Companies' boards

One of the principles of corporate governance, the responsibilities of the board, is closely related to the issue of gender equality. According to this principle the board should ensure the strategic management of the company, the effective monitoring of management and should act responsibly towards both society and shareholders. These activities may be determined by many factors and one of them is gender equality. European Commission claims that the progress in gender equality can have the following positive impacts [33]:

- improved company performance: companies with higher share of women at top levels can deliver strong organisational and financial performance;

- better quality of decision-making: a more diverse board of directors can contribute to better performance because decisions are based on evaluating more alternatives;
- improved corporate governance and ethics: the quality of corporate governance and ethical behaviour can be higher in companies with a high share of women on boards;
- better use of the talent pool: 60% of university graduates in Europe are women. Systematically including suitable candidates of both sex ensures that new board members are selected from the very best candidates, both male and female.

Due to the last argument of the European Commission, we decided to assess what the percentage of women directors and supervisory boards of companies on the Slovak regulated market for the period 2011–2015. **Table 13** presents the percentage of the share of women in the total number of directors and the supervisory board.

We appreciate the rising median value, which was in 2011 at 17%, increased at 22% in 2013 and in the last surveyed year 2015 was at 17%. The average representation of women increased year on year 2012/2013 from 23 to 24%, while the average in the EU-28 was lower at 18%. Among the companies were some that did not have any woman on the board or supervisory board. The percentage of these companies decreased from 62.5% in 2011 to 55.4% in 2015. Women on board of directors were not represented in 65 companies in 2011 and 2013 and in 70 companies in 2012. The number of these companies was twice more compared with companies without the representation of women on the supervisory boards. The number of companies which did not have representation of women on the supervisory board was 36 in 2011, 32 in 2013 and 29 in 2015. The percentage of these companies increased from 34.6% in 2011 to 44.6% in 2015. The average number of women on boards of directors was around 0.44 and average number of women on supervisory board oscillated around one women. Women were represented on the supervisory boards more frequently than on boards of directors.

The number of members of the boards and supervisory board has an impact on the effectiveness of these authorities, the company's performance and the degree of information asymmetry [29]. For the years 2011–2015, we found out how many members were in the board and the supervisory board of the companies on the Slovak regulated market. The results are available in **Tables 14** and **15**.

Median and mode number of directors for the whole period was three members and the same conclusion was also in the number of supervisory boards members. Companies thus meet the

	2011	2012	2013	2014	2015
Median	17%	20%	22%	16.67%	16.67%
Modus	0%	0%	0%	0%	0%
Average	23%	23%	24%	20.74%	22.55%
Standard deviation	20.02%	21%	21.05%	19.56%	21.24%
The number of companies with no female representation	24	29	26	19	19

**Table 13.** Proportion of women on companies' boards.

	2011	2012	2013	2014	2015
Median	3	3	3	3	3
Modus	3	3	3	3	3
Average	3.5	3.34	3.38	3.53	3.22
Standard deviation	1.4	1.48	1.56	1.59	1.52

**Table 14.** The number of members of the board.

	2011	2012	2013	2014	2015
Median	3	3	3	3	3
Modus	3	3	3	3	3
Average	3.81	3.72	3.57	3.91	3.63
Standard deviation	1.56	1.43	1.57	2.93	1.1

**Table 15.** The number of members of the supervisory board.

legal obligation (the Commercial Code no. 513/1991, § 200) about a minimum number of members of the supervisory board.

### 3.6. Corporate governance index

We evaluated the level of corporate governance using the corporate governance index. **Table 16** shows the basic characteristics of corporate governance index for the period 2011–2015. Corporate governance index reached a minimum value at 0 and maximum at 1.63 for whole reporting period. Companies achieved an average value of the index from 0.48 points to 0.66 points. Standard deviation of the mean had a growing tendency, from 0.38 in 2011 to 0.42 points in 2013 and then the value dropped to 0.46 points in 2015. Distribution asymmetry is evident from the value of skewness and kurtosis parameters. A positive value of skewness indicates to us that the mean is greater than the median – most of the values of the index are lower than the mean. We found out that there were higher proportions of companies with

	N	Min	Max	Median	Modus	Mean	Std. Deviation	Skewness		Kurtosis	
								Stat.	Std. E	Stat.	Std. E
CG Index 2011	104	0.00	1.38	0.4275	0.00	0.4847	0.38007	0.405	0.237	−0.738	0.469
CG Index 2012	109	0.00	1.38	0.4270	0.00	0.5094	0.39455	0.332	0.231	−0.838	0.459
CG Index 2013	102	0.00	1.38	0.4270	0.00	0.5072	0.42421	0.420	0.239	−1.01	0.474
CG Index 2014	66	0.10	1.47	0.6335	0.348	0.6548	0.33109	0.357	0.295	−0.721	0.582
CG Index 2015	65	0.00	1.63	0.5230	0.443	0.6624	0.34098	0.604	0.297	−0.127	0.586

**Table 16.** Descriptive statistics of corporate governance index.

below-average value of corporate governance index. Approximately 20% of companies in each reference year did not disclose information in the right form or information not disclosed at all. Therefore, we could not prepare corporate governance index for these companies. Based on the negative values of the kurtosis there were confirmed a platykurtic distribution. We can conclude that the incidence of extreme value is less frequent compared to the normal distribution for the period 2011–2015.

The main benefit of CG index creation is seen in the fact that on the basis of our proposed procedure, the level of corporate governance in selected companies in Slovakia has been estimated for the very first time. With our help, the CECGA thus achieved a detailed picture of the level of information which is available for public in these enterprises, and at the same time it obtained an overview of which enterprises appear to be the best in this field. This enables a year-to-year comparison, or an estimate, of how the trend develops in time. Awarding the best companies by Central European Corporate Governance Association for 2012, 2013, 2014 and 2015 based on our index have an impact on the visibility of corporate governance topics in Slovakia and increase the motivation of companies to report quality information on compliance with corporate governance principles.

#### 4. Conclusions

Adverse long-term development in the Slovak capital market has significantly strengthened the position of commercial banks in the financial market. Companies tend to preferentially provide information to commercial banks as opposed to publicly inform potential investors about the company. From on-year comparison it was apparent slight increase in awareness and the quality of the reported information on corporate governance. The most significant changes were observed in evaluating the disclosure of information in the share of companies that their annual report is published in CERI, RUZ and on company's website.

Positive changes occurred also in the establishment of committees and availability of information on their activities, as well as in the evaluation of risk management. The survey has revealed us areas where there was a decrease in the level of reporting. We evaluated negatively disclosure the Statement on Corporate Governance and content of the information in this statement. The share of companies that did not have the Statement on Corporate Governance or information in the Statement was not sufficient exceeded approximately 50% during selected years. The negative trend was also identified in the increase of the share of companies that not disclosed enough information about board members and their remuneration. The percentage of these companies increased from 58.7 in 2011 to 78.5 in 2015. It is important to notice that there are still companies that rely on outdated Unified Code or develop their own code. The positive finding is that the number of such companies decreased.

Based on the presented results of the survey, we compiled the corporate governance index for each company which securities are listed on the Bratislava Stock Exchange. The Central Europe Corporate Governance Association now uses our proposed methodology and compile and publish the ranking of the companies in context their CG principles implementation every year.

Outputs of the survey have expanded our knowledge of corporate governance in Slovakia and showed significant weaknesses in compliance with fundamental legal obligations by companies. A positive fact is we indicate the efforts by companies of at least some disclosure of information on corporate governance. We expect that the activities of the CECGA and annual awarding the best companies based on our compiled index, will increase interest in the topic of corporate governance, help to raise awareness and attract the attention of a wider audience.

## Author details

Hussam Musa, Zdenka Musová\* and Lenka Debnárová

\*Address all correspondence to: [zdenka.musova@umb.sk](mailto:zdenka.musova@umb.sk)

Faculty of Economics, Matej Bel University in Banská Bystrica, Banská Bystrica, Slovakia

## References

- [1] Bowen HR. Social Responsibilities of the Businessman. New York: Harper; 1953. 276p
- [2] Elibert H, Parket RI. The practice of business: The current status of corporate social responsibility. *Business Horizons*. 1973;**16**:5-14
- [3] Carroll AB. Corporate social responsibility: Evolution of a definitional construct. *Business & Society*. 1999;**38**(3):268-295
- [4] D'Amato A, Henderson S, Florence S. Corporate Social Responsibility and Sustainable Business. A Guide to Leadership Tasks and Functions. Greensboro, North Carolina: Center for Creative Leadership; 2009
- [5] Coombs T, Holladay S. Managing Corporate Social Responsibility: A Communication Approach. Oxford: Wiley-Blackwell; 2012. p. 200
- [6] Hroncová Vicianová J. Uplatňovanie koncepcie spoločensky zodpovedného podnikania vo vybraných odvetviach národného hospodárstva na Slovensku. Banská Bystrica: Vydavateľstvo Univerzity Mateja Bela - Belianum, Ekonomická fakulta; 2014. 168p
- [7] Carroll AB. The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Business Horizons*. 1991;**34**(4):39-48. DOI: 10.1016/0007-6813(91)90005-G
- [8] Mura L, Machyniak J. Ethical aspects of public administration. In: Hradec Economic Days 2014. Economic Development and Management of Regions, PT V; Hradec Králové: University of Hradec Králové, 2014. pp. 59-65
- [9] Freeman RE. Strategic Management: A Stakeholder Approach. London: Pitman; 1984



- [10] Carroll AB. Three-dimensional conceptual model of corporate performance. *Academy of Management*. 1979;4(4):479-505
- [11] Marková V, Maráková V, Hiadlovský V, Wolak-Tuzimek A. The Concept of Corporate Social Responsibility in Selected Economic Sectors. Radom: Instytut naukowo-wydawniczy Spatium; 2014. 272p
- [12] Majerová J, Križanová A. Measurement of CSR performance – a necessary condition for effective corporate financial management. In: Čulík M, editors. *Financial Management of Firms and Financial Institutions; 7–8 September, 2015; Ostrava*. Ostrava: VSB Technická Univerzita Ostrava, Ekonomická fakulta; 2015. pp. 725-732.
- [13] Huliaková Z. Vnímání konceptu společenské zodpovědnosti slovenskými spotřebiteli. In: Mura L, editors. *Mladí vedci 2017. Zborník vedeckých príspevkov doktorandov a mladých vedeckých pracovníkov*. Komárno: Univerzita J. Selyeho, Ekonomická fakulta v spolupráci s Paneurópskou vysokou školou, Fakultou ekonómie a podnikania; 2017. pp. 62-72.
- [14] Musová Z. Spoločenská zodpovednosť v marketingovej praxi podnikov. Banská Bystrica: Univerzita Mateja Bela, Ekonomická fakulta; 2013. 228p
- [15] Ching KW, Tan JS, Chi Ching RG. *Corporate Governance in East Asia: The Road Ahead*. Singapore: Prentice Hall/Pearson Education South Asia; 2006. 410p
- [16] Abdullah H, Valentine B. Fundamental and ethics theories of corporate governance. *Middle Eastern Finance and Economics*. 2009;4:88-96
- [17] Shleifer A, Vishny RW. A survey of corporate governance. *Journal of Finance*. 1997;52(2): 737-783
- [18] Roubíček L. *Corporate Governance (správa a řízení společností)*. Ostrava: VŠB-Technická univerzita; 1998. 130p
- [19] Mallin C. *Corporate Governance*. Oxford: Oxford University Press; 2013
- [20] Klírová J. *Corporate Governance. Správa a řízení obchodních společností*. Praha: Management Press; 2001. 121p
- [21] OECD Principles of Corporate Governance 2004 Edition [Internet]. 2004. Available from: <https://www.oecd.org/corporate/ca/corporategovernanceprinciples/31557724.pdf> [Accessed: 2017-06-05]
- [22] Monks RAG, Minow N. *Corporate Governance*. 5th ed. Chichester, UK: John Wiley & Sons; 2011. 542p
- [23] Cadbury, A. *Cadbury Codex: The Financial Aspects of Corporate Governance* [Internet]. 1992. Available from: <http://www.ecgi.org/codes/documents/cadbury.pdf>
- [24] OECD. *G20/OECD Principles of Corporate Governance* [Internet]. 2015. Available from: <https://www.oecd.org/daf/ca/Corporate-Governance-Principles-ENG.pdf> [Accessed: 2017-06-05]

- [25] Stredoeurópska asociácia správy a riadenia spoločností CECGA. Kódex správy spoločností na Slovensku [Internet]. 2016. Available from: [http://cecga.org/wp-content/uploads/web\\_kodex\\_2016.pdf](http://cecga.org/wp-content/uploads/web_kodex_2016.pdf) [Accessed: 2017-07-02]
- [26] Stiglitz J. Information and the Change in the Paradigm in Economics [Internet]. 2001. Available from: [http://www.nobelprize.org/nobel\\_prizes/economic-sciences/laureates/2001/stiglitz-lecture.html](http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2001/stiglitz-lecture.html)
- [27] Kanagaretnam K, Lobo G, Whalen D. Does Good Corporate Governance Reduce Information Asymmetry Around Quarterly Earnings Announcements? [Internet]. 2007. Available from: <http://www.sciencedirect.com/science/article/pii/S0278425407000397> [Accessed: 2017-06-06]
- [28] Cai J, Liu Y, Qian Y. Information Asymmetry and Corporate Governance [Internet]. 2008. Available from: < [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1082589](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1082589) [Accessed: 2017-06-06]
- [29] Elbadry A. Corporate Governance and Asymmetric Information. KG: VDM Verlag Dr. Müller GmbH & Co; 2010
- [30] Anglin P, Edelstein R, Gao Y, Tsang D. How Does Corporate Governance Affect the Quality of Investor Information? The Curious Case of REITs [Internet]. 2009. Available from: <http://aux.zicklin.baruch.cuny.edu/jrer/papers/pdf/> [Accessed: 2017-06-06]
- [31] Clark T. Theories of Corporate Governance: The Philosophical Foundations of Corporate Governance. London and New York: Routledge; 2004
- [32] Claessens S, Yurtoglu BB. Corporate Governance in Emerging Markets: A Survey [Internet]. 2012. Available from: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1988880](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1988880) [Accessed: 2017-06-15]
- [33] European Commission. Report on Progress on Equality Between Women and Men in 2013. A Europe 2020 Initiative [Internet]. 2014. Available from: [https://ec.europa.eu/justice/gender-equality/files/swd\\_2014\\_142\\_en.pdf](https://ec.europa.eu/justice/gender-equality/files/swd_2014_142_en.pdf) [Accessed: 2017-06-07]

INTECH



# Management of Human Resource in Small and Medium-Sized Enterprises: Case Study

Darja Holátová and Monika Březinová

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70294>

## Abstract

Strategic management is a current direction of management types. It is applied in all types of businesses, including small and medium-sized enterprises. However, the use of its principles is limited in SMEs. The limits are caused by the size of these enterprises related to greater focus on operational management. For SMEs, cumulating of functions is also typical; oral communication is more common than written, etc. Despite those limitations, implementation of strategic principles in the management of SMEs is able to increase their competitiveness, reduce costs, improve decision-making, facilitate the introduction of employee motivation, shorten delivery times, provide better customer care, etc. The paper discusses whether and to what extent SMEs implement the principles of strategic management and whether its use is effective. The basic principle of strategic management is the formulation and selection of a strategy. Most of the SMEs in the sample formulated a strategy. However, a written strategy was designed mostly by enterprises with more than 25 employees; enterprises with fewer employees designed a written strategy only exceptionally. Classified by the type of activity, a strategy is seen less frequently in wood-work enterprises. On the other hand, enterprises operating in trade and services, including transport, designed a strategy, or even a written strategy, the most often. Quality and stabilisation were the most monitored characteristics, regardless of the number of employees or business type. Profit was the least monitored strategy in the sample. Positive effects after the introduction of strategic management principles were rated as significant by 27% of the subjects analysed and by 36% as moderate, and 38% of enterprises had no positive effects. The most striking positive effect, after the introduction of strategic management principles, was achieved by 44% in decision-making and costs. The smallest number of enterprises, only 8%, had a positive effect of the introduction of strategic management principles in the area of internal communication. The results show that the introduction of strategic management has a positive impact on small and medium enterprises, and it is highly desirable that its principles were introduced into these entities.

**Keywords:** management, enterprise, SME, strategy, stability, development, profit

## 1. Introduction

Development of small and medium-sized enterprises reduces unemployment rates. This group of companies more quickly and more readily responds to demand changes [1]. Disadvantages in comparison to large enterprises are represented by situations when insufficient use of capacities leads to increased manufacturing costs, which may be seen as a barrier to further development including management development [2] or, in extreme cases, as the cause of the company wind up. Another disadvantage is represented by prevailing orientation of small and medium-sized enterprises to local markets and limited ability to enter international markets. Another frequent problem is represented by insufficient funds for research, development, orientation and further education of employees and the facilitators and barriers to workplace learning [3].

As asserted by Srpová [4], SME management has a number of specifics. In a small company with a low staff and managerial staff numbers, many functions are cumulated in a few employees. Small enterprises are also characterised by prevalence of oral overwritten internal communication [5].

SMEs target at effective governance leading to competitive edge. For an enterprise to successfully stand up to its challenges, compliance between company goals and human resource management is desirable [6]. In a hierarchically managed company, people mainly do what they are evaluated by. That is why performance indicator setting is so important as a measurable target in compliance with corporate strategic objectives [7]. Achievement of strategic objectives is conditioned by the ability of company managers to choose the right direction of investment in human resources and assess return of such an investment on the basis of cost analysis, gains and expected risks like in other areas of corporate governance [8].

Today, quality of their human capital is one of the key factors of success for more and more SMEs [9]. In the past human work could be assessed by methods exactly specifying individual performance or operations, such as work standardisation [10]. At present the demand for human work and its quality is much higher, and in addition human capital quality is understood in a much broader context [11]. With the increasing proportion of services in economy, the work is more and more often based on mental abilities and skills of the worker which cannot be measured and assessed with indicators like standard quantity and quality [12]. Therefore the benchmarks today must correspond to the current requirements for human resource management and evaluation [13].

The area of human resource management includes all activities focused on increase of professional competences of employees, their lifelong education, high-standard internal communications within the company, harmonisation of professional and private life and implementation of tools against all kinds of discrimination [10]. This also includes an active approach of the company to employment of disabled employees, activities against all kinds of social exclusion, etc. Human resource management, like other processes implemented in SMEs, has its specifics making it different from processes applied in large corporations. Bateman [14] states:

- Their markets are usually much more local and compact.
- They operate in many small areas with significant dependence on the local environment. Most employees come from the area as well as most customers.

- They are free to invest in activities directly connected with the local environment and targeting the given local conditions.
- Their planning horizon is shorter, and advantages of investment show early in obtaining of more orders. SME stability then retrospectively strongly affects their commercial success and is beneficial for the local area (taxes, employment, etc.).
- SMEs find it harder to seek ways towards unifying and sharing information.
- Reports on their activities are disseminated with merciless impact.
- Sponsoring is often detached from corporate strategy.
- SME administration is relatively noncomplex, allowing for quicker and not so cost-intensive introduction of changes.

Results of research dealing with processes implemented in SME with an emphasis on the human resource management process have shown that only 37.09% of businesses out of the total research population (188 companies) have a human resource management strategy, with just 5.96% having the strategy in written form. The same research has also shown that the order of preference of individual processes on the part of SMEs (evaluated by managers or manager-authorised respondents) differs from the generally declared statements and knowledge. In the context of relevance of the examined processes, the human resource management area is ranked sixth (in the opinion of managers of the addressed companies).

These point to the fact that human resource management is not yet understood by company managers as one of the key factors of business success, even though authors of theoretical publications [15, 16] and managers in general speak about HR management as a crucial factor. Human capital is accumulated knowledge and skills existing within the company and representing employee capital [17]. Human capital can be measured by employee acquisition and maintenance (employee fluctuation), costs of employee training and development and ability to innovate. Management of human and intellectual capital is more than just attracting and attaining employees. It also means giving the employees a chance to develop as that will increase the corporate knowledge base, both for the individuals and for the company as a whole [18]. Good working conditions and a good reputation help the company to be attractive and maintain and develop its human capital further [19].

Another outcome of the present research is the extent to which the HR management process works in SMEs. **Table 1** shows that according to the company managers' opinion, this process works at 69.09%, which makes it rank fifth among the other corporate processes. So much for HR management as a whole, the following chapters will focus on selected aspects of HR management, in particular:

External communications. External communications in the context of strategic decision-making are highly relevant for increased performance of SMEs and optimisation of their governance. Effective communication link setting is important not only for harmonisation of all work activities but also for encouraging performance, work conduct, employee loyalty and motivation [20].

Types of processes	1—most important 9—least important	Rank of preferences
Production process and services	1.80	1
Business activity and sales	2.25	2
Financial management	3.01	3
Quality management	3.08	4
Marketing	4.41	5
Human resource management	4.48	6
Internal communications	5.28	7
Social responsibility	6.04	8
Communication with the public, media	6.26	9

**Table 1.** Order of preference of individual processes in the opinion of respondents (own survey).

Social responsibility. Corporate social responsibility (CSR) is a policy every company can incorporate in its business activity voluntarily. This is a policy formerly reserved for big companies, but now it is expanding to the SME area as well. Its basic strategy may consider moral and ethical aspects in excess of standard business and managerial activities. This means consideration of sustainable development, environment-friendliness, employee and stakeholder relation fostering and transparent business conduct. In the area of human resource management, this tightly corresponds to employee education and career development, motivation, stabilisation and fluctuation.

Employee motivation and stabilisation. Employment with a SME has its advantages in comparison to being an employee of a big company. These include a personal approach to employees and their motivation. Employee motivation has recently been increasingly supported by more demanding work requiring more time, flexibility and independence. SMEs usually do not offer career development, promotion, or a secured job, which on the other hand worsens the employee relationship to their company. That is why correct employee motivation is a vital part of managerial work. Good employment relationships, involvement of employees in the governance process, acceptance of their proposals for improvement of corporate processes and quality of their work, whether in the form of continuous or radical innovation, may contribute to employee loyalty and stabilisation and reduction of voluntary fluctuations.

## 2. Main focus of the chapter

### 2.1. Evaluation of external communication process functioning in SMEs

The process of external communications in SMEs focuses on communication with suppliers and customers. This chapter, however, deals with the third component of external communication,



i.e. PR or communication with media (for the sake of simplicity, further text uses the summary term external communication for this purpose) and channels used in this type of communication (oral, written and electronic). And last but not least, the authors also asked about the importance of external communications for managers of the studied companies in the South Bohemia region in the course of the years 2013 and 2014.

In the context of this query, the managers were given a chance to evaluate functioning of the external communication process on a scale from 0% (nonexistence of the external communication process) to 100% (faultless functioning of the process). Mean evaluation by SME managers involved in this research reached 52% for the process of external communication. This also supports the fact that SMEs never implement all components of external communication listed in theory, which is an area for improvement within SMEs. In the studied population of respondents, 19% of managers assessed this process as unsatisfactory (0–20%), 12% as below average (21–40%), 22% as average (41–60%) and 47% as satisfactory to excellent (61–100%). More than half of the studied companies assessed their process of external communication as unsatisfactory, below average or average. This result is supported by the fact often mentioned in professional literature that SMEs suffer from lack of resources, both financial and human, with the required level of experience. In this case, the authors are allowed to conclude that SMEs often lack finance and employees with the required qualifications and experience for positive procurement and use of information from the external and the internal environment of the company, by means of project preset formal communication networks. On the other hand, the research results show that about a half of all SMEs (48%) are able to implement external communication from in-house resources on an excellent or at least satisfactory level (Figure 1).

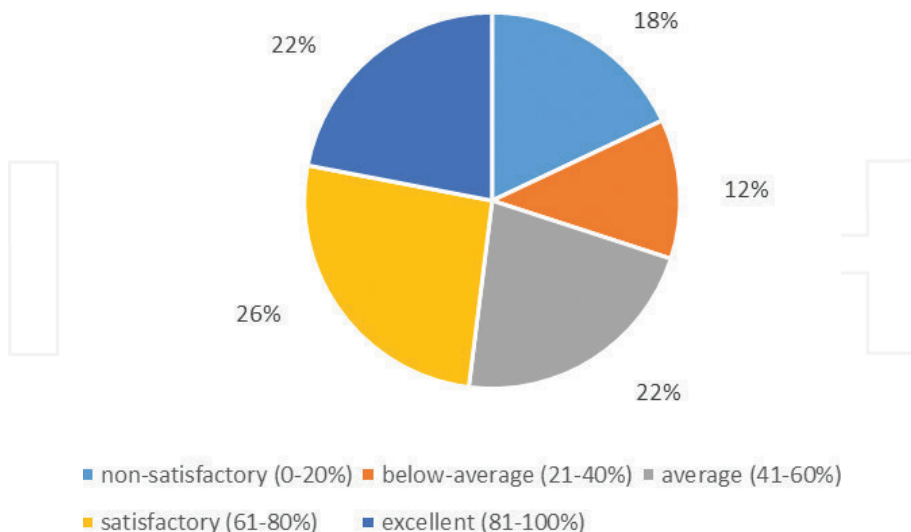


Figure 1. Evaluation of external media communication process in SMEs (own survey).

Classification of the inquired companies by size revealed that managers of small enterprises were least satisfied with their external communication process. The lowest level of satisfaction should in theory be expected from managers of micro-companies with the assumption of the lowest resources for this type of external communication. The results show rather the opposite, as shown by **Table 2** and **Figure 2**, where this process is assessed as excellent by the highest percentage (27%) of micro-company managers and only 19% of managers of medium-sized enterprises, where the size classification was expected to reveal the best prerequisites for existence of all necessary resources for high-standard external communication. Small enterprises assessed this process as excellent in 23% of cases. This process was assessed as unsatisfactory or below average by an identical 30% of managers of micro- and medium-sized enterprises and 31% of managers of small enterprises.

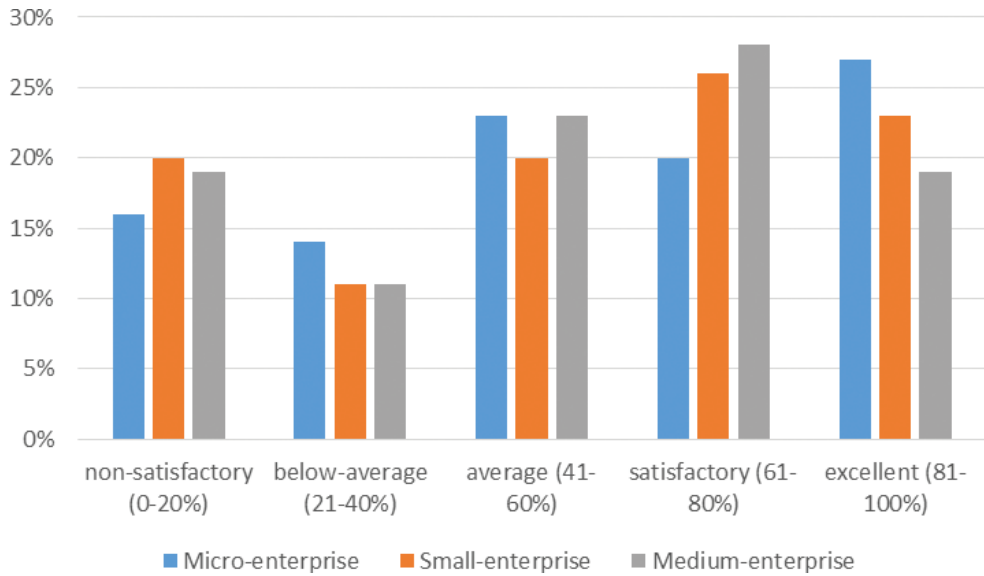
## 2.2. Channels used for external communication of SMEs in the South Bohemia region

External communication takes oral, written as well as electronic form. Taking the process of external communication as a whole, this chapter will show the use of the individual channels for fulfilment of this task. Managers are asked to specify the percentage of the use of the selected channel type (oral, written, electronic) for external communication. These results were further grouped into the below percentage intervals (**Figure 3**).

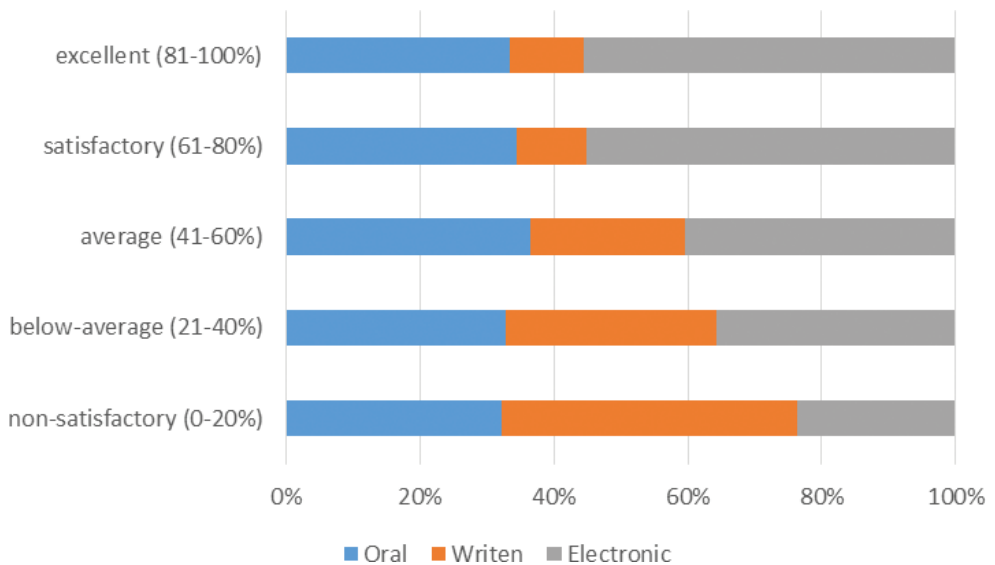
Across the inquired population, the interval of 0–20% usage was reported for written communication, used within this scope by 62% of companies, 45% of companies used oral communication within this interval (0–20% usage) and 33% used electronic communication within this scope. Maximum usage (81–100%) of the individual channels for external communication was only reported by 3% of the inquired companies in the case of oral communication, 5% in the case of electronic communication and 1% in the case of written communication. All available channels were reported to be used for external communication, which is also confirmed by the results

Types of processes	Evaluation of the functioning (%)	Rank
Production process and services	87.99	1
Quality management	81.39	2
Business activity and sales	80.60	3
Financial management	79.07	4
Human resource management	69.09	5
Internal communications	65.25	6
Social responsibility	61.82	7
Marketing	61.32	8
Communication with the public, media	52.18	9

**Table 2.** Evaluation of how individual processes work in the opinion of respondents (own survey).



**Figure 2.** Evaluation of external communication process by enterprise size (own survey).



**Figure 3.** Percentage of the use of individual channels for external communication by small and medium-sized enterprises (own survey).

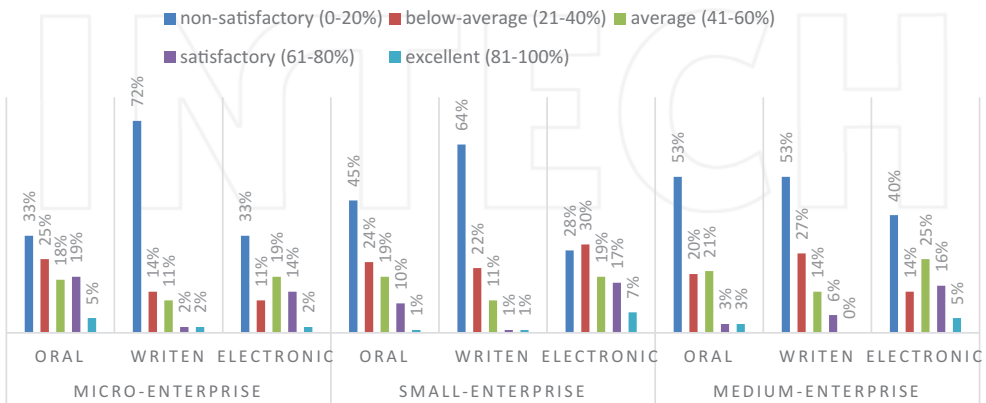
shown in **Figure 4**, with just a small percentage of companies using just one of the channels for their external communication and even here the percentage of usage was between 81 and 100%. An extreme case of usage of just a single communication channel for external communication was not reported by any of the inquired companies. On average for the whole population of respondents, oral communication is used in 36%, written in 26% and electronic in 38%.

In classification of the companies by size, usage of individual channels for external communication showed a similar pattern. All communication channels were reported to be used by the companies mostly within the interval of 0–20%. Just small enterprises mentioned the use of electronic communication within the scope of 21–40% in the largest group of respondents (30%), and 28% of companies reported the interval of 0–20%. This category included one example when none of the inquired medium-sized companies used written communication for its corporate external communications within the scope of 81–100%.

Most companies therefore use all types of communication most often within the scope of 0–20%, but none of these companies mentioned 0 with any communication type.

The above text presents results for the individual SME sizes. The authors focused on a couple of basic questions to characterise the relationship of SMEs to external media communication. Functioning of this process was evaluated by individual company sizes in a very similar manner, with micro-companies evaluating the process functioning with 52%, small companies with 53% and medium-sized companies with 53%.

The individual communication methods are used as follows by the individual SME size groups. Micro-companies use for their external media communication oral communication in 48% of cases, written communication in 18% and electronic communication in 34%. Small companies use oral communication in 37%, written communication in 21% and electronic communication in 42%, and medium-sized companies used oral communication in 38%, written communication in 25% and electronic communication in 37%. Oral communication is mainly used by micro- and medium-sized companies, while small companies mostly use an electronic form of communication.



**Figure 4.** Percentage of the use of individual channels for external communication by small and medium-sized enterprises by company size (own survey).

In terms of a conclusion, SMEs, regardless of their size, mainly use oral and electronic communication, value functioning of external media communication with 47–57%, and rank this process in the relevance hierarchy seventh to eighth of nine, above intracompany information processes and corporate social responsibility. CSR ranks lowest for most SMEs.

There is a big area of improvement for SMEs in the field of external media communication, and for the reason of limited resources, these companies should choose a single technique for every group of external recipients they want to address or inform or even influence with truthful information and use the chosen technique for long term. It is recommended as most beneficial for these companies to join their economic and human resources and experience and proceed jointly in this area according to their connection by one of the logical links (field of activity, geographic region, etc.).

Comparing our results with results of similar inquiries 10 or 15 years ago, a huge step forward can be seen in SMEs in this field. But despite that further improvement of this process by SMEs is still needed, as a way towards increasing their competitive edge on the market.

### **2.3. Corporate social responsibility and small and medium-sized enterprises**

CSR increasingly becomes part of corporate practices of SMEs as a way of sustainable development.

Obstacles to progress, declared by SMEs [14], correspond to obstacles to development of corporate social responsibility. Identification with these activities and their practicing causes concern in SME representatives. The declared obstacles to involvement of SMEs in CSR activities are as follows:

- Increased cost concern
- Lack of time and human resources
- Lack of internal motivation
- Bureaucracy concern
- Lack of knowledge of CSR activities and how to get involved in them and become beneficial to the society

However, the authors of the present essay point out that effective and successful engagement in CSR brings benefit to companies. A company that is ready to invest in CSR will be interested in the effect of its investment in these activities, the effect of the investment on its image, goodwill, perception of its engagement by its customers and employees, reactions of other stakeholders, whether employee loyalty has increased due to it and whether responsible conduct increases sales and number of orders.

Practicing of corporate social responsibility in the area of human resources inside and outside the company shows how this policy manifests itself in the internal and the external dimension:

Social engagement of employees is less visible but not less important. Helping employees develop their skills and increase their motivation may enhance their innovation activity and creative approach to work.

The inquiry in the South Bohemia region further revealed areas of corporate responsibility in which the inquired companies were engaged. The respondents speaking for their companies reported most activities within the corporate social responsibility scope in the areas of donations, voluntary work and sponsorship in 62.70%. Further CSR engagement included minimisation of negative impact on the environment: in 43.32%. 13.20% of companies are engaged in super-standard employment policy, and 20.79% report engagement in other further unspecified activities, and 17.16% reported no CSR engagement. The research further revealed that engagement in CSR in the areas of human resources and employment policy was on a low level in SMEs, with percentage of engagement in these activities reaching only up to 13.20% of the companies (Table 3).

The question is whether SME managers include all activities in their social and employment policies. ISO 26000 lays down that the organisation should be interested in facilitation of educational courses, vocational training and lifelong education of its employees as these activities substantially contribute to assertion of interests of the organisation as such.

What this means for SMEs [21] is that they are not likely to implement corporate social responsibility policies as their rate of return is slow. Social and environmental responsibility is vital, though, for financial performance in relation to its impact strengthening. Most companies should take introduction of the corporate social responsibility concept as an investment and not as a cost. There is a general assumption that consumers will appreciate responsible conduct and will prefer suppliers behaving responsibly. In reality consumers rather prefer suppliers behaving responsibly in relation to not the society but the consumers alone, though.

2.4. Employee stabilisation

This chapter presents results of selected factors affecting employee stabilisation.

A questionnaire inquiry was used to find out whether companies follow the indicator of the number of employees that left your company in 2012, which should be measured to calculate fluctuation rate. Out of the analysed sample, 66.8% respondents answered that they followed this indicator, 26.1% of them did not follow it, and 7.1% did not answer this question. The results within the defined company size categories based on the reported staff numbers are shown in Table 4.

Engagement of companies in CSR activities	Engagement of companies (%)
Donations, volunteer work, sponsorship	62.70
Minimisation of environmental impact of business	43.23
Super-standard employment policy	13.20
Other activities	20.79
No CSR activities	17.16

Table 3. Engagement of companies in individual CSR activities in per cent (own survey).

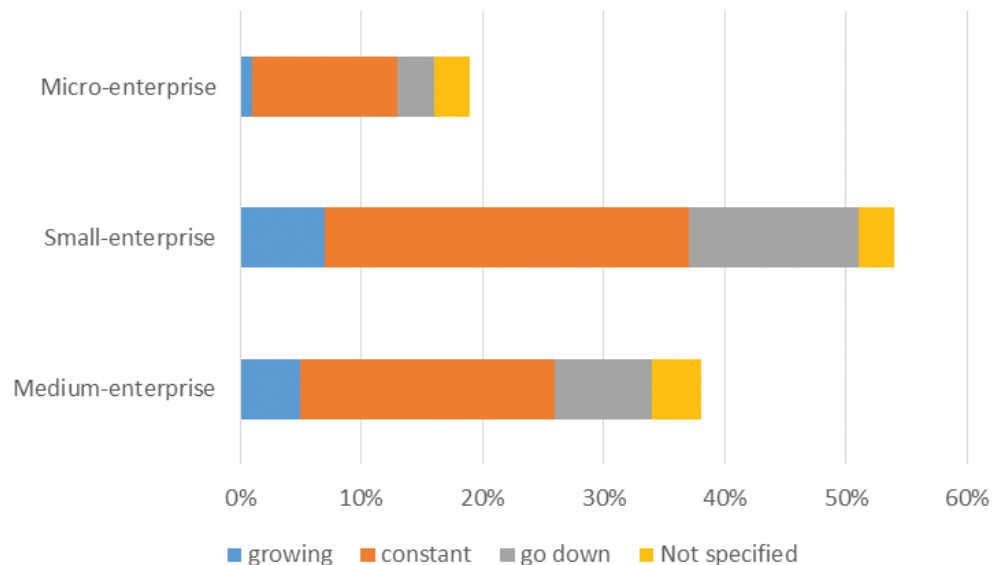
Size of enterprises	Indicator is monitored	Indicator is not monitored	Not specified
Micro-enterprises (%)	43.9	40.3	15.8
Small enterprises (%)	70.5	24.8	4.7
Medium-sized enterprises (%)	75.3	19.1	5.6

**Table 4.** Indicator: number of employees that left your company in 2012 (own survey).

**Table 4** shows that this indicator was most often followed by medium-sized companies (75.3%), followed by small enterprises (70.5%), with micro-companies ranking lowest, with a relatively balanced proportion of answers (while 43.9% of respondents reported that they did monitor this indicator; 40.3% of respondents did not follow it).

In addition to the actual monitoring of the number of employees that left your company in 2012 and its value, further questions concerned the long-term trend of this indicator development and satisfaction with the informative value of this indicator. Although some respondents answered that they did not monitor the number of employees that left your company in 2012, they subsequently specified the actual number, trend or satisfaction with the indicator value. **Figure 5** shows a summary of all answers to the question concerning the long-term trend of development of the indicator of the number of employees that left your company in 2012, given by 70.5% of the analysed companies.

The most frequently reported trend was a constant situation, and this applied to all company size categories based on staff numbers (as for the percentage the constant trend was



**Figure 5.** Long-term trend of the number of employees that left your company in 2012 indicator (own survey).



mentioned in 55.3% of all provided answers regardless of the company size). Another reported trend was decreasing (22.1% of all companies). The growing trend percentage increased with the company size based on staff number, amounting to 3.5% in the case of micro-companies, 11.1% in the case of small enterprises and 15.5% in the case of the medium-sized enterprise category based on staff numbers. Satisfaction with the value of the indicator differed and was connected with the reported long-term trend of the indicator: the value of the number of employees that left your company in 2012 indicator was satisfactory or completely satisfactory in the case of 88.6% of answers who reported constant long-term development of this indicator, while exactly 50% of respondents reporting a growing trend of this indicator were dissatisfied or absolutely dissatisfied with the value of this indicator. **Table 5** shows results reflecting relative frequencies of answers concerning the trend related to the discussed indicator and satisfaction with its value. These results were correlated where the respondents answered both questions.

2.5. Fluctuation rate

The fluctuation rate could only be calculated where the respondents filled out both data needed for the fluctuation calculation formula.

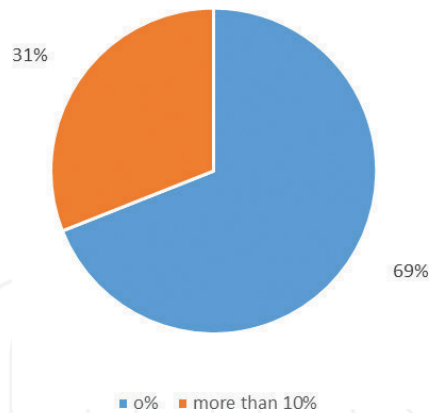
Most companies (39.9%) fell within the interval of fluctuation rate higher than 10%. The second biggest group included companies with calculated zero employee fluctuation (23.0% of the companies). This category was tightly followed by companies with calculated fluctuation rate falling within the defined interval of 5.01–10%, whose percentage was 22.4%.

The companies were then again classified by staff number to micro-companies, small and medium-sized enterprises with the fluctuation rate values again sorted by the predefined intervals. The results of this classification are shown in **Figure 6** (micro-companies), **Figure 7** (small enterprises) and **Figure 8** (medium-sized enterprises).

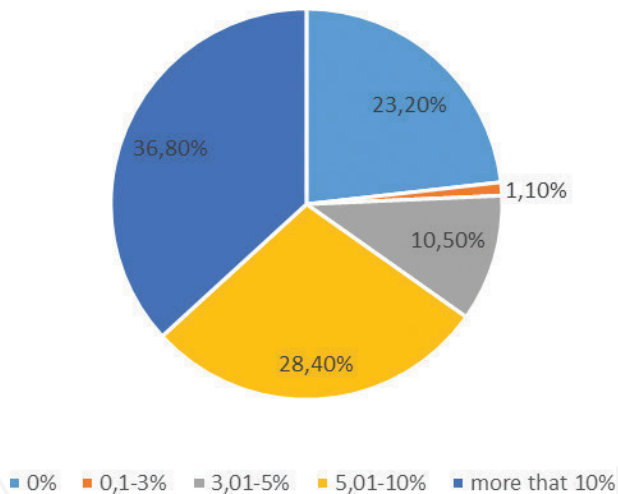
The calculated fluctuation rates in micro-companies based on their reported data only covered the two marginal categories, i.e. the interval with fluctuation rates exceeding 10% (represented by more than two-thirds of all inquired micro-companies) and the interval with zero fluctuation rate (met by nearly one-third of the micro-companies).

Satisfaction indicator	Long-term trend indicator satisfaction (%)		
	Increasing	Constant	Decreasing
Completely satisfied	16.7	26.3	46.7
Satisfied	33.3	62.3	378
Dissatisfied	45.8	7.9	13.3
Completely dissatisfied	4.2	0.0	0.0
Unknown	0.0	3.5	2.2

**Table 5.** Satisfaction with indicator value: number of employees that left your company in 2012 indicator and its long-term trend (own survey).



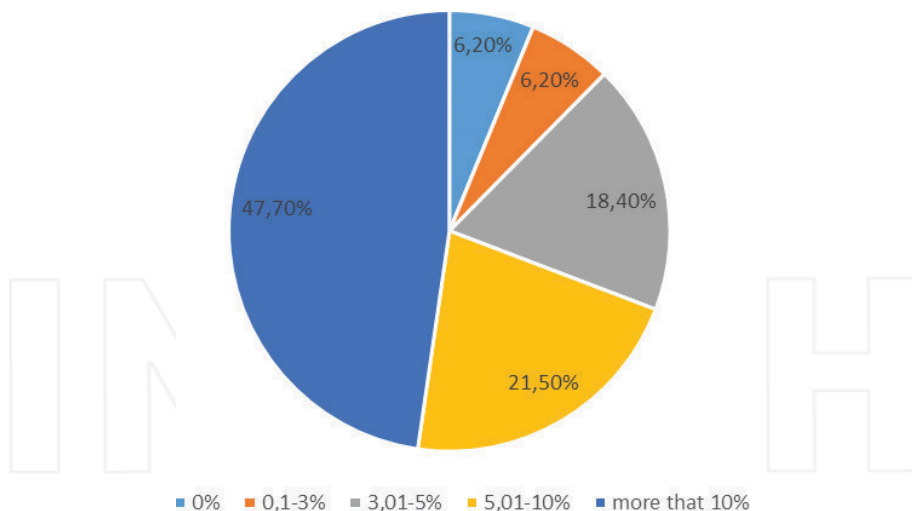
**Figure 6.** Fluctuation rate in micro-companies in classification based on staff number (own survey).



**Figure 7.** Fluctuation rate in small enterprises in classification based on staff number (own survey).

Fluctuation rates in small enterprises showed a different pattern than micro-companies when divided among the defined intervals. The strongest category in the case of small enterprises was again the category with fluctuation rates higher than 10%, but with the actual percentage much lower (36.8%) in comparison to micro-companies. The next ranking category with a similar percentage of represented companies was fluctuation rate range 5.01–10% (reached by 28.4% of the respondent companies), followed by the zero fluctuation category (23.2%).

Fluctuation rate calculation classification in the category of medium-sized enterprises based on staff number again showed the fluctuation rates over 10% as the most frequently represented



**Figure 8.** Fluctuation rate in medium-sized enterprises in classification based on staff number (own survey).

interval, covered by nearly half of all companies of this size (47.7%). The second ranking interval was fluctuation rates between 5.01 and 10% (represented by 21.5% of medium-sized companies), closely followed by companies with calculated fluctuation rates between 3.01 and 5% (18.4% of companies).

The comparison of fluctuation rate intervals in companies classified by size shown in **Table 6** reveals that the number of companies falling within the category of fluctuation rate above 10% increases in direct proportion to the company size defined by staff number (with the lowest percentage in the micro-company category and the highest in the medium-sized enterprise category). The same trend then appears in the fluctuation rate intervals of 0.1–3% and 3.01–5%. The opposite trend can be traced in the category with zero fluctuation (0%), where the number of represented companies decreases as the company size increases (with the highest number of micro-companies and the lowest number of medium-sized enterprises).

The median calculated fluctuation rate in the assessed population of companies was 8.0. The median values were then also calculated for all company size categories.

## 2.6. Employee benefits in SMEs

The benefits most frequently reported by employees of SMEs included “catering”, which in the summary of all results highly out-ranked all other mentioned categories. The “catering” benefit definition included all sorts of contributions to meals at work, including but not limited to the

The size of the enterprise according to the given number of employees				
	Micro-enterprises	Small enterprises	Medium-sized enterprises	All enterprises
Median	0	8.3	9.3	8.0

**Table 6.** Median rates of employee fluctuations in companies (own survey).

“meal vouchers” or company canteens, or all sorts of refreshments provided at workplaces or drink offer. The second ranking benefit was represented by “pension schemes”. Although some respondents mentioned other insurance types (such as life or all-risk insurance) among the provided employee benefits, pension schemes were so much more frequent that we decided to make them a separate category. Respondents further mentioned various types of bonuses which may be said to represent a material (financial) stimulator. Bonuses are generally represented here by the category called “unspecified bonuses”. Other also relatively frequently mentioned benefits included “paid leave” or “sports and culture”. Benefits falling within the “paid leave” category often included extra paid leaves (such as 1 extra week of summer holiday but also longer time periods) or contributions to holiday stays. “Sports and culture” represented a wide spectrum of benefits including various contributions to sports, relaxation or cultural events, free admission tickets to various sports facilities, tickets to cultural events, etc. Another often offered benefit was also connected with telephones. This last benefit concerned provision of a mobile phone for private purposes or contributions to the toll or its full coverage by the employer. “Education” as a category of benefit included various training courses, language courses or team-building events. These benefits were defined as subcategories (“education, other”; “Education, languages”; and “education, team building”) and were left separate. There is one more frequently mentioned benefit category, and that is represented by “discounts”, including discounted sales of in-house goods produced or services provided by the company to its employees or various other types of discounts. The “performance award” category mentioned by the respondents included various financial rewards for work done, completed projects, plan fulfilment, etc. as well as contributions for “zero sickness leave” or various performance bonuses. The “Christmas” category then represented a wide range of different benefits related in one way or another to the holiday (season): such as financial bonuses as Christmas presents, provisions of various Christmas vouchers as well as material Christmas gifts. Some respondents also mentioned jubilee benefits: such as financial vouchers or gift packs (Table 7).

Ranking	Micro-enterprises	Small enterprises	Medium-sized enterprises
1.	Catering	Catering	Catering
2.	Discounts	Pension schemes	Pension schemes
3.	Unspecified bonuses	Unspecified bonuses	Vacation
4.	Telephone use	Sports and culture	Unspecified bonuses
5.	Sports and culture	Telephone use	Education
6.	Pension schemes	Christmas contributions	Sports and culture
7.	Christmas contributions	Vacation	Bonus at anniversary
8.	Clothing	Automobile use	Insurance
9.	Vacation	Performance rewards	Performance rewards
10.	Performance rewards	Education	Telephone use
11.	Automobile use	Discounts	Discounts
12.	Insurance	Enterprise products	Automobile use

**Table 7.** Employee benefits in SME, in order of frequency (own survey).

The comparison allows for the conclusion that there were differences in the provided benefit structure among companies of different size categories, with the exception of “catering”, which was the most frequently provided benefit in all three size categories. The pension scheme category ranked second in frequency in small and medium-sized enterprises based on staff numbers, while micro-companies mentioned this benefit as sixth ranking in the order of frequency. Employee benefits related to summer holiday were accentuated in medium-sized companies and decreasing staff number correlated to decreasing frequency of mentioning this benefit. Discounts in the discussion about employee benefits were most relevant for micro-companies where the discounts category ranked second while small and medium-sized enterprises based on staff numbers ranked this discount category as low as 11th as concerns frequency of its mentioning.

### 3. Solution and recommendations

The theme of human resource management in small and medium-sized enterprises is relatively complex. This is confirmed both by theories and by conclusions drawn on the basis of the present inquiry. The present publication maps selected aspects of human resource management in SMEs. The submitted conclusions and recommendations may contribute to improvement of human resource management quality in SMEs and subsequently to increase of their competitiveness.

There is a big area of improvement for SMEs in the field of external media communication, and for the reason of limited resources, these companies should choose a single technique for every group of external recipients they want to address or inform or even influence with truthful information and use the chosen technique for long term. It is recommended as most beneficial for these companies to join their economic and human resources and experience and proceed jointly in this area according to their connection by one of the logical links (field of activity, geographic region, etc.).

Involvement of corporate social responsibility in the business strategies and in this context development of strategies of human potential management and employee management becomes inevitable considering global development factors. Every company must watch not only its financial health and regulatory obligations but also wider social and economic relations. Every company should behave responsibly, whatever its field of business, inland or international domicile or size of a small, medium or large company. There is a legitimate effort to teach organisations to respect unwritten standards, whether in the form of codes of conduct or the ever more widespread “social marks”. Companies and organisations should increase their involvement in and identification with the philosophy of CSR, integrate CSR in their strategies and also actually apply it. They should declare their activities within the framework of CSR and their CSR policy.

Open dialogue of SMEs with interest groups and mainly with employees may help companies better control trends and expectations. Open dialogue helps businesses to notice opportunities by means of better understanding of expectations of the society and risk minimisation by assuring good relationships with their employees and the society in which they operate.

For a company to be able to see the advantages brought to it by CSR, its corporate social responsibility must be trusted. Its uniqueness is one of the prerequisites of its trustworthiness: the general public is attracted by an individual approach to CSR, by its difference from others; authenticity, the company management as well as employees is convinced about correctness of CSR; by its transparency, willingness of the company to provide information about itself and allow for independent assessment; and by its consistency, consistent observance of CSR principles.

The policy of education of company employees develops qualified, educated and skilled employees needed for satisfaction of present and future needs of the organisation. To achieve this it is necessary that the employees are ready and willing to be educated, understand what they need to know and do and are prepared to take up responsibility for their qualification increase by making the active use of existing education resources including assistance of their superiors. For these reasons education gains importance in companies that understand the huge value of human resources they possess. If a company is to maintain its competitiveness, it must be able to flexibly adapt to the changing conditions. An important remark in this context is that people should be aware that the area of education and development does not only include education of individuals or groups alone but also motivation of individual or groups for education, i.e. employees themselves must be prepared and willing to get educated in areas where they sense their shortcomings [22].

Small and medium-sized enterprises are considered the backbone of the national economy. In addition to employment and social cohesion, innovation as a process of continuous development is often mentioned in connection with the contribution of SMEs to the national economy. The purpose of innovation is assurance of development, competitiveness and process and manufacturing effectiveness. In practice there is a connection between research and education (or the system of education), both contributing to development of the knowledge of society [23, 24]. Knowledgeable society is able to innovate or continuously improve its procedures, which is necessary for its future.

#### **4. Future research directions**

Further research should focus on other regions of the Czech Republic, or comparable European regions, and find out differences in approaches to human resource management in SMEs.

#### **5. Conclusion**

Utilisation of human resource management principles in small and medium-sized enterprises has its limitations. This is mainly caused by the size of these enterprises and the related increased focus on assurance of their very existence. There is also the accumulation of functions in SMEs, with prevalence of informal management, preference of oral communication to written, etc.

The present publication introduces results of a research aimed at specification of factors and tools that might support decision-making of managers in the area of human resource management in small and medium-sized enterprises.

This chapter describes the current status in selected areas of human resource management focusing on the soft factors.

The main conclusions of this chapter include:

While most of the analysed SMEs do not develop strategies for human resource management at all (62%), 32% do create these strategies, and 18% even prepare them in writing. Written human resource management strategies were mainly reported by small and medium-sized companies.

The analysed small and medium-sized companies considered as their strong points internal communication, employee education and development and remuneration.

As for problem areas in human resource management in SMEs, about 20% of the respondents mentioned employee recruitment, 16% mentioned communication and some respondents also mentioned qualifications, expertise and employee development.

In the opinion of the respondents, the most important process out of the selected corporate processes included product manufacture and service provision, with 134 companies allocating the top rank to this process in the importance ranking, 96 companies ranking sales and trade first, 19 respondents mentioned quality management, 16 respondents considered as most important finance management, 15 respondents mentioned marketing, 9 human resource management, 7 corporate social responsibility and 4 companies placed in-house information systems at the top of the importance ranking.

Key human resource management areas whose monitoring was most emphasised by small and medium-sized companies were productivity of work and an effective recruitment process.

The process of communication (internal as well as external) was assessed by managers of the analysed SMEs in the South Bohemia region as less important and more poorly functioning at the same time.

Small and medium-sized companies of the studied sample, regardless of their size or orientation, mostly reported the use of oral and electronic communication.

The analysed SMEs valued functioning of external media communication with 47 to 57% and ranked this process in the relevance hierarchy seventh to eighth of nine, above intra-company information processes and corporate social responsibility. CSR ranks lowest for most SMEs.

Most representatives of the analysed small and medium-sized enterprises gave preference to cohesion (small power detachment) to respect (large power detachment), team spirit (collectivism) to individual liabilities (individualism) and investment (long-term benefit) to immediate profit (short-term benefit).



## Key terms and definitions

**Fluctuation:** Employee turnover in the company or organisation. Fluctuation rate is expressed in per cent as the ratio of terminated employment contracts to the mean staff number per unit of time.

**External communications:** By means of external communication, the institution influences its clients and assures information flows to wide surroundings of the organisation.

**Motivation:** Internal or external factor or group of factors leading to energising the organism. Motivation directs our conduct towards achievement of a certain goal.

**Social responsibility:** A policy every company can incorporate in its business activity voluntarily.

**Small and medium-sized enterprises:** A business is a small or medium-sized enterprise (SME) if: (a) its staff number is up to 250 employees; (b) its assets do not exceed the crown equivalent of € 43 million, or its turnover/income does not exceed the crown equivalent of € 50 million.

**Employee benefits:** Benefits provided by the employer to its employees in addition to wages.

**Electronic communications:** Communication between users of the Internet and other modern communication means (cell phones, pagers, etc.). There are two forms of e-communication: synchronous and asynchronous.

## Author details

Darja Holátová<sup>1\*</sup> and Monika Březinová<sup>2</sup>

\*Address all correspondence to: [brezina@zf.jcu.cz](mailto:brezina@zf.jcu.cz)

1 Faculty of Economic, University of South Bohemia in České Budějovice, Czech Republic

2 Faculty of Agriculture, University of South Bohemia in České Budějovice, Czech Republic

## References

- [1] Krasniqi BA, Mustafa M. Small firm growth in a post-conflict environment: the role of human capital, institutional quality, and managerial capacities. *International Entrepreneurship and Management Journal*. 2016;**12**(4):1165-1207
- [2] Fuller-Love N. Management development in small firms. *International Journal of Management Reviews*. 2006;**8**:175-190
- [3] Doyle W, Reid JG, Young JD. Barriers to and Facilitators of Managers' workplace learning in small and large knowledge-based firms. *Small Business Institute Research Review*. 2008;**35**:79-93

- [4] Srpová J. *Základy podnikání: teoretické poznatky, příklady a zkušenosti českých podnikatelů*. Praha: Grada Publishing; 2010
- [5] Bernues Olivan Jara. Communication as an element of knowledge for the company's human resources. In: Conference: 7th International Conference on Intercultural Education—Education, Health and ICT—From a Transcultural Perspective (EDUHEM) Location; Jun 15-17, 2016; Univ Almeria, Almeria, Spain. Book Series: Procedia Social and Behavioral Sciences. Vol. 237. 2017. pp. 1533-1536
- [6] Langwell, Christina; Heaton, Dennis (2016). Using human resource activities to implement sustainability in SMEs. *Journal of Small Business and Enterprise Development* Volume: 23 Issue: 3 Pages: 652-670 Published: 2016
- [7] Onkelinx J, Manolova TS, Edelman LF. The human factor: Investments in employee human capital, productivity, and SME internationalization. *Journal of International Management*. 2016;22(4):351-364
- [8] Macpherson A, Jones O. Editorial: Strategies for the development of international journal of management reviews. *International Journal of Management Reviews*. 2010;12:107-113
- [9] Pletnev, Dmitri; Nikolaeva, Ekaterina Human resources as key success factor of small and medium sized enterprises in Russia In: 17th Conference of the Eurasia-Business-and-Economics-Society (EBES). Venice, Italy Oct 15-17, 2015 *Eurasian Studies in Business and Economics* 5. 2017. pp. 443-452
- [10] Loan-Clarke J, Boocock F, Smith A, Whittaker J. Competence-based management development in small and medium-sized enterprises: A multi-stakeholder analysis. *International Journal of Training and Development*. 2000;4:176-195
- [11] Nolan CT, Garavan TN. Problematizing HRD in SMEs: A "Critical" Exploration of Context, Informality, and Empirical Realities. *Human Resource Development Quarterly*. 2016;27(3):407-442
- [12] Rauch A, Frese M, Utsch A. Effects of human capital and long-term human resources development on employment growth of small-scale businesses: A causal analysis. *Entrepreneurship Theory and Practice*. 2005;29:681-698
- [13] Temešová J, Veselá L. HR ukazatele: jak jim rozumět? Deloitte.cz. 2010. Available from : [http://www.deloitte.com/view/cs\\_CZ/cz/sluzby/poradenstvi/lidskezdroje/hrcontrolling/9744736f66a37210VgnVCM200000bb42f00aRCRD.htm](http://www.deloitte.com/view/cs_CZ/cz/sluzby/poradenstvi/lidskezdroje/hrcontrolling/9744736f66a37210VgnVCM200000bb42f00aRCRD.htm).
- [14] Bateman T. Thinking about Corporate Social Responsibility. 2003. Available from: [www.transparency.cz/pdf/csr-thinking.pdf](http://www.transparency.cz/pdf/csr-thinking.pdf).
- [15] Mikus P. Factors influencing foundation and development of small and medium enterprises. In: 3rd International Multidisciplinary Scientific Conference on Social Sciences and Arts, SGEM 2016; Albena, Bulgaria; Aug 24-30 2016. 2016. pp. 229-233
- [16] Mura L, Horvath P. Some aspects of human resource management. In: 2nd International Multidisciplinary Scientific Conference on Social Sciences and Arts (SGEM 2015); Albena, Bulgaria; Aug 26-Sep 01, 2015. 2015. pp. 863-870. ISSN: 2367-5659

- [17] Pajo K, Coetzer A, Guenole N. Formal development opportunities and withdrawal behaviours by employees in small and medium-sized enterprises. *Journal of Small Business Management*. 2010;**48**:281-301
- [18] Kyndt E, Baert H. Antecedents of employees' involvement in work-related learning: A systematic review. *Review of Educational Research*. 2013;**83**:273-313
- [19] Marlow S, Taylor S, Thompson A. Informality and formality in medium-sized companies: Contestation and synchronization. *British Journal of Management*. 2010;**21**:944-966
- [20] Medek M. Internal and external communication like necessary factor of survival. *E + M Ekonomie a Management/E+M Economics & Management*. 2005;**8**(2):98-105
- [21] Torugsa N, O'Donohue W, Hecker R. Proactive CSR: An empirical analysis of the role of its economic, social and environmental dimensions on the association between capabilities and performance. *Journal of Business Ethics*. 2013;**115**(2):383-402 Available from: <http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?vid=7&sid=83509e94-9c29-4b6c-956d-1199f1d24a1f%40sessionmgr110&hid=106>
- [22] Vlacsekova D, Mura L. Effect of motivational tools on employee satisfaction in small and medium enterprises. *Oeconomia Copernicana*. 2017;**8**(1):111-130 Nicolas Copernicus Univ. Torun, Poland. ISSN: 2083-1277 eISSN: 2353-182
- [23] Ram M, Edwards P. Praising Caesar not burying him: What we know about employment relations in small firms. *Work, Employment and Society*. 2003;**17**:719-730
- [24] Tam S, Gray DE. Organisational learning and the organisational life cycle The differential aspects of an integrated relationship in SMEs. *European Journal of Training and Development*. 2016;**40**(1):2-20

INTECH



---

# Understanding the Motivation that Shapes Entrepreneurship Career Intention

---

Ng Kim-Soon, Abdul Rahman Ahmad and  
Nurul Nadia Ibrahim

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70786>

---

## Abstract

Entrepreneurship intention for graduate students like many other job and work career options depends on other considerations. Individuals who pursue their intentions are most likely to implement their intention. Interest in entrepreneurship as career appears to be growing. Reviews show the need in investigating the determinants of entrepreneurship as a career intention of students and it has remains the focus of most of the recent studies. This is due to the facts that entrepreneurs are creating jobs and driving economic development of a nation. In this study, the Theory of Planned Behaviour is applied to investigate students' entrepreneurial motivation and entrepreneurship intention. A total of 413 sets of completed questionnaire collected using the structured sampling methodology from the various faculties, races and student seniority at a University located in Batu Pahat, Johor, Malaysia were used in the analyses. The factors of entrepreneurial motivation affecting career entrepreneurship intention were found to be behavioural control, subjective norm, and attitude towards entrepreneurship. Behavioural control is found to be at a very good level while subjective norm and attitude towards entrepreneurship are both at a good level. Multiple regression analyses indicated that subjective norm and attitude of self-employment are both significantly related to student immediate and future entrepreneurship intentions. The behavioural control entrepreneurial motivation indicated significant relationship with student immediate career intention. However it was found that it is not related to entrepreneurship career intention. This study implies that young aspirant entrepreneur can be identified and targeted for development via the Planned Behaviour model for entrepreneurial interventions initiatives.

**Keywords:** entrepreneur, entrepreneurial motivation, planned behaviour model

---

## 1. Introduction

Entrepreneurship creates jobs, economic growth and development of a nation. It is crucial to drive a nation's economy. An entrepreneur setup a new business, take risk and faces uncertainty to make profit and grow the business by identifying available opportunities, gather the necessary resources to exploit those opportunities that were identified [1]. Entrepreneurs prefer to be in control of their own resources, prefer to take calculated risk, and possesses attributes of confidence and belief in self, self-reliance, perseverance, traits for immediate feedback, with higher level of energy which are usually higher than the average person. They dream big and are achievement motivated. Karimi et al. [2] and Souitaris et al. [3] reviewed that literature revealed that more research works are needed to investigate the determinants of entrepreneurship intentions of students. Entrepreneurial motivation is not the same as "uniquely entrepreneurial personality traits". Carsrud and Brännback [4] further reiterated that entrepreneurship motivation is a crucial topic and there is a need for more entrepreneur research work. Carsrud et al. [5] and Edelman et al. [6] reported that it is a much neglected area of research. This is most previous researchers assumed that entrepreneur can be adequately defined by identifying the unique personality traits [4]. Nevertheless, due to its significant thrust to the economic growth and development to a nation, investigating the determinants of entrepreneurship intentions as a career intention of students has remains the focus of most of the recent studies. This study investigated the levels of student's entrepreneurial motivation and entrepreneurship intention at a public University and the relationship between these two factors using the Planned Behaviour Model.

## 2. Literature review

Policy makers are emphasising the importance entrepreneurship education to groom and nurture entrepreneurship among students for career employability in the drive for economic growth [7]. Entrepreneurial process emphasises on the behavioural linkage of entrepreneurship intentions, ideas and action [8, 9]. The theory of planned behaviour set that an individual's intention towards an activity with perceived behavioural control will be able to predict the behaviour accurately [8]. According to Krueger et al. [10], intention is a single best predictor of planned behaviour.

### 2.1. Behavioural theory

Expectancy Theory has instituted a common line in relating the various process-oriented explanations of entrepreneurial motivation (Vroom, 1964). Vroom (1964) theorised that an individual will make the best choice through the behaviour that will lead to the most anticipated outcome. The underlying factors that influence such a behaviour are the motivation factors [8]. These motivational factors comprise of individual's attitude towards the behaviour, subjective norm and perceived control are the factors of the planned behaviour (TPB) model and are assumed to influence and shape the behavioural intention. Attitude impacts

on behaviour beliefs. An individual with a higher attitude towards the behaviour is expected to be more likely to take the action that is being monitored [11]. The individuals' perceptions of values, beliefs and norms of influential individuals including family members, teachers, other entrepreneurs, friends etc. are subjective norms which are important to the individual's desire to conform to those norms. Thus, it follows that an individual intention towards entrepreneurship can be moulded. Cieřlik and Stel [12] found significant relationship between those students who are actively involved in their parents' business are more likely to join their family business rather than starting their own business. Conversely, Krueger et al. [10] claimed that an individual having high internal locus of control, social norms are less predictive of intentions. [8] contended that behavioural control influences an individual's intention to act basing perceived degree of effort of that specific behaviour which conceptually is alike to the Social Cognitive Theory [13] of an individual's belief in their capability to perform a specified action.

## **2.2. Entrepreneurial motivation**

Motivation is a potent driver behind goal pursuit in daily lives. According to Ryan and Deci [14], it's the core of biological, cognitive, and social regulation [14]. It channels energy, direction, determination, persistence and intention behind daily lives pursuits. Goals and motives are able to predict human behaviour. Thus, the linkage between intentions, motivations, and behaviour. Motivation drives actions and the reason behind actions is the orientation of the motivation. Krueger and Carsrud [9] reported that there is a lack of basis to support on intention-action linkage although intentions have been centred as predictors of future action. The link has been used loosely as implied or assumed. They then argued that motivation provides the link between intention-action. According to Edelman et al. [6], motivations stimulus could transform a latent intention to drive entrepreneurship. They reiterated that it could be the link between intentions and action. It thus suggests that the causal attitudes and goal of entrepreneurial motivation is able to generate entrepreneurship intention. Edelman et al. [6] reiterated that more research work in this area is needed.

## **2.3. Entrepreneurship career intention**

Higher education institutions are actively promoting entrepreneurship as an attractive and worthwhile career option among graduate students. Entrepreneurship offers graduate student self-employment opportunity. Literature has frequently states that it is a career option for the youth and graduates [15, 16]. It lessens social ills and improve employability. Public policy makers are encouraging and engaging graduates from higher learning institutions to choose entrepreneurship to address employability [7]. It has thus resulted in the focus of research works on entrepreneurship career intention especially in how attract graduate students to engage in entrepreneurship. Entrepreneurial career intention is the conscious state of mind. It precedes the action of an individual and directs the attention towards an entrepreneurial career goal to start a new business ([10, 17, 18]). Krueger et al. [10] envisaged that entrepreneurial inclination can be better determined through entrepreneurship intention rather than personality traits, demographic characteristics, or situational factors. Individuals



who pursue their intentions are most likely to implement their intention [19]. Intension such as desire to gain status, to be success and ability to influence economic growth which Geri (2013) elaborated has a positive relation between risk taking tendencies and entrepreneurial motives (Artess et al. [20]).

Empirical research works by Kim-Soon et al. [21] on motivators and obstacles to youth entrepreneurship with entrepreneurial intention of young entrepreneurs reported that youths who are serious as would be entrepreneur to start and own a new business can be identified and targeted to develop via government entrepreneurship intervention initiatives. Ajzen's model of planned behaviour and Engle et al. [22] found that social norm is a strong and consistent predictor of intentions. They reported that the attitude towards the behaviour, subjective norm, and perceived behavioural control significantly increased the likelihood of students that are inclined towards the formation of entrepreneurial intentions. Ummah [23] recommended that decision makers in higher education and nation policy makers should use the factors influencing the desirability of self-employment to channel and energise an individual intention towards self-employment. Fitzsimmons and Douglas [24] reported that a person's perceived desirability and perceived feasibility had a negative interaction effect in the formation of entrepreneurial intentions. In line with a prevention-focused orientation, they suggest that situational factors may induce individuals involved in the process of forming entrepreneurial intentions to adopt a prevention focus.

#### **2.4. Entrepreneurial motivation and entrepreneurship career intentions**

TPB model has been used by Malebana [25] to investigate entrepreneurship intention of students study in a South African rural university and reported that most of the students would start a business in the future. Most researchers are in consensus that the relevant embedded theory underlying the research work on entrepreneurship intention is the planned behaviour [10, 26, 27]. TPB model is useful for instituting and guiding behavioural changes by evaluating the behavioural performance [28, 29]. In recent years, researchers have popularly used the theory of planned behaviour under various contexts to investigate and research on motivation and predicting entrepreneurial intentions ([16, 25, 30, 31]; Ritzsimmons and Douglas, 2011; [22, 32]).

### **3. Research methodology and findings**

#### **3.1. Research framework**

The research framework of this study is modelled on the Theory of Planned Behaviour which is frequently been used in the prediction of behavioural intention. The independent variables are the entrepreneurial motivational factors which are comprised of attitude towards self-employment, subjective norm, and behavioural control while the dependent variable is entrepreneurial intention.

### 3.2. Questionnaire design, measurement and sample size

The survey questionnaire used in this research comprised of three parts. Part A is questions that require the respondents to provide their background. Part B is on entrepreneurial motivational factors comprises of questions about attitude towards self-employment, subjective norm, and behavioural control. The respondents were required to mark the level of their agreement of the statements about their motivation to choose entrepreneurship as their career by circling on a scale 1 to 5 where 1 = Strongly disagree 2 = Disagree 3 = Not Sure 4 = Agree 5 = Strongly agree for each of the respective statements. Part C requires the respondent to mark their degree of entrepreneurship intention by rating the level of agreement on scale 1 to 5 (1 = Strongly disagree 2 = Disagree 3 = Not Sure 4 = Agree 5 = Strongly agree) through circling the number for each of the respective statements. The statements in Section B and Section C were adapted from the questionnaire used by Fatoki [32]. A pilot study was conducted to test the developed questionnaire with a sample of 30 respondents for factor reduction and reliability of the measures of items in Part B and Part C of the questionnaire prior to the research data collection process.

The sample size of this research is 450. This is based on the population size of 14,000 students pursuing the degree course at the selected inside the campus of a Public University. With reference to the Krejcie and Morgan [33] table, the sample size is slightly larger. The convenient and structured random sampling method has been used to collect the data the respondents from the various faculties, the different races and genders, years of studies and seniority. Upon cleaning the dataset, a total of 413 (92%) duly completed questionnaires conforming to the requirements of more than 70 to 80% return of the questionnaire [34] were used for the analysis.

### 3.3. Scope of study and profile of respondents

**Table 1** tabulates the demographic profile of the respondents. The estimated number of students in the table is based on the random sample structure proportionately to the distribution of the population of the respective demographic categories.

### 3.4. Factor analysis

The results of factor analysis using Principle Component Analysis with Varimax Rotation tabulated in **Tables 2** and **3**. KMO (Measure of Sampling Adequacy) with outliers of loading of less than 0.5 were removed to achieve clearer separation of factors, and only Eigenvalues above one were accepted [35].

The dimensions on student's motivation to choose entrepreneur are comprise of behavioural control, subjective norm and attitude towards self-employment while dimensions measuring student's entrepreneur career intention are comprise of immediate intention and future entrepreneurship intention.

Demographic	Categories	Frequency	(%)
Gender	a. Male	206	49.9
	b. Female	207	50.1
Age (years)	a. 19 to 20	180	43.6
	b. 21 to 22	109	26.4
	c. 23 to 27	124	30.0
Faculty	a. FPTPK	85	20.6
	b. FSKTM	58	14.0
	c. FKMP	82	19.9
	d. FKEE	78	18.9
	e. FKAAS	89	21.5
	f. FTE	21	5.1
Seniority at UTHM	a. Degree year 1	121	29.6
	b. Degree year 2	100	24.2
	c. Degree year 3	103	24.9
	d. Degree year 4	83	21.5
Race	a. Malay	231	55.9
	b. Chinese	100	24.2
	c. Indian	45	10.9
	d. International student	37	9.0

**Table 1.** Profile of the respondents (N = 413).

### 3.5. Levels of attitude towards self-employment, subjective norm and behavioural control motivations, and entrepreneurial intention

**Table 4** tabulates results on the levels of attitude towards self-employment, subjective norm and behavioural control motivations, and entrepreneurial intention. The level of behavioural control entrepreneurial motivation indicates that it is very good level while subjective norm and attitude on self-employment entrepreneurial motivations are at good level. Entrepreneurship intention for both immediate term and future intention to be an entrepreneur are all rated as good level.

### 3.6. Relationships of entrepreneurial motivation and entrepreneurship intention

#### 3.6.1. Correlations analysis

The results the correlations results among the variables is tabulated in **Table 5**. It shows that correlation ( $p < .01$ ) exist between the factors of entrepreneurial motivation with both

Dimension on motivation to choose entrepreneur as a career	Factor loading		
	Factor 1	Factor 2	Factor 3
<b>Behavioural control (Self-efficacy beliefs)</b>			
1.To be my own boss	.821	.226	.152
2.To realise my dream	.697	.266	.204
3.Increase my prestige and status	.696	.300	.151
4.For my personal freedom	.694	.099	.356
5.Enjoy myself	.638	.306	.147
6.Good economic environment	.618	.368	.240
7.To challenge myself	.616	.337	.316
8.For my own satisfaction and growth	.577	.346	.295
<b>Subjective norm (Tolerance for risk)</b>			
1.To use the skill learned in the university	.136	.755	.332
2.Entrepreneurial family culture	.349	.750	-.010
3.Follow the example of someone that I admired	.410	.690	.084
4.To invest personal savings	.171	.671	.377
5.To maintain my family	.484	.655	.102
6.I enjoy taking risk	.212	.637	.195
<b>Attitude (desirability) towards self-employment</b>			
1.To provide job security	-.029	.381	.762
2.To provide employment	.196	.228	.735
3.To take advantage of my creative talent	.396	.054	.703
4.Earn a reasonable living	.476	.104	.683
5.Opportunities in the market	.462	.177	.613
<b>Reliability (alpha)</b>	0.90	0.87	0.85
<b>Eigen value</b>	4.60	4.05	3.39
<b>Percentage variance explained</b>	46.96	7.90	7.12
<b>Total variance explained</b>	61.98		
Kaiser-Meyer-Olkin measure of sampling adequacy	0.92		

Note: extraction method: principal component analysis. Rotation method: Varimax with Kaiser normalisation. Bartlett's test of Sphericity Sig. at  $p < 0.001$ .

**Table 2.** Factor and reliability analyses on motivation to choose entrepreneur as a career.

immediate and future entrepreneurship among the students. The Correlation Coefficient with  $r = +.70$  or higher between the two variables indicates very strong positive relationship,

Dimension of entrepreneurship career intention	Factor loading	
	Factor1	Factor2
Immediate term intention		
1. I prefer to be an entrepreneur rather than to be an employee in a company	.850	.057
2. I am prepared to do anything to be an entrepreneur	.793	.263
3. I am very interested to be an entrepreneur	.777	.245
4. I shall work very hard at becoming an entrepreneur	.717	.243
5. I have already prepared myself to become an entrepreneur	.707	.364
6. My professional goal is to become an entrepreneur	.704	.209
7. I'll put every effort to start and run my own business	.659	.336
8. I have thought seriously to start my own business after completing my study	.652	.479
9. I want to be my own boss	.538	.399
Future intention		
1. I'm determined to create a firm in the future	.292	.833
2. I will start my business in the next 10 years	.076	.787
3. I have strong intention to start a business someday	.340	.713
Reliability (alpha)	0.92	0.78
Eigenvalue	5.14	2.99
Percentage variance explained	53.11	9.41
Total variance explained	62.57	
Kaiser-Meyer-Olkin measure of sampling adequacy.	0.91	

Note: extraction method: principal component analysis. Rotation method: Varimax with Kaiser normalisation. Bartlett's test of Sphericity Sig. at  $p < 0.001$ .

Table 3. Factor and reliability analyses on entrepreneurship career intention.

	Variable		Dimension	No. of items	Mean	Std. Dev.	Level
1	Entrepreneurial motivational factors	a.	Behavioural control	8	3.81	0.72	Very good
		b.	Subjective norm (Tolerance for risk)	6	3.62	0.77	Good
		c.	Attitude on self-employment (Desirability)	5	3.66	0.68	Good
2	Entrepreneurship career intention	a.	Entrepreneur immediate term career intention	9	3.34	0.77	Good
		b.	Entrepreneur career intention in the future	3	3.34	0.81	Good

Note: (N = 413); Range is based on Likert Scale of 1 to 5 where 1.00–2.33 = Low; 2.34–3.66 Good and 3.67–5.00 = Very Good).

Table 4. Mean of variables and levels of motivational factors (attitude towards self-employment, subjective norm, behavioural control) and entrepreneurship intention with their standard deviation.

Dimension		Entrepreneurial motivation			Entrepreneurship intention	
Factors		1a. Behavioural control	1b. Subjective norm	1c. Attitude on self-employment	2b. Immediate intention	2b. Future intention
1a	Behavioural control	1	.714**	.665**	.549**	.490**
1b	Subjective norm	.714**	1	.564**	.552**	.652**
1c	Attitude on self-employment	.665**	.564**	1	.576**	.498**
2a	Immediate intention	.549**	.552**	.576**	1	.616**
2b	Future intention	.490**	.652**	.498**	.616**	1

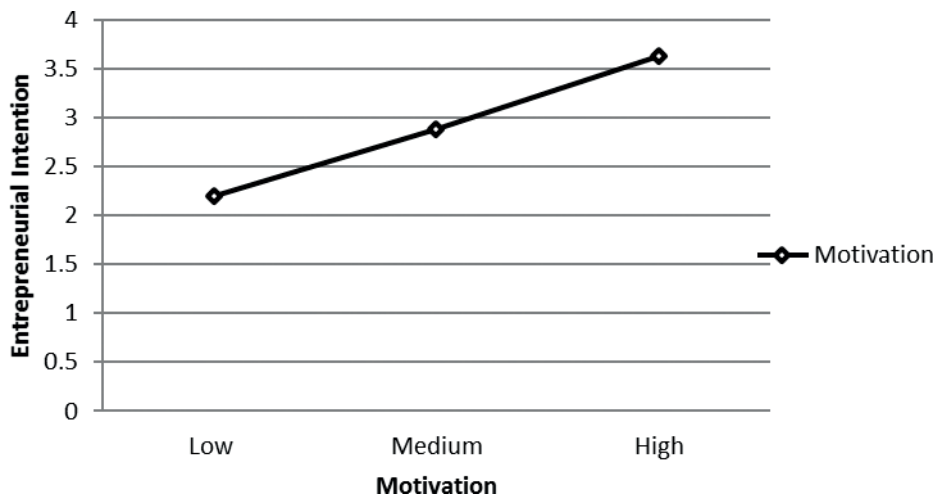
Note: \*\*. Correlation is significant at the 0.01 level (2-tailed).

**Table 5.** Pearson correlations (N = 413) among variables.

while a value of +.40 to +.69 indicates strong positive relationship and value of +.30 to +.39 shows moderate positive relationship. Thus, all the relationships between the respective variables indicated very strongly positive relationship at significant level of  $p < 0.01$ .

### 3.6.2. The variations between entrepreneurial motivational factors and entrepreneurial intention

**Figures 1–5** illustrate the how the variation of entrepreneurial motivation factors influences on students' entrepreneurship career intentions. In **Figure 1**, it shows that when the value of motivation is low then the entrepreneurship career intention is also low, when the motivation is moderate, the intention of entrepreneurship career is also moderate and when the



**Figure 1.** The variation between motivations with entrepreneurship career intention.

entrepreneurial motivation is high, the entrepreneurship career intention is also at a high level too. This trends are also illustrated for all the other factors of entrepreneurial motivation as in **Figure 2** for education levels with entrepreneurship career intention, **Figure 3** for entrepreneurial personal characteristic on entrepreneurship career intentions, **Figure 4** for personality with entrepreneurship career intention and in **Figure 5**, the variation of personal satisfaction with entrepreneurship career intention. It thus indicate that higher level of factors of entrepreneurial motivation influences entrepreneurship career intention.

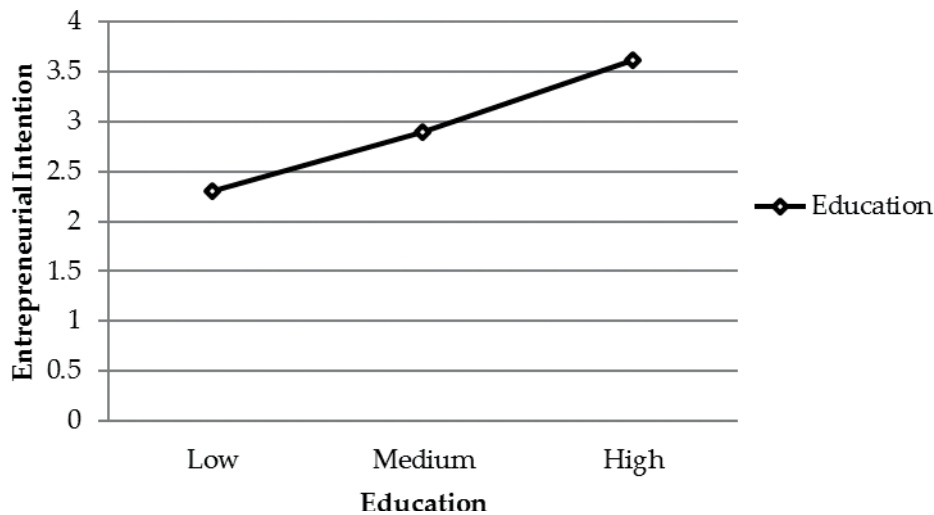


Figure 2. The variation between educational levels with entrepreneurship career intention.

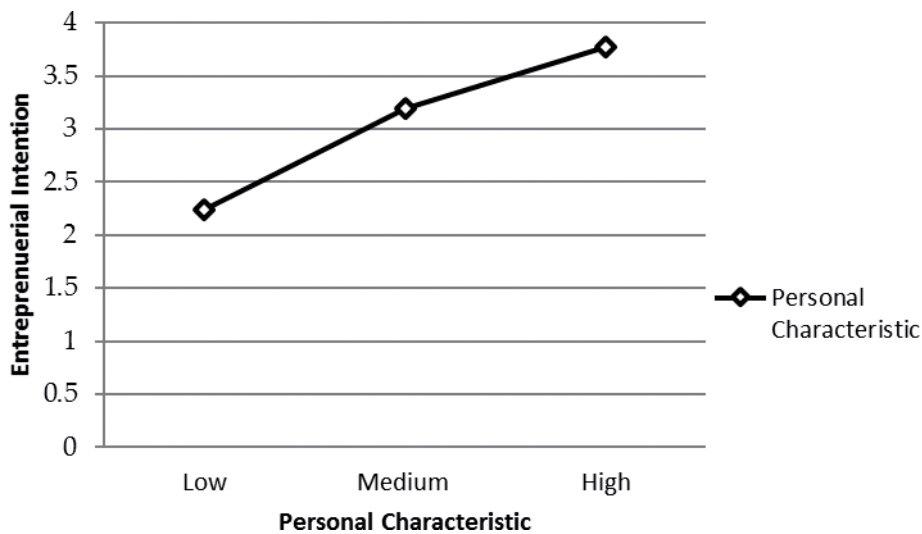


Figure 3. The variation of entrepreneurship personal characteristic on entrepreneurial intention.



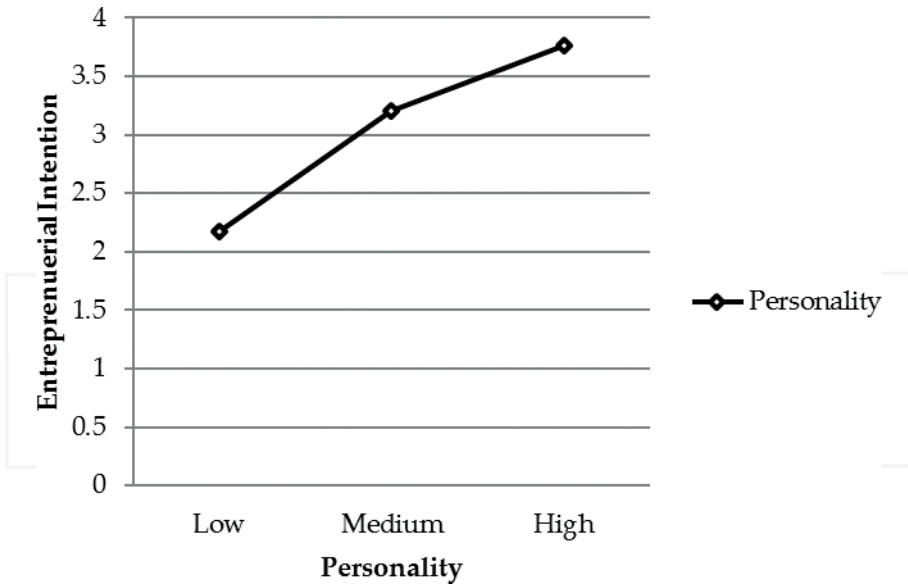


Figure 4. The variation of personality with entrepreneurial intention.

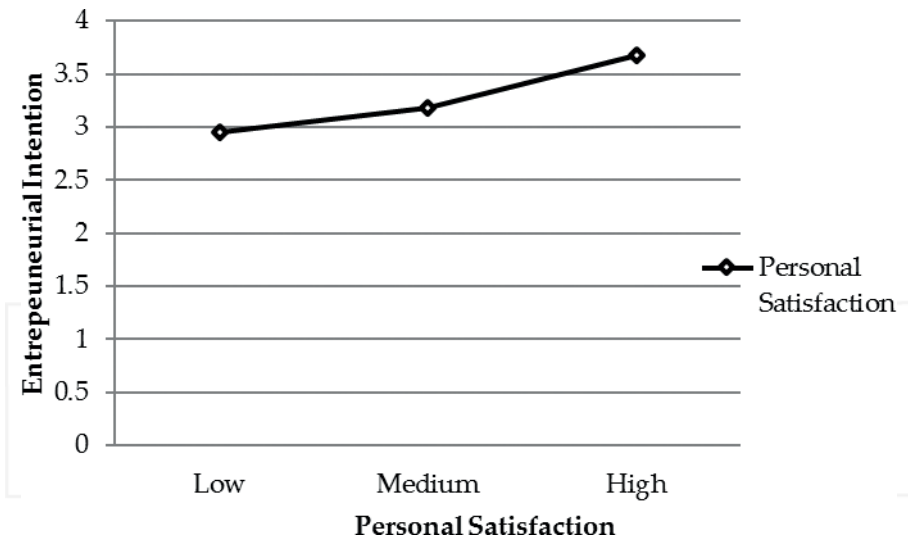


Figure 5. The variation of personal satisfaction with entrepreneurial intention.

### 3.6.3. Regression of entrepreneurial motivation and entrepreneurship career intension

The model summary of predicting the statistical relationships and explains the underlying relationships between entrepreneurial motivation with immediate entrepreneurship career intension is presented in **Table 6**. The coefficient of determination is .42 indicates that 42%

Independent Variables	Beta standardised
	Model
<b>Model variables</b>	
Behavioural control (self-efficacy beliefs)	.137**
Subjective norm (Tolerance for risk)	.266***
Attitude (Desirability) of self-employment	.335***
R <sup>2</sup>	.42
Adj. R <sup>2</sup>	.41
R <sup>2</sup> change	.42
F change	96.68***
Durbin-Watson	1.76
Note: ***Sig. at .001 **Sig. at .05.	

**Table 6.** The effect of entrepreneurial motivation on immediate entrepreneurship career intention.

of the variance in the immediate entrepreneurship career intension (dependent variable) is explained by the 3 motivational factors. The standardised coefficient behavioural control is .137 at  $p < .05$ , subjective control is .226 and attitude is .335 contributed significantly to the variance explained. The F change ( $p < 0.001$ ) indicates that variance was significantly explained by the model. The Durbin Watson value of 1.76 shows that the result of regression model is valid.

**Table 7** shows that the 2 motivational factors explain 45% of the variance of future entrepreneurship career intension. Subjective norm motivational factor with a standardised coefficient of .577 is significant at  $p < .001$ , and attitude with .216 is significantly contributing to the

Independent Variables	Beta standardised
	Model
<b>Model variables</b>	
Behavioural control (self-efficacy beliefs)	-.066
Subjective norm (Tolerance for risk)	.577***
Attitude (Desirability) of self-employment	.216***
R <sup>2</sup>	.45
Adj. R <sup>2</sup>	.45
R <sup>2</sup> change	.45
F change	112.14***
Durbin-Watson	1.77
Note: ***sig. At .001.	

**Table 7.** The effect of entrepreneurial motivation on future entrepreneurship career intention.

variance explained at  $p < .001$  level. However, the behavioural control motivational factor is not significant. The significant F change value at  $p < 0.001$  indicates that variance was significantly explained by the model. The Durbin Watson value of 1.77 shows that the result of regression model is valid.

#### 4. Discussion

Demographic elements including gender, age, and religion affect entrepreneurship intention [36]. Thus, in the present study, data on the gender, age, seniority at the University, faculty and race are being controlled to reduce its influences the results. Entrepreneurship education has been found to be able reduce reducing graduate unemployment [37]. Thus, entrepreneurial education should be introduced into the tertiary institutions that are not currently offering entrepreneurship courses (Samuel et al. [36] to equip students that possess competencies for job creation and self-employment. Thus, universities should explore the offering a wide range of entrepreneurship development activities to groom and nurture entrepreneur, seek practices that train and re-orientate students to embrace a more clearly defined element of personal and career development, human resource capacity building and academia development of the university. This will also create the opportunity to mould key entrepreneurial behaviours and practices through Centre of Excellence, the engagement of corporate entrepreneurship development, entrepreneurship curriculum besides the requirement that all undergraduates need to take at least a subject on entrepreneurship in their respective degree programme.

In this study, the levels of motivational factors which are attitude towards self-employment, subjective norm and behavioural control, and entrepreneurial intention are all rated good. This is in effect different from the finding by Fatoki [32] which reported weak results. The current research found that the variance of future entrepreneurship career intension (dependent variable) is explained by only the 2 motivational factors, the subjective norm and attitude motivational factors with the non-significant factor of behavioural control motivation. Nevertheless, all the three factors of entrepreneurial motivation are related to the immediate entrepreneurship career intension significantly. Biraglia and Kadile [38] found that an individual must feel self-efficacious enough to pursue entrepreneurial career. Universities entrepreneurship and curricular development programmes are crucial to assist students to acquire increased understanding of entrepreneurship. Thus, in elevating low entrepreneurial intention among African students, Fatoki [32] suggested that motivators must be reinforced and the organising practical trainings for students involved in entrepreneurship education or who would like to be involved in entrepreneurial practices, non-governmental organisations should be well funded through local and international grants to help with the training need of graduate entrepreneurship, training seminars can also be organised regularly to students as well as a "learning from peers" or mentorship approach can be instituted by government agencies to help students to get involved in entrepreneurship trainings at tertiary institutions. There are other research works that reported entrepreneurship education programs are not successful to develop students' entrepreneurial capabilities as an entrepreneur [39–41]. In this sense, this study has reiterated and supported the argument by Linan et al. [42] that

individuals having the necessary entrepreneurial competencies will favour entrepreneurial behaviour if those close to them are supportive and valued entrepreneurship positively. This has thus supported the call by Kim-Soon et al. [21] that authorities should identify and target those youths who are really serious to venture into entrepreneurship and own a business to be developed through entrepreneurship interventions initiatives.

## 5. Conclusion

Entrepreneurship is crucial to new business start-ups, developing existing businesses, job creation and economic growth. At the higher learning institutions entrepreneurship skills, knowledge and behaviours are integrated across its curriculum. The level of behavioural control of entrepreneurial motivation at in this study conducted at a public university has been rated very good, subjective norm and attitude towards entrepreneurship are both at good level.

The result of regression analysis indicated that the motivation in choosing entrepreneurship as a career option among the students is positively and significantly related with entrepreneurship intention statistically. The entrepreneurial motivation factors affecting career intention to be an entrepreneur are the social norms comprising of individual perception of the significance of how others value and support the establishment of a new business), subjective norm (individual perceptions of their abilities and tolerance to perform entrepreneurial tasks), and attitude towards behaviour (individual awareness of the importance and value of entrepreneurship) entrepreneurial motivations. Subjective norm (tolerance for risk) and attitude (desirability) of self-employment are significantly related to the student's immediate and future intention to be an entrepreneur. However, behavioural control entrepreneurial motivation is found to be significantly related to the student's immediate career intention but not significantly related to the student's future entrepreneurship career intention in this study. This could be argued using Krueger et al. [10] argument that individuals with high internal locus of control, social norms are less predictive of intentions. Behavioural control influences an individual's intention of action basing perception of degree of difficulty of performance of that specific behaviour [8]. This conceptually is similar Bandura's [13] Social Cognitive Theory explaining how an individual's belief in their abilities to perform a specified action.

Universities have put much effort to raise the profile of graduate entrepreneurship and to attract graduate students to seriously engage in entrepreneurship. Whether it is technical engineering or the non-engineering programmes, the antecedents of entrepreneurship intention should be embedded into entrepreneurship curriculum and pedagogical strategy and be a component to the main programme. Entrepreneurship is crucial to the future career, economy and social development necessary for nation building. Creating opportunity for practice of key entrepreneurial behaviours is seen as being crucial in cultivating entrepreneurial behaviours. This study supported the This has thus supported the call that authorities should identify and target those youths who are really serious to venture into entrepreneurship and own a business to be developed through entrepreneurship interventions initiatives.

## Author details

Ng Kim-Soon\*, Abdul Rahman Ahmad and Nurul Nadia Ibrahim

\*Address all correspondence to: ksng@uthm.edu.my

Universiti Tun Hussein Onn Malaysia, Batu Pahat, Johor, Malaysia

## References

- [1] Scarborough NM. *Effective Small Business Management: An Entrepreneurial Approach*. 10th ed. New Jersey, HD62.7.S27: Prentice Hall; 2012
- [2] Karimi S, Chizari M, Biemans HJA, Mulder M. Entrepreneurship education in Iranian higher education: The current state and challenges. *European Journal of Scientific Research*. 2010;**48**(1):35-50
- [3] Souitaris V, Zerbini S, Al-Laham A. Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*. 2007;**22**(4):566-591
- [4] Carsrud A, Brännback M. Entrepreneurial motivations: What do we still need to know? *Journal of Small Business Management*. 2011;**49**(1):9-26
- [5] Carsrud A, Brännback M, Elfving J, Brandt K. Motivations: The entrepreneurial mind and behavior. In: Carsrud A, Brännback M, editors. *Understanding the Entrepreneurial Mind: Opening the Black Box*. Heidelberg: Springer; 2009. p. 141-166
- [6] Edelman LF, Brush CG, Manolova TS, Greene PG. Start-up motivations and growth intentions of minority nascent entrepreneurs. *Journal of Small Business Management*. 2010;**48**(2):174-196
- [7] Branchet B, Augier B, Boissin JP, Quere B. Strategic governmental economic activities in support of young French SMEs. *Journal of Small Business and Enterprise Development*. 2011;**18**(2):384-402
- [8] Ajzen I. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*. 1991;**50**(2):179-211. DOI: 10.1016/0749-5978(91)90020-T
- [9] Krueger NF, Carsrud AL. Entrepreneurial intentions: Applying the theory of planned behavior. *Entrepreneurship and Regional Development*. 1993;**5**(4):315-330
- [10] Krueger NF Jr, Reilly MD, Carsrud AL. Competing models of entrepreneurial intentions. *Journal of Business Venturing*. 2000;**15**:411-432
- [11] Ajzen I. Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*. 2002;**32**:665-683

- [12] Cieřlik J, Stel AV. Explaining university students' career path intentions from their current entrepreneurial exposure. *Journal of Small Business and Enterprise Development*. 2017;**24**(2):313-332 <https://doi.org/10.1108/JSBED-09-2016-0143>
- [13] Bandura A. *Self-Efficacy: The Exercise of Control*. New York: Freeman; 1997
- [14] Ryan RM, Deci EL. Self-determination theory and the facilitation of intrinsic motivation. Social Development, and Well-Being. *American Psychologist*. 2000;**55**:68-78
- [15] Beeka BH, Rimmington M. Entrepreneurship as a career option for African youths. *Journal of Development Entrepreneurship*. 2011;**16**(1):145-164
- [16] Fatoki OO. The entrepreneurial intention of undergraduate students in South Africa: The influences of entrepreneurship education and previous work experience. *Mediterranean Journal of Social Sciences*. 2014;**5**(7):294-297. DOI: 10.5901/mjss.2014.v5n7p294
- [17] Moriano JA, Gorgievski M, Laguna M, Stephan U, Zarafshani K. A cross-cultural approach to understanding entrepreneurial intention. *Journal of Career Development*. 2012;**39**(2):162-185
- [18] Wardaszko M, Wittenzellner H, Holzmann P, Winniczuk A. Influencing attitudes towards entrepreneurship with digital game-based educational experience in secondary education. *Developments in Business Simulation and Experiential Learning*. 2016;**43**:240-248
- [19] Fayolle A. Personal views on the future of entrepreneurship education. *Entrepreneurship & Regional Development*. 2013;**25**(7-8):692-701
- [20] Artess J, Hooley T, Mellors-Bourne R. *Employability: A Review of the Literature 2012-2016*. York: Higher Education Academy; 2017
- [21] Kim-Soon N, Ahmad AR, Saberi AZM, Tat HH. Discriminate analyses of motivators and obstacles on youth entrepreneurial intention. *Asian Social Science*. 2013;**9**(17):53-57. DOI: 10.5539/ass.v9n17p53 ISSN 1911-2017 E-ISSN 1911-2025
- [22] Engle RL, Dimitriadis N, Gavidia JV, Schlaegel C, Delanoe S, Alvarado I, He X, Buame S, Wolff B. Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behavior. *International Journal of Entrepreneurial Behavior & Research*. 2010;**16**(1):35-57
- [23] Ummah S. Entrepreneurial motivation and self-employment intention: An empirical study on management undergraduates in Sri Lanka. *Journal of Management*. 2009;**5**(1):87-96
- [24] Fitzsimmons JR, Douglas EJ. Interaction between feasibility and desirability in the formation of entrepreneurial intentions. *Journal of Business Venturing*. 2011;**26**(4):431-440
- [25] Malebana J. Entrepreneurial intentions of south African rural university students: A test of the theory of planned behavior. *Journal of Economics and Behavioral Studies*. 2014;**6**(2):130-143
- [26] García-Rodríguez FJ, Gil-Soto E, Ruiz-Rosa I, Sene PM. Entrepreneurial intentions in diverse development contexts: A cross-cultural comparison between Senegal and

- Spain. *International Entrepreneurship & Management Journal*. 2013. DOI: 10.1007/s11365-013-0291-2
- [27] Nishimura JS, Tristán OM. Using the theory of planned behaviour to predict nascent entrepreneurship. *Academia, Revista Latinoamericana de Administración*. 2011;**46**:55-71
- [28] Ajzen I. Behavioural interventions: Design and evaluation guided by the theory of planned behavior. In: Mark MM, Donaldson SI, Campbell BC, editors. *Social Psychology for Program and Policy Evaluation*. New York: Guilford; 2011. p. 74-100
- [29] Ajzen I. The theory of planned behaviour. In: Lange PAM, Kruglanski AW, Higgins ET, editors. *Handbook of Theories of Social Psychology*, 1. London, UK: Sage; 2012. p. 438-459
- [30] Otuya R, Kibas P, Gichira R, Martin W. Entrepreneurship education: Influencing students' entrepreneurial intentions. *International Journal of Innovative Research & Studies*. 2013;**2**(4):132-148
- [31] Zulfiqar S, Asmi F, Chandia KE, Sarwar B, Aziz S. Measuring entrepreneurial readiness among youth in Pakistan through theory of planned behavior (TPB) based approach. *Business and Economic Research*. 2017;**7**(1):149-167
- [32] Fatoki OO. Graduate entrepreneurial intention in South Africa: Motivations and obstacles. *International Journal of Business and Management*. 2010;**5**(9):87-98 ISSN 1833-3850, E-ISSN 1833-8119
- [33] Krejcie RV, Morgan DW. Determining sample size for research activities. *Educational and Psychological Measurement*. 1970;**30**:607-610
- [34] Cohen L, Manion L, Morrison K. *Research Methods in Education*. 6th edition. 270 Madison Avenue, New York, NY 10016: Routledge; 2007. ISBN 0-203-02905-4
- [35] Hair JR, Anderson RE, Tatham RL, Black WC. *Multivariate Data Analysis*. 5th ed. Upper Saddle River, New Jersey: Prentice Hall; 1998
- [36] Samuel YA, Ernest K, Awuah JB. An assessment of entrepreneurship intention among Sunyani polytechnic marketing students. *International Review of Management and Marketing*. 2013;**3**(1):37-49 ISSN: 2146-4405
- [37] Gyamfi GD. Evaluating entrepreneurship education as a tool for economic growth: The Ghanaian experience. *British Journal of Education, Society & Behavioural Science*. 2014;**4**(3):318-335
- [38] Biraglia A, Kadile V. The role of entrepreneurial passion and creativity in developing entrepreneurial intentions: Insights from American homebrewers. *Journal of Small Business Management*. 2017;**55**(1):170-188
- [39] Akmaliah Z, Pihie L, Bagheri A. An exploratory study of entrepreneurial attributes among Malaysian university students. *Life Science Journal*. 2012;**9**(3):2358-2365 ISSN: 1097-8135



- [40] Cheng MY, Chan WS, Mahmood A. The effectiveness of entrepreneurship education in Malaysia. *Education and Training*. 2009;**51**(7):555-566
- [41] Jaafar M, Aziz ARA. Entrepreneurship education in developing country: Exploration on its necessity in the construction program. *Journal of Engineering, Design and Technology*. 2008;**6**(2):178-189
- [42] Linan F, Nabi G, Krueger N. British and Spanish entrepreneurial intentions: A comparative study. *Revista De Economia Mundial*. 2013;**33**:73-103

INTECH

INTECH

---

# Entrepreneurship, Leadership and Charisma: Which Are the Links with Business Models Sustainability?

---

Mara Del Baldo

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70535>

---

## Abstract

Leadership ethics tend to emphasise the benefits of implementing ethical practices within organisations, focussing on the importance of a leader's values and virtues and the positive effects of a leader's behaviour on employees' satisfaction, the organisational culture and stakeholders' relationships. Drawing from this premise, the work addresses entrepreneurial and managerial leadership model, such as charismatic and virtues-based leadership, and its contribution in developing sustainability-oriented strategy. Using a methodological approach which merges the inductive and deductive perspective, a critical review of leadership approaches is followed by the empirical analysis based on a case study relative to a large Italian public company—Brunello Cucinelli Spa—driving attention to the effectiveness of sustainable business models which require managers and entrepreneurs to govern the internal and external complexity and actively contribute to both the sustainability of the company and the local and global environment.

**Keywords:** entrepreneurship, business model, charisma, case-study, leadership, sustainability

---

## 1. Introduction

Since the 1950s, numerous theoretical frameworks that posit leadership at the core have been developed and extensive research has been undertaken on leadership behaviour.

Recently, several studies—which are part of the theoretical framework of corporate social responsibility (CSR)—have underlined how entrepreneurial behaviours and values lie at the base of CSR-oriented strategies and actions [1]. The business ethics literature emphasises the values dimension of entrepreneurial and managerial activity. Within this theoretical construct,

concepts such as management integrity, authenticity and virtues have been introduced, becoming widespread in the corporate context and giving rise to sustainable business models [2] and models of good governance aimed at constructing a civil economy [3, 4]. Leadership ethics tend to emphasise the benefits of implementing ethical practices within organisations, the importance of a leader's values and virtues [5–7] and the positive effects of a leader's behaviour on employees' satisfaction, the organisational culture and stakeholders' relationships [8, 9].

At the same time, the relevance of leadership has been growing in regard to innovative forms of social, environmental and integrated reporting, which place a strong emphasis both on the business model and the quality of leadership that directly or indirectly affects it. However, at present, the relationship between CSR and leadership has not been adequately amplified. Although some innovative topics, such as responsible leadership, have been emerging [10, 11], Du et al. [12] clearly highlight the persistence of certain deficiencies with regard to the interface between leadership and CSR: “despite a growing body of research documenting the business case of CSR, our knowledge of organisational antecedents to CSR remains embryonic” [12], p. 156. Addressing this gap, they investigate the roles of transformational and transactional leadership and the influence on the effectiveness of CSR in generating positive organisational outcomes.

Lack of research calls for further studies aimed to consider leadership components and practices. In particular, among the fields that are still underdeveloped, the relationship between CSR orientation and entrepreneurial/managerial virtues has not been adequately investigated or only partly addressed [6, 13], nor have previous studies expressively analysed entrepreneurial virtues intended as a transcendental perspective and virtues-based leadership and how they are reflected on the business model.

Drawing from these premises, the work aims to focus on entrepreneurial and managerial leadership models, such as charismatic and virtues-based leadership, and their contribution in developing sustainability-oriented strategies, capable of leading companies toward effective models of sustainable development [14]. The research question that orients the study can be summarized as follows: How does leadership affect the business model and its orientation toward sustainability?

Using a methodological approach, which merges the inductive and deductive perspective, this question orients a critical review of ethical-based leadership approaches, followed by the empirical analysis focused on a single case study [15] relative to a large Italian public company—Brunello Cucinelli Spa—driving attention to the models that are more coherent with the actual socio-economic context which require managers and entrepreneurs to govern the internal and external complexity and actively contribute to both the sustainability of the company and the local and global environment.

## 2. Leadership ethics: ethical and moral-based leadership

Leadership has a crucial role in shaping ethical organisational culture through leaders' moral behaviour, corporate mission, vision and values, ethical criteria for recruiting/

selection/promotions, evaluation processes and monitoring, ethical training programs, applying ethical values to decision making, daily routine and in intra-organisation procedures and structures [16]. Leadership behaviour ethics tend to emphasise the leaders’ behaviour and their values [8, 17].

The benefits of implementing ethical practices have been demonstrated by focusing on personal virtues held by leaders [6, 7, 13]. A fundamental pillar for the effectiveness of ethical commitments and the development of internal and external trust lies in a strong ‘steer’ from the top [18, 19]. Ethical leadership requires personal attributes (honesty, ability to listen, allowing others autonomy of choice, openness, willingness to consult and to learn) and manifests itself in a series of executive behaviours (i.e., gaining a real understanding of the culture; building ethics and values into ‘hearts and minds’ by means of ethics training programs; building ethical achievement into performance evaluation, creating channels of communication between the company and stakeholder groups, starting with employees) [20]. There are leaders who freely admit that they are driven by an intrinsic and contagious commitment to values. Leadership is not possible without ethics, because “being a moral leader and doing, acting with moral leadership are one” [21], p. 4 as shown in **Table 1**.

Moral behaviour and leadership are interrelated: on one hand, moral behaviour is influenced by situational factors such as role modelling, diffusion of responsibility, conformity, etc.; on the other hand, individual differences (i.e., personality and values) act as an antecedent of moral behaviour [22].

Moral leadership is inspired by constitutive moral elements: innovation, intuition and imagination [21]. Moral imagination entails perceiving norms, social roles and relationships entwined in managerial decision-making. Moreover, it involves the ability to envision and evaluate new models that create new possibilities to reframe problems and create new solutions in ways that are economically viable and morally justifiable [23], p.93. Creative value management depends on the attention paid to all values that are at stake. Moral creativity fosters dynamic and innovative CSR strategies and actions and is linked to responsible and sustainable leadership [24, 25]. The organisational culture imbued with

<i>Being informed by values, emotional and reasoning capability, caring, visionary, proactive and innovative</i>	<i>Doing informed by relationships with all stakeholders, wanting to achieve the best for all and the common good</i>
Balanced/in harmony with yourself	Relational
Reason and emotions	Affective
Integer (integrity)	Being there (crisis)
Vision	Caring
Passionate	Communicating
Responsible (ethical)	Involving others
Trustworthy	Responsive

Source: Our adaptation of Ref. [21].

**Table 1.** Doing and being a moral leader.

moral leadership enjoys several benefits: understanding of the interdependence between stakeholders; learning environment; respect and trust; cooperation; responsibility and accountability. This is not an idealistic approach, being that it is possible to find companies (i.e., the Norwegian company Stormberg A/S, see [26]; The Loccioni Group, see [27]) that apply it.

### **2.1. Charismatic, transcendental and virtues-based leadership**

The ability to “walk the talk of morals” is emphasised when maintaining trustworthiness and model attractiveness [28, 29] and is positively related to charismatic and transformational leadership [7, 30, 31]. Charismatic leaders are capable of turning problems into opportunities and resources thanks to their ability “to see the world” differently [32] and to create and maintain a work environment where people are emotionally and intellectually committed to the organisation’s goals. They build an energetic and positive attitude in others and inspire them to do their very best by creating a common sense of purpose [31]. Personal responsibility, vision, moral virtues, integrity, faith in personal commitment, shared social responsibility and solidarity are typical attributes of charismatic leaders [32], which leverage a virtuous corporate culture in an organisation [33].

The Globe research [34] identified several leadership dimensions, among which are ranked: charisma and ability to motivate members of the organisation by leveraging the transmission of corporate values; ability to create and manage working groups, orienting them toward common goals; level of members involvement in the decision-making process; level of compassion and generosity and the ability to provide human support to the members of the organisation.

When linked to spirituality, moral leadership has been viewed as the means by which religious beliefs impact leaders, the workplace and the society [32]. Ethical standards in business settings, levels of corporate responsibility and the role of religion in business ethics are the interrelated concepts that support the idea of business “as a calling,” which leads to creating an ethical organisational culture, developing CSR and providing servant leadership [35–37].

Although the world of business is dominated by rationality, efficiency and the pursuit of material goals, spiritual leadership assumes that leaders create a sense of spiritual meaning in followers through values such as honesty, wisdom and humility [38]. Malloch [19] provides several examples of “spiritual enterprises” in which virtues are daily applied in the operative, organisational and strategic management. These companies—also called visionary companies—possess a high level of social and spiritual capital, are characterised by different religious faiths and are diffused both in developed and emerging countries. Managers who hold a spiritual perspective on life are more ethical in their business conduct than those who do not hold a spiritual perspective [39]. In the Western world, the link to religion has often placed morality and wisdom into the private sphere, excluding it from being discussed openly as relevant to management and business altogether [18, 20]. The pursuit of material

goals “have dominated economic thinking both in theory and practice” [21], p. 9. However, literature comprising spirituality at work and spiritual leadership theory has become highly influential, especially in the USA. At the same time, this research strand has also attracted significant criticism [39].

Virtue ethics represent a developing approach within business, following with the recovery of the idea of virtue in mainstream philosophical ethics in the second half of the twentieth century [40, 41]. Among the virtue ethics there is a Neo-Aristotelian approach, which is applied to business ethics by several authors [42, 43]. Virtue ethics contribute to an environment for business that fosters the best practices [13] and allows us to understand the authentic “roots” of CSR. Flores and Green [6] used the “Leadership Virtues Questionnaire” to measure four leader virtues (cardinal virtues): prudence, fortitude, temperance and justice, which were positively related to assessments of authentic leadership, ethical leadership and transformational leadership. A stakeholder dialogue and engagement based on virtue ethics is concerned about the development of a virtuous corporate culture that takes a long-term view [44].

As mentioned in the previous sections, Bastons [45] points out that such virtues intervene in the structuring of the decision-making processes and allow the integral development of a company and its stakeholders.

Bertland [41] states that one can better understand the action of a leader when viewed from the perspective of the capabilities approach. This perspective reflects on the role of organisations in developing individual abilities and enriching the setting of the virtues ethics. Virtuous managers will be able to encourage employees and strengthen their talent, enhancing dignity, promoting positive relationships with customers and involving shareholders in social commitment.

Virtuous leadership goes beyond the debate on effectiveness, shifting the discourse to the concern of values, attitudes and behaviours that encourage transcendental development of leaders and followers [46]. Fry [38] defines transcendental leadership as a holistic model that concerns the whole person as it integrates the four essences of human existence: the body (physical essence), the mind (logical/rational thought), the heart (emotions and feelings) and the spirit.

The diffusion and growth of virtues in a company, however, oppose the barriers that Martin [47] identifies, primarily lacking, among the business leaders of today, a vision.

## **2.2. Responsible and sustainable leadership for a sustainable business model**

The theoretical construct of responsible leadership derives from the intersection of the moral-based leadership concepts with those of social responsibility and sustainability. It is characterised by a multilevel approach that places the leader, his behaviour, attitudes and choices in the centre of the management of a company, a division or a team [48]. “A responsible leadership theory broadens the notion of leadership from a traditional leader-subordinate

relationship to a leader-stakeholder relationships" [12], p. 156. Responsible leadership is in fact described as "an ethical and socio-relational phenomenon that occurs in social interaction processes" [10], p. 99. Accordingly, "building and cultivating ethically sound relations toward different stakeholders is an important responsibility of leaders in an interconnected stakeholder society" [10], p. 101.

Theories on responsible leadership thus emphasise the importance of approaching leadership in the context of stakeholder theory [28, 49]. Responsible leadership requires leader to also engage in involving stakeholders with virtue and integrity to build the best community and workplace [50]. Therefore, it enables the integration of the leaders within the stakeholder community.

Magni and Pennarola [48] point out that the competencies of responsible leadership are centred on communication, involvement of people and the importance attributed to the development of a new corporate culture based on values and moral convictions. The responsible leadership model they developed rests on five pillars: stakeholder consideration and ethical climate; integrity and climate oriented toward justice; role modelling and empowerment; climate geared toward diversity and inclusion and long-term orientation. Through this model, the responsible leader triggers a resilience path that guides the company toward sustainable development. Coherently, key factors of leadership style are the people strategy (the human resources management) and the culture (which enhances the basic values, such as accountability and transparency). The people strategy must be based on the enterprise conceived as a community of people. Therefore, its value is measured based on the commitment in bringing out the skills of its employees and this leads to the virtue of humility [51].

Responsible leadership rests on the idea that the responsible person must have flexible thinking (i.e., strategic and systematic), which includes the dimensions of logic (to sort, select and plan), ethics (foresight, transparency and perseverance) and aesthetic. Therefore, it requires specific cardinal virtues, such as prudence and perseverance.

Many approaches used for implementing CSR and sustainability have been predominantly inward-oriented and incapable of linking firms' social responsibilities to the core business and the value creation processes [25]. The need for more outward-oriented approaches has been pointed out, claiming the relevance of a sustainable business model with regard to the firms' value creation processes as a starting point [52, 53]. A sustainable business model is built upon the creation of value for all stakeholders and the natural environment, encompassing a wide range of changes that affect the company culture and values, translated into business practices and strategies, skills and knowledge, the leadership model and the internal and external relationship [54]. The sustainable business models are constructed through the interactions between individuals and groups inside and outside of companies [53, 55, 56]. Inquiring the nature of CSR leadership, Visser [25] observed that many characteristics (traits, styles, skills and knowledge) were associated with CSR leaders. Namely, a set of key characteristics that distinguishes the leadership approach taken



by individuals tackling sustainability issues includes: systemic understanding, emotional intelligence, values orientation to shape culture, compelling vision, inclusive style, innovative approach and a long-term perspective.

The theoretical constructs of sustainable leadership is thus closely linked to that of responsible and CSR leadership. It shares the same theoretical setting and differs from the latter only because of a greater focus on the three dimensions of sustainable development (people, planet and profits) and the creation of a social capital necessary to face times of difficulty and crisis [49]. Namely, three main elements characterise sustainable leadership [57]: (1) the need to cultivate a way of being and acting immersed in sustainability values; (2) the rootedness to the life processes and (3) being a dynamic, inclusive and collaborative process. Therefore, the leader's role does not rest in guiding others, but in guiding with the others as a result of sharing the values and the vision of sustainability inside and outside of the company.

A possible "missing link" between theory and practice of sustainability in the daily life of companies can thus be attributed to the lack of attention toward a key factor for concretely implementing a sustainable business model, which is an authentic leadership model consistent to the sustainability orientation and based on a moral and ethical construct. Sustainable leaders should be innovative and proactive in driving the change inside and outside the company toward sustainability. They should be capable to take the initiative without waiting for political decisions or forced by norms and laws. They should not be oriented to a short-term financial and competitive success and to an opportunistic use of CSR, merely aimed to increase the company (and their own) legitimacy [58]. In other words, they should be authentic.

The word authentic derives from *authento*, "to have full power" [59]. Aristotle's view of ethics focused on one's pursuit of the "higher good" achieved through self-realisation when the activity of the soul is aligned with virtue to produce a complete life. Such self-realisation is tied to one's well-being or *eudaemonia*, a form of happiness that, in contrast to hedonism, arises from successfully performing activities that reflect one's true calling. Departing from ancient Greek philosophy, a variety of leader authenticity definitions have advanced over the years and several theoretical, empirical and practitioner publications have been produced [60]. Authenticity encompasses four key components: (1) awareness (i.e., knowledge and trust in one's thoughts, feelings, motives and values); (2) unbiased processing (i.e., objectivity in regard to the acceptance of one's positive and negative attributes); (3) behaviour (i.e., acting based on one's true preferences, values and needs rather than merely acting to please others, secure rewards or avoid punishments) and (4) relational orientation (i.e., achieving and valuing truthfulness and openness in one's close relationships [61]. This multi-component conceptualisation of authenticity has provided the theoretical foundation for several theories of authentic leadership [62].

Authenticity as a driver of entrepreneurial and managerial behaviour relates to the expression of integrity [9]. Entrepreneurial and managerial authenticity influences the nature and

extent of CSR approaches and explains the tendency toward a genuine and intrinsically based orientation to CSR and sustainability [25]. A lack of integrity in the organisation's functioning, as well as in organisational practices, constitutes "companies' vices," which are often diffused in large public companies [20]. In the framework of leadership studies, authenticity emerges as a key factor. Fundamental pillars of authentic leadership include: the goal, the values, the heart, the relationships and self-discipline [63]. An authentic leader possesses a positive psychological capital (confidence, optimism, hope and resilience) and an elevated level of morality. He/she develops authentic relationships with followers, increments confidence and builds a work environment and a pleasant organisational climate, oriented toward sustainability. The mission-driven companies, which are guided by an authentic leader, are able to generate a much higher value (in economic, social and environmental terms) than those who exclusively research profit results [63], such as the following case study demonstrates.

### 3. Methodology

The empirical research design has been developed using a qualitative approach [64] based on a single case study method [15, 65]. As a research strategy, the distinguishing characteristic of the case study is that it attempts to examine: (a) a contemporary phenomenon in its real-life context, especially when (b) the boundaries between phenomenon and context are not clearly evident [66]. The ability of a case study researcher to portray a comprehensive analysis of phenomenon becomes important to capture the original vantage points from both sides [66], p. 260.

The case study is relative to an Italian company, namely Brunello Cucinelli, belonging to the fashion industry and based in the Umbria region. The company has been selected for its traits of excellence, both relative to the business model and the leadership model, which makes it an interesting laboratory on a scientific and managerial level. Brunello Cucinelli (the founding entrepreneur) has been collaborating for years with different universities and national and international research centres.

Data have been collected from two main sources. First, a document analysis of materials downloaded from the Internet site in a period of 3 months (Dec 2016–Feb 2017) have been carried out. The documents include: annual and infra-annual reports, press releases and information on the company's principles posted on the website [67].

Secondly, a document analysis of books and articles relating to the company and their entrepreneurs/managers published in newspapers in the last 5 years (2012–2016) (national and international newspapers downloaded by the company corporate website) has been carried out [68].

Information have been selected in order to cover the following topics: mission and basic values of the companies; business models; leadership model; strategies and stakeholder

initiatives (stakeholder engagement). A manual coding of the texts and statements/speeches of managers/entrepreneurs has been performed.

## 4. Brunello Cucinelli Spa

### 4.1. Company profile

Brunello Cucinelli Spa is an Italian couture house of approximately 1400 employees listed on the Italian electronic stock exchange (MTA). The company was founded in 1978 by Brunello Cucinelli, stylist and entrepreneur, in the medieval hamlet of Solomeo, a small hilltop village located on the outskirts of Perugia (Umbria, Italy). Currently, it represents one of the most exclusive brands and testimonials of Italian lifestyle worldwide in the international luxury prêt-à-porter sector, specialised in cashmere. Brunello Cucinelli Spa's success, whose financial results are briefly shown in **Table 2**, is rooted in the history and legacy of great craftsmanship as well as in modern design: a quality strategy founded on a combination of high quality material, innovation, creativity and artisan skill.

Brunello Cucinelli, Chairman and CEO of the company, commented on this data: *"Another splendid year for our industry has just ended with double digit revenue growth and a very agreeable image of our brand at a universal level. To all our esteemed employees, co-workers, clients and shareholders, who help us feel like custodians of creation, we would like to express our most heartfelt thank you, thank you, thank you."*

Brunello Cucinelli brand is an expression of a sophisticated concept of a contemporary lifestyle. The brand is firmly rooted in quality excellence, Italian craftsmanship and creativity, which are the foundations on which the company's growth can be built in the long run. The positive results that have been achieved confirm the sustainability of the business model and mark the company's long-term growth project, which together with the development of human resources falls in with the concept of "humanistic capitalism," an integral part of the Group's DNA.

Net revenues	€456.0 million, +10.1% at current exchange rates compared to December 31, 2015
Growth in all distribution channels	Retail mono-brand +17.1%, wholesale mono-brand +2.4% and wholesale multi-brand +4.2%
Net debt	Approximately €51 million on December 31, 2016, a decrease on the figure of €56.4 million on December 31, 2015
Investment	Approximately €30 million in 2016
2015 EBITDA	€ 69.1 million (up by 11.0% compared to 2014)
Source: Corporate website: <a href="http://www.brunellocucinelli.com">www.brunellocucinelli.com</a>	

**Table 2.** Brunello Cucinelli Spa's preliminary results (2016).

#### 4.2. The leader's philosophy and the business model

The humanistic enterprise model triggered by the so-called Prince of Solomeo [68] derives from the vision and charisma of the founder, Brunello Cucinelli, born in 1953 in a peasant family in Castel Rigone, a fifteenth century little hamlet near Perugia. After obtaining a diploma as surveyor, he enrolled in the faculty of Engineering. However, he dropped out in 1978 to set up a small company and implement his basic intuition. The business idea was to dye cashmere, which at that point had mainly come in natural or more basic colours. In 1982, after getting married, Brunello moved to Solomeo, a small, ancient town in Umbria, where, in 1985, he purchased the fourteenth century tumbledown castle that became the corporate headquarters and venue, making his dreams come true.

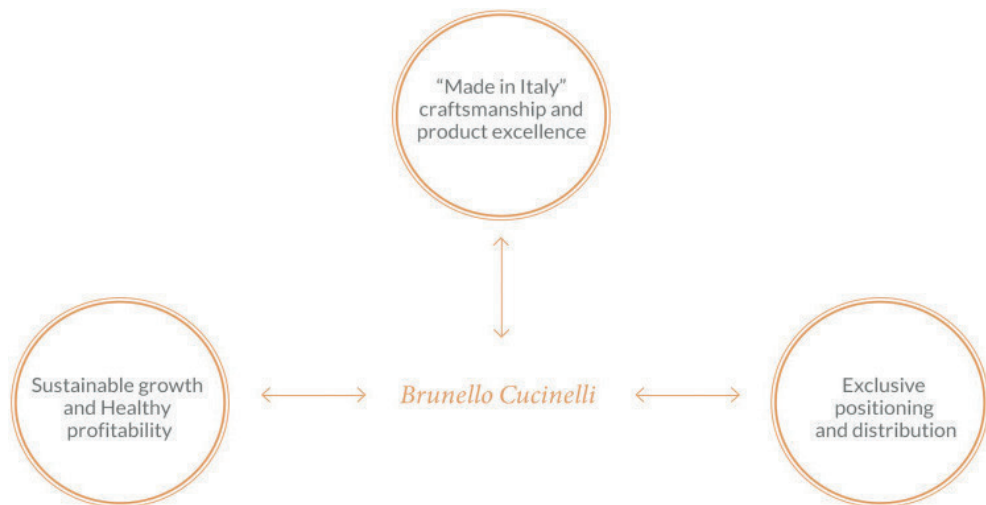
Indeed, Solomeo became a great workshop for him to build his success as an entrepreneur capable of putting a contemporary form of "neo-humanistic capitalism" into practice, which is a different way of doing business in the twenty-first century, where profit can be sought without damaging mankind. This concept of contemporary capitalism has been defined by the press as an innovative example of "humanistic capitalism." This vision was rooted in Brunello as a boy, when he witnessed his father working in an unwelcoming environment. He became a close observer of the world, thus developing his dream to promote a concept of work that ensured respect for the moral and economic dignity of human beings. This is the key element to understanding Brunello's personality and the success of his business, which is intended not only as a wealth-generating entity but also as a driver to develop capitalism that enhances human beings. Brunello's philosophy can be summarised in his words: *"During my lifetime, I have always nurtured a dream: useful work to achieve an important goal. I have always felt that business profit alone was not enough to fulfil my dream and a higher purpose was to be found."* Over the years, Brunello has been acknowledged by national and international honours, such as the "Knight of Industry" nomination assigned by the President of the Italian Republic and an honorary degree in Philosophy and Ethics of Human Relations from the University of Perugia.

In 2012, the company was listed in the Stock Exchange market, not only for financial reason but also because the wider participation in his business activity represented an opportunity to spread Brunello's ideals of capitalism, conceived as a new Renaissance in its infancy, a golden century resting on the great values of humanity. Sustainability of growth and healthy profitability are distinctive features of the company.

Accordingly, many projects were triggered to make these ideals come true. In 2013, the Solomeo School of Arts and Crafts was established and is located in the Forum of Art, built exclusively by Umbrian master craftsmen. It also includes the Neo-humanistic Aurelian Library, the Gymnasium, the Amphitheatre and the Theatre, because Brunello's vision requires that the memory of an important humanistic factor such as craftsmanship is preserved and passed on to future generations. Moreover, the Project for Beauty presented in 2014 and supported by the Brunello and Federica Cucinelli Foundation entails the creation of three huge parks in the valley at the foot of the Solomeo hill (the

Agricultural Park, the Secular Youth Club Park and the Industry Park), recovering part of the property occupied by old abandoned factories and using it to grow trees, orchards and lawns. This initiative symbolises the crucial value of earth, “from which all things are” and highlights the duty to restore the dignity of the land and to act as a guardian of creation. Excellent quality, Italian craftsmanship, creativity and exclusive distribution are the pillars and foundations of corporate identity and philosophy, which nurture the business model (**Figure 1**).

The foundations of the business model are (1) search for top-notch quality, excellence in craftsmanship and manual work and skills; (2) exclusive products, which are expressions of authentic Made in Italy and (3) the preservation of values that make up the company’s DNA: dignity of work, profit and a special relationship with the surrounding territory, in a “gracious” and constant long-term development plan (**Tables 3 and 4**). Brunello Cucinelli has set up an innovative business dimension, that is, a reality in which the human being lies at the core of the company and work is seen as an expression of human value, where profit becomes a means to achieve the higher end of the ultimate good to improve the workers’ lives. Besides the fundamental values and general principles of compliance with the law, honesty, transparency, fairness and good faith (as per the company’s Code of Ethics), strategic priority is given to sustainable development objectives, including the well-being of all those working for and cooperating with the company as well as the company’s responsibility *vis-a-vis* humanity. This orientation represents a value proposition for customers who are always receptive to ethics and sustainability.



**Figure 1.** Brunello Cucinelli Spa’s business model. Source: Brunello Cucinelli Annual report (2016).

The decline of consumerism in favour of a fair use of things	"Consuming means impoverishing and depleting, whereas if we use our resources reasonably, they have the time to grow back. The well-being of society coincides with a fair use of things, therefore a gracious, sustainable and healthy growth turns out to be perhaps more human. We need agracious growth" ( <i>La Repubblica</i> , September 20, 2014).
Humanist artisans of the web	"Thanks to new technological horizons our tradition of seeking knowledge, human relations and the circulation of ideas can reverberate with new exciting energy, a deeply ethical and social one. The quality of knowledge and therefore of life improves only if critical thinking progresses along with innovation. The time has come to humanise the web" ( <i>QN</i> , June 22, 2016).
Pleasant peripheries	<p>"Peripheries are often seen in a negative fashion. However, city outskirts, such as Solomeo, are beautiful places when their humanity and the dignity of the people living there can express themselves fully. We must be able to envisage and imagine a new concept of periphery, a place that respects the dignity of human beings and things alike."</p> <p>"In ancient Greek the word 'periphery' signified circumference, a circle, namely the most perfect of all shapes. Peripheries must be pleasant places, where people acknowledge their identity and find meaning in their existence."</p> <p>"The Project of beauty carried out in Solomeo means giving back to nature and to the wonderful landscape of the Umbrian hills covering over 80 hectares of land" (<i>La Repubblica</i>, November 27, 2014).</p>
A fair working life	"A fair working life rests on the same ideal principles as a fair use of things. Work, regardless of its nature and kind, should never encroach upon people's life, their rest, the time they need to find a balance between their soul and their body. In our company, it is forbidden to work past the agreed working time. Employers should never steal the soul of their workers by depriving them of the time they need to lead a healthy life. In this regard, it is worth recalling a suitable statement by Saint Benedict who warned that every day we should 'look after our mind through study and our soul through prayer and work' ( <i>La Repubblica</i> : Capitalism must keep step with mankind," June 21, 2016).

Source: Our elaboration from the Brunello Cucinelli website.

**Table 3.** Some pillars of Brunello's philosophy and sustainable business model.

Gracious growth and healthy profitability, deriving from the attention that Brunello Cucinelli shows unconditionally and consistently to the surrounding community and all stakeholders, are the key to long-term development.

In the annual report section devoted to Shareholders and Values, we can read his statement: "I would like our products to speak of our land and place of origin, while we strive to work with dignity, tolerance and respect". Being shareholders of Brunello Cucinelli means: supporting and sharing a value system and philosophy that places the human being at the core of every business project; sharing a very long-term project of sustainable and ethical profit growth, according to a business model that has enabled the brand to become a world-class member of the "absolute luxury" segment thanks to craftsmanship, top-notch quality and exclusive distribution and investing in a sound company whose balance sheets report positive results year in and year out, with sustainable growth that enables the brand to safeguard its exclusivity and positioning in the absolute luxury category, seizing long-term development opportunities.

Principle/pillar	Practice
<p>Italian craftsmanship and manual skills  <i>"passion for beauty and the recognition of talented people who can make items that are sought after across the globe."</i>  <i>"Italian craftsmanship and manual skills epitomise the beauty of our products, our culture, our identity. Being acknowledged as "artisanal industrialists" is a value that is maintained over time"</i></p> <p>Centrality of communication (transparency): the corporate philosophy is strongly rooted in the humanistic culture and in the teachings of ancient figures (such as Socrates, Aristotle, Seneca, Saint Benedict, Saint Francis and Saint Augustine) targeting social and existential "well-being" that goes hand-in-hand with the growth of the company's true value</p> <p>Valuing people: to take interest in each employee as a person, not just as a resource</p> <p>Developing people: to treat everyone (employees and collaborators) with great respect, favouring opportunities for personal and professional growth and promoting change inside and outside the organisation</p> <p>Building community  Brunello Cucinelli built a sense of community within the organisation by always nurturing the growth of personal and community culture and socio-economic environment</p> <p>Displaying authenticity  The leader displays authenticity in personal and professional choices</p> <p>Sharing leadership  The entrepreneur puts trust in employees and leads by example inspiring vision of the organisation's future</p>	<p>The design of collections and development of samples are carried out in-house by a team of over 100 people striving to combine innovation, creativity and manual skills and are entrusted to over 300 independent highly specialised artisan workshops mostly based in Umbria</p> <p>The corporate communication strategy hinges on:  - communicating the values embodied in the company's philosophy  - communicating the taste and lifestyle of the Brunello Cucinelli universe and his way of interpreting humanity</p> <p>Brunello Cucinelli calls the employees "thinking souls," thus revealing the people-centred approach, the concept of work as a full expression of the human being and the philosophical inquiry and care of workers  <i>"Our comprehensive quality is the result of the inner quality of each and every one of us"</i> (B. Cucinelli)</p> <p>Dignity and guardianship: Brunello Cucinelli is a humanistic company, based on ethics and production. <i>"I found it increasingly difficult not to adopt a concept of work and human action based on positivity and belief in the future"</i> (B. Cucinelli)</p> <p>The entrepreneur is a genuine expression of the Umbrian region. He carefully safeguards the sensitivity and values of this land  <i>"We must listen to the genius loci, the spirit of place: for centuries, Solomeo has produced olive oil and wine, and now it produces cashmere"</i> (B. Cucinelli)  The humanistic vision, the search for the beauty and the passion for original handcrafted products are generated by a spiritual tension, that has its roots in the medieval and Renaissance history and culture, enlightened by the religious experiences of Saint Francis of Assisi and Saint Benedict of Norcia, by Giotto's and Perugino</p> <p><i>"Beauty generates value. We feel responsible for the beauty in the world"</i> (B. Cucinelli).  The School of Arts and Crafts in Solomeo aims to train human beings and strives to dignify work focusing on "Art, culture and spirituality, which meet in absolute freedom to enhance human awareness" (B. Cucinelli). Culture and beauty emphasise human creativity; they are a treasure to be safeguarded which enable Brunello Cucinelli to blend tradition and modernity and work in harmony with the local and global dimensions</p> <p>In their pursuit of the "humanistic enterprise," people work to achieve a shared objective, a system of non-material values that represent the living core of the company  <i>"We believe that success is something to be shared"</i> (B. Cucinelli)</p>
Source: Our elaboration.	

**Table 4.** Business and leadership model features in theory and practice.



## 5. Discussion and concluding remarks

Drawing from the case analysis, several traits characterise the ethical-based and charismatic leadership model emerged [31–33, 36, 37]. Since its foundation, the company pursues a sustainable-oriented business model that is positively affected by a leadership style tied to a moral-based and servant leadership and is founded on integrity [27]. The latter is coherent and consistent to the business strategy, its mission, goals and organisational culture.

A leadership model imbued with a moral foundation rests on values and virtues. Accordingly, at the centre, the entrepreneur/manager puts people, their lives and well-being. Valuing people, respecting and protecting the environment, preserving the social and cultural framework and sharing ideas and objectives with stakeholders are the pillars of the company's success [25].

Even if the results of the empirical analysis cannot be generalised, the explorative study contributes to grasp some important traits of the leadership model, which are positively connected to a multidimensional and long-term growth, oriented to pursue economic, social and environmental objectives.

First, responsible leadership may be widespread within businesses, affecting the different levels: individual (favouring the passage from “me to us” through collaboration and shared responsibility); team (through the development of mutual relations of trust and open communication) and organisation (structuring a coherent vision and a mission). It rests on the idea that the responsible person must have flexible thinking (i.e., strategic and systematic), which includes the dimensions of logic (to sort, select and plan), ethics (foresight, transparency and perseverance) and aesthetic. Therefore, it requires specific cardinal virtues, such as prudence and perseverance [44].

Second, entrepreneurial and managerial leadership styles and models play a crucial role in shaping organisational culture, especially through leaders' moral behaviour and values and the ethical criteria applied to decision-making, which affect daily routine and intra-organisation procedures and structures [16]. Namely, a set of key characteristics that distinguishes the leadership approach taken by individuals tackling sustainability issues includes [25]: systemic understanding (a responsible leadership results from the interaction between an organisation's social, environmental and economic context and the characteristics of individual leaders); emotional intelligence (the ability and the real inspiration to unlock human potential and motivate people); values orientation to shape culture (a values-based approach nurtured by morality and spirituality is critical); compelling vision (the ability to effectively communicate a compelling narrative on how their organisations can contribute to creating a better world); inclusive style (the leader and the followers working together to get to certain outcomes); innovative approach (a willingness to innovate and be radical, stimulating lateral thinking and cross-functional, collaborative problem solving since complex problems require creative solutions) and a long-term perspective (long-term thinking on impacts in terms of sustainability).

In light of these preliminary results, additional research should deepen the link and coherence between sustainable business models and leadership models as well as the benefits and

outcomes of the ethical-based and charismatic leadership model. Moreover, further empirical studies could provide rich descriptions of this observation in a variety of organisational sectors [53, 56]. Despite its limitations, due to the fact that results cannot be generalised, being based on a single case study, the work has both scientific and managerial implications. On the one hand, it contributes to understand the relationship between leadership and the business model, which is still under-investigated. On the other hand, it exemplifies resilience derived from a sustainable business model, activated through relationships among internal and external stakeholders and supported by a coherent leadership approach. As such, the research project helps to improve the education of the sustainability-oriented process and sustainable leadership in the real business context, thus opening new trajectories for a fruitful convergence of theory and practice.

## Author details

Mara Del Baldo

Address all correspondence to: [mara.delbaldo@uniurb.it](mailto:mara.delbaldo@uniurb.it)

Department of Economics, Society and Politics, University of Urbino Carlo Bo, Urbino, Italy

## References

- [1] Garriga E, Melé D. Corporate social responsibility theories: Mapping the territory. *Journal of Business Ethics*. 2004;**53**(1):51-71
- [2] Stubbs W, Cocklin C. Conceptualizing a 'sustainability business model'. *Organization & Environment*. 2008;**21**:103-127
- [3] Zamagni S. *The Economics of Altruism*. E. Elgar: Hants; 1995
- [4] Zadek S. Responsible Competitiveness: Reshaping Global Markets Through Responsible Business Practices. *Corporate Governance*. 2006;**6**(4):334-348
- [5] Davis A, Rothstein H. The Effects of the Perceived Behavioral Integrity of Managers on Employee Attitudes: A Meta-analysis. *Journal of Business Ethics*. 2006;**67**(4):407-419
- [6] Flores SL, Green MT. The importance of small business leader virtues. *Small Business Institute, National Conference Proceedings*. 2013, Winter;**37**(1):252-261
- [7] Brown JB. The Building of a Virtuous Transformational Leader. *The Journal of Virtues and Leadership*. 2011;**2**(1):6-14
- [8] Kaptein M. Ethics programs and ethical culture: A next step in unravelling their multi-faceted relationship. *Journal of Business Ethics*. 2009;**89**(2):261-281

- [9] Kaptein M, Wempe G. *The Balanced Company: A Theory of Corporate Integrity*. Oxford: Oxford University Press; 2002
- [10] Maak T, Pless NM. Responsible leadership in a stakeholder society - A relational perspective. *Journal of Business Ethics*. 2006;**66**:99-115
- [11] Pless NM, Maak T. Responsible leadership: Pathways to the future. *Journal of Business Ethics*. 2011;**98**:3-13
- [12] Du S, Swaen V, Lindgreen A, Sen S. The roles of leadership styles in corporate social responsibility. *Journal of Business Ethics*. 2013;**114**:155-169
- [13] Flynn G. The virtuous manager: A vision for leadership in business. *Journal of Business Ethics*. 2008;**78**:359-372
- [14] Ketola T. A holistic corporate responsibility model: Integrating values, discourses and actions. *Journal of Business Ethics*. 2008;**80**:419-435
- [15] Yin RK. *Case Study Research: Design and Methods*. 4th ed. Los Angeles: Sage; 2014
- [16] Melé D. *Management Ethics. Placing Ethics in the Core of Good Management*. NY, Palgrave McMillan; 2012
- [17] Sison AJG, Beabout GR, Ferrero I, editors. *Handbook of Virtue Ethics in Business and Management 2017*. Dordrecht, Netherlands: Springer; 2017
- [18] Collier J, Esteban R. Systemic leadership: Ethical and effective. *The Leadership and Organizational Development Journal*. 2000;**21**(4):207-215
- [19] Malloch TR. *Spiritual Enterprises. Doing Virtuous Business*. New York: Encounter Books; 2009
- [20] Brown ME, Treviño LK, Harrison DA. Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*. 2005;**97**:117-134
- [21] Hoivik von Weltzien H. The heart of leadership is ethics. *Impresa Progetto-Electronic Journal of Management*. 2014;**11**:1-9
- [22] Brown ME, Treviño LK. Ethical leadership: A review and future directions. *The Leadership Quarterly*. 2006;**17**:595-616
- [23] Werhane P. *Moral Imagination and Management Decision Making*. Oxford: University Press; 1999
- [24] Bachmann B. *Ethical Leadership in Organizations. Concepts and Implementation*. AG Switzerland: Springer Int. Publishing; 2017
- [25] Visser W. The nature of CSR leadership. Definitions, characteristics and paradoxes. *CSR International Paper Series*. 2011;**4**:1-10
- [26] Hoivik von Weltzien H, Melé D. Can a SME become a global corporate citizen? Evidence from a case study. *Journal of Business Ethics*. 2009;**88**:551-562

- [27] Del Baldo M. Authentic CSR and leadership: Towards a virtues-based model of stakeholder dialogue and engagement: The Loccioni Group experience. In: Idowu SO, Vertigans S, editors. *Stages of Corporate Social Responsibility. From Ideas to Impacts*. Switzerland: Springer; 2017. p. 179-203
- [28] Bass BM, Steidlmeier P. Ethics, character, and authentic transformational leadership behavior. *Leadership Quarterly*. 1999;**10**(2):181-217
- [29] Chatterji M, Zsolnai L. *Ethical Leadership. Indian and European Spiritual Approaches*. London: Palgrave; 2017
- [30] Olsen OK. Are good leaders moral leaders? The relationship between effective military operational leadership and morals. Dissertation for the philosophiae doctor degree (PhD) at the University of Bergen; 2010
- [31] Palshikar K. Charismatic Leadership. [Internet]. 2007. Available from: <http://www.unc.edu/~ketan/documents/Charismatic%20Leadership.pdf> [Accessed: March 23, 2014]
- [32] Bruni L, Sena B, editors. *The Charismatic Principle in Social Life*. New York: Routledge; 2013
- [33] Becker T. Integrity in organizations: Beyond honesty and conscientiousness. *Academy of Management Review*. 1998;**23**(1):154-161
- [34] Globe. Global Leadership and Organizational Behavior Effectiveness. Culture and Leader Effectiveness [Internet]. 2008. Available from: <http://www.ccl.org/leadership/pdf/GlobeStudy> [Accessed July 23, 2013].
- [35] Sauser Jr WI. Ethics in business: Answering the call. *Journal of Business Ethics*. 2005;**58**(4): 345-357
- [36] Laub J. Servant Leadership. [Internet]. 2011. Available from: [http://www.olagroup.com/Display.asp?Page=servant\\_leadership](http://www.olagroup.com/Display.asp?Page=servant_leadership) [Accessed: February 27, 2011]
- [37] Greenleaf RK. *Servant Leadership: A Journey into the Nature of Legitimate Power and Greatness*. New York: Paulist Press; 1977
- [38] Fry LW. Toward a theory of spiritual leadership. *The Leadership Quarterly*. 2003;**14**:693-727
- [39] Mabey C, Conroy M, Blakeley K. Having burned the straw man of christian spiritual leadership, what can we learn from jesus about leading ethically? *Journal of Business Ethics*. 2016:1-13. DOI: 10.1007/s10551-016-3054-5
- [40] MacIntyre A. *After Virtue. A Study in Moral Theory*. 2nd ed. London: Duckworth; 1985
- [41] Bertland A. Virtue ethics in business and the capabilities approach. *Journal of Business Ethics*. 2009;**84**:25-32
- [42] Solomon RC. Corporate roles, personal virtues: An aristotelian approach to business ethics. *Business Ethics Quarterly*. 1992;**2**(3):317-339
- [43] Melé D. Integrating personalism into virtue-based business ethics: The personalist and the common good principles. *Journal of Business Ethics*. 2009;**88**:227-244

- [44] Alford H, Signori S. Brief considerations on the effectiveness of shareholder activism. A virtue ethics approach. *Impresa Progetto-Electronic Journal of Management*. 2014;**3**:1-10
- [45] Bastons M. The role of virtues in the framing of decisions. *Journal of Business Ethics*. 2008;**78**:389-400
- [46] Cardona P. Transcendental leadership. *Leadership and Organization Development Journal*. 2000;**21**(4):201-206
- [47] Martin RL. The virtue matrix: Calculating the return on corporate responsibility. *Harvard Business Review*. 2002;**80**(3):68-75
- [48] Magni M, Pennarola F. *Responsible Leadership – Creare Benessere, Sviluppo e Performance a Lungo Termine*. Milano: Egea; 2015
- [49] Avery G, Bergsteiner H. Sustainable leadership practices for enhancing business resilience and performance. *Strategy & Leadership*. 2011;**39**(3):5-15
- [50] Jones J. Leadership lessons from Levinas: Revisiting responsible leadership. *Leadership and the Humanities*. 2014;**2**:44-63
- [51] Seligman ME. *Character, Strengths and Virtues*. New York: Oxford University Press; 2004
- [52] Bocken NMP, Short SW, Rana P, Evans S. A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*. 2014;**65**:42-56
- [53] Schaltegger S, Lüdeke-Freund F, Hansen EG. Business cases for sustainability: The role of business model innovation for corporate sustainability. *International Journal of Innovation & Sustainable Development*. 2012;**6**(2):95-119
- [54] Abdelkafi N, Täuscher K. Business models for sustainability from a system dynamics perspective. *Organization & Environment*. 2015;**29**(1):74-96
- [55] Roome N, Louche C. Journeying toward business models for sustainability: A conceptual model found inside the black box of organisational transformation. *Organization & Environment*. 2016;**29**:11-35
- [56] Boons F, Lüdeke-Freund F. Business models for sustainable innovation: State-of-the-art and steps towards a research agenda. *Journal of Cleaner Production*. 2013;**45**:9-19
- [57] Burns H, Vaught D, Bauman C. Leadership for sustainability: Theoretical foundations and pedagogical practices that foster change. *International Journal of Leadership Studies*. 2015;**9**(1):131-143
- [58] Del Baldo M. Corporate social responsibility, entrepreneurial values and transcendental virtues in Italian SMEs. *International Journal of Business and Social Science*. 2014; **5**(6): 25-51
- [59] Trilling L. *Sincerity and Authenticity*. London: Oxford University Press; 1972

- [60] Gardner WL, Cogliser CC, Davis KM, Dickens MP. Authentic leadership: A review of the literature and research agenda. *The Leadership Quarterly*. 2011;**22**:1120-1145
- [61] Kernis MH, Goldman BM. A multicomponent conceptualization of authenticity: Theory and research. In: Zanna MP, editor. *Advances in Experimental Social Psychology*. Vol. 38. San Diego: Academic Press; 2006. p. 283-357
- [62] Avolio BJ, Gardner WL. Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*. 2005;**16**:315-338
- [63] George W. *Authentic Leadership: Rediscovering the Secrets to Creating Lasting Value*. San Francisco: Jossey-Bass; 2003
- [64] Bailey CA. *A Guide to Qualitative Field Research*. 2nd ed. Pine Forge: Sage; 2007
- [65] Eisenhardt KM, Graebner ME. Theory building from cases: Opportunities and challenges. *Academy of Management Journal*. 2007;**50**(1):25-32
- [66] Wisnoentoro R. Digesting the essence of phenomenology as the guide for case study researchers, in the context of qualitative communication research methodology. *International Journal of Science Commerce and Humanities*. 2014;**2**(4):260-268
- [67] Brunello Cucinelli. Annual Report. Interim Financial Report at 30th June 2016. 2016
- [68] Mead R. Letter from Umbria. The "Prince of Solomeo" The "cashmire utopia" of Brunello Cucinelli. *The New Yorker*. March 29, 2010:72-79

INTECH





---

# Entrepreneurship in Higher Education: The Effect of Academy, Motivation, Resources, Incentives, and Self-Efficacy in the Entrepreneurship Potential

---

Pedro Miguel Dinis Santos Parreira,  
Lisete dos Santos Mónico,  
Carla Maria Santos de Carvalho and  
Alexandra Cristina Riscado da Silva

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.71695>

---

## Abstract

Entrepreneurship in higher education is a current and relevant topic. The objective of this study is to analyze to what extent the entrepreneurial potential of polytechnic higher education students can be predicted from entrepreneurial motivations, opportunities, and resources to undertake, incentives to entrepreneurship, and self-perception of student efficacy, controlling for academic preparation and desire to undertake. Body—Research methods: Through the analysis of the reasons that encourage higher education students to undertake, a survey was carried out to 6532 students of Portuguese Polytechnic Institutes, who answered to the following measures: scale of opportunities and resources to undertake, scale of entrepreneurial motivations, scale of incentives to entrepreneurship, entrepreneurial potential, academic preparation to undertake, and desire to undertake. Conclusion—Key results: Hierarchical multiple regression analysis showed that academic preparation to undertake explained  $R^2 = 5\%$  of entrepreneurial potential, followed by motivations to undertake ( $\Delta R^2 = 11.5\%$ ), opportunities and resources to undertake ( $\Delta R^2 = 1.4\%$ ), incentives to undertake ( $\Delta R^2 = 0.7\%$ ), and self-efficacy ( $\Delta R^2 = 3.6\%$ ). The results are discussed taking into account the models of entrepreneurship and the importance of the academic preparation to undertake.

**Keywords:** entrepreneurship in higher education, entrepreneurial potential, entrepreneurial motivations, opportunities and resources to undertake, incentives for entrepreneurship

---

## 1. Introduction

Entrepreneurship can be seen today as the engine for economic growth and one of the most important factors of competitiveness. In a world of constant change, this process is associated with the individuals' ability to adapt successfully to the constant transformations in society. Therefore, it is imperative to promote and enhance entrepreneurship and foster an "entrepreneurial culture" in society with a view to achieving social, economic, technological, and organizational development [1, 2].

Everyone can be an entrepreneur, as long as the context provides the necessary stimuli; education is an example par excellence of one way of achieving this goal, while leveraging business and job creation. The teaching-learning process allows combining the acquisition of knowledge and skills, which are of utmost importance for the active integration of young people into society [3]. Hence, the role and importance of entrepreneurship in the academic arena becomes essential in terms of groundwork for skills development, a process that can best prepare students for the job market. To corroborate this statement, the European Commission believes that the increased investment in entrepreneurship must be carried out preferably through education, namely entrepreneurship education, which may contribute to increasing the levels of innovation and economic growth of a nation or country (Comissão das Comunidades [4]). Although structural conditions play a key role in the moment to undertake, individuals' perception of themselves and their skills is equally important [5].

In this study, we analyzed the role of the predictor variables *entrepreneurial motivations* (scale validated by Parreira et al. [6]), *opportunities and resources to undertake* (scale validated by Parreira et al. [7]), *incentives for entrepreneurship* (scale validated by Parreira et al. [8]), and *self-efficacy* [9] on students' *entrepreneurial potential*, while controlling for the *academic preparation* and *desire to undertake* variables.

In order to provide a framework for this research, a literature review was performed on the concepts and factors associated with the topic. Afterward, data were collected using questionnaires that were designed and validated by the research team for this purpose. Data were analyzed and processed, and the results were interpreted based on the perspectives found in the literature review and the model underlying the Poliempreende project. This study describes these steps, the study limitations, and proposals for future research.

## 2. Development

### 2.1. Entrepreneurship

According to Sarkar [10], entrepreneurship is not a recent phenomenon, although it has been used in different contexts throughout history. Nevertheless, the literature suggests that its popularity has been revived, emerging as a "sudden discovery" for economic development, especially in times of crisis. The term *entrepreneur* derives from the French words *entre* (between) and *prendre* (to take), and means being in the market between the supplier and

the consumer. In other words, the entrepreneur acts as an “intermediary,” as someone who facilitates the exchange process between the supplier and the market. According to Saraiva [11], entrepreneurship “corresponds to an articulated set of cultural aspects, attitudes, methodologies, stimuli mechanisms, and environments that aim to promote an integrated implementation of cycles of dream, design, implementation, and acceleration of new organizational realities, creating added value” (op. cit., p. 34).

In the twentieth century, this concept changed profoundly when Schumpeter [12] rejected the prevailing terminological definition and argued that the entrepreneur should be the driving force of the economic system, simultaneously playing the role of leader and agent of innovation. In this sense, entrepreneurship can be defined as an innovative act that leads to a new capacity to create wealth [13], or the creation of a new organization [14]. There are many definitions of entrepreneurship in the literature, but the definition of its constitutive elements is not consensual. However, several authors have proposed different definitions with elements in common. These elements will be described later on.

The entrepreneurship movement expanded the most in the 1980s [1], particularly in some countries. In fact, in countries where the academy invested in entrepreneurship education, the increasingly recognized value of entrepreneurship as an engine for development and fight against unemployment has led to an increase in the number of jobs available and the reduction of unemployment rates [1, 15]. According to these authors, these results suggest that entrepreneurs are the real drivers of the market economy. As previously mentioned, if entrepreneurship is considered as the discovery, exploration, and evaluation of opportunities to create goods and services, by creating conditions for the development of an entrepreneurial culture, we are supporting the economic, social, and/or technological development and growth of societies. Therefore, entrepreneurship is very likely to have a positive impact on value creation, as a powerful engine for economic and social development, in which the entrepreneur plays a crucial role [2]. The agents of entrepreneurship are able to take risks and transform ambiguous situations into business opportunities in order to achieve success [16, 17]. Entrepreneurs can then be seen as individuals with the ability to take risks by facing ambiguous situations from an optimistic perspective, seeing them as an opportunity or possibility for business or value creation, who are capable of designing and implementing projects, and encouraging those who collaborate with them, with an attitude of constant challenge and desire to overcome indifference.

## **2.2. Education in higher education and incentives**

According to Volkmann [18], entrepreneurship education began in American universities. The Harvard Business School was the first institution to design and implement a program in this area in 1947. Since then, several business schools and universities have started to offer entrepreneurship education and promoting academic paths in this area based on the premise that entrepreneurship can be taught and learned [19]. In this respect, Gerba [20] sees entrepreneurship education as an educational program that aims to provide students with knowledge, skills, and motivation to boost business success. It is also seen as a means to develop entrepreneurial intentions by raising students' interest for entrepreneurship. In this way,

education on this topic has become increasingly relevant, and some authors even believe that entrepreneurship education goes beyond the mere training for the creation of a new business. For example, Ramayah et al. [21] consider that entrepreneurship allows individuals to learn to be innovative, to have the ability to integrate experiences, to easily improve knowledge, attitudes, and behaviors, which, in turn, will help them to create, innovate, and evaluate business opportunities. In addition, according to the Commission of the European Communities [22], entrepreneurship education has clear benefits, helping students to become more creative and self-confident in their tasks and to act in a socially responsible way toward success.

According to Testas and Moreira [19], there are few entrepreneurs in Portugal, which means that the educational system needs to be restructured to respond to the current crisis and high level of unemployment. According to Duarte and Esperança [17], entrepreneurship in Portuguese higher education faces some barriers, both in relation to students and teachers/researchers: students lack entrepreneurial skills and motivation to undertake and have difficulty in obtaining financial support; teachers and researchers face a clearly weak link between academic/teaching environment, the business world, and the real market needs, as well as difficulties in obtaining funding for projects with the consequent lack of motivation and little investment in this area. Therefore, the financial and governmental support is insufficient to promote entrepreneurship, and the incentives are still poorly and ineffectively managed. In this way, opportunities to support valuable projects are often lost, with an impact on economy and society. As previously said, in the fulfillment of their role to train students, higher education institutions should empower and motivate them for entrepreneurial initiatives, stimulating the creation of companies that simultaneously generate jobs and develop the economy [2, 23].

### 2.3. Entrepreneurial motivations

Many authors believe that there are motivational factors that guide the individual to undertake, making the entrepreneurial process clearer and more understandable [24–26]. Motivation helps to describe the process that impels individuals to engage in entrepreneurial behaviors (Hornsby & Kuratko, [27]). In addition, it is essential to identify the entrepreneurial motivations so that policy-makers, within their sphere of influence, can suggest more effective programs to support and promote a successful entrepreneurship [28]. Entrepreneurial motivations have been widely discussed, largely due to the wide range of influencing factors. In recent years, several authors have been investigating the influences of the environment and the characteristics of the opportunities to create businesses. In addition to these factors, individuals' characteristics and specificities should be taken into account given their key role in decision-making [29]. Therefore, understanding what motivates individuals to undertake, as well as identifying entrepreneurs' typical personality traits, is important for both researchers and academics [1].

The need for achievement is one of the most extensively studied motivator and is derived from McClelland's human motivation theory [30]. The achievement drive translates into the individual's ambition to start new businesses and guide their growth. This motivator helps to understand the entrepreneurial activity [30, 31] and may be associated with knowledge acquisition, motivating students to create their businesses based on their own analyses [2]. A study on the characteristics of entrepreneurs found higher scores in the need for independence

among entrepreneurs than among the general population [32]. This motivator is also found among academic communities [14, 33], although it characterizes most entrepreneurs rather than being restricted to these communities [31]. Another motivator for most entrepreneurs is the accomplishment of a business opportunity as a real possibility, with an effective potential for achievement [2]. According to Shane and Venkataraman [34], opportunities allow introducing new services, goods, and organizing methods into the market in a profitable way. This is why opportunity is seen as one of the best motivators that guide entrepreneurial behaviors. Although the need for admiration and recognition is a human trait, we live in a “harmfully” competitive society, where recognition and acceptance from others become a necessity early in life [35]. Notoriety and social status can also motivate most entrepreneurs to establish their own businesses [2]. Finally, the family’s role is also a motivator to undertake to the extent that family plays a key social and economic role in business creation and development. Family businesses are among the main sources of job creation in market economies [36].

#### **2.4. Environmental influences**

The influence of the environment in entrepreneurial behaviors has been extensively investigated. Several studies have provided relevant information to create favorable conditions for the development of entrepreneurship ([37]; Taylor, [38]). According to these authors, the environment consists of a set of exogenous factors that create conditions for the development of entrepreneurial activities. Thus, institutions, regulations, laws, policies, knowledge, and networks influence the entrepreneurial activity. According to Kuratko and Hodgetts [39], the environment consists of external opportunities that influence the organization. Entrepreneurship, as a social dynamic process, results from the interaction between entrepreneur, team, opportunity, idea, and available resources [40].

According to Gartner [41], the discussion about the environment should refer to the availability of resources, the existence of skilled labor force, the accessibility of suppliers, markets, and customers, the governmental influences, the purchasing power, the conditions of the implementation area, and the level of industrialization. In addition to the environment, other authors emphasize the importance of culture as a factor capable of promoting or restricting entrepreneurial behaviors. Therefore, the environmental analysis should encompass economic, infrastructural, and political aspects [37]. According to Nayab [42], the major environmental influences are cultural and social variables, such as governmental and economic policies, and resource availability. Social and cultural influences relate to social organization, the social attitudes toward the business and its beginning [43], and the beliefs that have an impact on individuals’ behaviors and attitudes [2]. Demographic changes and changes resulting from more consumerist lifestyles are also environmental influences, with an emphasis on social networks since they influence individuals’ entrepreneurial behaviors [2, 44].

Carsud and Johnson [44] advocate that, with regard to the governmental influences expressed in the State ideologies, there is a tendency for more liberal governments to have a more positive perspective of entrepreneurship as a strategic and development area of society. However, these policies tend to be unstable and temporary, which can encourage or discourage entrepreneurship.

Therefore, other types of support are necessary, such as more funding, less bureaucracy, and the creation of infrastructures to facilitate entrepreneurship.

The economic factors that influence entrepreneurship encompass the organization of the economy, the purchasing power, and the levels of confidence in the economy of a given society. Although the economic development of a society impacts the creation of opportunities, these tend to emerge in times of recession [1, 2].

Despite this, resource availability is regarded as another important factor, namely the availability of financial, human, material, and physical resources; human resources allow for business accomplishment and the creation of a reliable team, while material and physical resources influence the productive processes [2]. According to these authors, Portuguese entrepreneurs highlight eight environmental factors: profit expectation, predisposition to seek incentives, easy supply, easy creation of structure, taking advantage of other companies' lack of success, easy identification of customers, family support and easy creation of a business, and, finally, easy identification and understanding of the competition. In parallel, it is important to understand these environmental influences and factors to raise awareness about entrepreneurship, and, consequently, boost the economy.

## 2.5. Self-efficacy

Self-efficacy can be defined as a personality trait that is easily associated with various desirable characteristics in the modern world, such as the motivation to learn or persistence, rather than a professional goal or performance [45–47]. Its analysis can provide important guidance and self-knowledge tools since perceived self-efficacy is positively correlated with an individual's success in specific activities [48]. According to Bandura [49, 50], self-efficacy beliefs are among the factors that comprise the psychological mechanisms governing motivation. In fact, this author was a pioneer in the conceptual definition of self-efficacy and proposed a "Social Learning Theory," which suggests that learning happens through behavioral modeling. Self-efficacy enables individuals to shape their perceptions about their own ability to perform a certain task successfully (or not). According to Bandura [5], perceived self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. According to this theory, individuals' self-efficacy can influence their feelings, thoughts, behaviors, or motivation in a given activity or situation.

Bandura [5, 50, 51] argues that self-efficacy is a dynamic construct that changes as new information and experiences are acquired. The author proposes four sources that may affect the level of perceived self-efficacy. The first source relates *performance outcomes*, suggesting that people's perception of their capabilities tend to improve if their prior experience provided them with positive information. The second source—*vicarious experiences*—relates to the possibility of the individual observing others experiencing situations of success and/or failure. According to Bandura [5], seeing similar people succeed through personal effort raises the observers' belief that they too have the skills to perform and succeed in comparable situations. The third source of influence on the individual's self-efficacy is *verbal persuasion*, which suggests that a person can influence the level of self-efficacy of another person by providing verbal information about the task and the person's ability to perform it. Finally, the fourth



source of influence is *physiological feedback (emotional arousal)*, through which people experience sensations from their body and the way they perceive this emotional arousal influences their beliefs of efficacy; thus, individuals are more likely to experience success if they do not feel anxious about a social object or situation. According to Marakas et al. [52], two assumptions are particularly important in Bandura's proposal [50]: self-efficacy is a strong predictor of task performance, and all the definitions of the construct refer to how people perceive their capabilities to successfully perform a specific task.

In this way, self-efficacy and self-perception can be considered essential in entrepreneurship since individuals with higher self-efficacy are able to invest more effort and persist longer than those with low self-efficacy [49].

### 3. Method

#### 3.1. Sample

The sample is composed of students from 17 Portuguese higher education polytechnic institutions that integrate the Poliempreende project. The sample was divided by polytechnic institute, study area (health, management, technology, and social sciences), and degree year, as well as by gender, student status, marital status, and the existence of entrepreneurs in the family. A total of 40 questionnaires were applied to each degree year of each of the above-mentioned areas. The final sample included 6532 students with a mean age of 22 years (minimum age of 17 and maximum age of 59 years), and was mostly composed of female students (64%). **Table 1** describes the sample in detail.

#### 3.2. Instruments

Data were collected using a self-administered questionnaire entitled *Personal Motivations and Facilitating Factors of Entrepreneurship*. The questionnaire was designed by a team of five experts from different areas [2] based on scales about the reasons for creating a business, the social and environmental influences, and the support for business creation. These scales took into account the work done by the Society for Associated Researchers on International Entrepreneurship (SARIE) to which several renowned theorists contributed (e.g., [53]; Bauman, [54]), as well as McClelland's achievement motivators [30], the work of Pereira [31] on entrepreneurs' social representations, and the relevant issues arising from the reality of the institutions or the Poliempreende project.

##### 3.2.1. Scale of opportunities and resources to undertake

The scale was composed of 22 items rated on a 5-point Likert scale (1—of little importance to 5—very important). Respondents rated each item based on the degree of importance that they assigned to the opportunities and resources to undertake. An exploratory factor analysis (EFA) was performed with half of the sample (randomly divided), from which four factors emerged: *resource availability, business stability, economic and political instability, and business*



	Total (N = 6532)			
	<i>n</i>	%	<i>M</i>	<i>SD</i>
<i>Gender</i>				
Male	2252	34.5		
Female	4194	64.2		
No answer	86	1.3		
Age (years)			22.28	5.34
<i>Degree area</i>				
Health	1816	27.8		
Technology	1647	25.2		
Social sciences	1336	20.5		
Management	1500	23.0		
No answer	233	3.6		
<i>Degree year</i>				
1st year	2055	31.5		
2nd year	2218	34.0		
3rd year	1706	26.1		
4th year	462	7.1		
No answer	91	1.4		
<i>Student status</i>				
Students	5359	82.0		
Working students	1077	16.5		
No answer	96	1.5		
<i>Marital status</i>				
Single	5836	89.3		
Divorced	89	1.4		
Married	409	6.3		
Co-habiting	108	1.7		
No answer	90	1.4		
<i>Polytechnic Institute (PI)</i>				
PI Beja	469	7.2		
PI Bragança	255	3.9		
PI Castelo Branco	387	5.9		
PI Cávado e Vale do Ave	322	4.9		
PI Coimbra	513	7.9		
PI Guarda	463	7.1		

	Total (N = 6532)		M	SD
	n	%		
PI Leiria	492	7.5		
PI Lisboa	276	4.2		
PI Portalegre	150	2.3		
PI Porto	448	6.9		
PI Santarém	500	7.7		
PI Setúbal	405	6.2		
PI Viana Castelo	477	7.3		
PI Viseu	549	8.4		
PI Tomar	187	2.9		
ESEnfC	185	2.8		
EST-UA Algarve	454	7.0		

**Table 1.** Sociodemographic characteristics of the sample.

*opportunities*, which are responsible for 60.37% of total variance. A confirmatory factor analysis (CFA) was performed with the other half of the sample, which showed good indices of fit, namely normed fit index (NFI) = .949 [55] and standardized root mean square residual (SRMR) = .045 [56], and acceptable indices of fit, namely tucker-lewis index (TLI) = .945 [56], comparative fit index (CFI) = .954 [57], and root mean square of approximation (RMSEA) = .050 [55, 58], thus confirming the dimensional structure previously found in the principal component analysis (PCA). Cronbach's alpha coefficient showed an excellent reliability,  $\alpha = .903$ , since it is greater than .80 [59].

### 3.2.2. Scale of entrepreneurial motivations

The scale was composed of 17 items measured on a 5-point Likert scale (1—of little importance to 5—very important). Respondents rated each item based on the degree of importance that they assigned to the motivations to undertake. An EFA was performed with half of the sample (randomly divided), from which four factors emerged: *motivation—family and social achievement*, *motivation—resources and income*, *motivation—prestige*, and *motivation—learning and development*. A CFA was performed with the other half of the sample, which showed good indices of fit (NFI = .906, CFI = .911, TLI = .887, and RMSEA = .070). The scale showed discriminant validity and reliability. In both samples, Cronbach's alpha coefficients were greater than .70, indicating an adequate internal consistency.

### 3.2.3. Scale of incentives to entrepreneurship

The final version of this scale was composed of 15 items measured on a 5-point Likert scale (1—of little importance to 5—very important). Respondents rated each item based on the degree of importance that they assigned to the incentives to create a business.

An EFA was performed with half of the sample (randomly divided), from which two factors emerged: *financial and governmental incentives*, and *educational and consultancy incentives*, which account for 58.87% of the variance.

The CFA performed with the other half of the sample confirmed the two-factor structure obtained, showing good indices of fit (NFI = .888, SRMR = .049, CFI = .890, TLI = .868, and RMSEA = .06). In both samples, Cronbach's alpha coefficients were greater than .85, indicating a good internal consistency.

#### 3.2.4. Composite scores

Three composite scores were derived for this research: *entrepreneurial potential*, *academic preparation to undertake*, and *desire to undertake*. All three composites were rated on a scale from 1 to 5, in which 1 is of little importance and 5 is very Important.

The composite score for the *entrepreneurial potential* resulted from the score sum obtained in the following items: *I find entrepreneurship attractive*; *As an entrepreneur I would achieve my life goals*, and *As an entrepreneur I would feel satisfied with my job*. The composite score for *academic preparation to undertake*, was obtained through the following items: *My degree prepares me to be self-employed (autonomous)*, and *My degree prepares me to create my own business*. Finally, the composite score for the *desire to undertake* was calculated based on the following items: *My desire to be self-employed (autonomous)* and *My desire to create my own business*.

All scores showed a Cronbach's alpha coefficient greater than .80, thus revealing a good internal consistency (Nunnally, [60]):  $\alpha = .819$  in *entrepreneurial potential*,  $\alpha = .841$  in *academic preparation*, and  $\alpha = .861$  in *desire to undertake*.

#### 3.2.5. Self-efficacy

Finally, self-efficacy was measured based on the mean scores of the following items to assess the self-efficacy dimension of the Self-Concept Clinical Inventory [9], measured on a 5-point Likert scale (from 1—strongly disagree to 5—strongly agree): *I am capable of assuming responsibility for something until the end, even though it may have unpleasant consequences*; *Generally speaking, I usually face my problems and solve them*; *When I have an idea that seems to be good, I like to put make it work*; *As a rule, I am persistent in solving my problems*; *I consider myself competent in what I do*; *I like to succeed in the things I undertake*; and *I always find energy to overcome my problems*. PCA indicated the unidimensionality of the self-efficacy measure: *eigenvalue* = 3.28, 18.25% of explained variance, with  $s > .653$ , for an adequate sample, *kaiser-meyer-olkin measure of sampling adequacy* (KMO) = .864, Bartlett's test with  $X^2(21) = 11585.38$ ,  $p < .001$ . It showed a Cronbach's alpha coefficient of  $\alpha = .809$ , indicating a good internal consistency (Nunnally [60]).

### 3.3. Procedures

The questionnaires were distributed and applied to the students of the higher education polytechnic institutes by the Poliemprende project coordinators, who were also responsible for collecting them after completion in their respective institution. All ethical principles of a research study were complied with the researchers explained the study purposes, participants gave their informed consent, and anonymity was ensured at all times.

## 4. Results

In the scale of entrepreneurial motivations, the highest scores were obtained in the factors *motivation—family and social achievement* ( $M = 4.11$ ,  $SD = .69$ ) and *motivation—learning and development* ( $M = 4.01$ ,  $SD = .59$ ). In relation to the scale of opportunities and resources to undertake, the highest mean scores were obtained in the factors *resource availability* ( $M = 3.86$ ,  $SD = .68$ ) and *business stability* ( $M = 3.82$ ,  $SD = .59$ ). In the scale of incentives to entrepreneurship, the factors *financial and governmental incentives* ( $M = 3.94$ ,  $SD = .69$ ) and *educational and consultancy incentives* obtained the same mean score ( $M = 3.94$ ,  $SD = .68$ ).

The *entrepreneurial potential* score showed the higher mean score ( $M = 11.17$ ), standing above the midpoint of the score (9 points). Taking into account that the reference values are the same, students' *entrepreneurial potential* is higher than their *desire to undertake*,  $t(6429) = 146.12$ ,  $p < .001$ . The *academic preparation to undertake* score, composed of two items, showed a mean score above the midpoint of the score (5.6). The same is not true for the *desire to undertake* score, whose mean score is significantly below the mid-point of the score. These results are presented in **Table 2**.

The *entrepreneurial potential* has only a moderate correlation (values between .30 and .50) with the factor *motivation—learning and development* from the scale of entrepreneurial motivations ( $r = .36$ ). Most of the correlations between the *entrepreneurial potential* and the remaining factors are low (values between .10 and .30). Therefore, in the scale of entrepreneurial motivations, the factors *motivation—family and social achievement* ( $r = .21$ ), *motivation—resources and income* ( $r = .18$ ), and *motivation—prestige* ( $r = .17$ ) show a low correlation with the *entrepreneurial potential*. In this scale, *motivation—learning and development* is the only factor that shows no correlation with the *entrepreneurial potential*. In the scale of opportunities and resources to undertake, the factors *resource availability* ( $r = .27$ ), *business stability* ( $r = .29$ ), and *business opportunities* ( $r = .12$ ) show a low correlation with the *entrepreneurial potential*. In this scale, *economic and political instability* is the only factor that shows no correlation ( $r = .08$ ) with the *entrepreneurial potential*. Finally, in the scale of incentives to Entrepreneurship, both factors have a low correlation with the *entrepreneurial potential*: the first factor, *financial and governmental incentives*, shows a correlation of  $r = .27$ , and the second factor, *education and consultancy incentives*, shows a correlation of  $r = .26$ . The *academic preparation* also shows a low correlation with the *entrepreneurial potential* ( $r = .22$ ). These results are shown in **Table 3**.

Based on the results obtained in Model 1, the *academic preparation* explained 4.7% ( $R^2 = .047$ ) of the *entrepreneurial potential*. From Model 1 to Model 2, the delta is equal to .115, which means that students' *entrepreneurial motivations* increased by 11.5% the predictive ability of the *entrepreneurial potential*. In Model 3 ( $R^2 = .175$ ), the introduction of predictors related to *opportunities and resources to undertake* only increased by 1.4% ( $\Delta R^2 = .014$ ) the explained variance of the *entrepreneurial potential*. In Model 4 ( $R^2 = .182$ ), the introduction of the *incentives to entrepreneurship* only increased the *entrepreneurial potential* by 0.7% ( $\Delta R^2 = .007$ ). Finally, the introduction of the *self-efficacy* measure, in Model 5, contributed to a 3.6% increase ( $\Delta R^2 = .036$ ) of the variance in the *entrepreneurial potential* in relation to the previous models. In total, all of the predictors accounted for 21.8% of the *entrepreneurial potential*. These results are shown in **Table 4**.

	Reference values	Min.	Max.	M	SD
Entrepreneurial motivations	1-5	1	5	4.11	0.69
F1. Family and social achievement	1-5	1	5	3.26	0.81
F2. Resources and income	1-5	1	5	3.45	0.82
F3. Prestige	1-5	1	5	4.01	0.59
F4. Learning and development	1-5	1	5	3.75	0.55
Total scale	1-5	1	5	3.86	0.68
Opportunities and resources to undertake	1-5	1	5	3.82	0.59
F1. Resource availability	1-5	1	5	2.96	1.06
F2. Business stability	1-5	1	5	3.28	0.95
F3. Economic and political instability	1-5	1	5	3.67	0.54
F4. Economic and political instability	1-5	1	5	3.94	0.69
Total scale	1-5	1	5	3.94	0.68
Incentives to entrepreneurship	1-5	1	5	3.93	0.64
F1. Financial and governmental incentives	1-5	1	5	6.11	1.97
F2. Educational and consultancy incentives	1-5	1	5	11.17	2.11
Total scale	1-5	1	5	6.63	2.71
Academic preparation to undertake	2-10	2	10	4.04	0.52
Entrepreneurial potential	3-15	3	15		
Desire to undertake	2-10	2	10		
Self-efficacy	1-5	1	5		

**Table 2.** Reference values, minimum, maximum, and standard deviations for the measures under analysis.

Model 1 shows that the *academic preparation* significantly predicts the *entrepreneurial potential* ( $\beta = .217$ ). In Model 2, after the introduction of variables from the scale of entrepreneurial motivations, the *academic preparation* ( $\beta = .149$ ) and *motivation—learning and development* ( $\beta = .303$ ) were the most predictive variables of the *entrepreneurial potential*. In Model 3, after the introduction of the variables from the scale of opportunities and resources to undertake, the predictive variables were *academic preparation* ( $\beta = .147$ ), *motivation—learning and development* ( $\beta = .253$ ) from the scale of entrepreneurial motivations, and the variable *business stability* from the scale inserted in this model ( $\beta = .115$ ). After the introduction of the scale of incentives to entrepreneurship to Model 4, the predictive variables of the *entrepreneurial potential* were the *academic preparation* ( $\beta = .151$ ), and *motivation—learning and development* ( $\beta = .239$ ) from the scale of entrepreneurial motivations. In this model, the predictive variable of the scale of incentives to entrepreneurship, although with a low predictive value, was the *financial and governmental incentives* ( $\beta = .076$ ). Finally, after the introduction of the *self-efficacy* to Model 5, the *academic preparation* ( $\beta = .135$ ), *motivation—learning and development* ( $\beta = .181$ ) from the scale of entrepreneurial motivations, and the variable *self-efficacy* ( $\beta = .216$ ) inserted in this model were the most predictive variables of the *entrepreneurial potential*.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Entrepreneurial motivations: Family and social achievement(1)	1	.45"	.46"	.44"	.79"	.36"	.40"	.11"	.21"	.41"	.34"	.33"	.36"	.12"	.21"	.18"	.29"
Resources and income (2)		1	.57"	.27"	.78"	.29"	.33"	.23"	.29"	.39"	.25"	.19"	.25"	.15"	.18"	.15"	.12"
Prestige (3)			1	.29"	.79"	.27"	.29"	.16"	.25"	.33"	.22"	.19"	.23"	.13"	.17"	.13"	.16"
Learning and development (4)				1	.61"	.49"	.45"	.07"	.16"	.47"	.39"	.42"	.43"	.18"	.36"	.28"	.41"
Global scale(5)					1	.45"	.48"	.19"	.31"	.52"	.39"	.36"	.41"	.18"	.29"	.23"	.31"
Opportunities and resources to undertake Resource availability (6)						1	.67"	.15"	.27"	.82"	.53"	.54"	.57"	.09"	.27"	.12"	.29"
Business stability (7)							1	.22"	.39"	.89"	.57"	.56"	.61"	.12"	.29"	.17"	.31"
Economic and political instability(8)								1	.42"	.50"	.21"	.17"	.21"	.02	.08"	.02	.04"
Business opportunities (9)									1	.57"	.26"	.22"	.27"	.10"	.12"	.07"	.11"
Global scale (10)										1	.59"	.57"	.63"	.12"	.29"	.15"	.30"
Incentives to entrepreneurship Financial and governmental incentives (11)											1	.69"	.97"	.06"	.27"	.12"	.32"
Educational and consultancy incentives (12)												1	.84"	.07"	.26"	.10"	.33"
Global scale (13)													1	.06"	.28"	.12"	.35"
Academic preparation to undertake (14)														1	.22*	.42"	.14"
Entrepreneurial potential (15)															1	.35"	.36"
Desire to undertake (16)																1	.23"
Self-efficacy (17)																	1

\*\*p < .001.

**Table 3.** Intercorrelation matrix for the measures under analysis.

<i>Predictor variables</i>					<i>Dependent variable: entrepreneurial potential</i>			
	<i>r</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>F(df1, df2)</i>	<i>b</i>	<i>EP</i>	$\beta$	<i>t</i>
<i>Model 1</i>	.217	.047	—	317.76 (1, 64)				
Academic preparation to undertake					.233	.013	.217	17.83***
<i>Model 2</i>	.402	.162	.115	219.74 (4, 64)				
Academic preparation for entrepreneur					.160	.013	.149	12.74***
Entrepreneurial motivations—Family and social achievement					.093	.043	.030	2.15*
Entrepreneurial motivations—Resources and income					.132	.038	.050	3.51***
Entrepreneurial motivations—Prestige					.060	.037	.023	1.59*
Entrepreneurial motivations—Learning and development					1.08	.046	.303	23.42***
<i>Model 3</i>	.419	.175	.014	26.36 (4, 64)				
Academic preparation to undertake					.158	.012	.147	12.69***
Entrepreneurial motivations—Family and social achievement					.019	.044	.006	0.44*
Entrepreneurial motivations—Resources and income					.074	.038	.028	1.94*
Entrepreneurial motivations—Prestige					.049	.037	.019	1.33*
Entrepreneurial motivations—Learning and development					.905	.050	.253	17.98***
Opportunities and resources to undertake—Resource availability					.100	.050	.032	2.01*
Opportunities and resources to undertake—Business stability					.406	.058	.115	6.95***
Opportunities and resources to undertake—Economic and political instability					.031	.025	.016	1.23*
Opportunities and resources to undertake—Business opportunities					-.016	.030	-.007	-.54*
<i>Model 4</i>	.427	.182	.007	26.48 (2, 64)				
Academic preparation to undertake					.162	.012	.151	13.04***
Entrepreneurial motivations—Family and social achievement					-.011	.044	-.004	-.249*



<i>Predictor variables</i>	<i>Dependent variable: entrepreneurial potential</i>							
	<i>r</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>F(df1, df2)</i>	<i>b</i>	<i>EP</i>	$\beta$	<i>t</i>
Entrepreneurial motivations— Resources and income					.080	.038	.031	2.09*
Entrepreneurial motivations—Prestige					.054	.037	.021	1.45*
Entrepreneurial motivations— Learning and development					.856	.051	.239	16.88***
Opportunities and resources to undertake—Resource availability					.015	.051	.005	.29*
Opportunities and resources to undertake—Business stability					.270	.061	.077	4.42***
Opportunities and resources to undertake—Economic and political instability					.013	.025	.007	.53*
Opportunities and resources to undertake—Business opportunities					-.018	.030	-.008	-.61*
Incentives to entrepreneurship— Financial and governmental incentives					.232	.051	.076	4.54***
Incentives to entrepreneurship— Educational and consultancy incentives					.136	.052	.044	2.64**
<i>Model 5</i>	.467	.218	.036					
Academic preparation to undertake					.145	.012	.135	11.91***
Entrepreneurial motivations— Family and social achievement					-.081	.043	-.027	1.89*
Entrepreneurial motivations— Resources and income					.126	.037	.048	3.38**
Entrepreneurial motivations—Prestige					.042	.036	.016	1.15*
Entrepreneurial motivations— Learning and development					.647	.051	.181	12.69***
Resource availability					.015	.050	.005	.29*
Business stability					.232	.060	.066	3.88***
Economic and political instability					.026	.025	.013	1.07*
Business opportunities					-.020	.029	-.009	-.68*
Incentives to entrepreneurship— Financial and governmental incentives					.165	.050	.054	3.31**

Predictor variables	Dependent variable: entrepreneurial potential							
	<i>r</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>F</i> ( <i>df</i> 1, <i>df</i> 2)	<i>b</i>	<i>EP</i>	$\beta$	<i>t</i>
Incentives to entrepreneurship— Educational and consultancy incentives					.071	.051	.023	1.39*
Self-efficacy					.878	.051	.216	17.22***

\**p* ≤ .05  
 \*\**p* ≤ .01  
 \*\*\**p* < .001.

**Table 4.** Hierarchical regression analysis of the expected entrepreneurial potential based on the motivations related to family and social achievement, resources and income, prestige, learning and development, resource availability, business stability, economic and political instability, business opportunities, financial and governmental incentives, and educational and consultancy incentives.

## 5. Discussion

The literature review conducted on the topic underlying this study highlighted the importance of entrepreneurship as an engine for a country's economic, social, and technological growth and development. According to the results obtained, Portuguese polytechnic higher education students believe that *academic preparation* is essential to undertake. Taking into account that *academic preparation* explained approximately 5% of the *entrepreneurial potential* and that it remained significant in all hierarchical regression models, even in the presence of other significant predictors, we believe that this students' academic preparation to undertake should be further explored. Universities and polytechnics must intervene and prepare students for entrepreneurship, regardless of their training area [19]. Although 5% of explained variance of the *entrepreneurial potential* based on academic preparation may seem a low percentage, we believe the opposite in comparison with the percentage of variance explained by *self-efficacy*, which was around 3%. Nevertheless, *self-efficacy* is also an equally important predictor, since it is an individual's self-perception that helps him/her in the decision to undertake or not. Individuals with higher self-efficacy are able to invest more effort and persist longer in a task than those with low self-efficacy [61].

According to Parreira et al. [6], entrepreneurial motivations are important to undertake. The results of this study show that the main driving factor for entrepreneurship seems to be students' motivation for learning and development, rather than a desire for prestige or notoriety. As already pointed out in McClelland's human motivation theory [30], individuals feel the need to develop themselves to satisfy their various needs, such as the need for fulfillment, independence, and business opportunities. With respect to environmental influences and based on the results obtained [7], individuals tend to seek or create a stable business. This is probably due to the fact that entrepreneurship, as a dynamic social process, results from the interaction between entrepreneur, team, opportunity, idea, and available resources [40]. In addition, governmental and economic policies, resource availability, and the culture of

the moment in which individuals intend to undertake influence their perception of entrepreneurship as a positive or negative process. With regard to incentives [8], the surveyed students value financial and governmental incentives the most. In fact, although educational and consultancy incentives are essential for students to become familiar with entrepreneurship, they seem to assign greater importance to financial incentives. With regard to correlations, the results on the *entrepreneurial potential* should be highlighted. This predictor was only moderately correlated with the variable *motivation—learning and development*. Such evidence shows that the more educated students are about entrepreneurship, the greater is their *entrepreneurial potential*. To this end, students should be trained and informed about this topic so that entrepreneurship is no longer seen as an unknown and foreign idea coming from abroad. To a lower extent, the *entrepreneurial potential* was also correlated with several variables of the three scales used in this study. Among these correlations, the most significant variables were related to the environmental influences and incentives for entrepreneurship. The results obtained in this study corroborate the need to take into account the availability of resources, the existence of a skilled labor force, the accessibility of suppliers, markets and customers, the governmental influences, and the purchasing power [41]. Among the variables related to environmental influences and opportunities and resources to undertake, *resource availability* and *business stability* showed a low correlation with the *entrepreneurial potential*, as well as both variables related to the incentives for entrepreneurship—*financial and governmental incentives* and *educational and consultancy incentives*.

To enhance these results, we need to focus again on the key relationship between higher education institutions, the state, and students. According to Parreira et al. [6], the academia occupies, for various reasons, a privileged position to encourage, promote, motivate, and develop students' entrepreneurial skills, contributing to the general development of society and sustaining the Triple Helix model [62–68]. The authors of this model assign a key role to the academia in the creation of knowledge-based societies. In recent years, the academia has become part of the social, business, and economic development, thus asserting itself as an *Entrepreneurial University*, with an emphasis on the triangulation of strategies that support the needs of the industry and public sectors. This *Entrepreneurial University* is able to offer responses supported by the academia and based on governmental policies aimed at the development of such entrepreneurial skills.

Individuals who are more educated and trained on this specific area and have more financial and governmental support are more likely to undertake following their desire to “take risks.” In addition, if they have more resources at their disposal, individuals will feel more stable toward their business and will be more likely to undertake based on their income. In this way, these individuals will be seen as someone of trust and prestige. At the same time, self-efficacy seems to play a key role in entrepreneurship. According to the results obtained, this measure is moderately correlated with several variables such as learning and development, business stability, financial, governmental, educational and consultancy incentives, and entrepreneurial potential. As previously mentioned, these results suggest that individuals who are more educated and prepared on this topic will search for new learning experiences in this area and have a greater ability to undertake. Self-efficacy [57] tends to drive individuals in their decision to undertake. A greater self-perception brings a greater entrepreneurial

potential to the extent that the entrepreneurship process is strongly associated with the characteristics of the individual, who is the main agent of decision-making and the main responsible for performing the associated tasks [69]. Individuals will also experience greater stability in their business. Furthermore, the level of incentives offered by the State and Educational Institutions will make individuals feel more comfortable to learn and invest, which will, consequently, lead to a higher perceived self-efficacy.

## Author details

Pedro Miguel Dinis Santos Parreira<sup>1</sup>, Lisete dos Santos Mónico<sup>2\*</sup>,  
Carla Maria Santos de Carvalho<sup>2</sup> and Alexandra Cristina Riscado da Silva<sup>2</sup>

\*Address all correspondence to: lisete.monico@fpce.uc.pt

1 Nursing School of Coimbra, Coimbra, Portugal

2 University of Coimbra, Coimbra, Portugal

## References

- [1] Parreira PM, Pereira FC, Arreguy-Sena C, Gomes AM, Marques SC, Melo RC, Oliveira DC, Fonseca C, Carvalho C, Mónico LS. Representações sociais do empreendedorismo: o papel da formação na aquisição de competências empreendedoras. *Revista Ibero-Americana de Saúde e Envelhecimento*. 2015;1(3):18-21
- [2] Parreira PM, Pereira FC, Brito NV. Empreendedorismo e motivações empresariais no ensino superior. Lisboa: Edições Sílabo; 2011
- [3] Ávila DFL. Empreendedorismo e (des)envolvimento local: O propósito de uma intervenção educativa em rede (Unpublished master's dissertation). Portugal: Universidade de Coimbra; 2015
- [4] Comissão das Comunidades Europeias Aplicar o Programa Comunitário de Lisboa: Promover o espírito empreendedor através do ensino e da aprendizagem. In: Retrieved from 2006. <http://eur-lex.europa.eu/legal-content/PT/TXT/?uri=CELEX%3A52006DC0033>
- [5] Bandura A. Self-efficacy. In: Ramachaudran VS, editor. *Encyclopedia of Human Behavior*. Vol. 4. New York: Academic Press; 1994. pp. 71-81
- [6] Parreira PM, Silva SD, Carvalho C, Mónico LS. (submitted). Empreendedorismo no ensino superior: Estudo psicométrico da Escala de Motivações Empreendedoras. *Análise Psicológica*
- [7] Parreira PM, Santos AS, Carvalho C, Mónico LS. Empreendedorismo no ensino superior: Estudo psicométrico da escala Oportunidades e Recursos para Empreender. *Revista Psicologia: Organizações e Trabalho*. 2017;17(4):1-11. DOI: 10.17652/rpot/2017.4.13736

- [8] Parreira PM, Ribeiro AS, Mónico LS, Carvalho C. (submitted). Empreendedorismo no ensino superior: Estudo psicométrico da Escala dos Incentivos ao Empreendedorismo. Referência
- [9] Vaz-Serra A. O «Inventário clínico de Auto-Conceito». *Psiquiatria Clínica*. 1986;7(2):67-84
- [10] Sarkar S. Empreendedorismo e inovação. 3ª ed. Lisboa: Escolar Editora; 2014
- [11] Saraiva PM. Empreendedorismo: Do Conceito à Aplicação, da Ideia ao Negócio, da Tecnologia ao Valor. 3ª ed. Coimbra: Imprensa da Universidade de Coimbra; 2015
- [12] Schumpeter J. The creative response in economic history. *The Journal of Economic History*. 1947;7(2):149-159
- [13] Drucker PF. Long-range planning: Challenge to management science. *Management Science*. 1959;5(3):238-249
- [14] Gartner W. Is there an elephant in entrepreneurship? Blind assumptions in theory development. *Entrepreneurship. Theory and Practice*. 2001;25(4):27-39
- [15] Audretsch DB, Fritsch M. Growth regimes over time and space. *Regional Studies*. 2002;36(2):113-124
- [16] Bucha AI. Empreendedorismo, aprender a saber ser empreendedor (1ªed.). Lisboa: Editora RH; 2009
- [17] Duarte C, Esperança JP. Empreendedorismo e Planeamento Financeiro: Transformar oportunidades em negócios. Criar micro, pequenas e médias empresas. 1ª ed. Lisboa: Edições Sílabo; 2012
- [18] Volkmann C. Entrepreneurial studies in higher education. *Higher Education in Europe*. 2004;29(2):177-185
- [19] Testas CP, Moreira FR. O empreendedorismo no ensino superior. *Gestão e Desenvolvimento*. 2014;22:139-163
- [20] Gerba DT. The context of entrepreneurship education in Ethiopian universities. *Management Research Review*. 2012;35(3/4):225-244
- [21] Ramayah T, Ahmad NH, Fei TH. Entrepreneur education: Does prior experience matter? *Journal of Entrepreneurship Education*. 2012;15:65-81
- [22] Commission of the European Communities. Aplicar o Programa Comunitário de Lisboa: Promover o espírito empreendedor através do ensino e da aprendizagem [electronic]. 2006. Available: <http://eur-lex.europa.eu/legal-content/PT/TXT/?uri=CELEX%3A52006DC0033>
- [23] Ribeiro MI, Fernandes A, Cabo P, Matos A. Intenção empreendedora dos alunos do ensino superior agrário português: o caso da região do Alto Trás-os-Montes. In: *Comunicaciones del 12º Congreso de Economía de Castilla y León*. Junta de: Castilla y León; 2010

- [24] Farhangmehr M, Gonçalves P, Sarmento M. Predicting entrepreneurial motivation among university students: The role of entrepreneurship education. *Education + Training*. 2016;**58**(7/8):861-881
- [25] Kuratko D. The emergence of entrepreneurship education: Development, trends, and challenges. *Entrepreneurship Theory and Practice*. 2005;**29**(5):577-598
- [26] Storen L. Entrepreneurship in higher education: Impacts on graduates entrepreneurial intentions, activity and learning outcome. *Education + Training*. 2014;**56**(8/9):795-813
- [27] Hornsby JS, Naffziger DW, Kuratko DF, Montagno RV. An interactive model of the corporate entrepreneurship process. *Entrepreneurship Theory and Practice*. 1993;**17**(2):29-37
- [28] Hessels J, Gelderen M, Thurik R. Entrepreneurial aspirations, motivations, and their drivers. *Small Business Economics*. 2008;**31**:323-339
- [29] Shane S, Locke EA, Collins CJ. Entrepreneurial motivations. *Human Resource Management Review*. 2003;**13**:257-279
- [30] McClelland DC. *The Achieving Society*. New York: Free Press; 1961
- [31] Pereira FC. (2001). *A representação social do empresário, fatores de criação de empresas*, Edições Sílabo
- [32] Hornaday JA, Aboud J. Characteristics of successful entrepreneurs. *Personal Psychology*. 1971;**24**:141-153
- [33] Shane S, Kolvereid L, Westhead P. An exploratory examination of the reasons leading to new firm formation across country and gender. *Journal of Business Venturing*. 1991;**6**:431-446
- [34] Shane S, Venkataraman S. The promise of entrepreneurship as a field of research. *Academy of Management*. 2000;**25**(1):217-226
- [35] Lin N. Social networks and status attainment. *Annual Review of Sociology*. 1999;**25**: 467-487
- [36] Shanker MC, Astrachan J. Myths and realities: Family businesses' contribution to the US economy. *Family Business Review*. 1996;**9**(2):107-123
- [37] Borges W, Mondo T, Machado H. A influência do meio sobre o empreendedorismo a partir das dimensões normativa, regulativa e cognitiva. *Pretexto*. 2016;**17**(2):66-80
- [38] Taylor J. What makes a region entrepreneurial?: A review of the literature. Center for economic development, Maxine Goodman Levin College of Urban Affairs. Cleveland State University, 2006. pp. 1-21
- [39] Kuratko D, Hodgetts R. *Entrepreneurship: A Contemporary Approach*. 5th ed. Orlando: Harcourt; 2001
- [40] Timmons J, Zacharakis A, Spinelli S. *Business plans that work: A guide for small business* (2004). *Choice Reviews Online*. 2004;**42**(04):42-2309
- [41] Gartner W. A conceptual framework for describing the phenomenon of new venture creation. *Academy of Management Review*. 1975;**10**(4):596-708

- [42] Nayab N. Understanding Timmons Model of Entrepreneurship. New York: Brighthub; 2011
- [43] Shapero A. (1984). The entrepreneurial event. Em C. Kent (Orgs.), The Environment for Entrepreneurship. Lexington, Mass: Lexington Books, D.C. Heath and Company. pp. 21-40
- [44] Carsud A, Johnson R. Entrepreneurship: A social psychological perspective. Entrepreneurship & Regional Development. 1989;1(1):21-32
- [45] Brinkerhoff J. Effects of a long-duration, professional development academy on technology skills, computer self-efficacy and technology integration beliefs and practices. Journal of Research on Technology in Education. 2006;39(1):22-43. DOI: 10.1080/15391523.2006.10782471
- [46] Colquitt JA, LePine JA, Noe RA. Toward an integrative theory of training motivation: A meta-analytic path analysis of 20 years of research. Journal of Applied Psychology. 2000;85:678-707
- [47] Salanova M, Grau R, Cifre E, Llorens S. Computer training, frequency of usage and burnout: The moderating role of computer self-efficacy. Computers in Human Behavior. 2000;16:575-590
- [48] Meneses PPM, Abbad GS. Construção e validação de um instrumento para avaliar auto-eficácia em situações de treinamento, desenvolvimento e educação de pessoas. Psicologia: Reflexão e Crítica. 2010;23(1):141-150
- [49] Bandura A. Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review. 1977;84(2):191-215. DOI: 10.1037/0033-295X.84.2.191
- [50] Bandura A. Social Foundations of Thought and Action: A Social Cognitive Theory. Englewood Cliffs: Prentice-Hall; 1986
- [51] Bandura A. Human Agency in Social Cognitive Theory. American Psychologist. 1989;44(9): 1175-1184
- [52] Marakas GM, Mun YY, Johnson RD. The multilevel and multifaceted character of computer self-efficacy: Toward clarification of the construct and an integrative framework for research. Information Systems Research. 1998;9(2):126-163
- [53] Aldrich HE, Rosen B, Woodward W. The impact of social network on business foundations and profit in a longitudinal study. In: Churchill NC et al., editors. Frontiers of Entrepreneurship Research. Wellesley, MA: Babson College; 1987. pp. 154-168
- [54] Shapero A, Sokol L. The social dimensions of entrepreneurship. Encyclopedia of Entrepreneurship. 1982;2:72-90
- [55] Schumacker RE, Lomax RG. A beginner's Guide to Structural Equation Modeling. 3rd ed. Mahwah, N.J: Lawrence Erlbaum Associates; 2010
- [56] Brown TA. Confirmatory Factor Analysis for Applied Research. 2nd ed. New York: Guilford Press; 2015



- [57] Bentler P. Quantitative methods in psychology: Comparative fit indexes in structural models. *Psychological Bulletin*. 1990;**107**:238-246
- [58] Kline R. Principles and Practice of Structural Equation Modeling. (3rd ed.) ed. New York: The Guilford Press; 2011
- [59] Nunnally JC. Psychometric Theory. New York: McGraw-Hill Inc.; 1978
- [60] Nunnally J. Psychometric theory. 2ª ed. New York: McGraw-Hill, 1978
- [61] Bandura A. Pensamiento y acción: Fundamentos sociales. Barcelona: Martinez Rocca; 1987
- [62] Etzkowitz H, Leydesdorff L. The triple helix–university–industry–government relations: A laboratory for knowledge-based economic development. *European Association for the Study of Science and Technology Review*. 1995;**14**(1):14-19
- [63] Etzkowitz H, Leydesdorff L. Universities in the Global Economy: A Triple Helix of University–Industry–Government Relations. London: Cassell Academic; 1997
- [64] Etzkowitz H, Leydesdorff L. The dynamics of innovation: From National Systems and “Mode 2” to a Triple Helix of university industry–government relations. *Research Policy*. 2000;**29**:109-123
- [65] Etzkowit H, Gulbrandsen M, Levitt J. Public Venture Capital: Government Funding Sources for Technology Entrepreneurs. New York: Harcourt-Brace; 2000
- [66] Etzkowitz H. Forthcoming. The Second Academic Revolution: MIT and the Rise of Entrepreneurial Science. London: Gordon & Breach; 2001
- [67] Leydesdorff L, Etzkowitz H. Emergence of a triple helix of University-Industry-Government Relations. *Science and Public Policy*. 1996;**23**:279-286
- [68] Leydesdorff L, Etzkowitz H. The triple helix as a model for innovation studies. *Science and Public Policy*. 1998;**25**(3):195-203. DOI: [org/10.1093/spp/25.3.195](https://doi.org/10.1093/spp/25.3.195)
- [69] Santos SC, Caetano A, Curral L. Atitude dos estudantes universitários face ao empreendedorismo: Como identificar o potencial empreendedor? *Revista Portuguesa e Brasileira de Gestão*. 2010;**9**(4):2-14

---

# Higher Education, Entrepreneurship and Learning by Practice: Collaborative Work from the Stakeholders' Point of View

---

Ana Paula Marques

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70539>

---

## Abstract

The involvement of different stakeholders has created a positive dynamics in the context of higher education, on the one hand by the reinforcement of entrepreneurship linked to innovation, the transference of technology, and the creation of companies and on the other hand by offering extracurricular activities in the formal curricular plans involving different academic stakeholders. Although there are countless initiatives and entrepreneurship programmes, in Portugal there are no (or, at least, no known) studies that analyse the non-formal and informal apprenticeships conceived and implemented by the stakeholders in order to clarify the potential development of entrepreneurial competences. Our results gathered from the research project: "Entrepreneurial learnings, cooperation and labour market: good practices in higher education (POAT-FSE)" show which are the main stakeholders or interface institutions between the university and the surrounding community in the process of technological and knowledge transfer. Our analysis proceeds to a report of the profiles, fields of work, advantages and factors of marked obstacles. By highlighting the contributions of these results, used for the innovation and revitalisation of the partnership networks in the field of science, technology and knowledge transfer, we intend to anchor the discussion about the relevance of the stakeholders in European Higher Education governance.

**Keywords:** Portugal, higher education, entrepreneurship, stakeholder, non-formal learning

---

## 1. Introduction

The involvement of different stakeholders has created a positive dynamics in the context of higher education [1–3] at two main levels. The first level can be seen in the reinforcement

of entrepreneurship linked to innovation, the transference of technology and the creation of companies. This direct stimulus has substantiated in the constitution of new academic structures and interfaces in the entrepreneurship/employment area; a second one, which results from this momentum is reflected in an increasing offer of extracurricular activities in the formal curricular plans on the one hand and on the increase of aids and measures that enable skills arising from the practical experience and of the networks of expertise of different stakeholders on the other hand.

In this context, one of the main aspects of privileged action higher education level is geared towards the promotion of a “culture” of entrepreneurship among the students and the graduates, which contemplates the “ability to identify opportunities in the marketplace and to create new businesses”, but also “the attitudes and behaviours associated with creativity, innovation and risk” [4–6] Although there are countless initiatives and entrepreneurship programmes, in Portugal there are no (or, at least, no known) studies that analyse the non-formal and informal apprenticeships conceived and implemented by the stakeholders in order to clarify the development potential of the entrepreneurial competences. The non-formal and informal apprenticeships embrace, on the one hand, a wide array of initiatives that enable the personal and professional development of students/graduates (e.g., participation in internships or professional experiences, extracurricular activities, youth associations, mobility programmes, organisation of events, volunteering); and conversely, actions and initiatives, which are more guided towards the creation of graduates’ own businesses/self-employment (e.g., specific training and modules or courses), as well as mentoring and follow-up activities set up in order to implement projects (e.g., incubation, tutorials, specialised technical consulting).

Bearing in mind these suppositions, we will use the main results of the research project: “Entrepreneurial learnings, cooperation and labour market: good practices in higher education (POAT-FSE)”, which aimed to identify fundamental entrepreneurship programmes and support existing infrastructures and their capacity to generate relevant entrepreneurial competences for the labour market; in addition, our goal is to analyse critically the collaborative dynamics of the different stakeholders and their engagement in the initiatives and entrepreneurship programmes.

In this chapter, we focus on the contributions of these stakeholders or interface institutions between the university and the surrounding community in the process of technology and knowledge transfer. We will begin by discussing both “third mission” and the relevance of the stakeholders in European Higher Education governance. Next, the goals and the research design that sustained this study will be presented. Our analysis will then proceed to display a report of the profiles, fields of work, advantages and factors of marked obstacles. We will conclude with a review and assessment provided to the set of initiatives implemented in the period between 2007 and 2013. By highlighting the contributions of these results, used for the innovation and revitalisation of the partnership networks in the field of science, technology and knowledge transfer, we intend to anchor the discussion about the relevance of the stakeholders in European Higher Education governance [7].

## 2. “Third mission”, entrepreneurship and stakeholders

Over the last few years, Higher Education Institutions (HEI) perform an essential task in contemporary societies, since they create strategies to face citizens’ challenges and expectations. In order to improve the quality of higher education, institutions look for answers in three directions or missions: (i) teach and educate, (ii) research and innovate and (iii) transfer knowledge and serve the community. This last dimension, called “third mission”, encompasses knowledge management and the cooperation with different community entities, besides questioning the place the HEI occupy in the development of societies. With the growing internationalisation of the HEI, we witness the promotion of cooperation and critical dialogue among several partners and/or stakeholders. This dynamics presupposes a particular focus on the field of entrepreneurship, reinforced in the Europa 2020 framework, in which universities and R&D centres are summoned to participate more actively in consortium networks and multidisciplinary teams, contributing to increase the competitive advantages of each country and region.

This enhancement of the “third mission” presupposes a “new” focus, not only on the research and development areas, but mainly on the models of governance, autonomy and flexibility models of these institutions through the presence of “external entities”, namely of stakeholders defined as “third parties that act between the two main partners – the academic community and the interests of society” [7, 16]. Likewise, Freeman [8, 46] defines stakeholder as “any group or individual that may affect or be affected by the organisational goals.” In this case, the concept widens to include any internal or external group, which may simultaneously influence and be influenced by the decisions of the organisation. Moreover, in the context of growing interdependence, it is no longer expectable that the HEI are single actors, since they interact with industry, community and government, thus being a part of national and/or regional systems of innovation, constituting in the critical component of the “triple helix” principle” [9].

It is true that no consensus has yet been reached in literature, regarding the roles and senses assigned to these “third parties”, mainly because they referred to the trend towards the merchandising of scientific knowledge or the corporatisation of university [10, 7].

Notwithstanding the existing controversies in literature on this subject, both the national governments and the local public universities have aimed to offer a wide array of programmes that envisage promoting entrepreneurship at different levels: financial aid, technical support and specific formatting and qualification programmes geared towards the creation of own business/self-employment. Through diverse empirical evidences [9], many of the HEI have been adopting an enterprising and entrepreneurial attitude, creating goals for the establishment and commercialisation of knowledge and intellectual property. According to the authors, the entrepreneurial activities developed by the HEI promote the regional and national development and enhance, specifically, the performance of the institution itself and of its academic staff.

In a more specific way, it is important to have entities and experiences that promote the creation and maintenance of an ecosystem among the different stakeholders involved in the HEI. This presupposes diversified strategies to foster the entrepreneurial culture/spirit,

namely: (i) curricular units present in the formal academic courses and trainings, (ii) programmes of extracurricular activities at the regional, national and international levels, which involve several stakeholders and aim to improve the corporate culture and (iii) structures that support entrepreneurial initiatives with the goal of transferring knowledge to the market and to promote the local/national development.

Also, Pinho and Sá [11] corroborate these strategies and consider that entrepreneurship has been considered as one of the key factors in increasing employment, growth and competitiveness by the countries of the European Union. The connection between education and entrepreneurship takes on particular prominence, especially the relation that is directed towards the discussion of pedagogical strategies of experiential learning, with the direct involvement of different academic stakeholders. Research related to this subject is vast [1, 12–15]. These studies comprise a substantial body of research on topics such as pedagogy in the curriculum, mapping of educational offer in entrepreneurship and extracurricular activities.

This redefinition of the role of the HEI does not only arise from the needs of internal evolution, but also from external influences, namely financial constraints (continuous cuts in the transfers of the state budgets to the HEI), significant socio-economic mutations and the reassertion of the society based on knowledge [16–19]. Particularly visible are the demands related with the integrated quality systems and accountability (production of relevant indicators for the public exercise of provision of accounts), and more recently, the positioning of the HEI in the international rankings.

These governance, transparency and social responsibility demands on the part of the HEI are mutually reinforcing because we recognise that the HEI have a public mission: that is, they produce services with benefits for a broader society and for that reason, at least partially, they are financed by the State. The importance of building trust and being socially responsible is particularly relevant in the context of commodification, deregulation and decentralisation. In this new era, it does not suffice to show excellence in the traditional sense. On the contrary, the demand for this excellence has been complemented—in many cases overlapped—by its relevance, that is, universities have proved that they have contributed to the society of knowledge. This implies that in the same way that companies aim to develop the surrounding environment economic and socially, the HEI have to be intervening agents in the resolution of important problems that society faces, problems which require several types of innovation: social, economic and cultural.

### 3. Methodology

#### 3.1. Project Link.EES

Link.EES is the acronym for the project “Entrepreneurial learnings, cooperation and labour market: good practices in higher education (POAT-FSE)”, which has been structured on the basis of a dual approach: (i) identify and analyse the entrepreneurial non-formal and informal learnings within the scope of entrepreneurship programmes and existing support

infrastructures in the Higher Education Institutions (HEI) and (ii) contribute to the understanding of the collaborative dynamics of the different key actors and stakeholders, with the purpose of knowing the main constraint factors and potentialities of inter-organisational collaboration.

The non-formal and informal initiatives and programmes that, in parallel with the formal learning projects, take place in the context of higher education, are relatively unknown, such as innovation and knowledge and technology transfer centres, business incubators, integration/entrepreneurship offices and intellectual property offices. These learning tend to report to a set of initiatives that enable the personal and professional development of the students/graduates through the participation in internships or professional experiences, extracurricular activities, youth associations, mobility programmes, event organisation, volunteering, among others; and, on the other hand, actions and initiatives, which are more directed towards the setting up of their own business/self-employment, namely specific training and training courses or modules. Besides these activities, others are included such as mentoring and monitoring for project implementation, in particular, incubation, tutorials and technical-specialised consultancy. Above all, we are not aware of the importance of the latter as regards their impact in the qualification of the graduates and the development potential of their entrepreneurial competences that may make a difference in the daily life of the youths. Still, we do not know the importance of these stakeholders among graduates when these opt to build, alternatively, a professional career set on a relationship of hierarchical and organisational autonomy to set up their own business. Regardless of the controversies and contentious issues associated with the distinctions between formal, non-formal and informal learnings, it is important to analyse the latter and better understand the role of the stakeholders in their revitalisation [6].

In that sense, the current study pursued more specific goals anchored in three key axes: (1) it aimed at accomplishing a comprehensive mapping of the main experiences of non-formal and informal entrepreneurial learnings developed in public higher education in Portugal (2007–2013) directed towards the promotion of employability and/or entrepreneurship, (2) identifying a set of “good practices” in higher education, that is, projects/initiatives of promotion of non-formal and informal entrepreneurship learnings and (3) and proposing a repertoire of cross-sectional and entrepreneurial competences, from the perspective of the stakeholders involved in the study.

### **3.2. Research design**

In terms of research design, this was focused on the triangulation of sources, observational plans and research instruments and with the presentation of three distinct stages, namely: stage 1—application of an online survey to 41 stakeholders from a universe of 57, which enabled the collection of detailed and consistent information about the profiles of these stakeholders that belong to the Portuguese public higher education system. Subsequently, we proceeded to the drafting of the survey via an online survey, taking into account the goals ranked in the stage of the study design. In this respect, the online survey tried to obtain information and data on the following points: (i) characterisation of the stakeholders and their operating

modalities (designation, legal status, scope of action, number of collaborators); (ii) forms of inter-organisational collaboration and work networks/partnerships; (iii) entrepreneurial initiatives developed by each entity in the period between 2007 and 2013 and overall balance of the aforementioned initiatives; (iv) cross-sectional competences that facilitate the process of work integration and the creation of own employment/self-employment; and (v) opinion of the survey respondents concerning general aspects of entrepreneurship in higher education .

In stage 2, 12 case studies were accomplished from a selection of entities/initiatives considered paradigmatic in the promotion of entrepreneurial apprenticeships with a non-formal and informal nature and accomplishment of in-depth interviews to the respective key-actors. Finally, in the stage 3, a report of entrepreneurial skills was elaborated and subsequently submitted to validation with the key actors, mobilising the Delphi technique with the achievement of two rounds among the key actors involved in stage 1.

## **4. Academic stakeholders, employability and entrepreneurship**

### **4.1. Profile of the academic stakeholders**

The 41 stakeholders that participated in this national study—representing 72% of the target universe of entities was previously selected by us—take up functions that have direct responsibility in the programmes or existing infrastructures in public higher education (university and polytechnic), located preferably in the regions of Lisbon (22), North (17) and Centre (13). Such geographic distribution coincides with the greater population concentration, location of HEI and business revitalisation. In terms of legal status and self-denomination, more than half state assume the regime of organic unit or sub-unit of higher education university/polytechnic (51.2%), followed by non-profit private law associations (31.7%). Regarding the ways, the actors designate themselves, it was possible to conclude that nearly half define themselves as an interface/transfer unit of S&T (Science and Technology) (24.4%) and the centre/innovation office and/or entrepreneurship (24.4%). On the contrary, only a minority defines itself as an incubator of companies, or as an office of professional integration, both with residual values of 2.4%. These results allow us immediately to reinforce the idea, on the one hand, about the greater visibility of the activities of knowledge transfer with a technological basis and the identification of “patterns” supported in the rapport between university-industry, and on the other hand, a minor visibility of the transition activities.

These entities are mainly small scale ones, in other words, micro-organisations, 73.2% of which are constituted by up to nine workers and were created in the first decade of the twenty-first century. The entities that emerged in the 1980s are only residual (4.9%), which allows us to reinforce the argument about the importance of public policies in the national framework and above all European, related with the initiatives of knowledge transfer, entrepreneurship and employability of both students and graduates.

When questioned about the operating mode and the performance of the HEI to which they are linked, the respondents evaluate their degree of autonomy with the university or polytechnic as being predominantly partial (56.1%). Even so, 31.7% state that they have little (19.5%), or no



autonomy (12.2%) in terms of performance and operating mode when compared to the HEI to which they are affiliated. This more restricted organisational autonomy is in line with the high degree of commitment of these entities in the development of their activities regarding the mission of the university/polytechnic where they are based and 70.7% referred to that degree of commitment as being total.

It is important to consider the diversity of the services rendered and it matters even to consider their diversity. In effect, these stakeholders reveal they make the following services available: information about aids, programmes and initiatives; training activities in entrepreneurship (courses, workshops, e-learning); support at the stage of submitting applications to projects and preparation/drafting of business plans; accomplishment of information and awareness-building sessions (seminars and conferences), mentoring/monitoring of projects or business ideas and the organisation of idea contests of business plans. To a lesser extent, on balance in these services we should refer to the technical consultancy, specialisation in management of companies and the participation in academic training, in the formal component of the curricular plan.

Lastly, the results also reveal that the geographic scope with major relevance among these key actors is the local or regional (42%), followed by the national one (32%). The international dimension assumes a minor relevance in the operational area framework of these entities, gathering 26% of the answers.

#### **4.2. Networks and partnership advantages**

In the current context of growing uncertainty and competitiveness, it matters that the different stakeholders and entities involved in the initiatives and projects of non-formal and informal learnings find new and better ways of getting organised, since the revitalisation of inter-organisational networks as one of the most relevant modalities in this area of intervention. In this case, the relation of cooperation established with other entities inside and outside the academic scope should be noted.

Effectively, the majority of the respondents establish collaborative dynamics with other institutions/organic units of higher education, with business/commercial/industrial associations and with public entities of entrepreneurial promotion, as well as with businessmen agents.

The main advantages perceived by the actors of these collaborative dynamics are related to the access to a broader and diversified volume of information, to a greater projection/dissemination of the activities developed by the entities, the confirmation of knowledge of new practices and work methods and with the enhancement of resources available. Despite the acknowledgement of the existence of benefits deriving from the established collaborative dynamics, it was equally possible to detect the occurrence of difficulties and obstacles in the range of the cooperation activities. Effectively, 48.8% of the respondent academic stakeholders stated they faced difficulties in the framework of the cooperation activities developed, namely: communication problems, management of industrial property, peer competition, different work methodologies, different financial resources, different organisational models (time management, timetables, scheduling of the activities, objectives and mission of the entities, administrative and bureaucratic procedures) and other cultural differences, as is the case of international scope partnerships.

4.3. Balance and assessment of the accomplished initiatives

First and foremost, we would like to highlight the non-linearity in the performance of the stakeholders, by taking into account the three sequential stages of the process of entrepreneurial learning. Moreover, we can confirm the difficulty in distinguishing the different entities through the operating focus, which is why it is expectable that there should be some overlapping in the collaboration or network in the scope of higher education. As one can observe from **Table 1**, the entities are positioned in the three stages of the learning process, namely: (i) awareness, (ii) training, (iii) mentoring and follow-up. Nonetheless, it was possible to observe a higher concentration of answers in activities such as (i) organisation of clarification sessions and awareness devoted to the topic of entrepreneurship (92.7%), (ii) organisation of training sessions in entrepreneurship (e.g., courses, workshops, e-learning) (87.8%) and (iii) promotion and/or participation in the organisation of idea contests (85.4%). In other words, a large part of these entities focuses their activity on the awareness and training stage and a smaller percentage focuses exclusively on the activities related to mentoring and monitoring. Effectively, this observation does not create perplexity since the activities framed in this last stage demand a greater organisational and financial complexity and complexity of services rendered that these entities still do not hold, partly due to their reduced seniority.

From the assessment of the profile of the participants in these initiatives, we mainly highlight the participation of students, graduates and academic staff, the elements who are directly linked to the HEI. We observe that there is a reduced expression of participants outside the academic community, in particular, those that are framed in the “professional” category. However, even if this larger presence of these elements is obvious, the assessment that the stakeholders make of their participation is moderate, since 58.5% recognise a partial adhesion and 19.5% point to “low” involvement in the stimulated initiatives. This moderate evaluation may point out that there is the need to invest in this domain, in a way to boost the levels of participation of the individuals involved in these initiatives.

Initiatives accomplished in the different acting stages of the stakeholders		(%)
Awareness	Organisation of clarification sessions and awareness dedicated to the issue of entrepreneurship	92.7
	Promotion and/or participation in the organisation of idea contests	85.4
	Production of information materials on the topic of entrepreneurship	65.9
Training	Organisation of training sessions on entrepreneurship (e.g., courses, workshops, e-learning)	87.8
Mentoring and monitoring	Concession of physical spaces for incubation and speeding-up of entrepreneurship ideas/projects	51.2
	Support to patent registration and/or protection of intellectual property rights	53.7
	Development of mentoring and monitoring activities of entrepreneurial projects/business ideas	80.5

**Table 1.** Initiatives to promote entrepreneurship/employability (2007–2013).

As for the training area of the participants, we noticed a clear predominance of participants whose training areas are engineering, information technology and similar technical areas (30.5%) and also economics and entrepreneurial sciences (19.0%). In other words, we are witnessing training areas that are apparently more aware about the issue of entrepreneurship and which are traditionally associated with more “entrepreneurially-prone” areas.

Regarding organisational issues related with the initiatives, overall, the respondent entities consider the resources mobilised (human, financial, logistic/material, of the infrastructures and of the means of dissemination/promotion) as “adequate” or “very adequate”. Even so, it was possible to detect a less favourable evaluation with regard to the adequacy of the financial resources and of the means of dissemination. Stipulating the area of the financial resources, the main sources of funding of the initiatives developed referred are their own revenues (32.9%) and the patronage or the sponsorship of private entities (22.0%). Only 7.3% of the respondent entities mentioned as main source of funding, the “transfer of funds from the Higher Education Institution” they are linked to.

The critical aspects identified in their activity report to aspects such as: (i) the management of large teams, (ii) the coordination of timings and agendas in the scope of the partnerships and collaborations with other entities, (iii) the lack of motivation of the students and of the academic staff towards the topic of entrepreneurship, (iv) the low adhesion of the students to the extracurricular activities (partly due to the already high hourly load of the students), (v) the difficulty in mobilising/involving other entities, (vi) the difficulty in the promotion of the activities, (vii) the scarcity of resources, namely human, financial and material, (viii) the complexity of the financing processes associated with the revitalisation of the initiatives, as well as (ix) the existence of some resistance towards the issue of entrepreneurship.

In broad terms, the perceived assessment of the impact of the initiatives developed with greater importance derive from the stimulus of the creative capacity and entrepreneurial spirit (51.2%), of the development of entrepreneurial competences (48.8%) and of the increase of the information about supports to entrepreneurship and funding (46.3%). On the contrary, they consider that there is a minor impact in aspects such as: (i) the emergency of entrepreneurship with a social nature/third sector (56.1%), (ii) the revitalisation of the R&D activities (36.6%) and (iii) the creation of networks to support entrepreneurship (19.5%).

## 5. Final remarks

Entrepreneurial education challenges universities to draw new collaborative training strategies focused on the students, involving the whole academic community and diversified stakeholders in the learning process. This perspective is anchored on the concepts of “Apprenticeship Society” and “Lifelong Education Learning”, wagering on the complementarity between formal, non-formal and informal learnings.

It is in this broader framework that we intended to understand the importance of entrepreneurial learnings via the intervention of the stakeholders and reflect upon the importance that

these hold in the development of approaches, which are more integrated of their performance in the academic context. The results of the study evince the need to: (i) accomplish territorialised diagnoses about the conditions and usage of support infrastructures to these learnings; (ii) acknowledge the entities bearing a relevant role in the “preparation for work”; (iii) promote greater articulation of the performance of the entities in the different learning stages; (iv) recognise the tension between “informalisation” of the initiatives and the demand for formalisation of the learnings through their integration in the curricular plans and (v) promote the integration of a cross-sectional approach based on gender equality and opportunities in the design of programmes in this area.

It should be highlighted that the emergency of the entrepreneurial HEI constitutes an answer, both to the social and economic challenges and to the growing importance of knowledge in the regional/national development through innovative systems. The inter-institutional dynamics may be renamed as network, because they act in a dynamic environment, of cooperation, operationalised through a multiplicity of regular connections and between different key actors. To sum up, the countries which encourage the creation of cooperation networks and of strategic alliances between the different key actors tend to obtain a competitive advantage, and especially, to divulge the knowledge produces local and nationally.

This study may have an enormous impact among the different political, academic, business agents, for it is constituted as a pilot example of the mapping and evaluation of initiatives to promote entrepreneurship in the academic context.

## Author details

Ana Paula Marques

Address all correspondence to: amarques@ics.uminho.pt

Interdisciplinary Centre of Social Sciences, University of Minho, Braga, Portugal

## References

- [1] Gibb AA. In pursuit of a new entrepreneurship paradigm for learning: Creative destruction, new values, new ways of doing things and new combinations of knowledge. *International Journal of Management Reviews*. 2002;4(3):233-269
- [2] Matlay H. The impact of entrepreneurship education on entrepreneurial outcomes. *Journal of Small Business and Enterprise Development*. 2008;15(2):382-396 [cited 20 June 2017]; Available from: <http://www.emeraldinsight.com/doi/pdfplus/10.1108/14626000810871745>
- [3] Blenker P, et al. The questions we care about: Paradigms and progression in entrepreneurship education. *Industry & Higher Education*. 2011;25(6):417-428

- [4] EC (European Commission). Entrepreneurship 2020 Action Plan—Reigniting the Entrepreneurial Spirit in Europe. 2012; COM(2012)795. Available from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:en:PDF>
- [5] EC (European Commission). Effects and Impact of Entrepreneurship Programs in Higher Education. Brussels: European Commission; 2012b
- [6] Marques AP. Aprendizagens empreendedoras no Ensino Superior. Redes, Competências e Mercado de Trabalho V.N Famalicão: Editor Húmus; 2016
- [7] Amaral A, Magalhães A. The emergent role of external role of stakeholders in european higher education governance. In: Amaral A, Jones Glen A, Karseth B, editors. Governing Higher Education: National Perspectives on Institutional Governance. Netherlands: Kluwer Academic Publishers; 2002. p. 1-21
- [8] Freeman ER. Strategic Management: A Stakeholder Approach. Boston: Pitman; 1984
- [9] Etzkowitz H, Leydesdorff L. The dynamics of innovation: From National Systems and “Mode 2” to a Triple Helix of university–industry–government relations. Research Policy. 2000;29(2):109-123
- [10] Jongbloed B, Enders J, Salerno C. Higher education and its communities: Interconnections, interdependencies and a research agenda. Higher Education. 2008;56:303-324
- [11] Pinho JC, Sá E. Entrepreneurial performance and stakeholders' relationships: A social network analysis perspective. International Journal of Entrepreneurship. 2013;17:1-19
- [12] Redford D. (Org.) Handbook de Educação em Empreendedorismo no Contexto Português. Porto: Universidade Católica Editora; 2013
- [13] Pittaway L, Cope J. Entrepreneurship education—A systematic review of the evidence. International Small Business Journal. 2007;25(5):477-506
- [14] Matlay H, Carey C. Entrepreneurship education in the UK: A longitudinal perspective. Journal of Small Business and Enterprise Development. 2007;14(2):252-263
- [15] Gorman G, et al. Some research perspectives on entrepreneurship education, enterprise education and education for small business management: A ten-year literature review. International Small Business Journal. 1997;15(3):56-77
- [16] Martins ML. A liberdade académica e os seus inimigos. Comunicação e Sociedade. 2015;27:405-420
- [17] Tomlison M. Graduate employability: A review of conceptual and empirical themes. Higher Education Policy. 2012;25:407-431
- [18] Santos BV. A Universidade no século XXI: para uma reforma democrática e emancipatória da Universidade. Educação, Sociedade & Cultura. 2005;23:137-202
- [19] Teicher U. Higher Education and the World of Work: Conceptual Frameworks, Comparative Perspectives, Empirical Findings. Rotterdam: Sense Publishers; 2009



---

# **The Entrepreneurship in Communication as an Educational-Learning Method: University Teaching and Educommunication**

---

Gloria Jiménez-Marín, Rodrigo Elías Zambrano and  
Elena Bellido-Pérez

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.71369>

---

## **Abstract**

This text is based on a study that was done with the aim of analysing the development of university training processes through real entrepreneurship projects. The research was carried out using the study case modality, and it was focused on observing the teaching methodology variations according to the implementation—or not—of a real entrepreneurship project as a method in a certain subject, collecting data of both the faculty and the students. Departing from the current situation of economic crisis and unemployment in Spain and from the despondency and discouragement situation of the students in their latest years of university studies, the self-employment is set up as a new job opportunity for the training projects of these university students. This study departs from the inclusion of an entrepreneurship plan as a method of evaluation and teaching in several subjects belonging to Advertising and Public Relations studies. With this entrepreneurship model, we study the formative consequences for the students and the impact on the society. Results showed a common methodological pattern regardless of the training model of the subject—obligatory entrepreneurship versus optional entrepreneurship—and a faculty interest in alternating several methodologies.

**Keywords:** entrepreneurship, teaching methods, university teaching, OTRI, communication

---



## 1. Introduction

### 1.1. Being an entrepreneur

Being an entrepreneur requires to have—or to acquire—a series of skills at either ways, individual and collective. Because the entrepreneurship is a human being's ability for going forward, moving on and growing in a creative and different way, with renewed ideas—and actions.

For most people, entrepreneurship is a relatively modern and novel concept, but this feature itself has always been present throughout the history of humanity. Nevertheless, it is important to emphasise why this term has become so relevant in the last decade: because of the resurgence of the way in which economic situations have been managed, being led with new ideas. That is, because of the current economic movements and the way to overcome the financial crisis.

The word “entrepreneurship”, from the French word “entrepreneur”, means pioneer: it is the person's ability of making an extra effort in order to reach a goal. The term is also used for referring to a person who starts a new business or project, as well as people who add a value to an already existing product.

We depart from the definition that considers the entrepreneur as a person with inquisitiveness to learn and improve, that is, the definition related to the aptitude and attitude of the person, which allows him or her to undertake new challenges and new projects. If we focus on the well-known strengths, weaknesses, opportunities and threats (SWOT) matrix, an entrepreneur person is able to take advantage of threats, weaknesses, or dissatisfaction situations in order to reverse that condition and give rise to a beneficial and helpful situation. Because the constant search for changes and solutions for problems is a basic feature of the entrepreneur.

In that sense, the university plays an important role in providing a basic and appropriate training to their students, a training that qualifies them to reach their vital or business goals [1–5]. Entrepreneurs are people generating ideas who, at the same time, develop the required competences to be better business people and better citizens.

Nevertheless, Europe is the continent who concedes less importance to the education in entrepreneurship: 25% of EU citizens regard this kind of education as important, a low number if we compare it with the 51% existent in the USA [6]. According to [7], “this gap is not necessarily caused by the EU citizens' rejection of entrepreneurship, but rather the result of a combination of structural, administrative and cultural factors that inhibit entrepreneurial spirit”. In fact, these kinds of barriers were highlighted in the results of this study.

### 1.2. The Spanish universities' role in entrepreneurship

If we focus on Spain, there is a clear need to foster an entrepreneurial spirit among young university graduates in order to improve the rates of start-ups in the medium and long term, thereby boosting the country's competitiveness and productivity. In this task, universities are

called to participate actively as a training centre par excellence, generating new knowledge [8]. In this last point, the role of the university becomes a great source of innovation and technological development, as [9] points out:

*The transformation of the university as part of the national system of science and technology makes it not only a centre for basic research but also the incubator of new industries in a science and technology dominated economy. The creation of an entrepreneurial culture, of a favourable attitude in young people before the creation of business is the basis of new projects.*<sup>1</sup>

In this way, most Spanish universities have taken on the challenge of fostering the entrepreneurial spirit among their students and of supporting the creation of new companies, as [10] affirms. That is why, in Spain, a series of entrepreneurship initiatives have emerged within the University:

- The first initiative to promote entrepreneurship from a Spanish university was in 1992. The *Universidad Politécnica de Valencia*<sup>2</sup> (UPV), along with *Instituto Valenciano de la Mediana y Pequeña Empresa*<sup>3</sup> (IMPIVA), carried out the project “Program of initiatives for the development of new companies (IDEAS)” with the aim of stimulating the entrepreneurs of the UPV to create technology-based companies, becoming the only program of this nature in Spain until 1997.
- On this date, three other business creation programmes were established at the *Universidad Complutense de Madrid*<sup>4</sup> (UCM), the *Universidad Pública de Navarra*<sup>5</sup>, and *Universidad de Euskadi*,<sup>6</sup> starting a growing trend that had its highest level in 2000 with the creation of 10 new programmes.
- In 2004, 55% of the 68 Spanish universities already had a programme to create companies. These programmes have contributed to the creation of about 900 new companies technologically and innovative based as well as conventional. Despite these important achievements, there is still a long way to go since, unlike what has been happening for years in universities in more advanced countries, the formation of new entrepreneurs remains a residual and methodologically poor subject to which it is provided little attention in most Spanish universities [11].

### 1.3. The teacher as entrepreneur in the knowledge society

The training and education in a high level, in a university level, has as its goal to educate the individual in a wide, relevant and qualitative way, that is, not only teaching the individual a profession but also making him or her grow as a person, as an adult, and making him or her

<sup>1</sup>Translated from the original text in Spanish: “La transformación de la Universidad es parte del sistema nacional de ciencia y tecnología, la convierte no sólo en centro de investigación básica, sino también en la incubadora de nuevas industrias en una economía dominada por la ciencia y la tecnología. La creación de una cultura emprendedora, de una actitud favorable en los jóvenes ante la creación empresarial es la base de nuevos proyectos.”

<sup>2</sup>Polytechnic University of Valencia.

<sup>3</sup>Valencian Institute of Small and Medium-sized Enterprises.

<sup>4</sup>Complutense University of Madrid.

<sup>5</sup>Public University of Navarra.

<sup>6</sup>University of Euskadi.

think. That is why higher education must not only be contemplated with a sole external vision about the teaching-learning process, but also as an internal condition of the teacher. For that reason, education is almost seen in the duty of facilitating the development of new personal abilities, as the abilities of innovating, finding creative solutions or adapting to changes and new realities. This is not an easy task, and that is why “creating an entrepreneurial university requires a multi-dimensional, multi-layered, complex, and long-term focused perspective from policymakers and university administrators” [1].

However, in the latest years, the educative planning is changing. Authors like [12] or [13, 14] support theories that pursue a revolution since their initial idea. These researchers consider that not only the study organisation should be changed, but also its purpose and the dedication time, which should move from being a one-time training and with pre-established times to a lifelong training.

For that reason, we can affirm that a university teacher is a citizen of the knowledge society who faces the challenge in the presence of changes, responding in a positive way with new ideas and new ways of doing things, with initiative and determination when facing several circumstances. This person is an entrepreneur teacher who has developed certain competences to the citizen performance, who is competent and knows what should be done, allowing the so-called “Lifelong learning”<sup>7</sup> in order to develop specific abilities. First, it is necessary to develop oneself as a person so that you can be able to acquire professional of specific human competences, and later that could be transmitted afterwards.

The development of these competences should take place in a contextualised frame in university environments. In this frame, students are adolescents who are becoming adults and, for that reason, they should experience an active and relevant learning, because it will let them use their acquired competences in others places and context. Thus, they will be able to transmit what they have learned. Besides, this fact becomes even more important if we take into account studies as the one of [15], which has showed that “entrepreneurial characteristics that predict entrepreneurial careers appear early in life”.

The quality of the university education has to be in harmony with the training that prospective graduates are receiving. In that sense, the teacher should think about his or her pedagogical and methodological work, about the appropriateness and applicability of what he or she is teaching. Hence, the teacher will conclude that he or she has to unlearn and learn new techniques and to increase his or her abilities’ borders in order to provide the students the training that they need. In that point is where the entrepreneurship appears as a suitable evaluating and teaching technique. As [16] expresses, “as educators it is valuable to understand the effect of one’s teaching particularly because this has far-reaching impact not only on students but also on social praxis in terms of fostering new, sustainable entrepreneurs”.

Therefore, the standpoint that belongs to this new paradigm of higher education is focused on a training based on competences. In that way, as [17] explains:

*The training based on competences constitutes a proposal that departs from the significant learning and is focused on comprehensive human training as essential condition of all pedagogical project; it*

<sup>7</sup>“Lifelong learning” is used to describe a permanent education. This concept refers to a movement that expects to bring the education to all levels and human states—it wants not only to focus on adults training, but on every level of training.

*integrates the theory with the practice in different activities; it promotes the continuity between all educative levels and between them and the labour and cohabitation processes; it encourages the building of the autonomous learning, orients the training and the strengthening of the ethical life project; it looks for the entrepreneur spirit development as the base of personal growth and socioeconomic development, and it settles on the curricular organization with base in projects and problems, transcending hence the curriculum based on compartmentalized subjects.*<sup>8</sup>

This kind of training insists on a different teacher's role from the traditional one, because now the teacher is not the epicentre of the process, but the student—the teacher has as a role of coordinator, companion, guide, advisory and guiding, being the student the true protagonist. In that sense, according to [16], “to promote entrepreneurial awareness and mind-set, we need to move away from entrepreneurship education as being teacher-led to being more student-centred and focused on lifelong learning practices”. This brings a radical change in the teacher's pedagogical task, in the dominant mentality, in the evaluation system, etc. The reason is that, in order to get this kind of training, the teacher should generate places in his or her classes which contribute to reflection, critique, teamwork and self-training, leaving apart the master class as an only tool—an important tool, anyway.

Thus, a good strategy to support and make easier the student's self-training would be the delimitation and definition of the autonomous work in the diverse curricular design using ECTS credits.

- Therefore, we have to guide the student's work encouraging the competences training in this way:
- Focusing the learning on the students and not on the teaching or the teacher.
- Setting up the pedagogical strategies with the own students' participation.
- Guiding the student in the achievement of sources to the execution of activities suggested by the teacher.
- Orienting the students so that they can build the strategies of each competence's knowledge.
- Agreeing with the students what competences they are going to develop, considering the expectations and the social-environmental and labour requirements.

## 2. Objectives

If, as we have made clear, we depart from an idea in which the student is now the centre of the educational process, moving from being a passive subject in the lecture room to a much more committed student in the learning process, we can also affirm that the student is the

<sup>8</sup>Translated from the original text in Spanish: “La formación basada en competencias constituye una propuesta que parte del aprendizaje significativo y se orienta a la formación humana integral como condición esencial de todo proyecto pedagógico; integra la teoría con la práctica en las diversas actividades; promueve la continuidad entre todos los niveles educativos y entre estos y los procesos laborales y de convivencia; fomenta la construcción del aprendizaje autónomo, orienta la formación y el afianzamiento del proyecto ético de vida; busca el desarrollo del espíritu emprendedor como base del crecimiento personal y del desarrollo socioeconómico y fundamenta la organización curricular con base en proyectos y problemas, trascendiendo de esta manera el currículo basado en asignaturas compartimentadas.”

responsible one of his or her own help relationships with the teacher and the outdoor world, even more when the student is approaching to the latest years of the University.

Our aim with this implementation of the learning based on entrepreneurship projects pursues several purposes:

- The creation of a possible profitable business idea, so, at the same time, we pursue others objectives:
  - Bringing the business reality closer to the student.
  - Searching for creativity.
  - Encouraging teamwork.
  - Making the student emphatic with the environment.
  - Working for the ability of adaptation.
- Introducing the student to the participation in public and private tenders.
- Identifying the contributions that the “Learning based on Projects” introduces in the graduate’s training.
- Identifying the specific strategies that could get the teaching-learning process better and assigning them to the ECTS credits concept.
- Instilling in the students the responsibility and cooperation sense in a real-case scenario.
- The self-employment search.
- The improvement of the students’ personal CV in those students who are about to become graduates.
- The orientation of the students in their solvency at the time to face the job search problem.

With this method, we find a different option from the current docent assignment models. Moreover, this option is gaining popularity, circumscribed to the economic and social situation in which we are.

Reference [18] affirms that “nothing is educative per se and, at the same time; all in life is liable of promoting an educative situation”. Besides, [19] claims:

*The education is not a neutral action. Ethical values are in the reason and in the objective of the educative action. Learning is, above all, educating, training the own human being. And this is a process that is developed in a permanent way during all our lives.<sup>9</sup>*

For these reasons, from the conception of this research, we are going to study the education in a different way, applying the entrepreneurship principles to the degree in Advertising and Public Relation and to the degree in Audiovisual Communication.

<sup>9</sup>Translated from the original text in Spanish: “La educación no es una acción neutra. Los valores éticos se encuentran en la razón y el objetivo de la acción educativa. Aprender es ante todo educarse, formar el propio ser. Y este es un proceso que se desarrolla de forma permanente a lo largo de nuestras vidas.”

### 3. Method

Through an empirical work, we try to delimit the most relevant factors from the standpoint of the several groups that define the university context. Hence, this analysis has been carried out from a double perspective—on the one hand, from the demand perspective, that is, people who show interest in entrepreneurship; and, on the other hand, from the offer perspective, taking into account the available information and existing sources for the business creation, besides the from the Spanish translation of Research Results Transference Office (OTRI's) and the business tenders initiatives.

Therefore, we can point out two main phases in this study. First, there is a phase related to the data collection, in which in-depth interviews with students, university entrepreneurs and university teachers were conducted.

The students sample is composed by students from the Cartuja Campus in the University of Seville, and from the Jerez de la Frontera Campus in the University of Cadiz. At the same time, these samples were subdivided in encouraged students—that means: students with some previous thoughts about becoming an entrepreneur, and non-encouraged students, being interviewed 26 students in total—13 encouraged and 13 non-encouraged.

In relation to the entrepreneurs, they were graduates in Advertising and Public Relations and graduates in Audiovisual Communication from one of the two Universities that we had chosen. Besides, we interviewed several university teachers who had, as a feature, some kind of link with the business or entrepreneurship world, being interviewed six teachers in total.

Once interviews were conducted, recorded and transcribed, we systematically proceeded to collect the information of the main institutions—in Seville and Cadiz—that have programmes to encourage and promote the entrepreneurs or that give students information and personalised advice. The collection of this information was selected according to the university students' interest.

In order to analyse the collected information, and due to the use of the in-depth interview as a qualitative technique, the content analysis was used. In that way, transcribed interviews were analysed and classified according to information groups, in which answers were organised following interviewees' comments. These comments defined the final model that we propose in Section 6.

Hence, the interviewee's own verbalisations were used as qualitative data to support the idea emphasised in results.

### 4. Results

Obtained results were analysed taking into account three wide thematic groups that were defined according to the several themes that appear in the interviews:

- Factors that can motivate or obstruct the own business creation.

- Factors that define entrepreneur and non-entrepreneur subjects.
- The university role in the learning process for entrepreneurs.

The main obtained results were the following.

#### 4.1. University students' interviews

We depart from the huge difference between students in relation to the information about entrepreneurship, grants or tenders that they have. And we also depart from the fact that students, on their own, have low entrepreneurship attitude—besides, this is increased in humanistic degrees.

##### 4.1.1. *Factors that help become an entrepreneur*

In that sense, which are the factors that stimulate the fact of becoming an entrepreneur? Many factors can favour the student's intention of creating his or her own business.

Between psychological factors, we can underline the following:

- Having the “entrepreneur's spirit”: Students who see themselves as entrepreneurs comment that this is something that it is written on their daily task, on the way of organising and focusing everything that surrounded them. In the same way, non-entrepreneurs seem that they attribute this spirit to a character or a certain personality.
- Self-fulfilment desire: Students consider that subjects who actually have a project and who link themselves to it as a personal development project are the subjects that will find the motivation to become entrepreneurs.
- Possible appearance of an idea.
- Independence and being their own bosses sensation.

Between the sociocultural factors, we can point:

- Job searching.
- Familiar tradition.

##### 4.1.2. *Factors that complicate becoming an entrepreneur*

Like the last case, factors that prevent students from becoming entrepreneurs are several kinds of factors.

Psychological:

- A fear of taking risks—economic, personal, or social risks-.
- A self-perception of immaturity and lack of qualification and experience.

Sociocultural and institutional:

- Economic problems and the inability of getting the necessary initial funding.
- Excessive bureaucracy.



#### *4.1.3. The entrepreneur's and non-entrepreneur's profile*

The psychological aspects of the personal profile of both, the entrepreneur and non-entrepreneur, have been emphasised. On the one hand, the creative and independent personality, besides the individuals' business spirit, strengthens that entrepreneur's profile. From a social point of view, three relevant elements are perceived regarding the role that the entrepreneur executes in the current society:

- Social sacrifice.
- Generation of wealth.
- Social advance.

In addition, from a general perspective, an allusion to the entrepreneur's training or experience is made. As an entrepreneur's feature, it is appreciated his or her ability to face unstructured situations and, even, it is appreciated a preference for the dynamism and changes for getting away from the monotony. This tendency is observed in motivated students, and its cultivation during their stay in the university will make easier their future entrepreneur task.

However, on the other hand, we also analyse and observe the non-entrepreneur's profile. That is because the students pointed out, basically, psychological factors inside of another kind of factors. In that way, students, basing on the lack of creativity between other features, noted that the non-entrepreneur is associated to certain personality characteristics or to innate, static, and passive elements.

#### *4.1.4. The university's role in the training of entrepreneurs*

We also collected students' opinions about the business projects proposed by teachers in several subjects related to entrepreneurship and business creation. In that sense, we need to highlight that encouraged students clearly show a bigger knowledge than non-encouraged students.

In a psychological level, the only factor that we have found is the university's role as a motivation source when there are classes or informative talks, or when business projects are suggested as an evaluation method.

In a sociocultural level, we can emphasise the lack of coherent, responsible, and ethical models to follow. Students bring up the necessity of sessions that are more informative and, above all, specific training about the creation of a business as a real project. The opening of a student attention service also was suggested by the students; that is, a place where entrepreneur initiatives demanded by university students can be strengthened.

### **4.2. Entrepreneur's interviews**

#### *4.2.1. Factors that help the entrepreneurship*

The entrepreneurs interviewed stressed the business idea as the basic motor. From a psychological point of view, entrepreneurs who were consulted commented as the main element the

knowledge and work experience before the creation and launch of a business. Nevertheless, it is interesting that a certain number of entrepreneurs who did not have any work experience considered the possibility of the entrepreneurship due to internal and innate motivations.

From a sociocultural focus, entrepreneurs point out the Spanish current labour situation and the models and familiar values as elements that can favour the appearance of new entrepreneurs. Besides, they emphasise that in the first moments the institutions role is essential.

#### *4.2.2. Factors that complicate the entrepreneurship*

The barriers that prospective entrepreneurs find are, basically, institutional barriers. Entrepreneurs complained about the initial problems that they find when they want to develop their idea, as the lack of funding, the lack of reliable information sources, or the excessive bureaucracy in the moment of the business launch—with the resulting lack of time and efforts.

#### *4.2.3. The entrepreneur's and non-entrepreneur's profile*

When the own entrepreneurs were asked which ones of their main features were more suitable to define them and distinguish them from non-entrepreneurs individual, they suggest psychological features: projects implication, entrepreneurship attitudes, creativity, ambition, labour ability, decision-making attitude, autonomy, etc.

In relation to non-entrepreneurs' features, the most used terms were “stereotypical employee”, “conformity”, “low efficiency”, “passivity”, etc.

#### *4.2.4. The university's role in the training of entrepreneurs*

In a psychological level, some of the more repeated comments were “the university should promote more conferences, activities, or seminars” or even “the student should be guided from the university”.

At an institutional level, the interviewees commented the university's role from a positive point of view, through the diverse foundations that link the university with the business, making easy to get the contact with other institutions. However, they also criticized the university when they were referring to it saying that “sometimes it is excessively theoretical, there is a lack of real world”.

### **4.3. University teachers' interviews**

#### *4.3.1. Factors that help become an entrepreneur*

Between the psychological factors that incite to be an entrepreneur, from the university teachers' perspective, it is highlighted in the interviews the existence of an internal motivation, a personal necessity, an inquisitiveness, or a familiar heritage. Other elements that encourage the entrepreneurship were sociocultural ones, more than other kind of elements:

- Economic-labour necessity.
- Favourable familiar environment.
- Business contacts that encourage the creation of a business idea.

#### *4.3.2. Factors that complicate becoming an entrepreneur*

As barriers or obstacles that complicate the entrepreneurship, the university teachers who were interviewed mentioned:

- Politicization of institutions.
- Non-entrepreneur's passive profile.
- Uncertainty and fear of risk.

#### *4.3.3. The entrepreneur's and non-entrepreneur's profile*

In relation to what aspects distinguish an entrepreneur from a non-entrepreneur individual, the following were pointed out from the psychological point of view:

- Entrepreneur spirit vs. non-entrepreneur spirit.
- Enthusiasm vs. passivity.
- Excitement vs. pusillanimity.
- Observation ability vs. observation inability.

#### *4.3.4. The university's role in the training of entrepreneurs*

In general, these university teachers noticed a lack of information about entrepreneurship in their universities. They were convinced that the student would consider being an entrepreneur as a real option if he or she received more motivation for that from the class. In this line, they subsequently talked about an ideal education model in which the entrepreneurship is taken into account as a job opportunity, encouraging student's entrepreneurship abilities.

Nevertheless, the university teachers also valued and were aware of the emerging tasks related to entrepreneurship that are carrying out several Spanish universities.

## **5. Discussion and conclusion**

This research helped us to define the scarcity and the improvements in relation with entrepreneurship in both campuses of these Spanish universities. With in-depth interviews we could be aware of the importance of the university's role in providing entrepreneurial education to the students; not only to those who already have the "entrepreneur's spirit", but also to those who do not know yet what to do after finishing their university studies. Therefore, entrepreneurship is a job alternative that needs to be encouraged at the University.

From a general perspective, the most relevant and repeated factors that can motivate the own business creation were the internal motivation of the subject, a favourable familiar environment and the Spanish current economic situation. On the other hand, the most powerful factors that obstruct becoming an entrepreneur were the fear of taking risks and, above all, the initial barriers—economic and bureaucratic—that the entrepreneur can face when dealing

with institutions. The university can intercede in these circumstances, in the first place, by encouraging the “entrepreneur’s spirit” of students through an educational model centred on the students, and, in the second place, by providing them support so that they can easily face the bureaucratic obstacles.

Besides, results also show that the entrepreneur is a well-considered person in the society, always related to creativity and ambition, just the opposite of the non-entrepreneur person, who is seen as a passive and conformist individual. In that sense, the university has to take advantage of that thinking adapting the commented entrepreneur’s characteristics to the objectives to reach in subjects. In that way, even if students do not consider themselves to carry the “entrepreneur’s spirit”, at least they see themselves with the ability of searching new solutions to same problems.

Finally, in relation to the university’s role in the training of entrepreneurs, it is clear that all groups that were interviewed agreed with the need of more activities focused on the entrepreneurship, as informative talks or projects about creating your own business. At this point, the pressing needs of carrying out entrepreneurship projects in the bosom of the university are confirmed, introducing new focus on the subjects, new ways of teaching, and new places where the student can be informed and oriented.

In general, the growing consciousness about entrepreneurship can be highlighted from this study. People are looking at the option of becoming an entrepreneur as a real job opportunity. Besides, it can be appreciated that this fact is mostly encouraged by the current Spanish economic context, in which graduates are having their expectations of working in something related to their field frustrated. Thus, the university’s role is essential. The university needs to set methods of teaching focused on students, trying to make them discover the potential of their entrepreneur’s abilities. Moreover, there are certain competences that students normally relate to the entrepreneur—as it has been observed in the study—and these competences can be learned and developed at the university, as a useful tool in their daily life.

As a result of this study, fruit of the *II Plan Propio de Docencia de la Universidad de Sevilla*<sup>10</sup> and done in collaboration with a call of *Proyectos de Innovación Docente de la Universidad de Cádiz*,<sup>11</sup> we find ourselves deep into the creation of an office of entrepreneur’s attention. It is being established in the Campus Cartuja of the University of Seville and in the Campus Jerez of the University of Cadiz. This project, which is currently in the height of its development, has had a specific funding in order to support the entrepreneur through:

- Organisation of conferences and seminars.
- Creation of a prize to the best business idea.
- Tutorship of a business project.
- Bureaucracy information for the business launch.

<sup>10</sup>II Own Plan of University Teaching of the University of Seville.

<sup>11</sup>Projects of University Teaching Innovation of the University of Cadiz.

Because supporting the entrepreneur implies wealth generation in both an economic and social sense, and, in a labour environment of uncertainty as the one in which we are currently involved, the researchers of this project firmly believe in the power of business creation as both: personal self-fulfilment and job generation and social and community welfare.

## Author details

Gloria Jiménez-Marín<sup>1\*</sup>, Rodrigo Elías Zambrano<sup>2</sup> and Elena Bellido-Pérez<sup>1</sup>

\*Address all correspondence to: [gloria\\_jimenez@us.es](mailto:gloria_jimenez@us.es)

1 University of Seville, Seville, Spain

2 University of Cadiz, Cádiz, Spain

## References

- [1] Beyhan B, Findik D. Student and graduate entrepreneurship: Ambidextrous universities create more nascent entrepreneurs. *Journal of Technology Transfer*. 2017;[**Online First**]:1-29. DOI: 10.1007/s10961-017-9590-z
- [2] Castro OAP, Arias CLR, Ibáñez JEJ, Bulla FJM. Universities fostering business development: The role of education in entrepreneurship. In: *Information Resources Management Association, editor. Entrepreneurship: Concepts, Methodologies, Tools, and Applications*. Hershey: IGI Global; 2017. p. 466-496. DOI: 10.4018/978-1-5225-1923-2
- [3] Gallardo-Vázquez D, Pajuelo-Moreno ML. How Spanish universities are promoting entrepreneurship through your own lines of teaching and research. In: *Information Resources Management Association, editor. Entrepreneurship: Concepts, Methodologies, Tools, and Applications*. Hershey: IGI Global; 2017. p. 1344-1368. DOI: 10.4018/978-1-5225-1923-2
- [4] Miranda FJ, Chamorro-Mera A, Rubio S. Academic entrepreneurship in Spanish universities: An analysis of the determinants of entrepreneurial intention. *European Research on Management and Business Economics*. 2017;**23**(3):113-122. DOI: 10.1016/j.iedeen.2017.01.001
- [5] Roach M. Encouraging entrepreneurship in university labs: Research activities, research outputs, and early doctorate careers. *PLoS One*. 2017;**12**(2):e0170444. DOI: 10.1371/journal.pone.0170444
- [6] Eurobarometer. Entrepreneurship in the EU and Beyond. Analytical Report [Internet]. 2009. Available from: [http://www.data.europa.eu/euodp/data/dataset/S765\\_283](http://www.data.europa.eu/euodp/data/dataset/S765_283) [Accessed: 2017-07-06]
- [7] Roman T, Maxim A. National culture and higher education as pre-determining factors of student entrepreneurship. *Studies in Higher Education*. 2017;**42**(6):993-1014. DOI: 10.1080/03075079.2015.1074671

- [8] Pleitner HJ. Entrepreneurship- fashion or driving force? In: Genescá E, Urbano D, Cabelleras JL, Guallarte C, Vergés J, editors. Creación de Empresas. Entrepreneurship. Homenaje al Profesor José María Veciana Vergés. Bellaterra: Universitat Autònoma de Barcelona; 2003. p. 33-47
- [9] Cuervo A. La creación empresarial. De empresarios a directivos. In: Genescá E, Urbano D, Cabelleras JL, Guallarte C, Vergés J, editors. Creación de Empresas. Entrepreneurship. Homenaje al Profesor Jose María Veciana Vergés. Bellaterra: Universitat Autònoma de Barcelona; 2003. p. 49-73
- [10] Jiménez-Marín G, Silva Robles C, Elías Zambrano R. Docencia universitaria y proyectos de evaluación aplicados. El emprendimiento como modelo de evaluación y aprendizaje. In: Rodríguez Terceño J, editor. Nuevas Perspectivas Modales Para la Enseñanza Superior. Visión Libros: Madrid; 2014. p. 77-94
- [11] Dalmau JI, Alonso JL, Colomer J. Programa IDEAS. In: Un Modelo de Éxito Para Fomentar la Creación de Empresas Desde las Universidades. Valencia: Universidad Politécnica de Valencia; 2003
- [12] Gerver R. Creando hoy las Escuelas del Mañana: La Educación y el Futuro de Nuestros Hijos. Madrid: SM; 2010. p. 176
- [13] Robinson KR. El blog de Eduard Punset [Internet]. 2011. Available from: <http://www.redesparalaciencia.com/wp-content/uploads/2011/03/entrev87.pdf> [Accessed: Jul 6, 2017]
- [14] Robinson K. The Element: How Finding Your Passion Changes Everything. Grijalbo: Barcelona; 2009. p. 288
- [15] Viinikainen J, Heineck G, Böckerman P, Hintsanen M, Raitakari O, Pehkonen J. Born entrepreneurs? Adolescents' personality characteristics and entrepreneurship in adulthood. *Journal of Business Venturing Insights*. 2017;8:9-12. DOI: 10.1016/J.JBVI.2017.05.001
- [16] Robinson S, Neergaard H, Tanggaard L, Krueger N. New horizons in entrepreneurship: From teacher-led to student-centered learning. *Education and Training*. 2016;58(7-8): 661-683. DOI: 10.108/ET-03-2016-0048
- [17] Sáenz Garza M, Zambrano Chávez N, Torres Muñoz O, Pereyra Luna M, Hernández Contreras E. Sistematización de la enseñanza: formación basada en competencias [Internet]. 2008. Available from: <http://www.slideshare.net/guest7be72d/formacin-basada-en-competencias-447490> [Accessed: Jul 6, 2017]
- [18] Lagardera F. Sobre aquello que puede educar la Educación Física. *Revista Interuniversitaria de Formación del Profesorado*. 1992;15:55-72
- [19] Duarte JM. Aprender en la Virtualidad. Gedisa: Barcelona; 2000

---

# Business Plan: In or Out? A Holistic View of the Combination of Planning and Learning Processes when Evaluating Business Opportunities

---

Sandra Filipa Moreira Fernandes,  
Amélia Maria Pinto da Cunha Brandão and  
Carlos Henrique Figueiredo e Melo de Brito

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.71844>

---

## Abstract

Entrepreneurship is an important driver of innovation that is a critical factor to boost the competitiveness of modern economies. However, the rate of failure of start-ups tends to be quite significant. This chapter offers a new understanding of entrepreneurship inasmuch as a particular attention is given to different insights on the business plan in the creation of start-ups. In this context, we propose a broader understanding of the business plan integrating it in a holistic understanding of the business planning process. This investigation project results from the merits associated with the concomitant approach that combines planning and learning when creating new businesses. We support the adoption of this approach by developing a scheme that combines two processes that seem to be opposite. One focuses on the business planning and the other on the information collected from customers and other stakeholders. This scheme is likely to guide entrepreneurs and managers when they choose the concomitant approach that combines planning and learning over the other approaches previously studied. Furthermore, we also establish the foundation for future scientific research to develop a framework that can be used to help decrease the number of new businesses that do not survive in the market.

**Keywords:** nascent entrepreneurship, business opportunity, business plan, business planning, lean start-up, new ventures

---



## 1. Introduction

With the economic and financial recession in Europe, entrepreneurship has gained greater importance as a driver of innovation and competitiveness, both critical to boosting the economy in a global world [1]. The growing importance of entrepreneurship raises two critical questions:

- Which initiatives are entrepreneurial in nature?
- Who is an entrepreneur?

We agree that the high number of new businesses that do not survive is a concern [2]. One of the reasons seems to be the process that is traditionally adopted by individuals to transform an idea into a business [2, 3], and the writing of business plans seems to be the main source of controversy [4]. Some authors contend this practice [5, 6], emphasizing its advantages; others present some arguments against it [7, 8], while, in some cases, alternatives are presented [2].

This chapter addresses nascent entrepreneurship and the approach to creating new businesses. We specifically analyze the importance of the business plan and the business planning process itself to entrepreneurs by researching and going through several interpretations of those concepts. As concluded during our previous research work, the existing literature is missing a broader understanding of the business plan concept and its objectives and effects [5].

The structure of this chapter is as follows. After this introductory section, we put in evidence the main goal of the chapter as well as the methodological approach adopted in our research. Then, we share the ideas that resulted from our review of the existing literature as far as approaches to creating new businesses are concerned and the importance of the business plan nowadays. The chapter finishes with a section dedicated to the conclusions that summarizes the main contributions and suggests lines for further research.

## 2. Aims and methodology

To answer the questions raised in the beginning of the introductory section, the chapter conducts an in-depth literature review. This begins with a comprehensive view of the different concepts of entrepreneurship, followed by an analysis of the approaches to creating new businesses. Then, we elaborate on the more holistic perspectives of the business plan and the correlation between business plan and business planning as a process. Based on the strengths and weaknesses of these two practices, we put in evidence the advantages of adopting an approach that combines planning and learning principles.

The research aims at understanding the several approaches to creating new businesses in the existing literature—which differ mainly as far as the business plan and the business planning process are concerned—and how these affect the success of business initiatives [9]. Another objective is to establish the foundation for future scientific research to develop a framework that can combine the planning and learning processes when evaluating business opportunities—together with public organizations—to reduce the number of start-ups that do not survive.

From a methodological point of view, we explore the pluses of two approaches perceived as opposing, combining the stages of a process that is concentrated in business planning and the stages of a process that involves collecting information from potential clients and other business partners. This results in the creation of a scheme that, taking into account the merits associated with the adoption of the concomitant approach that combines planning and learning—studying the various business constraints—helps us understand the path that entrepreneurs take with the objective of developing business ideas and assessing their viability.

### 3. Literature review

#### 3.1. Concepts of entrepreneurship

Quite distinctive actors have used the term entrepreneurship in different contexts. This contrasts with the attempts to define it made by researchers in the field of management.

While reviewing the existing literature, we observed the coexistence of different definitions for this concept. Some authors [1, 10] suggest that we should group definitions based on the actions we perceive as entrepreneurial or based on the individual who performs them—the entrepreneur.

Following our analysis of the definitions of entrepreneurship based on entrepreneurial actions, we propose subdividing those definitions depending on the extent of initiatives included. Narrowly speaking, entrepreneurship relates to the creation of new businesses [11] with the goal of benefiting from a business opportunity or as an answer to an unemployment situation [12, 13]. From a broader perspective, entrepreneurship is associated with the exploitation of opportunities, namely, business opportunities [10]. In the case of new or existing businesses—implementing diversification strategies—they aim to obtain profit. On the other hand, entrepreneurs, in general, can explore opportunities only with the social well-being in mind [10].

The definitions on entrepreneurship based on the entrepreneur itself are related mainly to the entrepreneur's characteristics. For example, entrepreneurship can be perceived as a predisposition to innovate [14] or to pursuit profit or a social change [10].

So far, definitions of entrepreneurship present the entrepreneur as an individual, a company, or a nonprofit organization—this gives sense to the expression “entrepreneurial thinking” used by some authors [1, 11] and to the definition of entrepreneurship as a lifestyle [15]. However, none of the previously presented categories or definitions reflect this view on entrepreneurship. Thus, we suggest the addition of a new definition group that perceives entrepreneurship as a social denominator from a societal perspective.

**Table 1** summarizes the specific aspects of the several mentioned definitions of entrepreneurship based on the categories and subcategories created.

In our study, we use the term entrepreneurship to designate the exploitation of opportunities—not necessarily business opportunities—by some individuals that act alone or as formal or informal working groups. This is a holistic understanding of the concept that has its origin in the specific aspects of the definitions of entrepreneurship summarized in **Table 1**.

From the actions' point of view

	Year	Author(s)	Definition
Extent + - +	2015	Czaplewki <i>et al.</i>	New businesses creation
	2015	Quatraro and Vivarelli	
	2015	Osiri <i>et al.</i>	Exploring a new opportunity, namely a business opportunity

From the entrepreneur's point of view

Characteristics	2010	Srivastava and Agrawal	Capacity to innovate
	2015	Osiri <i>et al.</i>	Intrinsic motivation - economic or social

From the society's point of view

2013	Llopis	Lifestyle (social denominator)
------	--------	--------------------------------

Source: Own elaboration based on Almeida and Chaves (2015) and Osiri *et al.* (2015)

Table 1. Interpretive summary of the various definitions of entrepreneurship.

Nonetheless, we agree to the use of the term entrepreneurship in a context of one or more expressions to refer to specific situations. This relates to the affirmation of entrepreneurship as an independent field of study [16], in which the rising of subareas of study in both the literature and the syllabuses defines the nuances between the several definitions of entrepreneurship [10].

According to some researchers [10], to establish a new subfield, it is necessary to point out in which dimension this subfield differentiates itself from the existing ones within entrepreneurial studies. **Table 2** encompasses the dimensions and criteria used to define the subfields within entrepreneurial studies, as well as a summary of the current subfields and the unique characteristics of each one of them.

We also propose the addition of a subfield named “nascent entrepreneurship” to the preexisting subfields within entrepreneurial studies. This expression is used to name the process of creating new businesses [17].

In the previous group, the new businesses were part of a subfield named “small business entrepreneurship” [10], probably since usually new businesses are small at the time they enter the market and face the same pros and cons that small businesses do. However, they face their unique challenges in the life cycle stage they are in [18]—and their small dimension may be just one of the challenges and not one of the most important ones.

<b>Dimensions (and criteria)</b>  <b>Sub-fields</b>	<b>Who?</b>  (Environ of the Entrepreneur)	<b>Why?</b>  (Motivation of the Entrepreneur)	<b>What?</b>  (Nature of the Opportunity)	<b>Where?</b>  (Location of Opportunity or the Entrepreneurial Process)
1. Academic Entrepreneurship	University, Education of Higher Learning	Not unique	Intellectual property (IP)	Not unique
2. Corporate Entrepreneurship	Firms or any for profit organization	Not unique	Not unique	Not unique
3. Family Entrepreneurship	Family members	Not unique	Not unique	Not unique
4. International Entrepreneurship	Not unique	Not unique	Not unique	Across national borders
5. Small Business Entrepreneurship	Acting alone or within a small group	Not unique	Not unique	Not unique
6. Social Entrepreneurship	Not unique	Social change	Not unique	Not unique
7. Technology Entrepreneurship	Not unique	Not unique	Technology-based offerings	Not unique
8. Nascent entrepreneurship	New business	Not unique	Not unique	Not unique

Source: Adapted from Osiri *et al.* (2015, p.9)

**Table 2.** Categorization of subfields within entrepreneurial studies.

One of the challenges that entrepreneurs face is deciding on the right approach to transform an idea into a business, as there is not a consensus regarding that matter in the existing literature [9, 18].

### 3.2. Approaches to creating new businesses

Entrepreneurs have been using two different approaches when transforming an idea into a business—a traditional approach and a lean start-up approach. The traditional approach lies on entrepreneurs following a sequence of stages [2]. There are five stages: writing a business plan, pitching to potential investors, creating the working team, make the new product/service available in the market, and an aggressive sales force strategy to sell to the target clients [2].

This approach is not widely accepted. Some authors [2, 3] find this approach to be responsible for the significant rate of new businesses that do not succeed.

The most frequent criticism lies on the disengagement with potential clients throughout most of the process [2, 19]. Sure enough, these are only engaged during the selling attempt actions [2, 19]. This leads to a second criticism related to wasting resources on the development of a product/service that customers do not wish or whose features are not valued by them [2, 3, 20].

Additionally, the use of the business plan as a tool of self-management for existing businesses is questioned [2], since these companies are the only ones with the necessary precise and broad information to create certain assumptions [9, 18].

The lean start-up approach is an alternative to the traditional methods which enables to mitigate failure episodes when entrepreneurs follow this approach [2]. This approach involves three stages or techniques—the last two are simultaneous: sketch out hypotheses regarding the business model, customer development, and agile product development [2].

The main difference regarding the traditional approach lies in the importance given to the business model. According to the lean start-up approach, a new company should start by searching for a business model and validate it together with potential clients, instead of creating a business plan presuming its execution [2].

**Table 3** shows this and other points of conflict between the traditional and lean start-up approaches when creating new businesses.

There is also a third approach—opposite to the lean start-up approach—the concomitant approach that combines planning and learning. Instead of abandoning the planning activity, this approach combines it with another practice that targets a trial-and-error learning process.

In the context of the concomitant approach, the sequence of planning-executing—associated with the traditional approach—is replaced by the trilogy planning-learning-doing [18]. This overcomes the weaknesses related to the business planning process, the specific context in which new businesses operate, and the existing assumptions regarding the business model that needs testing [18].

We also recognize the merits of combining more than one approach or process when considering the business plan, which some researchers advocate to be an advantage to entrepreneurs [5, 6] when evaluating business opportunities with the goal of creating new ventures.

The next section addresses the various interpretations of the business plan concept through a holistic understanding that is integrated with the business planning process.

### 3.3. Holistic understanding of the business plan

As far as the traditional approach is concerned, the business plan has been the subject of increased scrutiny [4]. There are published papers entirely dedicated to the discussion of the business plan, whether analyzing the best practices for writing a business plan [4, 21] or its importance in the creation of new businesses [5, 8, 22].

As far as the last is concerned, some researchers defend that entrepreneurs should write a business plan [5, 6] as a complement to other managerial tools [18, 22]; other researchers argument against writing a business plan [7, 8], and others suggest alternatives [2].

With this study, we realize that the previously observed rising interest of researchers on the business planning process and not on the business plan [23] can turn this discussion into a more complex one and one that revolves around the importance of the business plan, since it creates a different interpretation and gives it a relative importance.

The existence of different opinions regarding the importance of the business plan when creating new businesses seems to be justified by the lack of a wider understanding of this concept and its objectives and effects [5].

Traditional	Lean start-up
<b>Principles</b>	
<ul style="list-style-type: none"> <li>- Planning;</li> <li>- Intuition;</li> <li>- Secrecy;</li> </ul>	<ul style="list-style-type: none"> <li>- Experimentation;</li> <li>- Customer feedback;</li> <li>- Iterative design;</li> </ul>
<b>Strategy</b>	
<ul style="list-style-type: none"> <li>- Business plan;</li> <li>- Implementation-driven;</li> </ul>	<ul style="list-style-type: none"> <li>- Business model;</li> <li>- Hypothesis-driven;</li> </ul>
<b>New-Product Process</b>	
<ul style="list-style-type: none"> <li>- Product management;</li> <li>- Prepare offering for market following a linear, step-by-step plan;</li> </ul>	<ul style="list-style-type: none"> <li>- Customer development;</li> <li>- Get out of the office and test hypotheses;</li> </ul>
<b>Engineering</b>	
<ul style="list-style-type: none"> <li>- Agile and waterfall development;</li> <li>- Build the product iteratively, or fully specify the product before building it;</li> </ul>	<ul style="list-style-type: none"> <li>- Agile development;</li> <li>- Build the product iteratively and incrementally;</li> </ul>
<b>Organization</b>	
<ul style="list-style-type: none"> <li>- Departments by function;</li> <li>- Hire for experience and ability to execute;</li> </ul>	<ul style="list-style-type: none"> <li>- Customer and agile development teams;</li> <li>- Hire for learning, nimbleness, and speed;</li> </ul>
<b>Financial Reporting</b>	
<ul style="list-style-type: none"> <li>- Accounting;</li> <li>- Income statement, balance sheet, cash flow statement;</li> </ul>	<ul style="list-style-type: none"> <li>- Metrics that matter;</li> <li>- Customer acquisition cost, lifetime customer value, churn, viralness;</li> </ul>
<b>Failure</b>	
<ul style="list-style-type: none"> <li>- Exception;</li> <li>- Fix by firing executives;</li> </ul>	<ul style="list-style-type: none"> <li>- Expected;</li> <li>- Fix by iterating on ideas and pivoting away from ones that don't work;</li> </ul>
<b>Speed</b>	
<ul style="list-style-type: none"> <li>- Measured;</li> <li>- Operates on complete data.</li> </ul>	<ul style="list-style-type: none"> <li>- Rapid;</li> <li>- Operates on good-enough data.</li> </ul>

Source: Adapted from Blank (2013, p.69)

**Table 3.** Differences between approaches when creating new businesses.

Before specifying the merits associated with the business planning activity and business plan that justify the adoption of the concomitant approach, we want to focus our attention on the several definitions of business plan we can find in the existing literature and how these affect the objectives associated with it and its format and content.

One of the definitions refers to the business plan as a managerial tool [7] that allows the assessment of opportunities [5]. For that matter, the business plan assumes two main functions: the distinction between opportunities and ideas and the development of opportunities [5].

The business plan is also perceived as a document that provides information on the choices of the new company regarding the target market, the products/services that will be available in that market, the necessary resources to make the project viable, and the forecasted growth [6] —looking to get funding from potential investors [21]. Given this context, we highlight the following business plan functions: establishing the new business and entrepreneur characteristics and legitimizing the new company [6]. The first one has to do with how the information contained in the business plan can persuade potential investors about the business attractiveness [21] and the entrepreneur's capacity to manage it [20]. The second one is related to the less risky approach of observing a standard practice [8].

Finally, the business plan is described as a result [23] or a component [18] of the business planning process. In consequence, business planning is the process that results in a business plan [18] or that integrates a series of activities with the purpose of writing a business plan [24]. We compare these interpretations of the business planning process, although some authors do not [18], since these express different importance levels as far as the business planning process and the business plan are concerned, and regarding the reasons for the business planning process, "is it worthy on its own or only if it results in a Business Plan?" In the light of the first interpretation, some researchers [23] advocate that a business plan may not be written, namely, if entrepreneurs decide not to move forward with the creation of a new company at the end of the business planning process.

As a result of the business planning process, the business plan acts as a tool for internal coordination and control [8], and we believe that its main objective is to support the entrance in the market.

Based on the analysis of the several interpretations, we conclude that the business plan is both a managerial tool and a supporting document and it results from a process that substantiates it. Its assumption as a managerial tool or supporting document depends on the adopted perspective: internal or external to the businesses.

### **3.4. Correlation between business plan and business planning process**

The last definition of business plan refers to the necessity of understanding the business planning process independently, as well as its advantages when creating new businesses. In fact, business planning as a process that results in writing a business plan has been discussed over the last years [6, 23]. Some researchers validate this practice through empirical studies [6, 9, 25, 26] and theoretical frameworks [23], while others question it [8, 27] based on the particular aspects of new business creation [18].

We will start by presenting the arguments in favor of the business planning process, which can be grouped according to the *ex ante* or *ex post* perspectives on business planning [18, 23]. The first perspective advocates that its effects are visible before a new business enters the market [23]; the second one claims that those effects are noticeable after a new business enters the market.



The authors that adopted the *ex ante* perspective believe that the main goal of the business planning process is to avoid flops, i.e., the transposition of bad business ideas to the market [23]. In consequence, both the importance and the effectiveness of the business planning process should be evaluated not only based on successful projects but also mainly based on the reduction of unsuccessful cases [23].

Having the goal mentioned above in mind, we suggest adding two functions to the business planning process considering this *ex ante* perspective: the evaluation of the business components and the support in the entrepreneur's decision-making process. Both functions are underpinned by the learning and information values associated with the business planning process in the literature related to the creation of new businesses [18, 23]. The first value refers to how the things entrepreneurs take into account when making subsequent decisions influence the process [23]; the second value is related to the received inputs that encourage or discourage the will to create a new business and launch a new product/service in the market [23].

The *ex post* perspective of business planning considers the performance of new businesses to be the main goal of the business planning process [23]. It can be measured after a new business enters the market through the analysis of the positive effects the business planning process has in its development [9, 25, 26, 28] and financial performance [27].

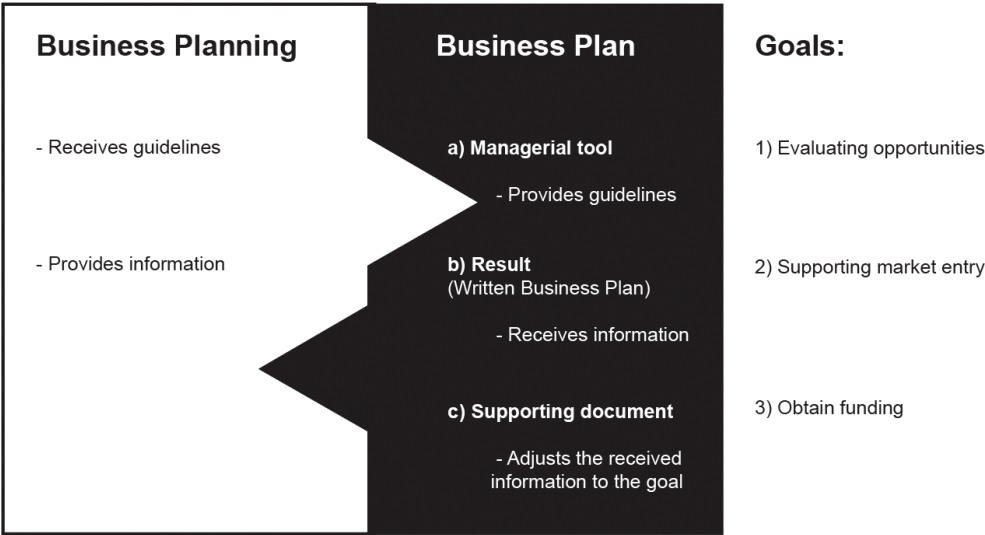
We would like to point out the following positive effects of business planning process in business development as the most significant one: reduction of the risk to stop the project and simplification of product/service development activities and structuring activities related to the creation of new businesses [25, 28]. In short, we propose an association of the business planning process with an orientation function to action—in the light of the *ex post* perspective.

Although both perspectives recognize the merits of the business planning process, these seem to be constrained by some factors. The *ex ante* perspective highlights how the practice importance depends on its quality and the cost-benefit ratio [23]. Researchers that advocate the *ex post* perspective, as well as the subsequent implementation of the business plan [25] and the context-related factors [9, 18], also mention the quality factor.

Now that the different definitions of business plan and its connection to the business planning process are clear, we would like to present our own holistic and integrated view of the several concepts. We have mentioned that the business plan was simultaneously a managerial tool or a supporting document and the result of the process on which it was based—the business planning process. As opposed to this last definition, business planning was the process that led to the writing of a business plan.

Following this view, we propose a connection and correlation between the various definitions of business plan and business planning process, as stated in **Figure 1**. We suggest that the business planning process provides the necessary information for business plan writing and the business plan guides the research conducted during the business planning process by indicating its core goal.

Considering only the interest in the business planning process because of its advantages before a new business enters the market—which is justified by the *ex ante* perspective on business



Source: Own elaboration

Figure 1. Correlation between business planning process and business plan.

planning—the business plan as a managerial tool would guide the information search in the business planning process, making it easy to distinguish between ideas and business opportunities. On the other hand, the business planning process would make it easy to understand the nature of the opportunity and obtain the necessary data to write the business plan. Writing a business plan would be the result of the business planning process—taking place only in cases in which a business opportunity was worth exploiting. The business plan would be written as a supporting document in cases in which the entrepreneur needed funding.

Considering the ex post perspective, we also suggest linking the concepts of business planning process and business plan—this last one is intended as a managerial tool and a result. Thus, the business plan would guide entrepreneurs in search of information during the business planning process. The business planning process would allow the entrepreneurs to make improvements to the initial business idea and in the business operationalization, providing the necessary information for writing a business plan. Writing a business plan would be the result of the business planning process, guiding the team in the several tasks to be made and alerting to possible deviations.

Concludingly, we recognize the existence of several interpretations in the existing business plan literature. They all have an influence on the objectives associated with the business plan and, coherently, in its format and content. We perceive the business planning process in the same way. However, we assume that these definitions are not mutually exclusive, and the lack of a broader understanding regarding the business plan concept does not justify its exclusion by entrepreneurs, when these are creating new businesses. On the contrary, we find that we should use the terms business plan and business planning process accurately

and support the extensive development of this theme that results mainly from such a keen interest from researchers.

### 3.5. Advantages of a planning and learning-based process

The previous research shows that there are some weaknesses inherent to the business plan and business planning process. In recent years, researchers have been questioning whether entrepreneurs should write a business plan [2, 7, 8] or follow the business planning process [27] when creating new businesses. There is even some evidence against this practice [25]. Next, we present the criticism related to the business plan and business planning process we found in the existing research, as well as the counterarguments used by the authors in favor of entrepreneurs adopting them.

As far as the business plan is concerned, the areas of criticism have to do with its role as a managerial tool and a supporting document. Some authors advocate that entrepreneurs do not actually implement business plans—these seem to be just a standard practice that is motivated by external pressures, and they lose their importance for external investors [8].

Those who support the practice of writing business plans argue that it assumes an important role when creating new businesses since it is a way of evaluating opportunities [23] valued by entrepreneurs [5]. They also argue that entrepreneurs who write business plans are able to get more financial support than those who do not [6].

There is also some criticism related to the business planning process. *Ex ante* perspective critics are based on the resources that are necessary for this practice [25]. Researchers challenging this point of view argue that the business planning process should be understood as a group of competencies that can be acquired, namely, the competence to analyze business opportunities to avoid flops [23].

The relationship between the business planning process and the performance of new businesses, supported in the *ex post* perspective, is questioned due to the uncertain environment and lack of quantitative and qualitative information available that new businesses face [18]. Some authors even deny it, advocating that the business planning process does not influence the financial performance of businesses [27].

Researchers who defend the *ex post* perspective, on the other hand, present reasons that justify the business planning process importance for new business, such as more accurate assumptions regarding the business through the assessment of the coherence between those assumptions during the business planning process [25]. Additionally, these authors advocate that the goals set for a new business are milestones and not financial goals—entrepreneurs usually do not expect positive cash flows in the first months of activity [25].

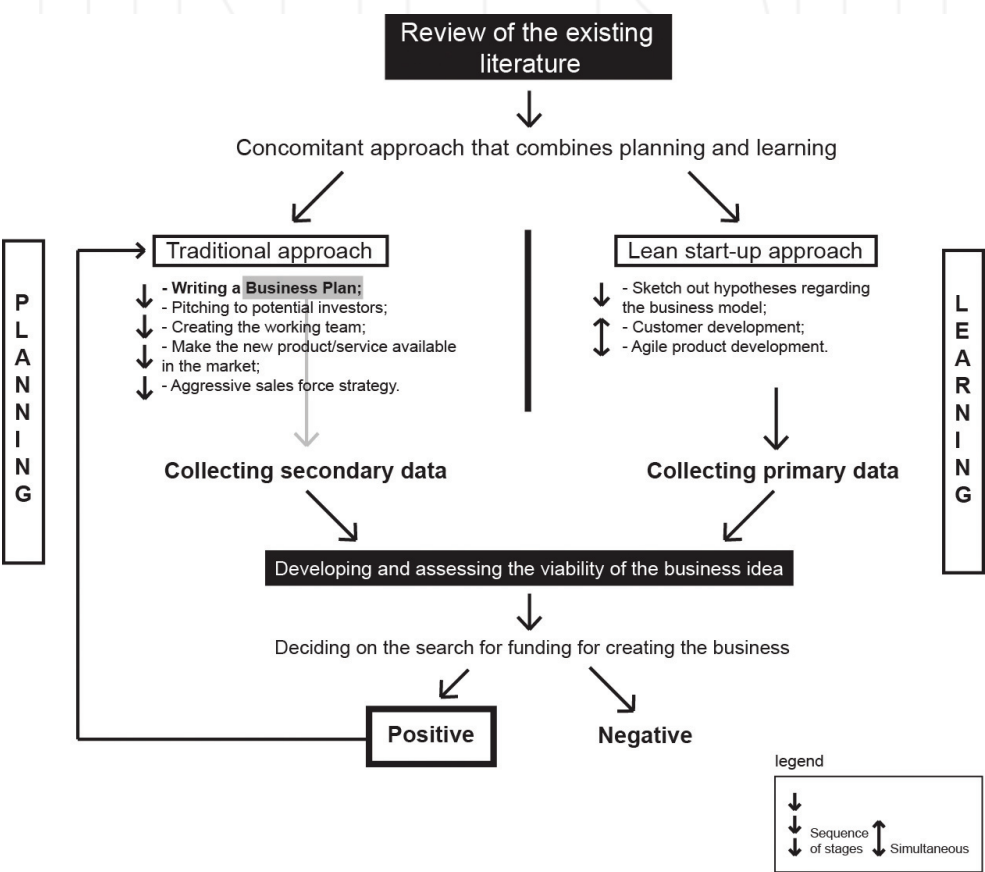
From the analysis of pro and con arguments, it is clear that discussions related to the business plan and business planning process are not conclusive [5, 9, 23]. This supports the choice of a concomitant approach that combines planning and learning resulting from the various existing approaches regarding the creation of new businesses. On the one hand, we cannot ignore the weaknesses identified in the business planning process and business plan that are presented in the

traditional approach, but on the other hand, we have to consider their proven advantages and not just replace them with the learning techniques of trial-and-error, as suggested by the lean start-up approach. Thus, we believe that entrepreneurs should use the concomitant approach that combines planning and learning, benefiting from the advantages identified in each of the processes.

Figure 2 shows that the path entrepreneurs can follow when adopting the concomitant approach that combines planning and learning.

In the starting phase, the business plan acts as a managerial tool that guides the search for the information that will allow entrepreneurs to evaluate a business opportunity during the business planning process, by going through all the steps of the business plan.

The writing of the business plan must be based only on preexisting data. However, it is also important to highlight the use of primary data—collected in the light of the lean start-up



Source: Own elaboration

Figure 2. Layout of the planning and learning processes.

approach, which favors the opinion of potential clients and business partners when making strategic business decisions.

The results of the data analysis, especially as far as the economic and financial viability of the business idea is concerned, will determine the further continuity of the project—with the implementation of the subsequent stages of the traditional approach and the formal creation of a company.

However, the indicated path must be further studied, so a new framework that clearly guides entrepreneurs through the process of applying the concomitant approach that combines planning and learning can be created—promoting the success of business initiatives.

#### 4. Conclusions

As far as entrepreneurship is concerned, there are several initiatives we understand as entrepreneurial, such as the exploitation of business opportunities by new companies [10]. However, these opportunities do not always result in positive outcomes, undermining the contribution of entrepreneurship to the competitiveness of a country.

One of the main reasons pointed out by previous researchers on the high number of new businesses that do not survive is related to the approach traditionally adopted for the activity [2, 3], the business plan being the most popular and widely studied stage [4].

At the same time, some researchers defend this practice based on its advantages before [5] and after creating a new business [6], while other researchers present some arguments against it [7, 8], and in some cases, alternatives are also presented [2]. One of the alternatives presented is replacing the traditional approach and the business plan by the lean start-up approach and its techniques—and replacing the planning principle by the learning principle [2].

This lack of consensus in the previous research is more serious when there is a need to develop and assess the viability of a business idea, but there is little knowledge on how to proceed to boost the chances of success. Additionally, it does not seem wise to abandon a managerial tool that is proven effective. Thus, we present a scheme that crosses both the planning and learning processes when developing and evaluating the viability of business ideas.

This is a result of adopting the concomitant approach that combines planning and learning—an approach that combines both processes when evaluating business opportunities with the goal to create new companies. These processes are advocated separately by different, and sometimes opposite, research approaches—the traditional and the lean start-up approaches.

For that matter, we have explored the various definitions of business plan, showing how they influence the goals associated with the writing of those business plans and, at a later stage, their format and content. We also developed a link between these definitions and the concept of business planning process to contribute to a holistic understanding of the business plan and an integrated understanding of the directly associated business planning process. We gave

meaning to a body of knowledge that does not present reasons to abandon these practices. On the contrary, it reinforces the richness of the previous research on this subject.

We highlight that the merits associated with the developed scheme to combine the planning and learning processes are independent of the results. In cases in which the application of the concomitant approach that combines planning and learning results in the decision of abandoning the business idea, entrepreneurs should consider the resources saved and how these can be applied to other projects that present greater chances of success.

We hope our study can help elucidate and guide entrepreneurs and professionals in the field of management and other similar fields when they choose the concomitant approach that combines planning and learning over the other existing approaches. We also hope to have established the foundation for future scientific research to develop a framework that can be used to decrease the number of new businesses that do not survive in the market.

Finally, we would like to point out the limitations of this chapter so that future projects can enrich or even change the body of knowledge presented here. First, we have to recognize the absence of scientific nature in the presented scheme to combine both planning and learning processes that result from the traditional and lean start-up approaches. Future research could benefit from validating a framework with the same principles to promote the success of business initiatives. The scheme also misses detail regarding the information that should be collected to fulfill each of the subsections accurately. In this regard, future research is needed to assess the contents to be included.

## Author details

Sandra Filipa Moreira Fernandes\*, Amélia Maria Pinto da Cunha Brandão and Carlos Henrique Figueiredo e Melo de Brito

\*Address all correspondence to: 201300139@fep.up.pt

University of Porto, School of Economics, Porto, Portugal

## References

- [1] Almeida RDC, Chaves M. Empreendedorismo como escopo de diretrizes políticas da União Europeia no âmbito do ensino superior. *Educação e Pesquisa*. 2015;**41**(2):513-526. DOI: 10.1590/s1517-97022015041779
- [2] Blank S. Why the lean start-up changes everything. *Harvard Business Review*. 2013;**91**(5): 63-72
- [3] Maurya A. *Running Lean: Iterate from Plan A to a Plan That Works*. 2nd ed. O'Reilly Media: Sebastopol; 2012. 207 p

- [4] Sahlman WA. How to write a great business plan. *Harvard Business Review*. 1997;**75**(4): 98-108
- [5] Botha M, Robertson CL. Potential entrepreneurs' assessment of opportunities through the rendering of a business plan. *South African Journal of Economic and Management Sciences*. 2014;**17**(3):249-265
- [6] Hopp C. Does the presence of a formal business plan increase formal financial support? Empirical evidence from the PSED II on the signalling and mimetic nature of formal business planning. *Applied Economics Letters*. 2015;**22**(9):673-678. DOI: 10.1080/13504851.2014.967377
- [7] Honig B, Karlsson T. Institutional forces and the written business plan. *Journal of Management*. 2004;**30**(1):29-48. DOI: 10.1016/j.jm.2002.11.002
- [8] Karlsson T, Honig B. Judging a business by its cover: An institutional perspective on new ventures and the business plan. *Journal of Business Venturing*. 2009;**24**(1):27-45. DOI: 10.1016/j.jbusvent.2007.10.003
- [9] Gruber M. Uncovering the value of planning in new venture creation: A process and contingency perspective. *Journal of Business Venturing*. 2007;**22**(6):782-807. DOI: 10.1016/j.jbusvent.2006.07.001
- [10] Osiri JK, McCarty MM, Davis J, Osiri JE. Entrepreneurship mix and classifying emerging sub-fields. *Academy of Entrepreneurship Journal*. 2015;**21**(1):1-12. DOI: 10.1590/S1517-97022015041779
- [11] Czaplewski AJ, Duening TN, Olson EM. The rise of entrepreneurial thinking. *Marketing News*. 2015;**49**(2):38
- [12] Amorós JE, Bosma N. Global entrepreneurship monitor 2013 global report fifteen years of assessing entrepreneurship across the globe [Internet]. 2014-01-20 [Updated: 2015-03-27] Available from: <http://gemconsortium.org/report/48772> [Accessed: 2017-09-07]
- [13] Quatraro F, Vivarelli M. Drivers of entrepreneurship and post-entry performance of newborn firms in developing countries. *World Bank Research Observer*. 2015;**30**(2):277-305. DOI: 10.1093/wbro/lku012
- [14] Srivastava N, Agrawal A. Factors supporting corporate entrepreneurship: an exploratory study. *Vision*. 2010;**14**(3):163-171
- [15] Llopis G. The 12 Things That Successfully Convert a Great Idea Into a Reality [Internet]. 2013. Available from: <http://www.forbes.com/sites/glennllopis/2013/04/01/12-things-successfully-convert-a-great-idea-into-a-reality/> [Accessed: 2015-11-13]
- [16] Katz JA. The chronology and intellectual trajectory of American entrepreneurship education: 1876-1999. *Journal of Business Venturing*. 2003;**18**(2):283-300. DOI: 10.1016/S0883-9026(02)00098-8
- [17] Gartner WB, Shaver KG. Nascent entrepreneurship panel studies: Progress and challenges. *Small Business Economics*. 2012;**39**(3):659-665. DOI: 10.1007/s11187-011-9353-4



- [18] Brinckmann J, Grichnik D, Kapsa D. Should entrepreneurs plan or just storm the castle? A meta-analysis on contextual factors impacting the business planning–performance relationship in small firms. *Journal of Business Venturing*. 2010;**25**(1):24-40. DOI: 10.1016/j.jbusvent.2008.10.007
- [19] Onyemah V, Pesquera MR, Ali A. What entrepreneurs get wrong. *Harvard Business Review*. 2013;**91**(5):74-79
- [20] Ignatius A. Search of the next big thing. *Harvard Business Review*. 2013;**91**(5):92-96
- [21] Schneider JE. The way to a powerful business plan. *Drug Discovery Today*. 2002;**7**(6):342-345. DOI: 10.1016/S1359-6446(01)02154-7
- [22] Ghezzi A, Cavallaro A, Rangone A, Balocco R. A comparative study on the impact of business model design & lean startup approach versus traditional business plan on mobile startups performance. In: *ICEIS 2015—17th International Conference on Enterprise Information Systems, Proceedings*; 27-30 April 2015; Barcelona. SciTePress; 2015. p. 196-203
- [23] Chwolka A, Raith MG. The value of business planning before start-up—A decision-theoretical perspective. *Journal of Business Venturing*. 2012;**27**(3):385-399. DOI: 10.1016/j.jbusvent.2011.01.002
- [24] Gibson B, Cassar G. Longitudinal analysis of relationships between planning and performance in small firms. *Small Business Economics*. 2005;**25**(3):207-222. DOI: 10.1007/s11187-003-6458-4
- [25] Delmar F, Shane S. Does business planning facilitate the development of new ventures? *Strategic Management Journal*. 2003;**24**(12):1165-1185. DOI: 10.1002/smj.349
- [26] Shane S, Delmar F. Planning for the market: Business planning before marketing and the continuation of organizing efforts. *Journal of Business Venturing*. 2004;**19**(6):767-785. DOI: 10.1016/j.jbusvent.2003.11.001
- [27] Honig B, Samuelsson M. Data replication and extension: A study of business planning and venture-level performance. *Journal of Business Venturing Insights*. 2014;**1**(1-2):18-25. DOI: 10.1016/j.jbvi.2014.09.006
- [28] Delmar F. A response to Honig and Samuelsson (2014). *Journal of Business Venturing Insights*. 2015;**3**:1-4. DOI: 10.1016/j.jbvi.2014.11.002

---

# Does Gender Matter in Strategies Adopted to Face the Economic Crisis? A Comparison Between Men and Women Entrepreneurs

---

Andrea Buratti, Francesca Maria Cesaroni and  
Annalisa Sentuti

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70292>

---

## Abstract

The purpose of this paper is to understand how Italian micro-entrepreneurs responded to the economic crisis and strategies they adopted to deal with it. A comparison between male and female entrepreneurs is presented, in order to understand if they adopted similar or different strategies. The paper also aims to understand if variables, other than gender, influenced strategies adopted to face the economic crisis. Drawing from a telephone questionnaire survey involving a sample of 300 (150 male and 150 female) owners of Italian micro-enterprises, located in Marche Region, findings suggest that entrepreneurs mostly dealt with the crisis through a defensive approach (restructuring and resizing strategies). Compared to men, female entrepreneurs had a lower propensity towards offensive strategies (innovation, development and growth). Differences in the approach towards the crisis were also identified with respect to company's age, industry and impact of the crisis. These findings contribute to the debate on gender-based differences in behaviors, attitudes and preferences. Moreover, they can help to identify economic policy measures useful to help men and women entrepreneurs to address the crisis. Policy-makers who want to support female entrepreneurship should consider these aspects, in order to identify tools and policies that can help female firms to resist the crisis more effectively in the short-term and to seize new market opportunities in the recovery phase. The sample is restricted to sole proprietors and to a limited geographical context. So further analysis should involve companies of different sizes and located in different geographical contexts, both in Italy and abroad.

**Jel classification:** L10; L26

**Keywords:** economic crisis, micro-entrepreneurs, strategies, gender, women entrepreneurs

---

## 1. Introduction

The recent economic and financial crisis has had a strong impact on the Italian economy, and has put Italian companies into great difficulty. The number of bankruptcies and non-bankruptcy insolvency procedures has continued growing relentlessly [1]. However, in Italy, statistical data show that female enterprises have fared better and have resisted the economic crisis more effectively than male ones. For instance, in the period 2011–2012 the stock of Italian enterprises decreased by 0.49% (29,911 enterprises), while the number of female businesses showed only a very slight reduction (–0.04%, 593 enterprises). In the period December 2012–December 2013, moreover, the number of female businesses increased by 0.75% (+10,713 units), a value higher than that reported in all Italian companies, equal to 0.56%. More recently, using data available as on March 31, 2014, female businesses increased by 6605 units over the past 12 months, thus achieving a growth rate of 0.51%, more than twice that in the total enterprises (0.2%) [2].

These data clearly show that, at the aggregate level, Italian female businesses have shown a greater resistance and have been able to deal with the crisis better than male companies. In this context, it is important to understand how companies have dealt with the crisis and what strategies male and female businesses have taken to deal with the economic downturn.

In studies about business strategy, there is a range of strategies that companies can adopt when they face a crisis: innovation and development strategies; restructuring strategies; downsizing strategies and reorganization strategies [3–9]. These studies, however, do not consider the gender of the entrepreneur and do not take into account whether male and female businesses can opt for different solutions when they face with an economic downturn. In contrast, in other studies, especially in entrepreneurship studies, the existence of significant differences between men and women entrepreneurs is proven, for example, in terms of risk taking, propensity towards investments, innovation, development and growth [10–13].

These factors can significantly affect the choice of business strategies. For this reason, it is important to compare the behavior of male and female entrepreneurs, in order to understand if there are differences in the way they have dealt with the crisis. As stated, this is a so far neglected question in business strategy studies, as they dealt with strategies to face crisis situations and with factors affecting this choice, but they neglected the impact of gender. On the other hand, in entrepreneurship studies, some differences between men and women entrepreneurs have been identified, but their role in influencing how to deal with crisis has not been addressed. For this reason we propose the following research questions:

1. What strategies did men and women entrepreneurs adopted to face the economic crisis?
2. Did men and women entrepreneurs adopted similar or different strategies?

Economic downturns do not affect in the same manner and with the same intensity in all businesses. In fact there are different variables that can affect the impact of an economic downturn: size [14–18], industry [19–21], capital structure [22], business' age [5]. That is why, when analyzing strategies adopted to face the recent economic crisis, it is also important to answer the following research question:

3. Did variables, other than gender (industry, age of the business, performance and entrepreneurs' age), influenced strategies adopted to face the economic crisis?

In order to answer these questions, a survey research was carried out and a questionnaire was submitted to a sample of 300 Italian micro-enterprises, located in Marche Region.

Results from this research contribute to the debate on gender's influence in explaining behaviors of men and women entrepreneurs. This analysis in fact shows that, under the same external conditions, men adopted offensive strategies more often than women. Differences in the approach to face the crisis were also identified with respect to company's age, industry and impact of the crisis.

The paper is structured into four parts. In the first part, a literature review on strategic responses to economic crises and on factors influencing strategic choice is presented. Next, methodology employed in the empirical research is described. Finally, key results from the research are discussed and the main conclusions are drawn.

## 2. Literature review

### 2.1. Defensive or offensive strategies to face economic crises?

It is generally accepted that companies can adopt two types of strategies when they face an economic downturn: the first is the adoption of measures aimed at maintaining efficiency through cost-cutting, selling of non-strategic assets and reducing personnel costs; the second is realized through new investments, organizational/technological innovations, introduction of new products and processes, research for new markets and new customers. The first is a defensive choice, intended to guarantee business survival in the short-term, whereas the second is an offensive choice, aimed at creating opportunities for long-term value creation. According to Miles and Snow [23], the first corresponds to the *defenders's* approach, while the second characterizes the behavior of firms labeled as *prospectors*.

From another perspective, firms may face an economic crisis by adopting externally or internally directed strategies. The former requires actions directed towards the market and aimed to change marketing strategies, pricing strategies, international orientation, etc. The latter involve actions directed towards the firm in order to change structures, processes, systems or resources used [9, 24].

In this wide range of possibilities, and combining both perspectives, four main strategies may be identified to explain how firms may respond to an economic crisis: restructuring strategies; resizing strategies; reorganization strategies and innovation strategies [5, 9, 25].

Restructuring strategies are internally directed actions that involve cutting costs in order to improve efficiency. Such strategies relate to traditional product/market combinations and do not involve significant dimensional variations. Firms try to improve efficiency by improving productivity and reducing expenses on a wide range of activities. Resizing strategies are external-directed actions oriented to refocusing the core business and disinvesting non-core

assets. Disinvestment of products/product lines, withdrawing from markets, selling parts of the business, closure of plants or production sites are examples of resizing actions [5, 9].

Both restructuring and resizing strategies are defensive in nature [26] and they are the most common approaches adopted by firms to deal with economic crisis [5, 27–29], especially in the short-term [6]. Even in Italy, a recent survey involving a sample of small firms confirmed that defensive strategies were most frequently used to deal with the crisis [30, 31]. Some authors [28] argue that firms that adopt this approach tend to cut above all costs and assets that can be more easily repurchased, such as low-skilled workers, not strategic raw materials, etc.

About the effectiveness of such strategies in times of economic crisis opposing assessments can be made [5]. Adopting a positive perspective, an economic crisis can be an incentive to improve and rationalize the company, through a critical review of its products portfolio and focusing on its core business. A crisis also leads firms to improve efficiency and reduce operating costs by optimizing asset utilization and divesting marginal and less profitable activities. However, there are negative aspects. Cutting costs and activities, in fact, is often a knee-jerk reaction to adverse market conditions, but it did not involve any strategic repositioning of the company. As a consequence, cost- and asset-cutting can weaken business's competitiveness and reduce its ability to successfully face the later stages of economic recovery.

Defensive strategies are very common for firms in times of crisis [17, 28, 32–34]. However, other studies suggest alternative strategies to cope with the crisis. They require countercyclical investments and technological/organizational innovations, aimed at strengthening the company and allow it to better tackle the economic crisis and become more competitive and better prepared for the post-recession phase. These strategic responses seem inspired by Penrose's idea that "depression is sometimes looked on as a good time to expand: costs are low, plant can be constructed and equipment bought cheaply" [35].

Reorganization strategies and innovation and development strategies belong to this second group. Reorganization strategies are internally directed actions focused on improving organizational aspects, for instance by redefining responsibilities, enhancing information system controls, investing in human resources and so on. Such strategies aim to requalify the firm and improve its organizational structure. Some authors assert that investments in human resources [25, 36] and employee benefits are useful to maintain commitment during an economic crisis [37].

Innovation strategies are externally directed actions concerned with businesses' competitive position. They adopt an offensive approach [26] and examples include investment into new markets, new product development, business diversification and increased marketing investments [6, 9, 25]. These strategies require firms' ability to perceive economic crisis as "opportunities to invest, innovate and expand into new market in order to achieve or extend a competitive advantage during the recession and beyond" [6]. However they are risky and not easy to implement, not only because they require firm's ability to look beyond and not to dwell on the difficulties of the moment, but also because they often require large amount of financial resources, managerial competences and technical expertise.

Indeed during an economic crisis, business owners and managers have to face a dilemma: to favor a short-term perspective and thus protect the current financial performance, or to

look at the long-term and make new investments. The latter cause an immediate absorption of resources, but they can enhance companies' competitive position and allow long-term advantages. The two alternatives cause opposing risks: emphasis on short-term performance is likely to weaken companies' long-term competitiveness and their performances can deteriorate in the post-recession; on the contrary, focusing on long-term goals, companies should expend resources and thus cause a further deterioration of the immediate performance, further threatening their survival. Some studies show that too much emphasis on downsizing and cost cutting strategies can lead to negative effects in the long-term [17], while anti-cyclical actions can facilitate achieving high performance in the phase of economic recovery [38, 39]. Pearce and Michael [15], through the analysis of a sample of start-up manufacturing firms, showed that firms that had made marketing investments achieved higher earnings than companies that had cut costs during the recession.

A solution to this dilemma is the so-called ambidextrous strategies [6] that combine both efficiency improvements and strategic investments [9, 27, 40].

## **2.2. Gender differences in strategies adopted to face the economic crisis**

According to Shama [20], strategic response to an economic recession depends on how entrepreneurs/managers perceive its impact on their business. As a consequence, they will "take different tactical and/or strategic measures to adjust or even to exploit changes in the economic environment" ([20], p. 62). This means that companies' response to an economic downturn may be conditioned by entrepreneurs' set of priorities, motivations, preferences, skills, knowledge and abilities. Actually companies' performances, rather than being the direct result of external factors, are affected by decisions and choices of the control group. These choices, in turn, also during economic downturn, are significantly affected by leader's cultural, psychological and cognitive characteristics, as well as by his/her skills and experiences. This means that in every business, the decision-maker makes his/her own personal assessment of the seriousness of the crisis and its possible consequences in the short- and long-term. Based on these elements, he/she chooses what he/she considers the most effective way to respond to the crisis [25, 41]. It follows that, facing the same economic scenario, different firms may adopt different behaviors, and this is particularly true during economic downturns. A crisis, in fact, is a complex phase and it is difficult to interpret, so that it is often impossible to foresee its evolution. In the absence of certainty, perceptions of managers and entrepreneurs are key to choose company's reaction to the crisis [24, 41].

The influence of decision-maker's perceptions – in small businesses identified with the entrepreneur – in determining business' reactions to an economic crisis is widely accepted [6, 9, 20, 25, 42]. Analysis focused on factors affecting the choice of strategies to tackle the crisis, however, have neglected entrepreneur's gender. This is an important gap. In fact, there are many studies that show the existence of significant differences between male and female entrepreneurs – and more generally between men and women – in terms of risk taking, propensity towards investments, innovation, development and growth. These factors can significantly affect the choice of business strategies.

Several researches in sociology and psychology have shown that women are less risk-oriented than men [11, 12]. According to Arch [43], this difference is due to the fact that men tend to interpret risky situations as challenges that stimulate their desire for involvement and participation, while women tend to interpret them as threats and are so induced to avoid them. Lower women's propensity for risk is also confirmed by other research [44–47], that compare the behavior of men and women involved in financial decisions. According to other authors, women have lower self-confidence than men [48, 49], especially in some typically masculine areas, just as finance. Barber and Odean [50] verify that men have a greater self-confidence and therefore take riskier financial choices than women.

Research on this topic, however, show that women's preferences with regard to financial investments are not the result of their psychological characteristics, but they are affected by their social status. Women's preference for investments with a lower financial risk, in fact, could be explained by their lower knowledge in financial matters (financial literacy) and their lower average incomes [51, 52]. Other research related to men and women entrepreneurs confirms the existence of gender-based differences in risk propensity, even if there are other studies that contradict these findings [53, 54]. According to Cliff [10], women are more concerned than male entrepreneurs about risks associated with rapid growth and this is why they deliberately prefer a slow and steady rate of expansion. According to Sexton and Bowman-Upton [55], women entrepreneurs are less willing than men to get involved in situations of high uncertainty, even when it comes to the opportunity to achieve financial and economic benefits. Moreover, they argue that women are not equipped with time, energy and resources necessary to manage a growth-oriented firm [56]. Other reasons that explain female businesses' lower propensity to growth are [57]: women's difficulties to balance work and family responsibilities; difficulties in accessing to financial resources [58, 59]; women mainly owned retail and service firms, that are less oriented to growth; women entrepreneurs are less concerned with achieving high financial performance while they are more interested in personal satisfaction and self-fulfillment [60]; in female firms growth should be viewed in a qualitative perspective [60–67].

According to Pelger [13], women's priorities play a central role in explaining female companies' lower propensity to invest. The latter is not the result of financial problems or other limitations connected to the firm. It is rather the consequence of women's goals when they engage themselves in entrepreneurial activity. As Pelger [13] pointed out, women entrepreneurs are less inclined to invest and they are less likely than men to name sales increases, innovation, R&D and implementation of new products as their investment goals. For this reason, women entrepreneurs may have had a lower propensity towards innovation/development strategies, which would have required new investments and the willingness to accept risks associated with them.

Cliff [10] argues that women's goal size on average is lower than that pursued by men. For women, the ideal size is the one that allows to maintain company's control and to devote a proper amount of time and energy to business, in order to easily balance work and family. According to this author [10], "this more cautious approach toward business expansion may result in ventures that are able to out-survive those headed by entrepreneurs pursuing more risky, high-growth strategies".

In conclusion, existing investigations about women entrepreneurs' characteristics have revealed the existence of significant differences with men entrepreneurs, especially in terms of



propensity to risk, investment, growth and innovation. These differences may have resulted in a different approach to deal with the recent economic crisis. As stated in the previous pages, in fact, numerous and very different from each other are strategies that a company can adopt to deal with an economic downturn. This choice is very influenced by entrepreneurs' perception and their individual characteristics. In turn, the latter are very different with respect to gender.

For this reason, we hypothesize as follows:

*H1. Women entrepreneurs adopted offensive strategies less frequently than men to face the crisis.*

### **2.3. Factors influencing strategies adopted to face the crisis**

An economic recession on the national level may affect firms differently, depending on their regional location, industry or other factors. Actually economic crises do not affect in the same way and with the same intensity in all businesses. In fact many variables can affect the impact of a crisis on firm's stability, as well as the ways in which each firm decide to deal with it. Some authors [14–18] stress the importance of size and maintain that small firms are more vulnerable in situations of economic recession [5, 68]. The reason is their lack of resources and skills and, as a consequence, the more narrow range of answers they can develop to face the crisis [14, 15, 69]. Actually, data relating to recent Italian situation show that, other things being equal, small businesses have suffered with the effects of the crisis more than large firms [70]. Moreover, small businesses usually face the crisis with a more reactive than proactive approach, as they often lack necessary resources and skills to direct events in their favor. Small firms, however, possess more flexible organization and processes and are better able to quickly modify them to adapt to environmental changes [16, 18].

Apart from business size, the impact of an economic crisis may depend on business industry [19–21]. In Marche region, data from Bank of Italy confirms the importance of industry in determining the crisis' impact. In this region, in fact, it was stronger for companies operating in certain sectors, such as construction and mechanics, while it was less strong for companies in the service sector.

Variables affecting crisis' impact and strategies adopted to face it also include business' age and experience. Latham [5], for instance, maintain that start-ups are more vulnerable, as they "typically lack the resource pools that may afford a "wait-it-out" approach during environmental duress" ([5], p. 181). His research about software industry suggests that start-up organizations were much more inclined to pursue revenue-generating strategies to face economic crisis, while larger and more mature firms preferred cost reduction strategies.

Based on results of such analysis, we put forth the following hypotheses:

*H2. Strategies adopted to face the economic crisis vary by business's age.*

*H3. Strategies adopted to face the economic crisis vary by business's industry.*

*H4. Strategies adopted to face the economic crisis vary by entrepreneur's age.*

*H5. Strategies adopted to face the economic crisis vary by its impact on businesses.*

In order to test these hypotheses, this paper results from an empirical analysis are presented.

### 3. Method, sample and data collection

A survey research was carried out among a sample of Italian sole-proprietors, owners of micro-enterprises. Firms included in the sample are located in Marche region, in central Italy. Several reasons justify the choice of this region for the empirical research. Firstly, Marche has a particularly high concentration of micro and small enterprises; the average size of regional businesses is 3.6 employees, against the national average of 3.9 employees [31]. Secondly, the impact of the economic crisis has been particularly harsh in this region. In 2009, the regional GDP declined by 5.4% [31], the joint-stock companies' mortality rate has been the highest in Italy (7.5%) [1] and the number of craft enterprises decreased by 5.1% between 2008 and 2012. Moreover the regional feminization rate (24.3%) is slightly higher than at the national level (23.6%). Even in this region, female businesses have resisted the crisis more effectively than male ones [2]. In the period June 2012–June 2013, in fact, in the Marche region, the balance of firms was negative (less than 608 units), while the balance of female businesses was positive, albeit slightly (+8 units equal to 0.02%) [2]. For all these reasons, Marche region is ideally suited to such a study.

The decision to involve only sole-proprietors in this survey has several reasons: (1) it is easier to establish a relationship between entrepreneur's gender and strategies adopted to face the crisis (in companies with male and female members is not easy to determine if strategic decisions are actually taken, or influenced, by a man or a woman); (2) despite the presence of many female companies and partnerships, in Italy sole proprietorships represent a very high percentage of the total number of female businesses (61% in 2010); (3) it was easier to correctly identify female businesses, as information about the gender of shareholders, partners and directors are not always available.

A non-proportional stratified sample, with the same number of men and women, was selected using the list of members of one of the main regional business associations. First of all, businesses founded after 2008 were excluded. The purpose of the survey, in fact, was to understand how the onset of the crisis has changed male and female firms' strategies. Starting from a list of 1627 sole-proprietors (429 women and 1198 men) a sample of 300 sole-proprietors (150 men and 150 women) was randomly extracted.

Entrepreneurs selected this way, took part in a telephone questionnaire between October and November 2013 and were asked questions regarding actions implemented to face the crisis. Questions refer to the previous 5 years. Sample entrepreneurs were given a list of 16 strategic actions devised from prevailing literature on this subject (**Table 1**) and were asked the following question: "In the last 5 years did you carry out any of the listed actions in order to deal with the crisis?" They were asked to score each action according to a 5-point Likert scale, in which 1 = Definitely not; 5 = Definitely. The survey enabled us to obtain 218 fully completed questionnaires. Women compiled 110 and men 108 questionnaires. The response rate was particularly high, standing at 73% and substantially similar for both genders (men: 72% and women: 73.3%).

Information gathered through the questionnaire has been used to:

	Mean	Standard deviation	Variance
Costs and waste reduction	4.32	0.973	0.947
Labor costs reduction	3.89	1.128	1.273
Deferment of investments	3.20	1.400	1.959
Production volumes reduction	2.26	1.305	1.703
Prices reduction	2.74	1.456	2.120
Improvement of production processes and products	1.46	0.854	0.729
Organisational or technological innovation	1.30	0.658	0.433
New products/services	1.49	0.932	0.869
Search for new clients	1.65	1.020	1.041
Communication and advertising	1.63	0.933	0.871
Interfirm collaboration	1.18	0.568	0.323
More qualified personnel	1.09	0.334	0.111
Staff training	1.21	0.606	0.367
Production volumes expansion	1.16	0.597	0.357
Prices increase	1.11	0.415	0.172
New collaborators or partners	1.10	0.358	0.128

**Table 1.** Strategic actions adopted to face the crisis (descriptive variables).

1. identify strategies adopted to face the economic crisis;
2. understand if male and female entrepreneurs faced the recession through similar or different strategies and
3. understand if other variables, other than gender, influenced strategies adopted to face the economic crisis.

Based on results from literature analysis, factors considered to compare strategies adopted to face the crisis, apart from gender, have been: (1) business' age; (2) business industry; (3) entrepreneurs' age and (4) crisis' impact. We did not consider business size as our sample only includes micro-enterprises.

## 4. Main results

### 4.1. Men and women micro entrepreneurs in front of the crisis. Strategic responses

The most frequently adopted strategic actions were identified on the basis of scores given to each action listed in the questionnaire (**Table 1**). Data show that entrepreneurs dealt with the

crisis through a primarily defensive approach. Most frequently adopted measures were in fact related to restructuring and resizing strategies. The most frequent actions were: reduction of waste and costs, labor costs reduction, deferment of investments and production volumes reduction. On the other hand, actions related to innovation, development or reorganization were less widely adopted. Only few entrepreneurs expanded their activity and production volumes, invested in training projects, introduced innovations, invested in communication and advertising, improved production processes and/or products/services, introduced new products/services and sought for new clients.

It is interesting to note that only few entrepreneurs have taken action based on collaboration with other companies to address the crisis. This result is in contrast with the findings from similar research recently carried out in Spain [25]. According to this research collaboration between firms emerged as one of the more effective ways to address and overcome the crisis.

#### 4.2. Factor analysis and strategic profiles

In the following step of the analysis, 16 actions listed in the questionnaire were submitted to factor analysis. In this way, we tried to more effectively outline entrepreneurs' behavior during the crisis, by identifying a more limited number of factors describing typical strategic profiles [71]. The aim of the factor analysis was not to confirm the validity of the pre-existing model, but to identify the variety of strategic behaviors during the crisis. Consequently, a varimax orthogonal rotation analysis was carried out considering a non-correlation among factors. Factors were extracted considering a method of parallel analysis [72]. After having extracted four factors, the factor structure shown in **Table 2** was obtained. In this phase, one strategic action was eliminated (lowering of prices), as it had a factor coefficient lower than 0.5 [73].

Extracted factors correspond to four different strategic profiles. Each profile corresponds to actions, which have resulted as the most significant to identify the strategic behavior of each entrepreneur.

Each factor has been labeled, in order to point out the typical behavior corresponding to each strategic profile. The strategic profiles corresponding to each factor are as follows.

*Factor 1: Orientation to human resources qualification.* Entrepreneurs corresponding to this profile interpreted the crisis as an opportunity to enrich their intangible assets and invested in particular in human resources. They employed more qualified personnel, looked for new collaborators and partners and participated in training courses in order to improve business's qualification and skills. This strategic behavior may be based on the desire to differentiate themselves from competitors. Business requalification was followed by an increase in products/services' costs, as clients should be willing to pay a premium price for products and services.

*Factor 2: Orientation to development and growth.* Entrepreneurs with this profile tried to counter the crisis with measures aimed at turning around the negative trend of demand and sales. Such an objective materialized in actions and investments aimed at reorganizing the business and renewing its technology, in order to increase volume of production and sales and improve

Strategic actions	Strategic profiles			
	F1	F2	F3	F4
More qualified personnel	0.816			
New collaborators or partners	0.807			
Price increase	0.791			
Training of staff	0.560			
Improvement of production processes and products		0.807		
Organisational or technological innovation		0.779		
Expansion of the activity		0.685		
Interfirms collaboration		0.519		
Deferment of investments			0.807	
Reduction of waste and costs			0.788	
Reduction of labour costs			0.783	
Reduction of production volumes			0.686	
Communication and advertising				0.849
Search for new clients				0.754
New products/services				0.634
Percent Explained Variance	17.457	16.404	16.366	13.210
Test Bartlett < 0.5 e KMO > 0.7.				
Overall, the four factors explain 63.437% of the total percentage variance.				

**Table 2.** Factor analysis results. Strategic profiles matrix.

processes and products. A minority of entrepreneurs with this profile also started collaboration with other entrepreneurs to share costs and investments and realize joint projects.

*Factor 3: Orientation to downsizing.* This profile corresponds to entrepreneurs who reacted to the crisis through a defensive approach. The initiatives adopted, in fact, include cost cutting, waste elimination, labor costs reduction, deferment and/or cancelation of investments and reduction of production volumes. Ultimately these entrepreneurs placed the priority on the survival of their businesses. Consistent with this purpose, they gave up making new investments, redefined their core business activities and tried to increase the efficiency of remaining activities.

*Factor 4: Orientation to market.* Entrepreneurs with this profile tried countering the crisis with actions aimed at resisting the negative trend of demand. They redefined their supply and sought new opportunities for expanding demand. Measures were mainly geared to introducing new products and services, exploring new markets and looking for new clients. Such actions were accompanied by initiatives of communication and advertising, to increase business' reputation and improving its image.

4.3. Gender and other variables influencing strategic response to economic crisis

In order to answer our research questions, firms included in the sample have been divided into subgroups, identified according variables mentioned in research hypothesis. These variables are described in **Table 3**.

After having applied Levene’s test to verify the hypothesis of variance equality among groups, a t-test robust has been applied to evaluate the existence of significant differences among factors’ average scores, corresponding to strategic profiles described in **Table 2**. Results from t-test are described in **Table 4**.

Crisis’ impact was measured using entrepreneurs response to the questionnaire. They were asked to evaluate crisis’ impact on their business, using a 5-points Likert scale in which 1 = Extremely important and 5 = No impact.

The comparison between men and women entrepreneurs shows that a significant difference exists with respect to strategic profiles corresponding to Factor 1 – *Orientation to human resources qualification* – and Factor 2 – *Orientation to development and growth*. In both cases men entrepreneurs have obtained a higher factor score than women entrepreneurs. On the contrary no significant differences emerge with regard to strategic profiles corresponding to Factors 3 and 4. This suggests that, although the prevalence of a defensive approach is what men and women entrepreneurs had in common (see also **Table 1**), men adopted an offensive approach more frequently than women. So this result confirms hypothesis in H1, as *women entrepreneurs* dealt with the crisis with an offensive approach less frequently than men and preferred downsizing their activities and increasing efficiency. To this end they reduced costs, cut unprofitable and marginal activities and focused on core business. Although such an attitude is rather widespread even among men entrepreneurs, the latter dealt with the crisis in a more diversified way. As a matter of fact, the percentage of men adopting offensive strategies, to requalify human resources and obtain business growth and development, has been markedly higher.

The comparison based on other variables described in **Table 4** has shown some differences in how companies dealt with the crisis.

Variables	Description
Gender	<ul style="list-style-type: none"><li>• Woman</li><li>• Man</li></ul>
Business’ age	<ul style="list-style-type: none"><li>• Young</li><li>• Mature</li></ul>
Industry	<ul style="list-style-type: none"><li>• Service and trade</li><li>• Manufacturing and construction</li></ul>
Entrepreneur’s age	<ul style="list-style-type: none"><li>• Young: less than 35</li><li>• Senior: more than 34</li></ul>
Crisis impact	<ul style="list-style-type: none"><li>• Low: values lower than the sample median</li><li>• High: values higher than the sample median</li></ul>

**Table 3.** Variables.

Variables	Description	N	F1	t-Test	F2	t-Test	F3	t-Test	F4	t-Test
<i>Gender</i>	Women	110	-0.179	***	-0.410	***	0.057	ns	-0.069	ns
	Men	108	0.182		0.418		-0.058		0.070	
<i>Business' age</i>	Young	46	-0.269	***	0.080	ns	0.062	ns	0.015	ns
	Mature	172	0.072		-0.021		-0.017		-0.004	
<i>Industry</i>	Service and trade	135	-0.025	ns	-0.124	***	-0.135	***	0.016	ns
	Manufacturing and construction	83	0.040		0.201		0.219		-0.026	
<i>Entrepreneur's age</i>	Young	90	-0.063	ns	-0.115	ns	0.012	ns	0.043	ns
	Senior	128	0.044		0.081		-0.009		-0.030	
<i>Crisis impact</i>	Low	74	0.05	ns	-0.07	ns	-0.55	***	0.02	ns
	High	144	-0.03		0.04		0.28		-0.01	

\*\*\* = p-Value < 0.05.

**Table 4.** t-Test results.

By comparing young and mature firms, a significant difference can be observed with regard to Factor 1. In fact mature firms have scored higher on strategies oriented to *human resources qualification*. No differences exist with regard to other factors. So hypotheses in H2 can be considered partially confirmed. However it must be noted that very young firms – start-ups – are not included in our sample. In fact, only firms founded before the beginning of the crisis (Autumn 2008) are included.

As regards industry, significant differences have been found with regard to Factors 2 and 3. In fact manufacturing firms have scored higher in strategies oriented to growth and to downsizing. This data confirms H3. This result appears contradictory, since growth and downsizing strategies have completely contrasting purposes and content. This result, however, may be the consequence of the different impact of the crisis in the two industries. As stated, in Marche region, the crisis was particularly strong in manufacturing and construction. In this scenario, firms operating in these industries may have been forced to react to the crisis with harder and more focused measures, and to adopt growth or resizing strategies. These strategies, on the contrary, were less frequently adopted by trade and services firms, which aimed more at preserving the status quo: they did not implement growth strategies because the crisis did not allow it; on the other hand they did not adopt downsizing measures because they were not strictly necessary, as the impact of the crisis was lower than in manufacturing and construction.

No significant differences have been found with regard to entrepreneurs' age. This means that young and senior entrepreneurs faced the crisis with similar strategies, regardless of age. So H4 has not been confirmed.

Finally, some significant differences have also been found regarding crisis' impact on businesses, consistently with H5. In fact businesses that suffered the greatest impact of the crisis adopted downsizing strategies more often and with greater intensity than businesses where the impact of the crisis was weaker.



## 5. Conclusions and implications

This paper provides insight into strategies that Italian micro-entrepreneurs adopted to survive the recent economic crisis.

Factor analysis allowed the identification of four strategic profiles: strategy oriented to human resource training (investment in intangible assets); market-oriented strategy (redefining supply and searching for new opportunities); development and growth strategy (focused on sales increasing and on product and process improving) and downsizing strategy (costs reduction, elimination of waste and redefining of core business). Findings suggest that entrepreneurs mainly adopted a defensive approach characterized by restructuring and resizing strategies aimed to improve efficiency and refocus the core business. An offensive approach – realized by innovation, development or reorganization strategies – was less common. The defensive approach characterized both men and women entrepreneurs, although the adoption of offensive strategies was less widespread among women. So we can say that, in front of the same external economic conditions, men and women entrepreneurs made different choice to face the crisis.

Differences in strategies adopted to address the crisis have also been identified with regard to other factors, especially industry and crisis' impact. In particular, some differences have been identified among companies that were differently affected by the crisis. In fact results show that where the impact of the crisis was stronger, businesses needed to “batten down the hatches” and defend themselves from the crisis, mostly through cost cutting measures, while they gave up making new investments, redefined their core business activities and tried to increase the efficiency of remaining activities.

Results from this research provide significant contributions, in the field of both scientific research and of real economy.

From a scientific perspective, data from this investigation contribute to the development of the debate on gender-based differences in behaviors, attitudes and preferences. Men and women entrepreneurs are compared considering a particular economic condition, characterized by recession. Until now, no analyses were carried out to compare the behavior of entrepreneurs of both genders in such situations and this is the first study to address this issue. Moreover, it must be observed that even if several research analyzed factors affecting the choice of strategies to face a crisis, they ignored gender issues.

Data from our analysis allow us to get important information about how men- and women-owned micro-enterprises reacted to economic downturns. Our analysis shows that, under the same external conditions, Italian men and women entrepreneurs adopted different strategies to respond to the economic crisis. In this perspective, results are consistent with those of previous analyses comparing male and female entrepreneurs' behaviors. The defensive strategies mainly adopted by women entrepreneurs, in fact, are consistent with some of their distinguishing characteristics, compared to male entrepreneurs: lower risk orientation, lower preference for conditions of uncertainty, lower growth orientation and less willingness to invest.

In front of these data, we can wonder about the real effectiveness of strategies women entrepreneurs adopted to tackle the economic crisis. Demographic data on birth and mortality rate of Italian firms show that female businesses showed better resistance towards the economic crisis. Therefore we could think that defensive strategies adopted by women have proven to be more effective in addressing the crisis and ensuring the survival of their enterprises. However, our analysis does not allow saying whether female businesses' lower mortality rates are the consequence of the strategies they adopted to face the crisis. Indeed, in the literature on strategies to deal with economic crisis different opinions have been expressed about the effectiveness of defensive strategies. In some cases, it is argued that a defensive strategic approach can be considered positive in the short-term, as it aims at guaranteeing business' survival. However, in the long-term, such an approach may undermine business ability to seize new opportunities and innovate, and consequently weaken business's competitiveness. For this reason, further analysis should be done to find out if there is a relationship between strategies adopted by male and female businesses and their financial and competitive performance, in the short- and in the long-term.

Results from this research are also useful to understand which economic policy measures may be useful to help men and women entrepreneurs to address the crisis and ensure the survival of their businesses. Policy-makers who want to support female entrepreneurship should consider these aspects, in order to identify tools and policies that can help female firms to resist economic downturns more effectively and to seize new market opportunities in the recovery phase.

This study has important limitations related to the type of business analyzed (only sole proprietors) and to the limited geographical context (only Italian firms from a single region). Results from this investigation, however, may serve as an important basis for international comparisons, in order to understand whether, in different geographical and cultural contexts and with different economic, political and institutional situations, men and women entrepreneurs prove to have the same attitudes and the same behavior of their Italian colleagues.

As regard the role of other variables (business age, industry and crisis' impact) in influencing strategic choices, further analysis should be carried out to understand how they interact with gender in affecting strategic responses to the crisis. In fact, our analysis does not allow us to establish which variable is the most significant in explaining differences in strategies adopted to face the crisis. In particular, further analysis should say if, other things being equal, gender continues to be significant in explaining the different strategies adopted by companies to face up to the crisis.

## Author details

Andrea Buratti, Francesca Maria Cesaroni\* and Annalisa Sentuti

\*Address all correspondence to: [francesca.cesaroni@uniurb.it](mailto:francesca.cesaroni@uniurb.it)

Department of Economics, Society and Politics (DESP), University of Urbino Carlo Bo, Urbino, Italy

## References

- [1] Cerved. Monitor of Bankruptcies, Insolvency Proceedings and Business Closures. 2014. Available from: <http://www.cervedgroup.com/> [Accessed: February 19, 2014]
- [2] Unioncamere. Crisi: le donne rispondono con l'impresa, +4mila in 12 mesi. 2013. Press release. Available from: <http://www.unioncamere.gov.it/Archivio/P45A0C160S123O30/Comunicati-Stampa.htm> [Accessed: February 15, 2014]
- [3] Pilotti L. Le strategie dell'impresa. Roma: Carocci; 2005
- [4] Sciarelli S. Crisi d'impresa. Padova: Cedam; 1995
- [5] Latham S. Contrasting strategic response to economic recession in start-up versus established software firms. *Journal of Small Business Management*. 2009;**47**:180-201. DOI: 10.1111/j.1540-627X.2009.00267.x
- [6] Kitching J, Blackburn R, Smallbone D, Dixon S. Business Strategies and Performance During Difficult Economic Conditions, Kingston University and Bath University. 2009. Available from: <http://eprints.kingston.ac.uk/5852/1/Kitching-J-5852.pdf> [Accessed: March 9, 2014]
- [7] Pellicelli G. Management ritorno al futuro. Strategie aziendali per agganciare la ripresa. Milano: EGEA; 2009
- [8] Thompson AA, Strickland AJ, Gamble JE. Strategia aziendale. Milano: McGraw Hill; 2009
- [9] Sternad D. Adaptive strategies in response to the economic crisis: A cross-cultural study in Austria and Slovenia. *Managing Global Transitions: International Research Journal*. 2012;**10**:257-282
- [10] Cliff JE. Does one size fit all? Exploring the relationship between attitudes towards growth, gender, and business size. *Journal of Business Venturing*. 1998;**13**:523-542. DOI: 10.1016/S0883-9026(97)00071-2
- [11] Byrnes JP, Miller D, Schafer WD. Gender differences in risk taking: A meta-analysis. *Psychological Bulletin*. 1999;**125**:367-383. DOI: 10.1037/0033-2909.125.3.367
- [12] Croson R, Gneezy U. Gender differences in preferences. *Journal of Economic Literature*. 2009;**47**:448-474. DOI: 10.1257/jel.47.2.448
- [13] Pelger I. Male vs. Female Business Owners: Are There Differences in Investment Behavior? Beiträge zur Jahrestagung des Vereins für Socialpolitik 2012: Neue Wege und Herausforderungen für den Arbeitsmarkt des 21. Jahrhunderts. Available from: <http://hdl.handle.net/10419/62016> [Accessed: March 5, 2014]
- [14] Drummond H, Chell E. Crisis management in a small business: A tale of two solicitors' firms. *Management Decision*. 1994;**32**:37-40. DOI: 10.1108/00251749410050688

- [15] Pearce J, Michael S. Marketing strategies that make entrepreneurial firms recession-resistant. *Journal of Business Venturing*. 1997;**12**:301-314. DOI: 10.1016/S0883-9026(97)89449-9
- [16] Dean T, Brown RL, Bamford CE. Differences in large and small firm responses to environmental context: Strategic implications from a comparative analysis of business formations. *Strategic Management Journal*. 1998;**19**:709-723. Available from: <http://www.jstor.org/stable/3094124> [Accessed: March 15, 2014]
- [17] DeDee JK, Vorhies DW. Retrenchment activities of small firms during economic downturn: An empirical investigation. *Journal of Small Business Management*. 1998;**36**:46-61
- [18] Carr JC, Topping S, Burcham M. Health care entrepreneurship in the Nashville region: Societal linkages, change dynamics, and entrepreneurial responses. *Journal of Applied Management and Entrepreneurship*. 2004;**9**:49-64
- [19] Churchill N, Lewis V. Lessons for small business from the recession. *Journal of Small Business Management*. 1984;**22**:5-17
- [20] Shama A. Marketing strategies during recession: A comparison of small and large firms. *Journal of Small Business Management*. 1993;**31**:62-72
- [21] Srinivasan R, Rangaswamy A, Lilien GL. Turning adversity into advantage: Does proactive marketing during a recession pay off? *International Journal of Research in Marketing*. 2005;**22**:109-125. DOI: 10.1016/j.ijresmar.2004.05.002
- [22] Ofek E. Capital structure and firm response to poor performance: An empirical analysis. *Journal of Financial Economics*. 1993;**34**:3-30. DOI: 10.1016/0304-405X(93)90038-D
- [23] Miles RE, Snow CC. *Organizational Strategy, Structure, and Process*. New York: McGraw Hill; 1978
- [24] Chattopadhyay P, Glick WH, Huber GP. Organizational actions in response to threats and opportunities. *Academy of Management Journal*. 2001;**44**:937-955. DOI: 10.2307/3069439
- [25] Papaoikonomou E, Segarra P, Li X. Entrepreneurship in the context of crisis: Identifying barriers and proposing strategies. *International Advances in Economic Research*. 2012;**18**:111-119. DOI: 10.1007/s11294-011-9330-3
- [26] Deans GK. Making a key decision in a downturn: Go on the offensive or be defensive? *Strategic Direction*. 2009;**25**. DOI: 10.1108/sd.2009.05625had.010
- [27] Robbins DK, Pearce JA II. Turnaround: Recovery and retrenchment. *Strategic Management Journal*. 1992;**3**:287-309. DOI: 10.1002/smj.4250130404
- [28] Michael SC, Robbins DK. Retrenchment among small manufacturing firms during recession. *Journal of Small Business Management*. 1998;**36**:35-45
- [29] Sharma S. Managerial interpretations and organizational context as predictors of corporate choice of environmental strategy. *Academy of Management Journal*. 2000;**43**:681-697. DOI: 10.2307/1556361

- [30] Pencarelli T, Savelli E, Splendiani S. Strategic awareness and growth strategies in small sized enterprises (SEs). *International Journal of Business & Economics*. 2010;**8**:1-43
- [31] Istat. Rapporto sulla competitività dei settori produttivi. 2014. Available from: [www.istat.it/it/files/2014/02/Rapporto-Competitivita-2014.pdf](http://www.istat.it/it/files/2014/02/Rapporto-Competitivita-2014.pdf) [Accessed: September 2, 2014]
- [32] Bigelow R, Chan Peng S. Managing in difficult times: Lessons from the most recent recession. *Management Decision*. 1992;**30**:34-42. DOI: 10.1108/00251749210022186
- [33] Geroski PA, Gregg P. Corporate restructuring in the UK during the recession. *Business Strategy Review*. 1994;**5**:1-19. DOI: 10.1111/j.1467-8616.1994.tb00073.x
- [34] Geroski PA, Gregg P. Coping with Recession: UK Company Performance in Adversity. Vol. 38. Cambridge: Cambridge University Press; 1997
- [35] Penrose E. *The Theory of the Growth of the Firm*. 2nd ed. Oxford: Oxford University Press; 1995
- [36] Gratton L. The time is ripe for fresh ideas. *Financial Times, Managing in a Downturn Series*. February 5, 2009. Available from: <http://www.ft.com/reports/managingdownturn> [Accessed: September 2, 2014]
- [37] Brenner B. The value of increasing investment in employee benefits during an economic downturn. *Journal of Financial Service Professionals*. 2009;**63**:29-31
- [38] Roberts K. What strategic investments should you make during a recession to gain competitive advantage in the recovery? *Strategy & Leadership*. 2003;**31**:31-39. DOI: 10.1108/10878570310483960
- [39] Wan WP, Yiu DW. From crisis to opportunity: Environmental jolt, corporate acquisitions, and firm performance. *Strategic Management Journal*. 2009;**30**:791-801. DOI: 10.1002/smj.744
- [40] Chowdhury SD, Lang JR. Turnaround in small firms: An assessment of efficiency strategies. *Journal of Business Research*. 1996;**36**:169-179. DOI: 10.1016/0148-2963(95)00119-0
- [41] Latham S, Braun M. Economic recession, strategy, and performance: A synthesis. *Journal of Strategy and Management*. 2011;**4**:96-115. DOI: 10.1108/17554251111128592
- [42] Penrose JM. The role of perception in crisis planning. *Public Relations Review*. 2000;**26**:155-171
- [43] Arch E. Risk-taking: A motivational basis for sex differences. *Psychological Reports*. 1993;**73**:6-11. DOI: 10.2466/pr0.1993.73.1.3
- [44] Powell M, Ansic D. Gender differences in risk behaviour in financial decision-making: An experimental analysis. *Journal of Economic Psychology*. 1997;**18**:605-628. DOI: 10.1016/S0167-4870(97)00026-3
- [45] Sunden A, Surette B. Gender differences in the allocation of assets in retirement savings plans. *American Economic Association Papers and Proceedings*. 1998;**88**:207-211. Available from: <http://www.jstor.org/stable/116920> [Accessed: July 11, 2014]

- [46] Dohmen T, Falk A. Performance pay and multi-dimensional sorting – Productivity, preferences and gender. *The American Economic Review*. 2011;**101**:556-590
- [47] Rad A, Yazdanfar D, Öhman P. Female and male risk aversion. An empirical study of loan officers' assessment of SME loan applications. *International Journal of Gender and Entrepreneurship*. 2014;**6**:121-141. DOI: 10.1108/IJGE-02-2013-0012
- [48] Fielden SL, Davidson MJ, Dawe AJ, Makin PJ. Factors inhibiting the economic growth of female owned businesses in North West England. *Journal of Small Business and Enterprise Development*. 2003;**10**:152-166. DOI: 10.1108/14626000310473184
- [49] Kirkwood J. Is a lack of self-confidence hindering women entrepreneurs? *International Journal of Gender and Entrepreneurship*. 2009;**1**:118-133. DOI: 10.1108/17566260910969670
- [50] Barber BM, Odean T. Boys will be boys: Gender, overconfidence, and common stock investment. *The Quarterly Journal of Economics*. 2001;**116**:261-292. DOI: 10.1162/003355301556400
- [51] Schubert R, Brown M, Gysler M, Brachinger HW. Financial decision-making: Are women really more risk-averse? *American Economic Association Papers and Proceedings*. 1999;**89**(2):381-385
- [52] Dwyer P, Gilkeson J, List J. Gender differences in revealed risk taking: Evidence from mutual fund investors. *Economics Letters*. 2002;**76**:151-158. DOI: 10.1016/S0165-1765(02)00045-9
- [53] Master R, Meier R. Sex differences and risk-taking propensity of entrepreneurs. *Journal of Small Business Management*. 1988;**26**:31-35
- [54] Scherer RF, Brodzinski JD, Wiebe FA. Entrepreneur career selection and gender: A socialization approach. *Journal of Small Business Management*. 1990;**28**:37-44
- [55] Sexton DL, Bowman-Upton N. Female and male entrepreneurs: Psychological characteristics and their role in gender-related discrimination. *Journal of Business Venturing*. 1990;**5**:29-36. DOI: 10.1016/0883-9026(90)90024-N
- [56] Mitchelmore S, Rowley J, Shiu E. Competencies associated with growth of women-led SMEs. *Journal of Small Business and Enterprise Development*. 2014;**21**:588. DOI: 10.1108/JSBED-01-2012-0001
- [57] Morris MH, Miyasaki NN, Watters CE, Coombes SM. The dilemma of growth: Understanding venture size choices of women entrepreneurs. *Journal of Small Business Management*. 2006;**44**:221-244. DOI: 10.1111/j.1540-627X.2006.00165.x
- [58] Cesaroni FM. Donne imprenditrici e banche. Le ragioni di un rapporto difficile. In: Calcagnini G, Favaretto I, editors. *L'economia della piccola impresa*. Milano: Franco-Angeli; 2010
- [59] Cesaroni FM, Lotti F, Mistrulli PE. Female firms and bank's lending behavior: What happened during the great recession? *Questioni di Economia e Finanza, Occasional Papers*.

2013. Available from: [http://www.bancaditalia.it/pubblicazioni/econo/quest\\_ecofin\\_2/qef177/QEF\\_177.pdf](http://www.bancaditalia.it/pubblicazioni/econo/quest_ecofin_2/qef177/QEF_177.pdf) [Accessed: March 9, 2014]
- [60] Weber PC, Geneste L. Exploring gender-related perceptions of SME success. *International Journal of Gender and Entrepreneurship*. 2014;**6**:15-27. DOI: 10.1108/IJGE-04-2013-0038
  - [61] Brush CG. Research on women business owners: Past trends, a new perspective and future directions. *Entrepreneurship Theory & Practice*. 1992;**16**:5-30
  - [62] Rosa P, Carter S, Hamilton D. Gender as a determinant of small business performance: Insights from a British study. *Small Business Economics*. 1996;**8**:463-478. DOI: 10.1007/BF00390031
  - [63] Buttner EH, Moore DP. Women's organizational exodus to entrepreneurship: Self-reported motivations and correlates with success. *Journal of Small Business Management*. 1997;**35**:34-46
  - [64] Collins-Dodd C, Gordon IM, Smart C. Further evidence on the role of gender in financial performance. *Journal of Small Business Management*. 2004;**42**:395-417. DOI: 10.1111/j.1540-627X.2004.00119.x
  - [65] Dalborg C, von Friedrichs Y, Wincent J. Beyond the numbers: Qualitative growth in women's businesses. *International Journal of Gender and Entrepreneurship*. 2012;**4**:289-315. DOI: 10.1108/17566261211264163
  - [66] Reichborn-Kjennerud K, Svare H. Entrepreneurial growth strategies: The female touch. *International Journal of Gender and Entrepreneurship*. 2014;**6**:181-199. DOI: 10.1108/IJGE-04-2013-0043
  - [67] Dalborg C. The life cycle in women-owned businesses: From a qualitative growth perspective. *International Journal of Gender and Entrepreneurship*. 2015;**7**:126-147. DOI: 10.1108/IJGE-06-2014-0019
  - [68] Beaver C, Ross C. Recessionary consequences on small business management and business development: The abandonment of strategy? *Strategy Change*. 1999;**8**:251-261
  - [69] Ghemawat P. Sustainable advantage. *Harvard Business Review*. 1986;**64**:53-58
  - [70] Banca d'Italia (2009, 2010, 2011, 2012, 2013, 2014), *Economie regionali. L'economia delle Marche. Aggiornamento congiunturale*. Vol. 1986. Available from: <https://www.bancaditalia.it/pubblicazioni/economie-regionali> [Accessed: April 30, 2015]
  - [71] Hair JF, Anderson RE, Tatham RL, Black WC. *Multivariate Data Analysis*. New Jersey: Prentice Hall; 1998
  - [72] Zwirk WR, Velicer WF. Comparison of five rules for determining the number of components to retain. *Psychological Bulletin*. 1986;**99**:432-442. DOI: 10.1037/0033-2909.99.3.432
  - [73] McCain KW. Mapping authors in intellectual space: A technical overview. *Journal of the American Society for Information Science*. 1990;**41**:433-443



---

# Testing Gender Productivity Difference with Informal Enterprises Data: A Case Study of Burkina Faso

---

Akouwerabou Babikigalaga Denis,  
Legala-Keud Genesquin Guibert and  
Bayala Balibié Auguste Serge

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.71696>

---

## Abstract

In the literature, we have seen results stating that women are less efficient than men in entrepreneurship. In this chapter, we have used data of informal enterprises in Burkina Faso to test gender productivity difference. Our data support the assumption that men's enterprises employ and carry out more income than women's enterprises. Nevertheless, women's enterprises are technically more efficient and stable than men's enterprises. We have also found out that to succeed in entrepreneurship, it is profitable for women to be young. However, men need to get more experiences in order to become efficient in informal entrepreneurship.

**Keywords:** gender, informal enterprises, productivity, Burkina Faso

---

## 1. Introduction

In the past, economists focused themselves on identifying factors that have been determining women's participation to labor market [1, 2, 3]. Nowadays, robust responses have been provided to this question. It has been shown that women are less represented among owners of big formal enterprises [4, 5]. Most of them are owners of small and medium-sized enterprises (SME) especially in developing countries (PED) [6]. If presently, the debate on the determinants of women's participation to entrepreneurship seems to be ended, questions on their SMEs' productivity, dynamism, and survival are still topical.

Theoretically, the question of efficiency of enterprises run by women should not be subjected to great debates. Etymologically, economy is defined as the art of managing well a home, that is

---

to say more precisely the ability to have a more efficient internal organization. Now, it is known that a woman is the right person to manage a home. For example, in Burkina Faso, there is a common saying that goes as: "Paglayiri," meaning "there shall never be a home without a woman." This implies that if the economist's first objective is to avoid wastes, everyone who agrees with this economy's definition says likewise that, a woman would be more efficient than a man in managing economic affairs.

Women have not yet got the opportunity to show their economic know-how because they have long been discriminated on the labor market [2, 7]. Even if now, this discrimination is no more too obvious, there are still certain types of employments that they cannot afford to fill [8]. The importance of female entrepreneurship would then lie in its capacity to reduce discriminations against women on the labor market. Welter et al. [9] show that economic sectors whereby women are owners of private enterprises are sectors hiring more women. However, women's capacity to create and manage dynamic jobs supplying SMEs for their counterparts is often limited by cultural and religious factors [10]. This implies that it will be erroneous to draw conclusions of a woman's performances in entrepreneurship without considering institutional factors' influences. In developing countries, informal institutions prevent women to fully and freely take part in the private and individual process of wealth accumulation [11]. These informal regulations or laws contribute to highlight discrimination against women in wages rate setting and on labor market in general [12, 13]. According to Pressman [14], these same informal institutions keep households run by women in poverty.

Therefore, even if women are predisposed to be more efficient than men in the economic arena, formal or informal institutional norms that have kept women out of the labor market for a long time could in the end damage their economic efficiency. For example, obligation for women to always stay at home to care for children (in some developing countries) would contribute to reduce their motivations to commit themselves to female entrepreneurship [10, 15, 16]. Udry [17] notes that in households run by men, about 6% of the output of the plot of land farmed by women is lost due to a bad distribution of production inputs in their disfavor.

Setting up a business in developing countries has always been difficult. The difficulty in undertaking stems mainly from the market's failure. Access to credit seemed to be the biggest of these constraints. When we look particularly into this difficulty, we realize that women are the most constrained [18–20]. It would then be plausible to justify the weak performances experienced by enterprises run by women through their inability to acquire more physical capital due to credit access' constraints. Fafchamps et al. [21] show that even if credit access' constraints limit women's capacity to increase their investment in physical capital, this does not explain why they are less efficient than those run by men. Other case studies, having been carried out by De Mel et al. [22] in Sri Lanka, Banerjee and Sendhil [15] in India and Karlan and Zinman [23] in the Philippines have also proven that the difference in terms of equipment would not explain alone the difference of productivity observed between women's and men's enterprises.

Lonstreth et al. [24] as well as Brush [25] think that women's enterprises are less profitable than men's because the concern of maximizing profit does not appear in their objective function. They create small informal production units just to busy themselves or to have a little financial and economic freedom. As for Minguez-Vera and Martin [26], they justify women's enterprises' weak

performances by the fact that women take less risk than men when they are enterprises managers. Broadly speaking, Amin [27] points out that labor productivity and the size of women's informal enterprises are by far inferior to those run by men. The output per capita of worker in women's enterprises represents only 76% to the one of men's enterprises. Concerning the size, the author thinks that men's enterprises are 61% bigger than women's enterprises. It even seems that these results can be generalized in the case of formal enterprises. Brush et al. [28] show that women's formal enterprises generate an average income representing only 26% of men's enterprises income. Through a study on 26 transition-state countries' data, Sabarwal and Terrell [29] reach the result stating that women's enterprises are less profitable than men's enterprises.

Even if everything leads to believe that men are more efficient than women in businesses, some reports invite us to relativize these results. First, a woman works less for example in an enterprise and more in housework. In certain parts of the world, institutional constraints hinder them from being more educated compared to men. Second, when we study women's enterprises' productivity compared to men's, it needs to be carried out by using data collected in the same field of activity. Chirwa [8] and Masters and Meier [30] assess that in developing countries, women practice less profitable and less risky economic activities. In any case, we must know that the above constraints will not and cannot justify by themselves the productivity differences observed between women and men in entrepreneurship. According to Amin [27], these factors do not explain more than 30% of the productivity difference observed between them.

Other justifying elements of this productivity difference have also been highlighted. For example, men's enterprises are often family firms bequeathed by parents. As women rarely benefit from inheritance in certain regions of the world, this would explain why their enterprises are less experienced than men's enterprises. Other authors explain women's coming to business not to make profit but for other reasons which vary rapidly from a country to another. Women from poor households engage themselves in economic activities to support their husbands in family expenditure [31, 32]. The fact that some women reach a higher level of education motivates them into practicing entrepreneurship [33, 34]. The deplorable thing is the fact that these latter practice mostly in informal economic activities [35, 39]. For example, in developing countries, average 60% of working women hold an informal job. In Sub-Saharan Africa, 84% of women practicing an economic activity work in a nonagricultural informal sector to 63% for men [40].

According to Nelton [41], women do not seek to maximize profit, they are rather concerned with the quality of their enterprises' output. This helps us to understand why their enterprises grow a little slower than men's [43, 44]. This idea has been seen otherwise by Rosa, et al. [45]. These authors say that women do not seek to increase the size and/or the number of employees of their enterprises, they rather seek to perform their job well. Thus, one should not analyze women's enterprises only in terms of profitability, but one should also and especially consider their efficiency. Brush [25] thinks that women are also efficient as men except that they do not know how to cheat in business. This is especially true as Dollar et al. [46] have shown that countries having a lot of women in their management departments are less corrupt. Johnson and Storey [47] have also shown that women's enterprises are more stable than men's on the long run. Rietz and Henrekson [48] show that even if men's enterprises outsell women's, there would not be any difference between them in terms of profitability.

The test of productivity difference between women's enterprises and men's enterprises is still then topical. Most of the previous studies were mainly limited by using domestic data that have covered several fields of activities. The reproach to these types of data is to have left out the fact that fewer women are often represented in some sectors. Even if we make use of a small sample like Rosa et al. [45] and Holmquist and Sundin [35], we have the advantage of possessing data collected in sectors of activity whereby women and men are frequently seen as owners of enterprises.

We use primary data collected in Ouagadougou to analyze informal enterprises' performances with particular attention to gender. Our data have been collected from very small production units in such a way that their owners are almost poor. Thus, we shall make gender correspond only to sex. The main question we shall try to answer is as follows: After controlling by socioeconomic variables of the owner and by the characteristics of the business environment as well, is it possible to justify SMEs' productivity difference and dynamism through gender?

In Ouagadougou, eight out of ten households get their income from an informal production unit [36]. When we consider the informal sector's actors, we realize that women are well represented. We think that if their activities were not profitable, their number would have decreased with time. According to INSD's statistics, in the informal sector in Ouagadougou, 47.3% of enterprises are set up and managed by women. However, on the level of employees, men were more paid than women. But, this is justified by the fact that men's working hours (60 hours per week) are longer than women's (51 hours per week). The objective of our analysis is consequently to test that women's enterprises are more dynamic and more efficient than men's enterprises. In order to succeed, we will analyze issues of enterprises' growths through Evan's model [37]. To derive these enterprises' technical efficiency scores, we will use the stochastic frontier model by Mayers and Liu [38].

At the end of our analyses, we realized that our data support the assumption stating that women's enterprises grow more rapidly than men's enterprises. In general, we have also noticed that women's enterprises are younger than men's enterprises. In average, women's enterprises technical efficiency is higher than men's enterprises. Nevertheless, men's enterprises employ more workers than women's enterprises.

The remaining of the chapter is segmented as follows. Section II briefly recalls a few empirical results on the determinants of productivity difference between women and men. Section III presents the models of the dynamism analysis and the technical efficiency and the data as well. Section IV analyzes and discusses the results. The last section sums up the analysis's results and makes a few recommendations to ensure the survival of women's enterprises.

## 2. Literature review on gender productivity difference

In literature, all the results seem to corroborate the fact that men's enterprises perform better than women's enterprises both in developing and developed countries. Johnson and Storey [47] show that from 289 enterprises' data in Great Britain, women's enterprises are smaller than men's enterprises. From 400 enterprises' data from three different industrial sectors, Kalleberg

and Leicht [43] show that determinants of survival and success of enterprises in Indiana (USA) were independent from the owner's sex. Other studies having been carried out in developed countries have also shown that women's enterprises produce less incomes and even employ fewer workers than men's enterprises [25, 49]. Even if it is accepted that there is a difference in women's and men's enterprises' output, Kalleberg and Leicht [43] estimate that this productivity difference is overestimated when one uses national data. To reduce this overestimation, these authors recommend the use of data of the same sector of activity.

Certain studies carried out on data collected in developed countries have often supported the assumption that in some cases, women perform better than men. Carter and Cannon [42] have shown that even if women's enterprises focus too much on qualitative aspects in a short term, quantitative performance indicators are also their concern on the long run. Rosa, et al. [45] have reached the results stating that when we consider small-sized enterprises (1–5 employees), we realize that women's enterprises grow faster while for medium enterprises (more than 20 employees), men's enterprises grow faster.

Education is the variable determining the survival of women's enterprises in Africa. Chirwa [8] has got to the result that education improves informal enterprises' profitability. Akouwerabou [50] has obtained an opposite result on a case study of Burkina Faso's informal enterprises. The author justifies the fact that education affects negatively enterprises' growth due to the fact that qualified owners are in the informal and looking for a job in the public service or in big enterprises. On data from Malawi, Chirwa finds out that women's enterprises grow faster than men's enterprises. This result is contrary to McPherson's findings [51] in the case of South Africa. Akouwerabou [50] from Burkina Faso's informal enterprises' data and Chirwa [8] have found a reversed U relation between the informal enterprise's profitability and its experience. This would signify that whether it belongs to a woman or a man, young enterprises grow less rapidly than the old ones.

Even if this seems to vary very quickly from a country to another, in Africa, we notice that on the scale of informal enterprises, women have more access to credit than men have. This is justified by the fact that microfinance is little developed, and it grants more credits to women than men in towns as well as in rural areas. In Malawi, Chirwa [8] finds out that women have more access to credit than men, while in South Africa, Abor and Biekpe [52] have got to an opposite result.

### **3. Methods and data**

In the current analysis, we seek to test the hypothesis according to which men-owned enterprises perform more than women-owned ones. The purpose of the chapter is to show that the outcomes (dynamism and technical efficiency) of men-owned informal enterprises are better than women ones.

#### **3.1. Data**

We use data collected within the framework of education production in informal activities. These data were collected by Western and Center of African Network for Research in

Education<sup>1</sup> and covered four activities branches in Ouagadougou. The informal sector activities covered by this survey are hairdressing salon, motor bike mechanics, sewing, and carpentry. In this study, we used only the data of hairdressing salon and sewing, which are the activities sectors where we meet men-owned and women-owned enterprises.

The survey was carried out in 2010 and related to 300 small production units in Ouagadougou. With the objective to prevent the production units to count in the same area, 60 informal production units were retained in each of the five districts of Ouagadougou. Informal production unit's number per sub-category of activity is retained according to the representativeness of each sub-category activity according to the data collected by INSD in 2001 in the whole of Ouagadougou town [53]. Collected information are related to the employees number (at the activity starting year and in 2010) and their socio demographic characteristics (age, education level, the type of leasing contract established with the landlord, number of lost working days by the unit members due to disease, etc.)

### 3.2. Model

From theoretical view, one can imagine that the efficiency of a microenterprise influences its dynamism and vice versa. Efficiency influences dynamism through the process of self-financing. When the micro enterprise is efficient, this helps it to achieve more cash flow and then more resource that will supply its self-financing. The past results (dynamism) of the enterprise also influence its current capacities through the process of learning by doing. A microenterprise that carried out good performances from the past must be able to do the same now. These relations may be summed up through the following system:

$$\begin{cases} dy_t = f(\text{effi}_{t-s}, x, z) \\ \text{effi}_t = g(dy_{t-1}, x, z), \text{ with } s \geq 2 \end{cases} \quad (1)$$

Where  $dy$  represents the dynamism or the enterprise growth,  $x$  the characteristics of enterprise,  $z$  the characteristics of environment where the enterprise is,  $\text{effi}$  measures the efficiency, and  $t$  the time.

The analysis of system Eq. (1) requires data of at least two periods. But, the data at our disposal are data of one passage. Consequently, we will replace  $\text{effi}_{t-s}$  by some proxies like most of loyal customers in the microenterprise's earnings. The system relations Eq. (1) form a system of sequential equations, and the equations can be estimated individually.

Evans [37] proposed to consider the enterprise growth as a function of its growth rate and its characteristics. The author estimates that the enterprise growth is mainly influenced by its initial size and age. Let  $G$  be the variable measuring the micro enterprise growth, we can write that:

$$G = \frac{S_{t'}}{S_t} = g(S_t, A)h(x, z) \quad (2)$$

<sup>1</sup> Akouwerabou et al., (2010) Microeconomic analysis of the impact of education on the job market in Urban district of Ouagadougou. <http://www.rocure.org/grants/2010/grants2010bf1.pdf>



In the relation Eq. (2),  $S_t$  represents the number of employees of the most recent year and  $S_i$  the number of employees at the enterprise's year of creation. By considering the logarithm of  $G$  and by carrying out a limited development of order two of  $g(\cdot)$  but by supposing that the function  $h(\cdot)$  is of the type  $h(x, z) = e^{Z\beta + \varepsilon}$ , we obtain:

$$\frac{\log(S_t) - \log(S_i)}{d} = \alpha_0 + \alpha_1 \log(S_t) + \alpha_2 [\log(S_t)]^2 + \alpha_3 \log(A) + \alpha_4 [\log(A)]^2 + \alpha_5 \log(S_t) \cdot \log(A) + Z\beta + \varepsilon \quad (3)$$

Where  $d$  is a normalization coefficient that helps to control the effect of enterprises' age difference,  $\varepsilon$  the term of error  $Z = [x; z]$ .

In the current study, we will suppose that  $Z$  contains variables such as education of the owner, the share of unknown customers in the enterprise's earnings, the number of the entrepreneurs' years of experience in its activity area, the number of inactive individuals dependent upon the entrepreneur, and the number of employees having a formal contract in the enterprise.

We suppose that the group of variables (entrepreneur's education, entrepreneur's experience in the domain and the number of employees who have a formal contract) have a positive influence on the dynamism of IPU's. As for the other two variables (share of unknown customers in the IPU's earnings and the number of unemployed supported by the IPU), we expect that they affect negatively the microenterprise's growth. When an entrepreneur of a microenterprise is supporting many inactive, the enterprise earnings are mostly used to satisfy family needs, which lower the capacity of self-financing. As the access to credit of microenterprises is very low, the use of enterprises' earnings to support social expenditure negatively affects enterprise growth. Likewise, when the enterprise has very few loyal customers, its earnings fluctuate more, given that the demand addressed to it is totally unpredictable.

**Table 1** descriptive statistics show that the number of employees varies between 1 and 8, and enterprises hiring the most are men's enterprises. This implies that women's enterprises grow less rapidly than men's with regard to employment. In average, women's enterprises hire five employees per year to six employees for men's enterprises. At the starting of their activities, men's enterprises even start with more employees than women's. However, women's enterprises are mostly younger than men's enterprises. Considering the level of education, we realize that men have slightly gained this capital than women. Even the most experienced entrepreneurs in their field of activities are among men.

Roughly speaking, we can say that we have a sample that is a bit like Chirwa's [8] in terms of human capital variables. In his study about Malawi, the author has got almost the same characteristics between women and men. Like Chirwa, we come to the conclusion that men outnumbered women in our sample. In fact, 66.1% of sewing and hairdressing enterprises managers having been surveyed are men. Women's enterprises' incomes depend more on their network of acquaintances. About 53% of customers of women's enterprises are people who know personally the manager, whereas 65.2% of customers of men's enterprises are unknown. We see here Okten and Osili's [54] findings stating that women's informal enterprises incomes are straightly linked to their relations network.



Variables	Sample					Women					Men				
	Obs.	Mean	Std. Dev	Min	Max	Obs.	Mean	Std. Dev	Min	Max	Obs.	Men	Std. Dev	Min	Max
growth (dy)	215	.06	.09	−0.15	.60	53	.05	.06	−0.06	.24	162	.06	.09	−0.15	.60
Log (number of employees at startup)	215	.26	.21	0	.85	53	.25	.21	0	.60	162	.26	.21	0	.85
Log (enterprise age)	215	.63	.39	0	3.30	53	.58	.32	0	1.18	162	.65	.42	0	3.30
Number of unknown customers	215	60.74	28.09	0	100	53	47.08	28.88	0	90	162	65.22	26.41	0	100
owner education	15	8.45	4.47	1	19	53	8.2	2.62	3	19	162	8.51	4.93	1	19
Inactive individuals who depend on the owner	215	3.76	3.16	0	0	53	3.08	2.50	0	10	162	3.98	3.32	0	20
Employees with a formal contract	215	.08	.28	0	1	53	.06	.23	0	1	162	.09	.29	0	1
Entrepreneur's experience in the sector	215	10.77	6.28	0	35	53	8.51	4.51	0	23	162	11.51	6.59	0	35

Source: build by the authors.

Table 1. Descriptive statistics of variables used in the growth model.

For the estimation of the technical efficiency scores, we suppose that we have  $N$  firms ( $i = 1, 2, \dots, N$ ), each producing a certain quantity of output  $y_i$  (in logarithm) starting from a vector of input  $x'_i$  and the vector of the exogenous variables  $z'_i = [Z_i: (\widehat{dy}_i)]$  exerting an influence on the inefficiency of the firm. Let us suppose that the unobserved border  $y^*$  is given by the relationship:

$$y^* = x'_i\theta + v_i \quad (4)$$

with  $v_i \sim N(0, \sigma_{v_i}^2)$  and independent of  $x'_i$  and  $z'$  and where  $\theta$  is the vector of the unknown parameters to be estimated. The effective output of each firm ( $y$ ) is equal to the potential output ( $y^*$ ) with an error ( $u_i$ ) whose distribution depends on  $z'_i$ . That allows us to write that:

$$y_i = x'_i\theta + v_i - u(z'_i, \delta), \quad \text{where } u(z_i, \delta) \geq 0 \quad (5)$$

i.e., the effective production is at most equal to the potential production. In relationship Eq. (5),  $u_i$  and  $v_i$  are independent and  $\delta$  is the vector of parameters of the function of the inefficiency. Conditioning by  $z'_i$  we also suppose that  $u_i$  is independent of  $x_i$ . We then consider thereafter that  $u_i \sim N^+[\mu \exp(z'_i\delta), \gamma_u^2]$ , where  $\gamma_u^2$  is the variance of  $u$ . By taking the natural logarithm, we obtain  $\ln u_i = \ln \mu + z'_i\delta$ . If we integrate this expression into Eq. (5), we then obtain the equation of the stochastic frontier of production that will be estimated:

$$y_i = x'_i\theta + v_i - (\ln \mu + z'_i\delta) \quad (6)$$

By writing  $\Gamma = \gamma_u^2 / (\gamma_u^2 + \sigma_v^2)$ , this report helps us analyze the contribution of the inefficiency to the total variance of enterprise output. This variable helps us determine the share of variability of the dependent variable stemming from technical inefficiency. When  $\Gamma$  is null, this implies that inefficiency does not contribute to explain the output variability.

The explanatory variables in relationship Eq. (6) are the labor ( $l$ ) and the capital ( $k$ ) in the function of production and the number of qualified employees, the number of lost working days by the enterprise through members' ill-health, and the potential risk that the entrepreneur assumes in his field of activity (*risk*). This variable is a binary variable that assigns a value of 1 if the IPU entrepreneur thinks that his field of business is too risky. The binary variable ICT assigns a value of 1 if the IPU possesses and uses a mobile phone. The access to credit is represented by *credit*, which is a dummy variable indicating by the value 1 that the enterprise has access to credit. Binary variables representing activities of hairdressing, and sewing, and the predicted variable of dynamism has also been introduced in the inefficiency equation.

We assume that the efficiency of a microenterprise increases with its number of qualified workers. This prediction is established on the hypotheses that theories of endogenous growth have expressed on the capacity of human capital to increase technical efficiency. However, increased levels of worker disease lead to less efficient enterprises. This hypothesis stems from the fact that the more the workers contract diseases, the less they work, thus leading to a decrease of the enterprise's productivity. Finally, we assume that the more the entrepreneur of

Variables	Sample					Women					Men				
	Obs.	Mean	Std. Dev	Min	Max	Obs.	Mean	Std. Dev	Min	Max	Obs.	Men	Std. Dev	Min	Max
Log (sales)	215	4.78	.58	0	5.69	53	4.68	.77	0	5.69	162	4.82	.51	0	5.57
Log (labor)	215	.48	.19	0	.90	53	.46	.19	0	.78	162	.48	.19	0	.90
Log (capital)	215	5.23	.56	3.69	6.39	53	5.29	.59	3.69	6.18	162	5.21	.54	3.69	6.39
Illness	215	25.28	20.43	0	100	53	31.30	22.19	0	100	162	23.31	19.49	0	90
Mobile phone	15	.94	.24	0	1	53	.91	.29	0	1	162	.95	.22	0	1
Credit	215	.06	.24	0	1	53	.11	.32	0	1	162	.04	.20	0	1
Hairdressing	215	.35	.48	0	1	53	.85	.36	0	1	162	.19	.39	0	1
Sewing	215	.34	.47	0	1	53	.15	.36	0	1	162	.39	.49	0	1
Risk	215	.39	.49	0	1	53	.45	.50	0	1	162	.37	.49	0	1
Number of qualified employees	215	.08	.28	0	1	53	.06	.23	0	1	162	.09	.29	0	1

Source: build by the authors.

**Table 2.** Descriptive statistics of variables used in the stochastic frontier model.

the micro-enterprise believes that his business is risky, the more efficient his enterprise is. If the entrepreneur believes that his business is too risky, he will expend more effort to minimize this risk. The efforts of minimization of risk are later converted into profit productivity.

**Table 2** shows us that men's enterprises generate more incomes than women's enterprises. Nevertheless, women's enterprises have got more physical capital than men's enterprises. Women's enterprises are mostly practicing in sewing and their employees contract diseases more than men's employees. A great proportion of women (45%) thinks that doing business in the informal is more risky to 37% of men. Broadly speaking, employees in women's enterprises are more skilled than men's enterprises.

Finally, the relationships that will be estimated are relationship Eq. (3) for the dynamism of the microenterprise and relationship Eq. (6) for the efficiency determinants. These estimations have been carried out with STATA 12.

#### 4. Econometric results

In this section, we present and discuss econometric results. In the first section, we discuss results concerning determinants of enterprises' growth. The second subsection presents and discusses determinants of enterprises' technical efficiency.

#### 4.1. Growth of enterprises

By lining up enterprise's growth and labor, we get a reversed u-relation between growth and women's age. Young women's enterprises grow more rapidly. In fact, the results show us that women aged less than 35 years are more dynamic than older women. As for men, starting an enterprise with a high number of employees negatively affects the enterprise's dynamism. However, unlike women, young men's enterprises grow less rapidly than older men. With regard to **Table 3** significant coefficients, we can also say that men aged more than 25 years are capable of setting up and manage well a medium-sized informal enterprise. Men's enterprises giving formal contracts to their employees are also more dynamic.

#### 4.2. Enterprises' technical efficiency

**Table 2** has shown that women's enterprises have got more physical capital than men's enterprises. Based on **Table 4** results, we can affirm that women's enterprises are overequipped. Women's enterprises' level of equipment is higher than the optimal threshold which they needed. Both for women and men, we shall keep in mind that labor contributes more to improving productivity compared to capital. Our assessments show that credit does not affect men's technical efficiency. Nevertheless, it harms women's enterprises' technical efficiency. This

Variables	Sample		Women		Men	
	Coefficients	std. error	Coefficients	std. error	Coefficients	std. error
Log (labor at starting)	−0.234***	0.073	−0.0839	0.130	−0.434***	0.0869
Log (labor at starting) square	−0.140	0.102	−0.0774	0.243	−0.0575	0.112
Log (age)	−0.142***	0.034	0.296***	0.0887	−0.270***	0.0412
Log (age) square	0.024**	0.012	−0.296***	0.0886	0.0590***	0.0137
Log(Age)* Log (labor at startin	0.200***	0.061	−0.00546	0.136	0.377***	0.0690
Education_head	0.001	0.004			0.00336	0.00378
Unknown_customers	0.0002	0.0002	8.83e-05	0.000283	4.85e-05	0.000225
Age*Educ_head	−0.0001	0.0001			−0.000102	0.000117
Unemployed	0.003*	0.002	−0.00377	0.00324	0.00508**	0.00220
Experience	−0.0001	0.001	0.00343	0.00209	0.000270	0.00110
Number of formal employees	0.0513***	0.018	0.0371	0.0326	0.0603***	0.0199
Constant	0.142***	0.021	0.0162	0.0268	0.223***	0.0304
Observations	215		53		162	
R-squared	0.354		0.462		0.472	

**Source:** build by author; **Notes:** results of the estimation of growth rate.  
**Legend:** \*\*\*, \*\* and \* imply significance at 1%, 5%, and 10%, respectively.

**Table 3.** Determinants of the informal enterprises growth.

Variables	Sample		Women		Men	
	Coefficients	std. error robust	Coefficients	std. Error robust	Coefficients	std. error robust
Production function						
log_lab	0.295**	0.135	1.357***	2.23e-08	0.248***	1.39e-08
log_capital	0.119**	0.0487	-0.0503***	5.45e-09	0.0436***	6.24e-09
Constant	4.479***	0.235	5.061***	1.97e-08	5.146***	3.87e-08
Efficiency function						
illnes	-0.0122	0.00847	-0.0308**	0.0153	-0.0164***	0.00538
m_phone	0.812*	0.472	2.687***	0.705	0.232	0.481
credit	-0.176	0.462	-0.935*	0.542	-0.0616	0.470
coif	0.716*	0.414	0.241	0.360	0.123	0.224
age	-0.0743***	0.0270	-0.118***	0.0457	-0.0251	0.0153
risk	0.691**	0.308	-1.007**	0.508	0.851***	0.177
contrat_formel	-1.489*	0.781	-3.041***	0.850	-0.253	0.352
dy	-2.504	3.141	5.771	3.931	-3.256	2.600
Constant	-0.0122	0.00847	1.803	1.731	0.255	0.777
Function of variance						
$\Gamma$	-3.925***	0.252	-35.92***	0.115	-36.14***	0.0686
Observation	215		53		162	

Legend: \*\*\*, \*\* and \* imply significance at 1%, 5% and 10%, respectively.  
Source: build by author.

**Table 4.** Determinants of enterprises productivity and inefficiency.

result is in contradiction with the result of Marlow and Patton [55] who have shown that access to credit improves women’s informal enterprises’ performances. The fact of managing an enterprise in a very risky field of activity lessens women’s technical efficiency. However, doing business in a risky field of activity is profitable to men. When employees in the enterprise lose working hours due to sicknesses, it negatively affects enterprises’ productivity irrespective of the owner’s gender.

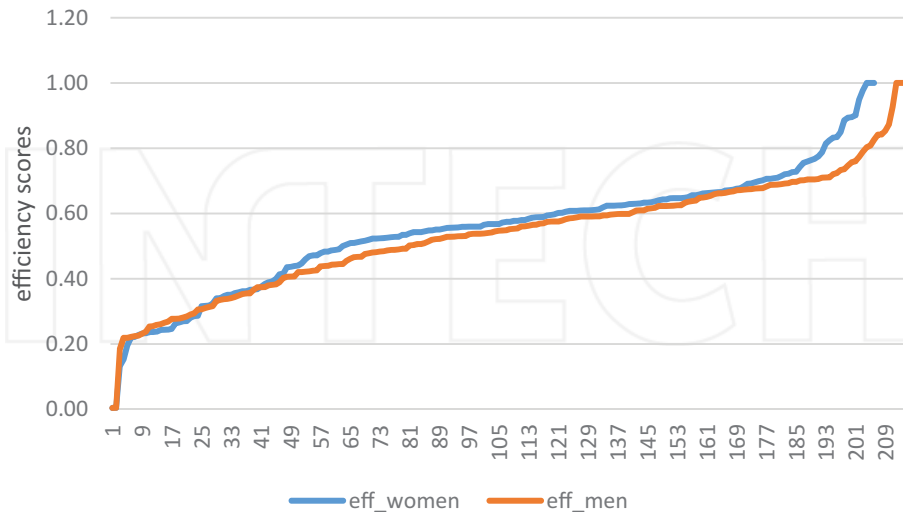
**4.3. Discussion**

In our sample, women’s enterprises are not less equipped than men’s enterprises contrary to the data of De Mel et al. [22] and Banerjee and Sendhil [15]. Nevertheless, we find out that they are inefficient in choosing the level of production factors. Women overinvest in physical capital with regard to the size of the enterprise. Moreover, contrary to the findings of Wasihun and Paul [20] who estimate that women have less access to credit compared to men, we have found out that women’s access rate to credit is higher than men’s. During the last 10 years, microfinance has been developed rapidly in developing countries. But, it has been shown that

in Burkina Faso, microfinance institutions grant more credit to women than men [56]. Our data actually corroborate Minguez-Vera and Martin [26] who said that women are less efficient compared to men in risky fields of activities. However, we have found out that labor is more productive in women's enterprises contrary to Chowdhury and Amin result (2011).

Women's access to credit does not help them to increase their enterprises' productivity. Instead of using the credit to facilitate their enterprises' activities, women often tend to use the credit for consumption items. They get into debt on behalf of their enterprises to insure their families' consumption expenses. Then, they use their enterprises' incomes to pay the credit back [57]. This explains why women who have access to credit are less productive.

**Graph 1** shows that in average, women's enterprises are as efficient as men's enterprises. The curve representing women's enterprises level of technical efficiency is even sometimes on top of men's own. This implies that women are as efficient as men in the informal sector [25]. Thus, by limiting oneself to sales analysis, one can say women are less efficient than men (**Table 2**). Authors like Cuba et al. [49] have drawn conclusions from this type of information that women are less efficient than men. But, in fact, even if women get fewer incomes in comparison to men, they are more efficient than men. **Table 1** descriptive statistics have even shown that their enterprises are more stable than men's enterprises. This table's data show that the minimum growth of women's enterprises is  $-.06$ , whereas men's enterprise is  $-.15$ . This implies that enterprises having laid off more employees, since their creations are found among men's enterprises. This result has also been highlighted by Johnson and Storey [47]. From our view point, the fact of women becoming less skillful is deplorable in the enterprise management as they become older.



**Graph 1.** Technical efficiency scores with regard to the gender of the promotor. Source: Build by the authors.

## 5. Conclusion

Women have long been hindered from setting up and managing their own businesses. After several dozens of political and economic years of efforts, some women have got freedom to do business. Today, the new concern of economists is to know if women are less efficient than men. The first analyses have actually got to the findings that men's enterprises are more profitable than women's enterprises [58, 59].

In this chapter, we have used data from informal enterprises to contribute to this debate. Studies that have shown that women are less efficient than men have gone under a lot of criticisms regarding the quality of data they have used. These studies have mostly used data, whereby women and men do business in different fields of activities. The difference of the sector of activity then prevents to clearly see the impact of gender on performances. Others have also sometimes used data, whereby men run formal enterprises, while women are in the informal. We have used data, whereby women and men practice the same activities.

We have found out that it is more profitable for a woman to set up and manage an enterprise while she is young. However, young men succeed less in entrepreneurship. Unlike then to women, men need to get more experiences in their sector of activities before becoming efficient. This allows to justify why in our sample, women's enterprises are younger than men's enterprises (**Table 1**). Women's enterprises employ less workers than men's enterprises and get less income than men's enterprises.

Women's enterprises are however more efficient than men's enterprises. Women's enterprises technical efficiency scores are slightly superior to men's enterprises scores. Moreover, in terms of vulnerability, women's enterprises are more stable than men's enterprises. We have found out that the frequency of redundancy is higher in men's enterprises.

In order to succeed in entrepreneurship, we advise women to start when they are younger. Even if the development of microfinance in developing countries facilitates them the access to credit, it will be profitable that women index the request of credit to their enterprises' needs. In fact, they should not apply for credit given the easy access to credit, but they should rather do it when their enterprises really need it. Therefore, to better understand why the access to credit negatively affects women's enterprises' technical efficiency, it will be profitable to investigate on the determinants of the credit application by entrepreneur women in the informal sector.

## Author details

Akouwerabou Babikigalaga Denis\*, Legala-Keud Genesquin Guibert and Bayala Balibié Auguste Serge

\*Address all correspondence to: [denisj16@yahoo.fr](mailto:denisj16@yahoo.fr)

Economics Department, University Ouaga II, Ouagadougou, Burkina Faso



## References

- [1] Chaykowski RP, Powell LM. Policy women and the labour market: Recent trends and policy issues. *Canadian Public Policy/Analyse de Politiques*. Nov, 1999;**25**(Supplement: Women in the Canadian Labour Market):S1-S25
- [2] Elson D. Labor markets as gendered institutions: Equality, efficiency and empowerment issues. *World Development*. 1999;**27**(3):611-627
- [3] Heilbrunn S. Impact of gender on difficulties faced by entrepreneurs. *International Journal of Entrepreneurship and Innovation*. 2004;**5**(3):159-165
- [4] Minniti M. Female entrepreneurship and economic activity. *European Journal of Development Research*. 2010;**22**:294-312
- [5] Vossenbergh, S. Women Entrepreneurship Promotion in Developing Countries: What Explains the Gender Gap in Entrepreneurship and how to Close it? Maastricht School of Management, Working Paper No. 2013/08. 2013;1-29
- [6] International Labor Organization. Women and Men in the Informal Economy: A Statistical Picture. ISBN: 92-2-113103-3. 2013;11-20
- [7] Moser CON. Gender planning in the third world: Meeting practical and strategic gender needs. *World Development*. 1989;**17**(1):1799-1825
- [8] Chirwa EW. Effects of gender on the performance of micro and small Enterprises in Malawi. *Development Southern Africa*. 2008;**25**(3):347-3362
- [9] Welter F, Smallbone D, Isakova N, Aculai E, Schakirova N. Women entrepreneurs in the Ukraine, Republic of Moldova and Uzbekistan: Results of a comparative study. In: UNECE, editor. Access to Financing and ICT: Women Entrepreneurs in the ECE Region. Geneva: United Nations; 2004. pp. 39-52
- [10] Aidis R, Welter F, Smallbone D, Isakova N. Female entrepreneurship in transition economies: The case of Lithuania and Ukraine. *Feminist Economics*. 2007;**13**(2):157-183
- [11] Veblen T. The barbarian status of women. *The American Journal of Sociology*. 1899;**4**(4): 503-514
- [12] Greenwood D. The institutional inadequacy of the market in determining comparable worth: Implications for value theory. *Journal of Economic Issues*. 1984;**18**(2):457-464
- [13] Holst E. Institutionelle Determinanten der Erwerbsarbeit: Zur Notwendigkeit einer Gender-Perspektive in den Wirtschaftswissenschaften. *DIW Diskussionspapier*, 237. Berlin: DIW; 2001;1-26
- [14] Pressman S. Explaining the gender poverty gap in developed and transitional economies. *Journal of Economic Issues*. 2002;**26**(1):17-40

- [15] Banerjee, A. and Sendhil M. The Shape of Temptation: Implications for the Economic Lives of the Poor, MIT Working Paper no 10–9. 2010
- [16] Wong R, Levine RE. The effect of household structure on Women's economic activity and fertility: Evidence from recent mothers in Urban Mexico. *Economic Development and Cultural Change*. 1992;**41**(1):89-102
- [17] Udry C. Gender, agricultural production, and the theory of the household. *Journal of Political Economy*. 1996;**104**(5):1010-1046
- [18] Akanji OO. Microfinance as a strategy for poverty reduction. *Central Bank of Nigeria Economic and Financial Review*. 2006;**39**:1-20
- [19] Shane S. A General Theory of Entrepreneurship: The Individual-Opportunity Nexus. UK: Edward Elgar; 2003;118-143
- [20] Wasihun R, Paul I. Growth determinants of women-operated Mivro and small Enterprises in Addis Ababa. *Journal of Sustainable Development in Africa*. 2010;**12**(6):233-246
- [21] Fafchamps M, McKenzie DJ, Simon Q, Woodruff CM. When Is Capital Enough to Get Female Microenterprises Growing? Evidence from a Randomized Experiment in Ghana. NBER Working Paper No. w17207. 2011;211-226. Available at SSRN: <https://ssrn.com/abstract=1882175>
- [22] De Mel S, McKenzie D, Woodruff C. Returns to capital: Results from a randomized experiment. *Quarterly Journal of Economics*. 2008;**123**(4):1329-1372
- [23] Karlan D, Zinman J. Expanding Microenterprise Credit Access: Using Randomized Supply Decisions to Estimate the Impacts in Manila. Mimeo: Yale University; 2010;1-32
- [24] Lonstreth M, Stafford K, Mauldin T. Self-employed women and their families: Time use and socio-economic characteristics. *Journal of Small Business Managment*. 1988;**25**(3): 30-37
- [25] Brush CD. Research of women business owners: Past trends, a new perspective, future direction. *Entrepreneurship Theory and Practice*. 1992;**16**(4):5-30
- [26] Minguez-Vera M, Martin A. Gender and management on Spanish SMES: An empirical analysis. *The International Journal of Human Resource Management*. 2011;**22**(14):2852-2873
- [27] Amin M. Labor Productivity, Firm-Size and Gender. The Case of Informal Firms in Argentina and Peru. *Enterprises Note Series*. 2011
- [28] Brush C, Carter N, Gatewood EJ, Greene P, Hart M. Growth Oriented Women Entrepreneurs and their Businesses (New Horizons in Entrepreneurship). Cheltenham, UK and Northampton, MA: Edward Elgar; 2006;373-392
- [29] Sabarwal S. and Terrell K. Does Gender Matter for Firm Performance? Evidence from Eastern Europe and Central Asia. IZA Discussion Paper Series No. 3758. 2008;1-53. Available at <http://www.iza.org/en/webcontent/publicat>

- [30] Masters R, Meier R. Sex difference and risk-taking propensity of entrepreneurs. *Journal of Small Business Management*. 1988;**26**(1):31-35
- [31] Goldin C. The U-Shaped Female Labor Force Function in Economic Development and Economic History. NBER Working Paper Series, No. 4707. 1994;61-90
- [32] Mammen K, Paxson C. Women's work and economic development. *Journal of Economic Perspectives*. 2000;**14**(4):141-164
- [33] Blau FD, Kahn LM. Change in the labor supply behavior of married women: 1980-2000. *Journal of Labor Economics*. 2007;**25**(3):393-438
- [34] Klasen S, Pieters, J. What Explains the Stagnation of Female Labor Force Participation in Urban India IZA Working Paper N7597. 2013;449-478
- [35] Holmquist C, Sundin E. Women as Entrepreneurs in Sweden-conclusion from a survey. In: *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College; 1988
- [36] INSD. Le secteur informel dans l'agglomération de Ouagadougou: Performances, insertions, Perspectives. Enquêtes 1-2-3. Premiers résultats de la phase 2. Décembre 2000-Novembre 2001. 2003
- [37] Evans DS. The relationship between firm growth, size, and age: estimates for 100 manufacturing industries. *Journal of Industrial Economics*. 1987;**35**(4):567-581
- [38] Myers R, Liu Y. Model selection in stochastic frontier analysis with an application to maize production in Kenya? *Journal of Productive Analysis*. 2009;**31**(1):33-46
- [39] Watkins JM, Watkins DS. The female entrepreneur: Her background and determinants of business choice-some British data. In: *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College; 1983
- [40] International Labor Organization. Women and Men in the Informal Economy: A Statistical Picture. 2002;7-22. ISBN: 92-2-113103-3
- [41] Nelson S. The Challenge to Women. *Nation's Business*. July. 1990;16-21
- [42] Carter S, Cannon T. Women as Entrepreneurs. London: Academic Press; 1992
- [43] Kalleberg A, Leicht KT. Gender and organizational performance: Determinants of small business survival and success. *The Academy of Management Journal*. 1991;**34**(1):136-161
- [44] Sexton DL. Research on Women's business owners. In: Hagen O, Rivchun C, Sexton DL, editors. *Women Owned Business*. New York: Praeger; 1989. pp. 183-193
- [45] Rosa P, Carter S, Hamilton D. Gender as a determinant of small business performance: Insights from a British study. *Small Business Economics*. 1996;**8**(6):463-478
- [46] Dollar D, Fisman R, Gatti R. "Are Women Really the Fairer Sex? Corruption and Women in Government". World Bank Working Paper Series No. 4. The World Bank Group. 1999; 423-429

- [47] Johnson S, Storey D. Male and Female entrepreneurs and their business: A comparative study, conference on women entrepreneurs: University of Bradford. Revised version in. In: Allen S, Truman C, editors. *Women Entrepreneurs*. London: Routledge; 1989-1993. pp. 70-85
- [48] Rietz A, Henrekson M. Testing the female underperformance hypothesis. *Small Business Economics*. 2000;**14**(1):1-10
- [49] Cuba R, Decenzo D, Anish A. Management practices of successful female business owners. *American Journal of Small Business*. 1983;**8**(2):40-45
- [50] Akouwerabou BD. What determines enterprises' technical efficiency? An empirical investigation of informal enterprises in Burkina Faso corruption. *International Journal of Entrepreneurship and Small Business*. 2016
- [51] McPherson MA. Growth of micro and small enterprises in southern Africa. *Journal of Development Economics*. 1996;**48**(1):253-277
- [52] Abor J, Biekpe N. SME's access to debt finance: A comparison of male-owned and female-owned business in Ghana. *International Journal of Entrepreneurship and Innovation*. 2006;**7**(2):105-112
- [53] Institut national de la statistique et de la démographie [INSD]. Résultats de l'enquête 1 2 3. Burkina Faso: Ouagadougou; 2001
- [54] Osili O e. Social networks and credit access in Indonesia. *World Development*. 2004;**32**(7): 1225-1246
- [55] Marlow S, Patton D. All credit to men? Entrepreneurship, finance, and gender. *Entrepreneurship, Theory and Practice*. 2005;**29**(6):717-735
- [56] Soulama S. Efficacité technique et inefficience à l'échelle des Institutions de Micro finance au Burkina Faso. Laboratoire d'Economie d'Orléans, UMR CNRS 6221, Journées Internationales de Micro-intermédiation. 2008;1-24
- [57] Akouwerabou BD. Effect of Mobile Telephony Adoption on Small Informal Firms Productivity in Burkina Faso. IBME. 2013
- [58] Chaganti R. Management in Women-Owned Enterprises. *Journal of Small Business Management*. 1986;**24**(4):18-29
- [59] Chowdhury MS, Amin MN. The effects of human, social, and financial capital on the woman entrepreneurship venturing in Bangladesh. *International Journal of Business and Economics Perspectives*. 2011;**6**(1):138-149

---

# Deinstitutionalization through Business Model Evolution: Women Entrepreneurs in the Middle East and North Africa

---

Richard A. Hunt and Lauren L. Ortiz-Hunt

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70834>

---

*"The first day I sold my perfumes was the best day of my life. Customers loved them. No one had ever bought such a good product at such a low price. I was overjoyed with the success, even though I worried about getting caught running my own business...In the early years, I couldn't even open my own bank account! Everything was cash only." Esraa, Female Entrepreneur from Oman*

## Abstract

This chapter is among the first to examine the interplay between deinstitutionalization and the rollout of novel business models by women entrepreneurs in developing countries. Much of the existing literature has examined the ways in which policy directives by formal institutions are the key drivers of entrepreneurial activity among women. Implicitly, this orientation suggests that the fate of women entrepreneurs is tied to, and cascades from, macro-level deinstitutionalization efforts, arising through changes in policies, laws and regulations championed at the highest levels. While this top-down view may intuitively be attractive, there are empirical reasons to doubt that the "institutional cascading" model accurately captures the underlying mechanisms of entrepreneurial activity among women. Taking a radically different tack, we develop and test an alternative, market-based perspective in which novel business models developed by women drive deinstitutionalization in bottom-up fashion. The context for our study involves detailed case histories of 95 women who started new businesses in the Middle East and North Africa (MENA), 1960–2012. Using a question-driven research design, our findings indicate that deinstitutionalization is strongly associated with the timing and substance of entrepreneurial action taken by MENA women.

**Keywords:** women entrepreneurs, business models, deinstitutionalization, institutional theory, innovation, Middle East and North Africa

---

## 1. Introduction

Success stories of female entrepreneurs in developing economies often elicit surprise, ranging from casual intrigue to brazen incredulity. The long-standing and often intractable impediments faced by women in business are well-documented [1]. However, comparatively little is understood regarding the mechanisms by which women engage in entrepreneurial activity despite business venturing prohibitions or other formal and informal limitations. To date, much of the focus has been on the ways in which women entrepreneurs are favorably or unfavorably affected by institutional policy changes [2] or how they may be enabled as the beneficiaries of grassroots programs, such as the micro-finance model [3]. Missing from these perspectives are the ways in which women entrepreneurs are themselves the instigators of purposeful change, not through political machinations and formalized programs, but through innovative business models that successfully deliver superior goods and services to competitive markets. The purposeful deinstitutionalization wrought from these entrepreneurial actions is the focus of this study.

Recent efforts to better understand the relationship between institutions and entrepreneurial activity have drawn scholars to scrutinize the influence from a variety of perspectives, including: institutional barriers to growth [4, 5], the use of intermediaries to precipitate institutional change [6], the use of “soft power” [7, 8] and use of nonmarket strategies [9–11] to influence firms, industries and institutions through the activation of political and social leverage [12–15]. To varying degrees, each of these perspectives reinforces Baumol’s [16] notion that entrepreneurial activity will emerge to varying degrees and with varying characteristics and intents as a function of the prevailing economic, political, and legal institutions. Scholars focusing on the mechanisms of institutional change have generated a formidable body of empirical work supporting the argument that nonmarket dynamics are non-ignorable sources of influence [5, 17] and that, just as Baumol [16] had predicted, institutions play a pronounced role in emergence and expression of entrepreneurial activity [18–20].

At first glance, it would appear that the macro-institutional template is well suited to the description and analysis of entrepreneurship among women, including those seeking to gain a financial foothold at the base of the pyramid [21]. There are, however, reasons to doubt whether the distinctive, underlying mechanisms of entrepreneurial opportunity pursuit by women have been aptly captured by extant theories [22]. Similarly, it is far from clear that research connecting institutional change to entrepreneurial activity [4–6] accurately conveys the specific set of circumstances faced by female entrepreneurs, particularly those confronting institutional barriers in developing economies [23]. Scholars such as Ehlers and Main [3], Harper [24], and Elam [25] have convincingly asserted that the descriptive accuracy and predictive reliability of existing frameworks are suspect.

Through the effort to articulate an omnibus framework to explain the mechanisms of institutional influence on opportunity emergence [26], scholars may have inadvertently marginalized key mechanisms of action and important sources of variance in opportunity pursuit and venturing outcomes. If so, then explanatory frameworks may be considerably less robust to gender differences than scholars previously had thought and with far greater consequences concerning the entry and survival strategies of female-owned and operated

ventures, particularly in developing economies where the subjugation of women is often deeply entrenched [23, 27]. A central cause of this veridicality gap may stem from efforts by entrepreneurship scholars to develop models of endogenous actors functioning as “institutional entrepreneurs,” individuals who drive change through existing organizations. For example, Greenwood and Suddaby [28] make the strong case argument that institutional entrepreneurship by central organizations is far more important than change-oriented activities occurring on the periphery of formal institutions.

There are a number of problems with the “institutional-actor-as-central-change-agent” perspective [29], including the trenchant reality that institutions often remain unflinchingly inertial for very long periods of time [30]. These problems are magnified in the context of female entrepreneurship [1]. First of all, women have comparatively little presence in governing organizations. Legislative agendas and constitutional initiatives aiming to improve the status of women are often subordinate to hegemonic forces that are more focused on preserving the status quo [31, 32]. This suggests that the impetus for change likely materializes exogenously, not endogenously. Second, the focus on institutional entrepreneurship posits a top-down approach to societal change, such that the forces of deinstitutionalization [33] are the consequence, not the cause, of improved financial prospects for women. This seems dubious since a framework dominated by the conception of institutional action relegates women to the role of simply waiting for male-dominated institutions to confer economic privileges. In fact, studies on the growth in female-owned businesses show that women are not waiting for institutional reform [34]. Finally, an institution-centric approach fails to account for the transformational potential of market-based activities that tie entrepreneurial innovations to eager customers through novel business models that may empower and enable women well beyond the reach of legislative fiat [35].

Our investigation addresses these shortcomings by developing and testing a novel approach to female entrepreneurship that contributes multi-disciplinary insights to research streams in strategic management, entrepreneurship, political science, and development economics. The framework we propose inverts the explanatory model for female-driven business venturing by identifying market-based mechanisms that fuel deinstitutionalization from the bottom-up, rather than the top-down. Existing scholarship on women entrepreneurs overwhelming tends to characterize them as targets of institutional initiatives rather than as co-instigators of deinstitutionalization [1]. While there may indeed be instances of the top-down dynamic, counter-examples abound [35], suggesting that fresh theoretical perspectives are needed. The purpose of this paper is to answer this call.

Leveraging insights drawn from the burgeoning domain of business model analysis [36–38] and then bridging this literature to seminal works on deinstitutionalization (e.g., [33, 39]), we investigate how customer-focused, market-based innovations by female entrepreneurs are a key driver of the institutional changes affecting the financial and legal status of women. The context for our study involves detailed case histories of women who started new businesses in the Middle East and North Africa (MENA), 1960–2012. Despite their central role in fostering the survival of families throughout the world, women entrepreneurs in developing countries are notoriously under-studied. The paucity of research is even more acute in the case of MENA women entrepreneurs due to socio-religious and cultural restrictions that often impede the collection of detailed narratives [40].



Our investigation of this under-examined population of entrepreneurs illustrates our key contribution concerning the governing mechanisms of deinstitutionalization through entrepreneurial action by women; namely, by bringing to market radicalizing business models for the sake of profiting from market success, women entrepreneurs unintentionally trigger reassessments of institutional structures and aims that often result in improvements to the economic and legal status of women.

In the absence of a clear theoretical frame to examine the bottom-up deinstitutionalization through market-based business model innovations by female entrepreneurs, we proceed in the next section with the development of framing questions, which we use to derive a series stylized findings that hold rich implications for scholars and practitioners.

## 2. Framing questions

Theoretically and empirically, existing literature has sought to draw meaningful connections concerning the relationship between institutional policy and entrepreneurial action. However, the dynamics involved in deinstitutionalization from a business model-driven, bottom-up perspective fundamentally diverge from extant scholarship. Since it is our contention that omnibus theories of entrepreneurial action were not crafted taking into account the distinctive context of female entrepreneurs from developing countries, there was reason to believe that our line of inquiry would benefit from the use of framing questions in order to explicate the phenomenon at a mechanism level. Through these we sought to ascertain a set of stylized facts that could then be compared and contrasted with frameworks, reasoning and evidence from existing theory. This approach, one that departs from traditional hypothesis testing, applies methodological tools and insights from recent studies by Moeen and Agarwal [41] and O'Neill and Rothbard [42].

### 2.1. Women entrepreneurs—material progress, continuing challenges

In recent years, despite the stymieing effects of long-standing socio-cultural and economic constraints, women have come to play an increasingly important role in generating economic growth through entrepreneurial activity [43]. In fact, women now account for more than 40% of all new ventures [44], versus one-fourth that number: a mere 10% of all business start-ups: only a quarter century ago. This dramatic increase in entrepreneurial activity includes a significant and rapidly growing presence in developing countries [27, 45] where some governments have sought to activate the levers of public policy in order to stimulate and support the growth and development of women-owned businesses [2]. This surge in women-led entrepreneurship validates early attempts by policy pioneers to advocate steps to promote the role of women in creating economic growth through business venturing [23]. It also confirms the insights of prescient scholars who sought to highlight the importance of studying women entrepreneurs as a unique and vital subset within the broader landscape of entrepreneurship research [46]. Progress in the realms of public policy and scholarly research has underscored the facets of opportunity identification and development that are unique to the conditions and outcomes of women entrepreneurs [2]. This, in turn, has laid the groundwork for continued growth in the quantity, diversity and impact of new business venturing by women [47–49].

## 2.2. Women entrepreneurs in the Middle East and North Africa

Although women are challenged by institutional inertia worldwide, the MENA region offers an unusually good portal through which to assess progress toward deinstitutionalization. Prior literature has studied the role of Islam and the Shari'a on women's entrepreneurship [50], including efforts to identify the most fruitful policy initiatives to stimulate business ownership among women [40, 51]; however, extant research has failed to account for the ways in which women entrepreneurs may play a transformational role in driving deinstitutionalization and supporting market-based efforts to promulgate sustainable existence.

**Question 1:** *Has female entrepreneurship in MENA been a cause or an effect of deinstitutionalization?*

While entrepreneurial activity by women has increased worldwide in the past 30 years, women in the MENA region have notably lagged as a consequence of formal and informal restrictions on their freedom to engage in commercial activity [40, 52]. Oppressive legal restrictions and unequal access to financial and non-financial resources have conspired to severely limit the quantity, quality and diversity of entrepreneurial activity among women throughout MENA. Fewer than 28 percent of the adult women in MENA are economically active, the lowest rate in the world [53]. O'Sullivan and colleagues [54] point to a number of key factors, such as cultural attitudes, gender laws, and weak support systems, including little if any family-level advocacy. Dana [55] similarly noted limitations based on lack of financing, exclusion from male-dominated informal networks and widespread social attitudes that business ownership is strictly a domain for men.

**Question 2:** *Do legal strictures forestall entrepreneurial action by women? If so, then what explains the presence of women entrepreneurs throughout the region? If not, then how and when does entrepreneurial action precede institutional change?*

Concomitant to documenting the paucity of entrepreneurial activity among MENA women is the parallel issue of how some women do in fact succeed in pursuing entrepreneurial opportunities despite the persistence of an unfavorable institutional overlay. Very little research exists of female Muslim entrepreneurs operating in an Islamic context [54]. That which does exist mainly focuses on how macro-level institutional forces create environments that are either favorable or unfavorable to new business foundings. Left unexamined are the factors that influence behaviors and outcomes in a market-based approach to business model development by women.

**Question 3:** *What is the nature of business founded by MENA women? From where do the ideas and innovations emerge? Are the enterprises copycat businesses or do they break new ground?*

**Question 4:** *What is the effect of women entrepreneurs launching novel business models under socially, culturally and economically restrictive conditions?*

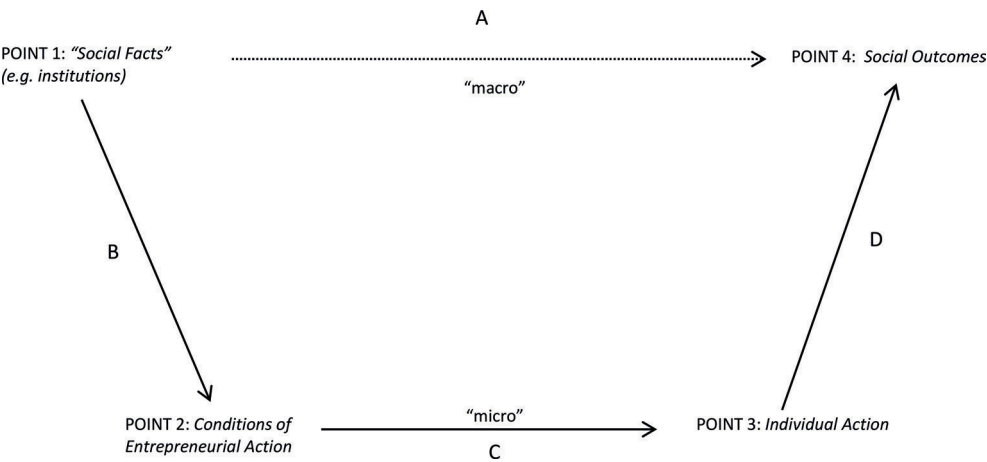
## 2.3. Mechanisms of entrepreneurial action

A key claim from the outset of this paper involved the assertion that omnibus conceptions of entrepreneurial action and Baumol-inspired institutional influence may not be sufficient grounds for the identification and description of the underlying mechanisms for entrepreneurship among MENA women. In order to properly test this claim, we needed to pose framing questions regarding the micro-level mechanisms of entrepreneurial action.

Entrepreneurial action is a meso-level phenomenon [56, 57] in which an actor (e.g., individual, firm, trade association) ultimately seeks to influence the system(s) in which it is embedded, presumably to improve the actor’s autonomy or power in relation to the system [56–58]. This meta-theoretical relationship has been depicted graphically by Coleman [58], explicated by Hedström and Swedberg [59], and recently applied specifically to entrepreneurship [60]. Kim and colleagues note, “Hedström and Swedberg’s application of Coleman’s bathtub model urges scholars to focus on three types of mechanisms: (1) situational mechanisms (represented by [B] in **Figure 1**) by which the macro environments in which actors are embedded: such as countries, regions, organizations, markets, fields, and networks: shape actors’ opportunities, goals, and beliefs; (2) action-formation mechanisms (represented by [C]) that explain how these opportunities, goals, and beliefs influence and actor’s behavior; and (3) transformation mechanisms (represented by [D]) that account for how the behavior of many actors jointly brings about both intended and unintended macro-level outcomes” (p. 277).

As **Figure 1** displays, the fundamental starting point for an entrepreneur who intends to bring to market novel technologies, organizations, or business models involves confronting the conditions that challenge one’s ability to interact with the macro-environmental context. In more contemporary entrepreneurship theory, Shane and Venkataraman, [61] McMullen and Shepherd [57], and Sarason et al. [62] each present conceptualizations of entrepreneurial action that acknowledge the influence of both system and individual in the contemplation of opportunity for entrepreneurial action. McMullen and Shepherd [57], for example, note that actors must first become aware of the possibility that an opportunity for someone exists before they can evaluate whether it represents an opportunity for them to engage in entrepreneurial action.

**Question 5:** *From where do MENA women entrepreneurs get their innovations and ideas?*



**Figure 1.** Coleman’s boat.

Upon arriving at the conclusion (intuitively, if not deliberately) that the environment may indeed offer a possible opportunity for someone [57], actors must take action. Here, individuals contemplate the external environment and ask, how does what's happening out there affect me [63, 64]? How should a situation be interpreted given the actor's knowledge, skills, abilities, motives, and intents? These questions involve meso-level phenomena occurring exclusively within the actor-level, such as when individual-level preferences are argued to produce an entrepreneurial orientation at the firm-level [56, 65].

**Question 6:** *What forms of entrepreneurial action are undertaken by MENA women? What drives the decision to act? From where does the influence arise?*

This brings us to the transition from micro-level back up to macro-level, wherein the actor seeks to influence the system, institutions, or structure in which she is at least partially embedded. Research interested in this link seeks to understand the mechanisms actors use to transform systems and focuses on "how" as opposed to the "when and where" of situational mechanisms or the "whether, why, and who" of action-formation mechanisms. Thus, actors do not necessarily engage in behavior with the intent of transforming the system, but nonetheless they still can and do [66]. Through this process, social norms can evolve to govern behavior without individuals being consciously aware of their influence [67].

**Question 7:** *Are the micro-level entrepreneurial actions of MENA women transformative? If so, when and how?*

### 3. Extant theory: institutional cascading

#### 3.1. Women entrepreneurs and deinstitutionalization

Extant scholarship has largely focused on the capacity and resolve of existing institutions to enhance or inhibit entrepreneurial activity among women [34, 35]. As Jennings and Brush [1] noted, the small amount of prior research on women's social and environmental entrepreneurship has tended to "portray women as the targets rather than as the initiators of enterprise initiatives," (p. 711) including the rapidly growing literature on micro-finance organizations. Grassroots studies examining the role of women entrepreneurs in fostering sustainable livelihood assets [68] have framed the obstacles and opportunities of women [34] in terms of the entrepreneurial actions women have taken within the context of existing institutional constraints and support systems [69, 70]. Implicit in this approach is an event sequencing logic that presumes institutional change is the key driver of entrepreneurial activity and sustainable organizational forms among women. This, in turn, suggests that the fate of women entrepreneurs is tied to, and emanates from, deinstitutionalization, which "refers to the erosion or discontinuity of an institutionalized organizational activity or practice." [33]. When policy actions instigated by formal institutions foster greater participation by women, then opportunities for women should increase in cascading fashion. The essence of this perspective is captured in **Figure 2**.

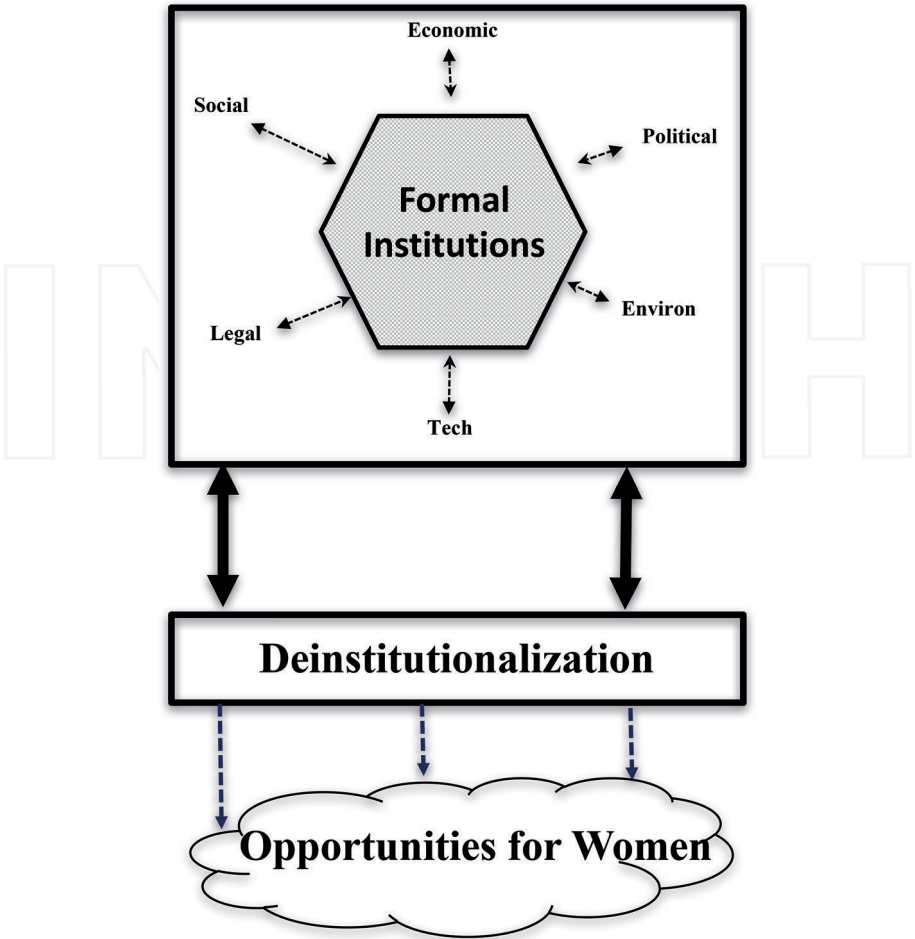


Figure 2. “Institutional cascading” approach to deinstitutionalization.

In many instances, the top-down model is a reasonable and effective basis for conceptualizing the deinstitutionalization process. As the double-headed arrows suggest, actors operating across a wide array of formal institutions take actions that promote or inhibit the process of deinstitutionalization. As momentum toward deinstitutionalization or away from deinstitutionalization occurs, institutions are themselves affected in a feedback loop. In time, this formalized process of deinstitutionalization will trickle down to women, including entrepreneurs, who will experience an increase or decrease in the quantity and diversity of opportunities, depending on the specific nature of the deinstitutionalization that is occurring.

For example, prior to the Islamic Revolution, women in Iran enjoyed access to educational and professional opportunities virtually on par with those experienced by women in western

industrialized democracies. When the Shah was deposed in 1979, the existing institutional structures were largely discarded through legislative change wrought from the Islamic Revolution, including broad policies aimed at limiting business and educational opportunities for women [73]. The deinstitutionalization and subsequent reinstitutionalization processes involved a top-down, “institutional cascading” of constitutional reforms that had a demonstrable impact on the dramatically reduced quantity and diversity of entrepreneurial opportunities available to women.

While the institution-centric framework is intuitively enticing given various efforts to change the socio-economic status among women in a top-down fashion, the “institutional cascading” model [74] may actually be constructed upside down [12, 56] when applied to many circumstances involving women entrepreneurs in MENA. Importantly, Oliver’s framework makes no governing assumptions regarding the origins of the mechanisms that drive deinstitutionalization. Rather, the top-down conceptualization appears to be an artifact of scholarship emanating from political science [71], sociology [72] and management [33] that have focused on legislative reforms and other macro-institutional policies as the principal sources of change that impact the legal and economic status of women entrepreneurs [1]. Unstudied to date is an alternative perspective in which novel business models developed by women entrepreneurs may instead lead to deinstitutionalization through the spread of new, market-based approaches, in a bottom-up fashion. As a source of influence impacting the long-term status of women and the fate of women-owned business, the differences between the top-down and bottom-up conceptions of deinstitutionalization could not be more stark. The ability and willingness of marginalized women exerting influence from outside the system constitutes a direct challenge to conceptions propounding institutional macro-mechanisms driving change through top-down cascading.

Existing literature on institutional change is deeply bifurcated on the role of agency and actors. On the one hand, some scholars have held that new ideas more often occur at the margins of a field, where individuals and groups are less beholden to formal and informal institutional norms and are more cognizant of institutional contradictions [75, 76]. On the other hand, emerging scholarship on endogenous actors and “institutional entrepreneurs” holds that centrally situated individuals are far more likely to possess the means and inclination to affect institutional change [28, 77–79]. Elam [25] makes the case that neither perspective is entirely useful to the study of women entrepreneurs because each view fails to account for the market-based forces that shape the decision-making logics of women who influence formal and informal institutions without intending to do so. Instead of presuming an institutional provocation as a call to action, a more reasonable starting point may be the creation of novel business models that are developed to address market opportunities [80].

#### **4. “Bottom-up” alternative: business model innovation**

By its very nature, institutional cascading presumes a “wait and see” approach by prospective women entrepreneurs for propitious times that ensure a high degree of social validation, as



would be suggested by the macro-structural-dominant consideration represented by Point 4 in our earlier rendering of Coleman's Boat (**Figure 1**). While the importance of formal and informal institutional influence enjoys a strong scholarly heritage (e.g., Baumol [16]; North [18]) and selected sources of empirical support [4–6, 10, 14, 15], it lacks much needed veridicality in the context of women who persist in pursuing entrepreneurial activity even in the face of institutional impediments and outright prohibitions. Solely engaging a top-down conceptualization of deinstitutionalization appears untenable under these circumstances. Our alternative approach proposes a bottom-up conceptualization based on business model innovation [81].

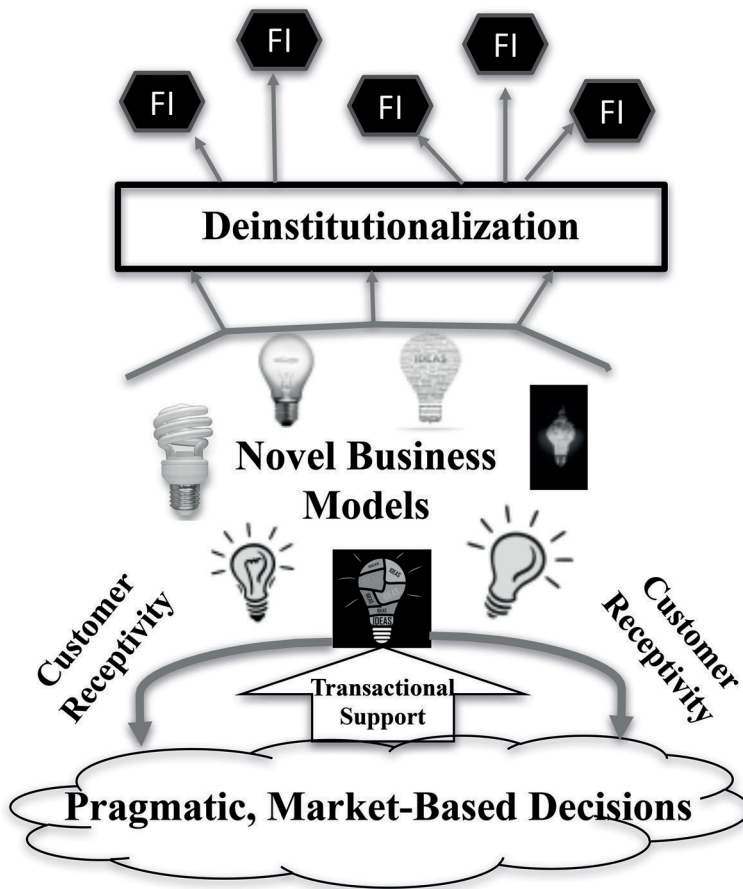
#### 4.1. The deinstitutionalizing effects of novel business models

Business models are the distinctive means by which a firm creates and captures economic value. Zott and Amit [82] refer to business models as the logic of the firm, "the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities" (p. 511). It is, in the words of Porter [83] an "activity system," consisting of dynamic linkages that form a system of managerial decisions that, if successful, interlock in a complementary fashion with customer choices [82]. The focus on systemic linkages, value-enhancing activities and transactions [56] is a key facet to understanding novel business models developed by individuals through entrepreneurial activity. The customer-focused nature of business model frameworks [84, 85] is expressed through an explicit emphasis on developing and delivering the firm's value proposition [86–88]. In this sense, the customer is the "central anchor" for managerial decision-making [89, 90].

In the context of deinstitutionalization, the generation of novel business models to service evolving customer needs functions as a leading indicator of socio-cultural change [84]. While models of institutional entrepreneurship have suggested that "individualistic values are not superior to collective values as far as alertness and entrepreneurial discovery are concerned" [24] (p. 4), the sum total of market-based influences involves an amalgamation of individualistic values that can be a potent force in directing behaviors, decisions and business outcomes [89]. It is likely, then, that women who face an unfavorable constitutional regime or onerous policy environment still seek value-creating opportunities that long precede changes to institutional strictures and structures. As the proposed model depicted in **Figure 3** suggests, the starting point for this deinstitutionalization emanates from pragmatic, market-based decisions to offer better goods and services to customers.

Regardless of whether a business is owned and operated by a man or a woman, the first consideration is the owner's ability to behave entrepreneurially when seeking to generate distinctive value for customers. As Wirtz et al. [91] noted: "A business model reflects the operational and output system of a company, and as such captures the way the firm functions and creates value" (p. 274). McGrath took a similar tack, emphasizing that business models consist of "process or operational advantages, which yield performance benefits when more adroit deployment of resources leads a firm to enjoy superior efficiency or effectiveness on the key variables that influence its profitability" [92] (p. 249). Thus, the decisive characteristic of a successful female entrepreneur is not that she is female, but that she is entrepreneurial [34] and has the willingness and ability to develop and implement novel resource combinations that deliver superior efficiency and/or effectiveness to her customers.





**Figure 3.** Business model innovation approach to deinstitutionalization.

In **Figure 3**, customer receptivity to new and better modes of delivering value results in market feedback that validates strategic and operational decisions. “Transactional support” refers to the development and implementation of specific business model support systems through market transactions with customers. Based on customer receptivity, transactional support is continuously modified to better deliver value [56]. The consequence of this is the emergence of new business models that are “interlocked” in complementary fashion with customer choices [82].

Our proposed bottom-up model theorizes that the validation of these complementary interlocks exerts deinstitutionalizing forces on a wide assortment of formal institutions (indicated by positively oriented “FI” reactions to deinstitutionalization in **Figure 3**). When deinstitutionalization occurs in this fashion, constitutional reform and other legislative changes affecting women are a consequence of grassroots mechanisms originating with market-based decisions by women who did not aspire to precipitate institutional change, but did so unintentionally through receptivity to the novel business models by the market. Thus, rather than

witnessing an institutional cascade through formal instructional reforms being the starting point for female entrepreneurs, we posit deinstitutionalization as a consequence of novel, customer-centric actions already taken in the marketplace.

## 5. Study design

### 5.1. Question-driven inquiry

Our line of inquiry constitutes a significant departure from existing frameworks and empirical studies that have focused on the ways in which women entrepreneurs primarily exploit existing, institutionally endorsed business models Jennings and Brush [1]. Missing from existing perspectives are important ways in which women entrepreneurs experiment with novel business models that precede the endorsement of formal institutions. For this reason, we engaged in a question-driven empirical analysis. The efficacy of this approach is underscored through a Special Issue (SI) call by the *Strategic Management Journal* (SMJ) focusing on “Question-Driven and Phenomenon-Based Empirical Strategy Research,” led by Graebner, Knott, Lieberman, and Mitchell. The intent of this emerging methodology, and SMJ’s SI, is to “focus on identifying and analyzing key questions about strategy and strategically relevant phenomena, as alternatives to developing specific hypotheses.” Like many studies employing contexts that were neither well-contemplated nor fully appreciated at the time of theory development, the methodological design employed in this study was justified by the fact that an inverted, bottom-up approach to the institutional influence of MENA women entrepreneurship is not well-explained by the logics of existing theories.

### 5.2. Case histories

We tested our re-conceptualization of the interplay between entrepreneurship and institutions through detailed case studies of 95 women entrepreneurs in seven MENA countries, each collected over a period of 1–5 days, through interviews with the entrepreneurs and associates. The case histories were compiled as part of a joint cultural anthropology and economic geography study conducted by faculty members and doctoral students from two large, American research universities as well as USAID employees working in the region. All 21 investigators had professional training in recording detailed ethnographies. The co-authors of this paper worked with the ethnographers to obtain specific entrepreneurship-oriented narratives that were relevant to our research questions, including the refinement of the framing questions. This ensured linguistic accuracy and preserved meaning across dialects. One or more of the co-authors accompanied the ethnographers on 23 of the in-depth interviews, totaling more than 400 hours of contact with the subjects.

The sample was comprised of 25 women in Morocco, 15 each in Egypt and Jordan, and 10 each in Algeria, Tunisia, UAE and Oman. The set of cases for each country included former and current women entrepreneurs, ranging in age from under 20 to over 70. The average age across all the cases was 47 years old. The stipulation for participation required that each woman must have founded her own revenue-generating business. None of the businesses

were inherited from family members or spouses. Thirteen of the women had started multiple businesses. The average lifespan for the businesses was 11 years, with a range of 2–55 years. Annual revenues ranged from U.S.\$3700 to \$45MM.

In addition to extensive discussions with the entrepreneurs, researchers also spoke with other individuals in each entrepreneurs' family and business network, with the permission of the entrepreneur. These "triangulating" interviews provided confirmation and significant elaboration of details offered by or omitted from the entrepreneurs' own accounts. No fewer than five triangulating interviews were held for each subject, with a small number exceeding 20 interviews.

The entrepreneurship-related facets of the case histories focused on obtaining a detailed description of each entrepreneur's business model, using key elements and common threads drawn from the conceptual frameworks developed by Hamel [93], Linder and Cantrell [94], Applegate and Collura [95], Osterwalder and Pigneur [37], and Zott and Amit [82]. Through these case histories, we sought to examine the evolution of viable business models in three regards: (i) The evolution of firm-level business models from the time of market entry until the sale or closure of the business; (ii) The evolution of viable business models over time across the full population of case histories, consisting of firm foundings from 1960 to 2012; (iii) The evolution specifically of market entry business models over time.

Each case history sought to elucidate the experiences of actual individuals drawn from specific entrepreneurial action that had been undertaken, usually involving the formation of a company and necessarily involving the sale of goods and services, evidenced by actual transactions that had occurred. Consistent with theory-building methods that employ the analysis of heterogeneous case studies [96, 97], the real-life cases comprising this study intentionally sought to illustrate diverse individuals and contexts in order to synthesize findings that were representative of common experiences, not fringe cases.

### 5.3. Stylized findings

Central to harvesting stylized findings from heterogeneous cases are two finely balanced aims: (i) diversity of the individual contexts, and (ii) representativeness of the overall collection of contexts [98, 99]. Single case studies are often used in management research to delve into extreme exemplars to address observational gaps that elude mainstream deductive research [100], such as Dutton and Dukerich's examination of New York's Port Authority [101] or Weick's classic exposition of the Mann Gulch Fire [102]. However, as Eisenhardt and Graebner [97] noted, while single-case studies may be an excellent tool for establishing the existence of a phenomenon, theory building is better serviced by the use of multiple cases. Analysis of diverse cases is also highly instrumental in addressing the "multiple meanings problem" [97, 103] that often bedevils qualitative research. Since multiple-case studies are characterized by intentional dissimilarity of an appropriately diverse set of cases [96, 104], the central analytical aims are triangulation and synthesis [105], not the extrapolation witnessed in single-case designs, or the refinement of extant theory by repetitive cases in a particular context. Multiple meanings are systematically culled out through the process of investigating a similar phenomenon across distinctive contexts [105, 106]. In the exposition that follows, our triangulation reveals common threads emerging from varying individuals and contexts.

## 6. Findings and synthesis

As noted from the outset, the purpose of this study was to investigate the underlying mechanisms driving MENA women to pursue entrepreneurial action even when confronted by institutional impediments. Our testable conjecture was that profit-seeking women developed and implemented innovative alternatives to extant goods and services. Further, these disruptive business models had an indelible, though largely unintended, effect on deinstitutionalization, thereby improving the financial and legal status of women. In the absence of a clear framework through which to construct hypotheses regarding a bottom-up process of deinstitutionalization, we developed seven framing questions to guide the interview process as we built the case histories. Ten stylized findings emerged, each of which generate novel theoretical contributions germane strategy, entrepreneurship, sociology and development economics.

Of the 95 case histories included in our study, 82 involved women entrepreneurs using business models in a fashion that did not strictly subscribe to the prevailing legal, social, cultural or economic conventions at the time of the firm's founding, but nonetheless achieved profitability, acceptance and longevity as institutions morphed to accommodate consumer-driven, market-based outcomes. Our findings provide support for our central argument: Evolving business models developed and promulgated by women entrepreneurs in developing countries simultaneously create new sources of customer value and, in an unintended fashion, contribute to the deinstitutionalization of barriers to entrepreneurial activity by women.

As noted above, we structured our inquiry to ascertain if and how business models evolved over time in three respects: (i) The evolution of firm-level business models from the time of market entry until the sale or closure of the business; (ii) The evolution of viable business models over time across the full population of case histories, consisting of firm foundings from 1960 to 2012; (iii) The evolution specifically of market entry business models over time.

First, we needed to establish that women had in fact started businesses and, since we were interested in whether entrepreneurial activity pre-dates or post-dates deinstitutionalization, we needed to establish whether the businesses were legal or illegal at the time each woman commenced commercial activities. As **Table 1** indicates, being a MENA woman entrepreneur almost always involved launching businesses that were illegal in some form or fashion.

Firm formation and other market-based action ensued despite formal institutional impediments. Key insights on this point are dramatized by the following perspectives:

*"I started my business because I saw the opportunity to make money. I was not ignorant of the fact that I might get in trouble, but I wasn't going to let a good idea slip away either."* Sunny, from Oman

*"People used to say that I was brave to strike out on my own at a time when women simply did not operate businesses, but now it is very common. Some of the best business owners are women."* Farah, from Tunisia

In many cases, the impediments involved significant gender-related socio-cultural issues, as well:

*"You think it's easy for a woman to run a business in Egypt? Try telling a male employee that he has made a mistake. Try telling a company with a male owner that they owe you money."* Sara, from Egypt

Country	Study participants	Participants who launched illegal businesses	Illegal businesses launched by participants	Illegal businesses that became legal through institutional changes
Morocco	25	21	47	40
Egypt	15	12	22	17
Jordan	15	11	36	36
Algeria	10	9	16	14
Tunisia	10	9	21	21
UAE	10	10	17	13
Oman	10	10	16	11
<b>Total</b>	<b>95</b>	<b>82</b>	<b>175</b>	<b>152</b>

**Table 1.** Illegal business foundings and the institutional response.

These recurrent themes ran throughout the ethnographies, crystallizing in two key findings related to unsponsored grassroots action:

**Finding 1:** *MENA women can and do start businesses despite legal strictures and social conventions barring such actions.*

**Finding 2:** *Women take market-based action before institutional policies formally allow them to do so.*

As **Table 1** illustrates, the women in our study launched 175 total businesses that were based on business models that were forbidden by laws that existed at the time of founding. In time, 87% of these businesses (152 businesses in total) eventually became legal enterprises under the applicable laws of each country. This means that the study participants launched a multitude of illegal businesses across a span of 50 years, of which the overwhelming majority were eventually sanctioned. The frequency with which new foundings consisted of partially or wholly illegal enterprises is not atypical in countries characterized by large informal economic sectors, sometimes accounting for more than two-thirds of the overall economy [107, 108]; however, MENA women entrepreneurs historically have had few, if any, formal sector alternatives, driving them to engage in illegal, informal entrepreneurial action, or non-participation. Overwhelmingly then, market entry and survival were driven by business model innovations developed by the women, despite impediments, which ranged from prohibitions against holding a bank account to owning land, and from laws against driving to laws forbidding the consummation of transactions. In time, all but 23 of these businesses became legal, meaning that in the vast majority of instances, MENA women entrepreneurs acted prior to the activation of institutional policy. A sample of these innovations and the legal impediments at the time of founding are captured in **Table 2**.

As the examples in **Table 2** reveal, MENA women entrepreneurs often operate illegal businesses for lengthy periods of time before they were institutionally sanctioned. This means that market entry and commercial operations preceded formal legitimacy to do so. The deinstitutionalization-reinstitutionalization processes involve a battle between non-conformity and institutional inertia [33]. Through societal reassessment of behavioral standards, Oliver posited

Business model innovation	Legal status	Institutional response
Prepare fresher food for vendors by cooking the morning of sale in 1960	Illegal at the time to be involved in commercial enterprise	Law changed in 1974
Sell customized orders direct-to-consumer contact in 1971	Illegal at the time to publicly transact for goods or services	Law changed in 1985
Establish co-location of complementary businesses 1984	Illegal at the time for women to own or manage real estate	Law changed in 1989
Finance the business activity of other women as franchises 1993	Illegal at the time for woman to hold a bank account	Law changed in 2007
Provide consulting services to women 1999	Illegal own and operate a business.	Law changed in 2003
Design B2B website and monetize its content 2001	Illegal to solicit and process online transactions	Law changed in 2010

**Table 2.** Sample business model innovations and deinstitutionalizing responses.

institutional “erosion” occurring over long periods of time, which eventually brings societies to a “tipping point” when deinstitutionalization can be observed. The timelines for the 152 illegal businesses suggest that the entrepreneurial activities drawn from the case histories occurred as part of the erosion leading to deinstitutionalization, not an ex post, reinstitutionalized beneficiaries of a top-down policy changes. The narrative is clearly one of “act-and-see,” not “wait-and-see” [109] From the half century of erosive activity we discover that:

**Finding 3:** *Female entrepreneurship in MENA is associated with deinstitutionalization*

**Finding 4:** *Institutional policy action follows after entrepreneurial actions by MENA women more often than it precedes it.*

**6.1. Customer focus**

Having established that MENA women entrepreneurs emerged despite an array of legal prohibitions and that their entrepreneurial activities are associated with the erosional phase of deinstitutionalization, it is necessary to ask how this occurs if we are interested in examining the micro-level, bottom-up mechanisms of this action. The following excerpts are typical of the comments drawn from the ethnographies. Above all else, early-stage innovating and go-to-market decision-making hinged on the women’s ability to identify and exploit customers’ needs, wants and desires more efficiently and effectively than existing solutions available in the market.

*“Women make most of the purchases for their families, so who is in the best position to create new products that women like? It is easy to out-think and out-maneuver businesses run by men when it involves things that women purchase.” Raghda, from Jordan*

*“I love selling to customers. Most of them have become loyal to me over the years because they trust me and know that I will do what I promise. A customer is the most valuable thing for a business and I treat my customers like they are part of my family.” Meriem, from Algeria*



A dedicated sense of connectedness to customers is a hallmark of business model research [92, 110]. In this context, it helps to explain how illegal businesses were able to survive and thrive despite laws prohibiting their existence. Ultimately, customers made decisions based on demonstrable value, not the legal system [111]:

**Finding 5:** *Customers of MENA women entrepreneurs are attracted to goods and services despite institutional policy, not because of it.*

Single-minded attentiveness to customer satisfaction provides a kind of “security blanket,” insulating women entrepreneurs from legal strictures because loyal customers are their best protection to the extent that women entrepreneurs can deliver superior value. In a sense, the transformational nature of their effort was vastly subordinate their customer-focused aims, not because they were indifferent to the plight of women, but because the best way to pursue entrepreneurial passion and ensure that their respective business survived was to remain relentlessly customer-centric. Thus, the motives and actions of the 95 women in the study were unambiguously focused on being an outstanding businessperson.

*“Hard work. That is my only rule and my only motto: Hard work. Everything I’ve ever gained has come from hard work. No one works harder than I do and my profits prove it.” Nadia, from Morocco*

*“This is the third business I’ve started so far. As soon as I think I’m done starting new businesses I think of a new way of doing something better, something that customers will love even more!” Aqila, from Jordan*

The ubiquitous theme of customer-focused, market-based decision-making logics leads to the following stylized findings:

**Finding 6:** *The goals of MENA women entrepreneurs are grounded in market-based, profit-driven logics —the delivery of exceptional quality of goods and services to satisfied customers—not social transformation.*

**Finding 7:** *Successful MENA women entrepreneurs have taken an “act-and-see” rather than a “wait-and-see” approach to market-based innovations.*

## 6.2. Innovative business model generation and deinstitutionalization

As the foregoing demonstrates, MENA women entrepreneurs formed the legacy of their market-based influence by seeking to cater zealously to the needs, wants and demands of customers, which simultaneously provided commercial success and protective insulation from laws prohibiting the popular goods and services they proffered. But, how do we know that these success stories had any material relationship to the process of deinstitutionalization? How do we know that it was bottom-up influence through novel business models rather than top-down influence through the erosion of pre-existing institutional constraints? To answer these questions, we need to look at the entire population of 175 businesses over time (**Figure 4**).

As **Figure 4** reveals, there continues to be a material gap between the “founding date” and the “legitimacy date,” meaning that the great preponderance of new business models launched by MENA women entrepreneurs are illegal at the time of inception. However, it is apparent that the average time elapsed between founding and legal legitimacy has dramatically shortened.



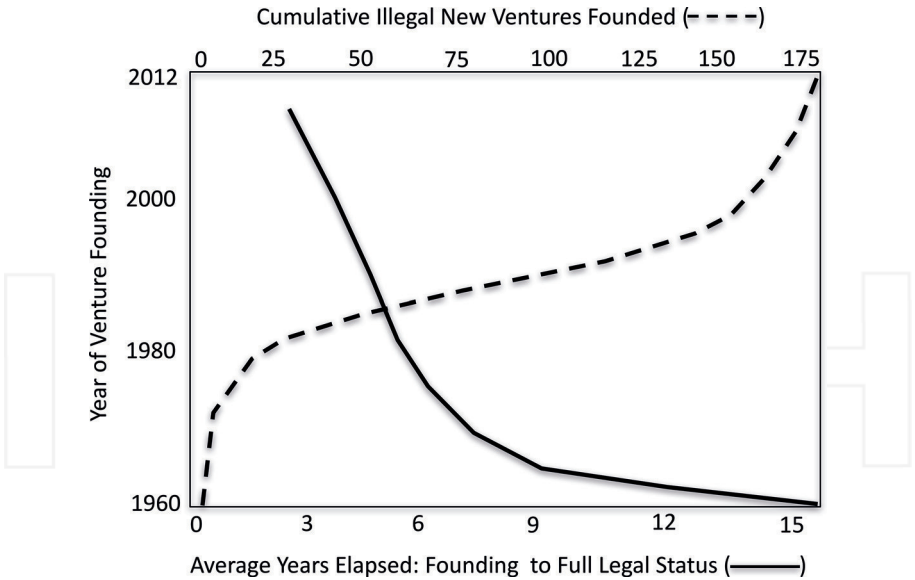


Figure 4. Cumulative ventures and timetable to legal legitimacy.

The graph illustrates two points simultaneously. First, the solid line shows that more recent launches experienced far shorter waiting periods to achieve legitimacy. Second, the dashed line, illustrates the fact that more new businesses are being launched at an accelerating rate despite the fact that most of them are still illegal at the time of being launched. Thus, we noted:

**Finding 8:** *Deinstitutionalization accelerates. The acceptance of novel commercial practices paves the way for subsequent novelties.*

The acceleration in new start-ups and the shortening of the timespan until legitimacy both indicate monumental gains for existing and aspiring MENA women entrepreneurs; however, it is not obvious that innovative business models are associated with these phenomena. If the goal of this study is to determine the underling mechanisms of bottom-up deinstitutionalization, then there must be some association between specific actions and specific outcomes at the micro-level. Otherwise, the changing legal and financial status of women could simply be attributed to the classic top-down conception that changing institutional policies will create a rising tide that eventually lifts all boats, including women entrepreneurs.

In fact, some number of women indicated that their go-to-market strategy involved imitating existing market models and trends:

*“Early on, I figured out that the best way to make money is to simply copy whatever the best company does, but I’m careful to not draw too much attention.” Yasmin, from UAE*

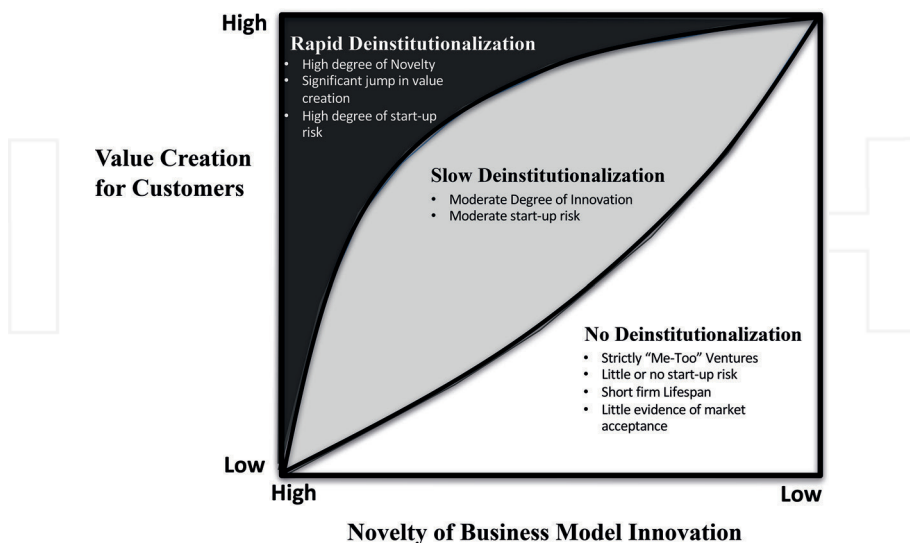
To address this concern, we looked at each of the 175 businesses and coded each one on a scale of 0–10, based on two critical dimensions. The first examines the degree to which the new goods or services created new value for customers. The second examines the degree of novelty evidenced in the business model used by the entrepreneur at the time of market entry.

A low-rated firm along these dimensions might be a nail salon or tea house that simply replicated the product and service offerings of existing businesses. A firm rated very high for innovation might be one that is the first to offer a category of products or services to the market, such as online dating services. Another example of high novelty was a business that bundled disparate products and services in a fashion that met multiple user needs and provided symbiotic pricing advantages. In this sense, we would expect that high value creation and high novelty locks in new customers in new ways that disrupt both the marketplace for goods and services and the institutional framework. Using the time gap to legal legitimacy, we examined the role of novel business models and predicted the relationships depicted in **Figure 5**.

There is no reason to expect that deinstitutionalization would be homogeneously responsive to innovation, and a regression analysis bore this out. Although a quantitative assessment was not an aspect of our original design, we had a sufficient population of firms to entertain preliminary analysis of our stylized findings, based on the model that had emerged. Using time to legal legitimacy as a dependent variable, we found that our predictive model was highly significant ( $F_{7,168} = 43.17$ ; Adj.  $R^2 = .451$ ) and that the coded values for both value creation for customers and business model innovation novelty are positively associated with deinstitutionalization (p-value < 0.01). Since we did not have full controls available for all of the subjects, we are at loath to draw extended conclusions from these analyses, but believe they are quite intriguing. With or without the preliminary regression results, two key stylized findings emerged from this inquiry

**Finding 9:** MENA women entrepreneurs both copy and create business models. They are neither patiently followers nor leaders. Situational effects are more important than generalizable conditions and women who can capitalize on novel innovations, do so.

**Finding 10:** Greater business model innovation is associated with a faster rate of deinstitutionalization.



**Figure 5.** Relationship between market-based innovation and deinstitutionalization.

The rich, detailed information drawn from the ethnographies provide a revealing perspective on the landscape of entrepreneurial activity among women in the MENA region. Despite formal prohibitions, the vast majority of participants took business models to market that found customer acceptance and economic success. In many cases, the formulation and implementation of the business model significantly preceded institutional action to reassess the governing laws.

## 7. Discussion

By pioneering novel organizational forms and customer-focused innovations despite institutional impediments, women entrepreneurs not only create consumer demand for valued goods and services, they also build a sustainable foundation to improve the lives of their children, their communities and themselves. Oftentimes, as the foregoing results reveal, these entrepreneurial actions create lasting pathways for institutional change. While extant theory envisions institutional change seeding an increasingly receptive environment for women entrepreneurs, our framework and supporting empirics suggest that in the case of MENA women entrepreneurs the exact opposite may be occurring; that is, entrepreneurial pursuits are well out in front of policy initiatives in driving deinstitutionalization through new activity systems [112] stemming from business models that seek novel sources of profits by more effectively addressing customer needs [84, 89], thereby resulting in fresh opportunities for new entrepreneurs who may be ready to test new business models. As Oliver [33] noted, it is common for deinstitutionalization to emanate from individuals who are neither aware nor concerned with facilitating institutional change.

Our study of MENA region women suggests that grassroots activities to better serve willing customers constitute an important instigator of institutional change. Our analysis of 95 women revealed that their novel approaches were often effective and, in some case highly subversive (see **Figure 5**), even though institutional change was neither the stated nor the implicit motive for engaging in entrepreneurial activity. The findings shift attention to market-based, bottom-up approaches to commerce that address functioning markets. Concomitantly, institutions are fundamentally changed in the process, opening the door for future generations of women in a manner and with a speed that cannot be equaled through constitutional reforms.

The ability of these women to deliver meaningful, market-based value to their respective customers, we believed, would prove to be more compelling to customers than informal and formal strictures pertaining new venturing by women. Although social transformation was not a consideration to these entrepreneurs, their actions did in fact precede institutional change and, as suggested by the detailed case histories, contributed to that change.

### 7.1. Limitations and opportunities

All research designs involve compromises and tradeoffs, the efficacy of which ultimately rests upon the ability of the methodology to service the research aims of the investigation. Here too, then, there are limitations and opportunities stemming from three design decisions that

deserve greater scrutiny: (i) the use of a question-driven design, (ii) the use of ethnographic narratives, and (iii) the focus on the under-studied context of MENA women entrepreneurs.

Regarding the use of a question-driven design, as noted earlier, the development of framing questions was strongly indicated by paucity of existing literature on deinstitutionalization and female entrepreneurship. Moreover, much of the theory that does exist has taken a patently top-down, institutional cascading perspective to the process of deinstitutionalization. Studies examining the role of grassroots social movement influence, such as that seen in the wind power industry [14, 15] take up coevolutionary dynamics with some attention to bottom-up sources of influence. Contexts such as wind power validate the theory-building emphasis on exogenous, grassroots-level change mechanisms; however, the emphasis of this research stream does not focus on several facets that are indispensable to our study: legal strictures, individual decision-making, and business model innovations [80]. The purpose of this study was to deconstruct the macro-micro convergence of entrepreneurial action of social structures occurring at Point 4 of Coleman's Model (**Figure 1**) with the aim of ascertaining the micro-level mechanisms of deinstitutionalization. Since existing scholarly sentiments either had not considered this avenue or were inclined in a different direction, a more open-ended, question-driven design was ideal.

As for the use of ethnographic narratives, here too there are pros and cons. Utilizable data is rarely collected on marginalized groups, especially for women [1] and those residing in developing countries [23]. Often, the only data that is available is highly aggregated [44, 113] or consists difficult-to-generalize single-case studies. The liability of ethnographic narratives is the potential for corrupting biases emanating from the researcher and the self-presentation biases of the subjects. Concerning the former, all the ethnographers were well-trained, experienced researchers, who had extensive in-country tenures and language fluency. More importantly, all subject research was conducted while rigorously applying modern techniques that invite subjects to be "co-investigators" rather than maintaining the pretense of dispassionate observers [114]. Concerning the potential biases from self-presentation, by triangulating throughout the network of the study subjects, ethnographers could feel confident with a high degree of certainty that customers, suppliers, family members and friends provided confirmatory perspectives.

Finally, regarding the focus on MENA, the benefits of examining countries that have a persistent disconnect between the aspirations of women entrepreneurs and legally endowed constitutional freedoms provides an exceptional portal through which to observe the processes of institutionalization, deinstitutionalization and reinstitutionalization. However, several caveats are worth noting. First, MENA is far from monolithic. The ethnographies and data are aggregated here for the purpose of demonstrating "critical mass" in the focal phenomenon. By no means are the seven countries included in the study identical to one other's past, present or future. Although the countries were, by design, selected because each is overwhelmingly Muslim, the socio-cultural, linguistic and post-colonial heritages across these countries exhibit enormous differences. Second, global generalization from the MENA context is challenging. In the same sense that each MENA country is distinctive, so too are regions and countries outside MENA. Future studies can and should exploit access to other societal contexts to delve deeper and to establish meaningful boundary conditions while testing the stylized findings drawn from this study.

An additional challenge of this study stems from the emergence of potential alternative explanations. As a theory-building research design, question-driven methodologies are more prone to exposure to challenges from alternative explanations than studies applying quantitative tools regarding well-trodden research questions. In some sense, however, it is the ability to ignite purposeful debate that makes question-driven methods valuable to the field of strategic management. One prominent alternative explanation emerging from this study pertains to the issue of enforcement. The essence of this argument is that prohibitions against MENA women in various facets of commercial activity are the equivalent of “blue laws” in the U.S.; that is, they are arcane prohibitions that are never actually enforced, such as archaic state-level provisions forbidding activities like walking one’s dog on Sunday. The claim could be that throughout MENA, informal institutions: such as norms, preferences and customs: have fundamentally changed, but that there is a “constitutional lag” as the formal institutional changes move more slowly. Thus, a society may have no interest in legal enforcement even while the laws still exist. Moreover, both women entrepreneurs and their customers know this. Like so many facets of deinstitutionalization, there is almost certainly some interaction between formal and informal institutions during the process of institutional erosion [33]. However, the logic of this argument actually supports the concern that top-down institutional cascading is not the sole driver of deinstitutionalization. There are, as our study reveals, a whole host of individual actions that soften institutional inertia from the bottom-up. As the results suggest, those actions aimed at consumer-focused, market-based improvements by innovating entrepreneurs are likely to be particularly impactful.

## 7.2. Conclusion

The evidence that MENA women entrepreneurs display an “act-and-see” rather “wait-and-see” approach is itself transformative to the study of women entrepreneurship. Scholars examining institutions, entrepreneurial action and economic development can benefit from the potential micro-level mechanisms highlighted in this study. Extant theory has provided extensive support for an important truism: institutions matter. Institutional influence theories from Baumol [16], North [18] and others appear to be secure in their assertion that the structure and content of institutions exerts noteworthy influence on the quantity, diversity and purpose of entrepreneurial action. However, a focus solely on macro-structural drivers of the macro-micro nexus at Point 4 of Coleman’s Model (**Figure 1**) misses entirely the role of micro-level mechanisms, emanating from individual decisions about the commercial prospects of business model innovations.

It is beyond the scope of this study to prove causal connections between the novelty of business model innovations by women entrepreneurs and the deinstitutionalization of legal strictures that limit the access to commercial opportunities for women. Future studies will need to leverage and stress-test our findings in search of increasingly well-refined data and research designs that allow for the use of strong-theory models and robust instruments that will together provide directional certainty regarding causation. However, our findings indicate that institutional entropy [33] is strongly associated with the timing and substance of entrepreneurial action taken by MENA women. In the end, the mechanisms of deinstitutionalization appear to be less a frontal assault enacted from hegemonic seats of political power

than the steady delegitimization of accepted practices through the power of the pocketbook. Fatima, a serial entrepreneur now specializing in Moroccan Argan oil, captures the notion in this fashion:

*"My suppliers love me because I pay on time and I'm able to move huge quantities. My customers love me because they get an authentic product, not the imitations. And as for me, I have ten more ideas for new businesses...I've done this myself. No family money. No husband money. It was hard. I won't tell you how hard. But, I was born to be in business and that's what I've done."*

## Author details

Richard A. Hunt<sup>1\*</sup> and Lauren L. Ortiz-Hunt<sup>2</sup>

\*Address all correspondence to: [rahunt@mines.edu](mailto:rahunt@mines.edu)

1 Strategy & Entrepreneurship, Colorado School of Mines, Golden, CO, USA

2 Dyson School of Applied Economics, Cornell University, Ithaca, NY, USA

## References

- [1] Jennings J, Brush C. Research on women entrepreneurs: Challenges to (and from) the broader entrepreneurship literature? *Academy of Management Annals*. 2013;**7**(1): 663-715
- [2] Greene P, Hart M, Gatewood E, Brush C, Carter N. Women entrepreneurs: Moving front and center: An overview of research and theory. *Coleman White Paper Series*. 2003;**3**:1-47
- [3] Ehlers T, Main K. Women and the false promise of microenterprise. *Gender and Society*. 1998;**12**(4):424-440
- [4] Eberhart R, Eesley C, Eisenhardt K. Failure is an option: Institutional barriers to failure, bankruptcy, and new firm performance in Japan. *Organization Science*. 2017;**28**(1):93-112
- [5] Eesley C. Institutional barriers to growth: Entrepreneurship, human capital and institutional change. *Organization Science*. 2016;**27**(5):1290-1306
- [6] Armanios D, Eesley C, Eisenhardt K, Li J. How entrepreneurs leverage institutional intermediaries in emerging economies to acquire public resources. *Strategic Management Journal*. 2017;**38**(7):1373-1390
- [7] Baron D. Competing for the public through the news media. *Journal of Economics and Management Strategy*. 2005;**14**(2):339-376
- [8] Nye J. *Soft Power: The Means to Success in World Politics* New York City, NY. Public Affairs; 2004
- [9] Baron D, Diermeier D. Strategic activism and nonmarket strategy. *Journal of Economics and Management Strategy*. 2007;**16**(3):599-634

- [10] King A, Lenox M. Industry Self-regulation without sanctions: The chemical industry's responsible care program. *The Academy of Management Journal*. 2000;**43**:698-717
- [11] Maxwell J, Lyon T, Hackett S. Self-regulation and social welfare: The political economy of corporate environmentalism. *Journal of Law and Economics*. 2000;**43**:583-617
- [12] Hunt RA. Contagion entrepreneurship: Institutional support, strategic incoherence, and the social costs of over-entry. *Journal of Small Business Management*. 2015;**53**:5-29
- [13] Lenox MJ, Eesley CE. Private environmental activism and the selection and response of firm targets. *Journal of Economics and Management Strategy*. 2009;**18**(1):45-73
- [14] Pacheco DF, York JG, Hargrave TJ. The coevolution of industries, social movements, and institutions: Wind power in the United States. *Organization Science*. 2014;**25**(6):1609-1632
- [15] Sine WD, Lee BH. Tilting at windmills? The environmental movement and the emergence of the US wind energy sector. *Administrative Science Quarterly*. 2009;**54**(1):123-155
- [16] Baumol W. Entrepreneurship: Productive, unproductive, and destructive. *Journal of Political Economy*. 1990;**9**(5):893-921
- [17] Baron DP. Integrated strategy: Market and nonmarket components. *California Management Review*. 1995;**37**(2):47-65
- [18] North DC. *Institutions, Institutional Change and Economic Performance*. New York City, NY: Cambridge University Press; 1990
- [19] Sobel RS. Testing baumol: Institutional quality and the productivity of entrepreneurship. *Journal of Business Venturing*. 2008;**23**(6):641-655
- [20] Welter F, Smallbone D. *Small Firms and Economic Development in Developed and Transition Economies*. 2003
- [21] Webb J, Kistruck G, Ireland R, Ketchen D. The entrepreneurship process in base of the pyramid markets. *Entrepreneurship Theory and Practice*. 2010;**34**(3):555-581
- [22] Minniti M, Bygrave W, Autio E. *Women and Entrepreneurship*. Global Entrepreneurship Monitor; 2005
- [23] Jamali D. Constraints and opportunities facing women entrepreneurs in developing countries: A relational perspective. *Gender in Management: An International Journal*. 2009;**24**(4):232-251
- [24] Harper D. *Foundations of Entrepreneurship and Economic Development*. London: Routledge; 2003
- [25] Elam A. *Gender and Entrepreneurship*. Edward Elgar Publishing; Cheltenham, U.K. 2014
- [26] Acs ZJ, Desai S, Hessels J. Entrepreneurship, economic development and institutions. *Small Business Economics*. 2008;**31**(3):219-234



- [27] De Vita L, Mari M, Poggesi S. Women entrepreneurs in and from developing countries: Evidences from the literature. *European Management Journal*. 2014;**32**(3):451-460
- [28] Greenwood R, Suddaby R. Institutional entrepreneurship in mature fields: The big five accounting firms. *Academy of Management Journal*. 2006;**49**(1):27-48
- [29] Aldrich H. The emergence of entrepreneurship as an academic field: A personal essay on institutional entrepreneurship. *Research Policy*. 2012;**41**(7):1240-1248
- [30] Aldrich H, Fiol C. Fools rush in? The institutional context of industry creation. *Academy of Management Review*. 1994;**19**(4):645-670
- [31] Baker T, Aldrich H, Nina L. Invisible entrepreneurs: The neglect of women business owners by mass media and scholarly journals. *Entrepreneurship and Regional Development*. 1997;**9**(3):221-238
- [32] Wolbrecht C. *The Politics of Women's Rights: Parties, Positions, and Change*. Princeton, N.J. Princeton University Press; 2010
- [33] Oliver C. The antecedents of deinstitutionalization. *Organization Studies*. 1992;**13**(4): 563-588
- [34] Brush CG. *Growth-Oriented Women Entrepreneurs and their Businesses: A Global Research Perspective*. Edward Elgar Publishing; Cheltenham, U.K. 2006
- [35] Anna AL, Chandler GN, Jansen E, Mero NP. Women business owners in traditional and non-traditional industries. *Journal of Business Venturing*. 2000;**15**(3):79-303
- [36] Massa L, Tucci CL, Afuah A. A critical assessment of business model research. *Academy of Management Annals*. 2017;**11**(1):73-104
- [37] Osterwalder A, Pigneur Y, Tucci C. Clarifying business models: Origins, present, and future of the concept. *Communications of the Association for Information Systems*. 2005;**16**(1):1
- [38] Zott C, Amit R. Business model design: An activity system perspective. *Long Range Planning*. 2010;**43**(2):216-226
- [39] Scott W. *Institutions and Organizations: Ideas, Interests, and Identities*. Sage Publications; Thousand Oaks, CA. 2013
- [40] Hattab H. Towards understanding female entrepreneurship in Middle Eastern and North African countries: A cross-country comparison of female entrepreneurship. *Education, business and society: Contemporary Middle Eastern Issues*. 2012;**5**(3):171-186
- [41] Moeen M, Agarwal R. Incubation of an industry: Heterogeneous knowledge bases and modes of value capture. *Strategic Management Journal*. 2016;**38**(3):566-587
- [42] O'Neill OA, Rothbard NP. Is love all you need? The effects of emotional culture, suppression, and work-family conflict on firefighter risk-taking and health. *Academy of Management Journal*. 2017;**60**(1):78-108

- [43] Carter S, Mwaura S, Ram M, Trehan K, Jones T. Barriers to ethnic minority and women's enterprise. *International Small Business Journal*. 2015;**33**(1):9-69
- [44] Global Entrepreneurship Monitor. GEM 2015 Global Report. Global Report. 2015.
- [45] Ramadani V, Hisrich RD, Gërguri-Rashiti S. Female entrepreneurs in transition economies: Insights from Albania, Macedonia and Kosovo. *World Review of Entrepreneurship, Management and Sustainable Development*. 2015;**11**(4):391-413
- [46] Brush CG. Research on women business owners: Past trends, a new perspective and future directions. *Entrepreneurship: Theory and Practice*. 1992;**16**(4):5-31
- [47] Hisrich RD, & Brush C. The woman entrepreneur: Management skills and business problems. *Journal of Small Business Management*. 1984;**22**(1):30-37
- [48] Hisrich RD, Brush CG. *The Woman Entrepreneur*. Lexington Books; Lexington, KY. 1986
- [49] Schwartz EB. Entrepreneurship-new female frontier. *Journal of Contemporary Business*. 1976;**5**(1):47-76
- [50] McIntosh J, Islam S. Beyond the veil: Influence of Islam on female entrepreneurship in a conservative Muslim context. *International Management Review*. 2010;**6**(1):102
- [51] Weeks J. Women business owners in the Middle East and North Africa: A five-country research study. *International Journal of Gender and Entrepreneurship*. 2009;**1**(1):77-85
- [52] Nazir S. Challenging inequality: Obstacles and opportunities towards women's rights in the Middle East and North Africa. *JIIIS*. 2005;**5**:31
- [53] Freedom House. *Freedom in the World*. Washington, D.C.: Freedom House Publications 2010
- [54] O'Sullivan A, Rey ME, Mendez JG. Opportunities and challenges in the MENA Region. *Arab World Competitiveness Report*. 2012;42-67
- [55] Dana LP. *Handbook of Research on Ethnic Minority Entrepreneurship: A Co-Evolutionary View on Resource Management*. Edward Elgar Publishing; Cheltenham, U.K. 2017
- [56] Hunt RA. *Essays Concerning the Entry and Survival Strategies of Entrepreneurial Firms: A Transaction Perspective*. New York, NY: ProQuest; 2013
- [57] McMullen JS, Shepherd DA. Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *The Academy of Management Review*. 2006;**31**(1):132-152
- [58] Coleman J. *Foundations of Social Theory*. Cambridge, MA: Belknap Press; 1993
- [59] Hedström P, Swedberg R. *Social Mechanisms: An Analytical Approach to Social Theory*. Cambridge University Press; 1998
- [60] Kim PH, Wennberg K, Croidieu G. Untapped riches of meso-level applications in multi-level entrepreneurship mechanisms. *Academy of Management Perspectives*. 2016;**30**(3): 273-291

- [61] Shane S, Venkataraman S. The promise of entrepreneurship as a field of research. *Academy of Management Review*. 2000;**25**(1):217-226
- [62] Sarason Y, Dean T, Dillard JF. Entrepreneurship as the nexus of individual and opportunity: A structuration view. *Journal of Business Venturing*. 2006;**21**(3):286-305
- [63] Milliken FJ. Three types of perceived uncertainty about the environment: State, effect, and response uncertainty. *Academy of Management Review*. 1987;**12**(1):133-143
- [64] McKelvie A, Haynie JM, Gustavsson V. Unpacking the uncertainty construct: Implications for entrepreneurial action. *Journal of Business Venturing*. 2011;**26**(3):273-292
- [65] Simsek Z, Heavey C, Veiga J. The impact of CEO core self-evaluation on the firm's entrepreneurial orientation. *Strategic Management Journal*. 2010;**31**(1):110-119
- [66] Hunt RA, Ortiz-Hunt L. Entrepreneurial round-tripping: The benefits of newness and smallness in multi-directional value creation. *Management Decision*. 2017;**55**(3):491-511
- [67] Habermas J. Habermas: Questions and counter-questions. *Praxis International*. 1984;**3**: 229-249
- [68] Kabir MS, Hou X, Akther R, Wang J, Wang L. Impact of small entrepreneurship on sustainable livelihood assets of rural poor women in Bangladesh. *International Journal of Economics and Finance*. 2012;**4**(3):265
- [69] Edelman L, Brush C, Manolova T, Greene P. Start-up motivations and growth intentions of minority nascent entrepreneurs. *Journal of Small Business Management*. 2010;**48**(2): 174-196
- [70] Manolova TS, Brush CG, Edelman LF, Shaver KG. One size does not fit all: Entrepreneurial expectancies and growth intentions of US women and men nascent entrepreneurs. *Entrepreneurship and Regional Development*. 2012;**24**(1-2):7-27
- [71] Peters B. *Institutional Theory in Political Science: The New Institutionalism*. USA: Bloomsbury Publishing; 2011
- [72] Tolbert PS, Zucker LG. *The institutionalization of institutional theory*. London: Studying Organization Theory & Method; 1999. p. 169-184
- [73] Javadian G, Singh RP. Examining successful Iranian women entrepreneurs: An exploratory study. *Gender in Management: An International Journal*. 2012;**27**(3):148-164
- [74] Thornton P, Ocasio W. Institutional logics. In: *Sage Handbook of Organizational Institutionalism*. Thousand Oaks, CA: Sage Publications. Vol. 840. 2008. p. 99-128
- [75] Kraatz MS, Moore JH. Executive migration and institutional change. *Academy of Management Journal*. 2002;**45**(1):120-143
- [76] Haveman HA, Rao H. Structuring a theory of moral sentiments: Institutional and organizational coevolution in the early thrift industry. *American Journal of Sociology*. 1997;**102**(6):1606-1651

- [77] Battilana J, Leca B, Boxenbaum E. How actors change institutions: Towards a theory of institutional entrepreneurship. *Academy of Management Annals*. 2009;**3**(1):65-107
- [78] Garud R, Hardy C, Maguire S. Institutional entrepreneurship as embedded agency. *Organization Studies*. 2007;**9**:957-969
- [79] Maguire S, Hardy C. Discourse and deinstitutionalization: The decline of DDT. *Academy of Management Journal*. 2009;**52**(1):148-178
- [80] Hunt RA, Fund BR. Intergenerational fairness and the crowding out effects of well-intended environmental policies. *Journal of Management Studies*. 2016;**53**(5):878-910
- [81] Hunt RA. Entrepreneurial tweaking: An empirical study of technology diffusion through secondary inventions and design modifications by start-ups. *European Journal of Innovation Management*. 2013;**16**(2):148-170
- [82] Zott C, Amit R. The Network Challenge (Chapter 15): The Business Model as the Engine of Network-Based Strategies. Pearson Education; London, U.K. 2009
- [83] Porter ME. What is Strategy? *Harvard Business Review*; Cambridge, MA. 1996
- [84] Hunt RA. Priming the pump: Demand-side drivers of entrepreneurial activity. *Frontiers of Entrepreneurship Research*. 2013;**33**(14):2
- [85] Priem RL, Butler JE, Li S. Toward reimagining strategy research: Retrospection and prospection on the 2011 AMR decade award article. *Academy of Management Review*. 2013;**38**(4):471-489
- [86] Chesbrough H, Rosenbloom R. The role of the business model in capturing value from innovation: Evidence from Xerox Corporation's technology spin-off companies. *Industrial and Corporate Change*. 2002;**11**(3):529-555
- [87] Morris M, Schindehutte M, Allen J. The entrepreneur's business model: Toward a unified perspective. *Journal of Business Research*. 2005;**58**(6):726-735
- [88] Teece DJ. Business models, business strategy and innovation. *Long Range Planning*. 2010;**2**:172-194
- [89] Hunt RA, Kiefer K. The entrepreneurship industry: Influences of the goods and services marketed to entrepreneurs. *Journal of Small Business Management*. 2017. DOI: 10.1111/jsbm.12329
- [90] Kelley T, Littman K, Peters T. The Art of Innovation. London: Profile Books; 2001. p. 2001
- [91] Wirtz BW, Schilke O, Ullrich S. Strategic development of business models: Implications of the Web 2.0 for creating value on the Internet. *Long Range Planning*. 2010;**43**:272-290
- [92] McGrath R. Business models: A discovery driven approach. *Long Range Planning*. 2010;**43**:247-261

- [93] Hamel G. *Leading the Revolution*. Boston, MA: Harvard Business School Press; 2000. p. 343-354
- [94] Linder J, Cantrell S. *So What is a Business Model Anyway*. Accenture Institute; Chicago, IL. 2000
- [95] Applegate L, Collura M. *Emerging E Business Models: Lessons from the Field*. Harvard Business School Press; Cambridge, MA. 2000
- [96] Eisenhardt KM. Building theories from case study research. *Academy of Management Review*. 1996;**21**:532-550
- [97] Eisenhardt KM, Graebner ME. Theory building from cases: Opportunities and challenges. *Academy of Management Journal*. 2007;**50**:25-32
- [98] Santos FM, Eisenhardt KM. Constructing markets and shaping boundaries: Entrepreneurial power in nascent fields. *Academy of Management Journal*. 2009;**52**:643-671
- [99] Siggelkow N. Persuasion with case studies. *Academy of Management Journal*. 2007;**50**: 20-24
- [100] Yin RK. Discovering the future of the case study method in evaluation research. *Evaluation Practice*. 1994;**15**(3):283-290
- [101] Dutton JE, Dukerich JM, Harquail CV. Organizational images and member identification. *Administrative Science Quarterly*. 1994;**39**:239-263
- [102] Weick KE. The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly*. 1993;**38**:628-652
- [103] Glaser B, Strauss A. *Grounded theory: The discovery of grounded theory*. Journal of the British Sociological Association. 1967;**12**:27-49
- [104] Eisenhardt KM, Brown SL. Competing on the edge: Strategy as structured chaos. *Long Range Planning*. 1998;**31**(5):786-789
- [105] Patton MQ. *Qualitative Research*. John Wiley & Sons, Ltd.; Hoboken, N.J. 2005
- [106] Creswell J. *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. Sage Publications; Thousand Oaks, CA. 2012
- [107] Godfrey P. Toward a theory of the informal economy. *Academy of Management Annals*. 2011;**5**(1):231-277
- [108] Hunt RA, Kiefer K. Parity, paternalism and peonage in the informal economy: An empirical study of off-the-books loans. In *Academy of Management Proceedings*. 2012;**1**:1-7
- [109] Hunt RA, Song Y. Internationalizing entrepreneurs: Bridging real options reasoning and affordable loss logics. In *Academy of Management Proceedings*. 2015;**1**:10-16

- [110] Wirtz BW, Pistoia A, Ullrich S, Göttel V. Business models: Origin, development and future research perspectives. *Long Range Planning*. 2016;**49**(1):36-54
- [111] Hunt RA, Lerner DA. Reassessing the entrepreneurial spinoff performance advantage: A natural experiment involving a complete population. *Frontiers of Entrepreneurship Research*. 2012;**32**(12):2
- [112] Zott C, Amit R, Massa L. The business model: Recent developments and future research. *Journal of Management*. 2011;**37**(4):1019-1042
- [113] Singer S, Amorós JE, Arreola DM. Global entrepreneurship monitor global report. Global Entrepreneurship Research Association. 2015;1-116
- [114] Marcus G. *Ethnography through Thick and Thin*. Princeton University Press; Princeton, N.J. 1998