

# **Entrepreneurship Today: Selected Aspects**

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## Preface

Over a few recent decades, the notion of entrepreneurship appears to be of great popularity and importance. In the seventies, the renaissance of small and medium-sized businesses focused the attention of both policymakers and scientists on the role of entrepreneurs and their significance for economic growth. At the beginning of the 21<sup>st</sup> century, the interest in entrepreneurs was additionally boosted by the increasing role of knowledge in modern economies. The most developed economies gradually transformed from managed economies into entrepreneurial economies. In contemporary economies, the main focus moved from traditional problems of production and its efficiency to the identification and creation of entrepreneurial opportunities. In the turbulent times that we have recently experienced, the ability to innovate, to exploit entrepreneurial opportunities and to acquire necessary resources in order to make a successful start-up, is more important than ever. When complemented with the ability to scale up and grow the existing business while maintaining competitive advantage over rivals, this allows achieving economic growth and increase general well-being.

At its very beginning, entrepreneurship was a purely economic notion. However, this growing interest in entrepreneurship-related problems prompted other sciences to participate in explaining the entrepreneurship phenomenon. Nowadays, entrepreneurship is analyzed through multiple theoretical lenses of economics, management, psychology, sociology – just to name a few. Therefore, it would be difficult to find a notion that could be equally diverse, complex and multifaceted. As a result, any book on entrepreneurship is in some sense fragmentary, based on the same aspects, inclusive of some problems, but at the same time exclusive of others. This book presents just a few interesting features linked to entrepreneurship in the modern economy.

The first chapter presents some general considerations on entrepreneurship, its definitions, ways to measure the level of entrepreneurial activities in a country, as well as the role of human resources and innovations. Some empirical data is presented there, positioning Poland within the broader European context. In the second chapter, the view on entrepreneurship is broadened by discussing the concept of nascent entrepreneurship, its birth and further development. Based on several theoretical and empirical papers, the main strands of research into nascent entrepreneurship are presented. The broadening of the scope is continued in the next chapter which emphasizes the transition from a managed economy to an entrepreneurial economy. This transition amplifies the importance of so-called entrepreneurialism, defined as a constant operation in an entrepreneurial mode. Entrepreneurialism at modern universities allows creating new models of support for education and research activities which are discussed in this chapter. In the fourth chapter, the focus moves more towards the characteristics of modern economies, where skills and knowledge become more and more vital for economic growth. One of the main ways of knowledge diffusion in our globalized world are Foreign Direct Investments (FDIs). Empirical data in this chapter comes from one of the Western regions of Poland. The last chapter analyses the impact of economic and institutional environment on the activity of enterprises in Poland and Ukraine. Those neighbouring countries share a lot



of common history, but in terms of economic situation, they currently differ significantly. This is what makes a comparative analysis between those two countries interesting and instructive.

The five chapters of this book discuss some interesting aspects of entrepreneurship in contemporary economy. Each of them grasps a distinctive facet of this notion. It allows to appreciate the diversity, and yet – hopefully – leaves the readers with some hunger to explore other topics related to this fascinating phenomenon. If this book encourages them to continue further studies in this area, the authors will be deeply satisfied.



## **Entrepreneurship in today's economy**

### **1.1. Introduction**

What senior officers of any enterprise need in today's economy is sound knowledge, well-developed skills and the ability to adapt and use new management methods and techniques with ease. A responsible manager is aware of opportunities and risks in the business environment where globalization is the dominant element. Globalization is perceived as a multi-dimensional phenomenon affecting many areas of business and social life. Some of its impacts include a change of the business model, the need to place more emphasis on intangible resources in business practices, noticing the importance of the information society or establishing links between the research and business community. In the new paradigm of competitiveness, all development or competition activities in an enterprise should be based on a strategy driven by intangible factors, with information economy playing a key role. According to M. Castells: "The global economic system is undergoing a great transformation – from industrial capitalism based on industrialism to information capitalism based on informationism. Industrialism is oriented to economic growth, i.e., maximizing production; informationism is focused on technological development, i.e. accumulation of knowledge and a higher level of complexity in information processing" (Castells, Himanen, 2009). In his discussion of information economy, Castells emphasizes a huge role of knowledge in the building of an information economy.

### **1.2. Entrepreneurship: theory**

The aim of each manager is to effectively manage their unit. Meeting this objective involves a number of unknowns, many of which will never become clear. In this context, human resources gain special importance, also as a key element (along with intellectual resources) in the development of the competitive potential of a particular enterprise. What is vital for the operation of developmental processes in an enterprise is that the staff provide solid foundations of the organization and take an active part in its operations. This is made possible by an organizational culture which fosters entrepreneurial processes. Organizations whose operations are based on entrepreneurial and innovative processes are highly valuable for the development of the economy as a whole, being an important component which effectively creates the potential of the economy and improves its condition.

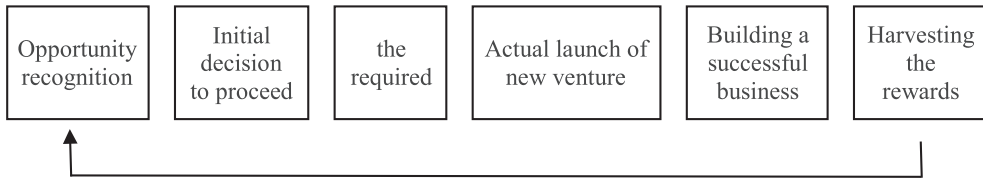
Enterprise operations are often characterized using two approaches: in one of them, entrepreneurship is described as a set of traits of a given person (manager/owner), in the other entrepreneurship is understood as a process targeted at a specific objective (development of an organization, exploitation of market opportunities). Several definitions and classifications of entrepreneurship have been put forward in the pertinent



literature. S. Shane and S. Venkataraman (Shane, 2003, p. 5–10) propose some necessary conditions for entrepreneurship:

- entrepreneurship is connected with emerging market opportunities which have an objective component, i.e. they do not exist only in the entrepreneur’s mind,
- market participants perceive opportunities differently due to individual differences,
- risk taking and bearing is an inherent element of the entrepreneurial process (due to uncertain outcomes of market opportunities),
- the entrepreneurial process involves organizing; it does not have to involve setting up a new organization, it may involve a new organization of the existing resources,
- the entrepreneurial process involves the introduction of innovation, but not necessarily breakthrough innovation.

The above assumptions show that entrepreneurship must be viewed as a process where entrepreneurs’ traits that facilitate the exploitation of objective market opportunities play a key role. This is well reflected in the diagram of the entrepreneurial process by Baron and Shane (2008):



**Fig. 1.1.** Entrepreneurial process

*Source:* Baron, R.A., & Shane, S.A. (2008). *Entrepreneurship: A process perspective*. 1<sup>st</sup> Edition. Canada: Thomson South-Western.

A review of other definitions of entrepreneurship will also be useful for the analysis of entrepreneurial processes in Poland’s economy:

Entrepreneurship is the “manifest ability and willingness” of individuals, teams, and organizations to “perceive and create new economic opportunities (new products, new production methods, new organizational schemes and new product-market combinations)” and then present them on the market. Such activity is inherently linked with uncertainty, barriers and obstacles, risks involved in decisions on the enterprise’s location, its organizational and legal structure, creating resources and institutional links (Wennekers, Thurik, 1999, p. 46):

- entrepreneurship is the creation of new business activity (Davidsson, Delmar, Wiklund, 2006, p. 27);
- entrepreneurship is the discovery and evaluation of market opportunities and then exploiting them to create and offer new products (Oviatt, McDougall, 2005, p. 540);
- entrepreneurship is seen as a process where an individual stands at the very center. It is this person’s skills, ability to see business opportunities in the environment as well as support and motivation of the person’s environment that trigger the decision to start up a business (GEM 2018, p. 17).





Consequently, a useful general approach to entrepreneurship is an approach which distinguishes three components of the process (Janasz, p. 18–23):

- traits, understood as a set of behaviors aimed at creating and implementing projects to meet a specific objective while at the same time limiting the risk involved,
- process, understood as the creation of new, valuable elements, where financial risk is taken into account, but financial compensation or personal satisfactions are also envisaged,
- type of human activity: entrepreneurship should be also seen as a special human activity that may be undertaken individually or within an organization (by its members). On every occasion, such activities involve the exploitation of opportunities emerging in the environment, which promotes the completion of specific projects (introducing innovation, creating new organizations, reshaping existing organizations (in terms of organization)). These activities bring both economic and non-economic results to the entities involved, but also to the environment.

Organizational culture plays a prominent role in entrepreneurial processes. Even though it eludes a clear-cut definition, organizational culture is undeniably an element boosting staff morale, their attitude to problems or crisis situations within an organization, helping to establish shared objectives and values, to understand and accept the mission and developmental plans, as well as changes in the firm. Thus, it can be seen as a tool supporting human resources in the competitive processes. If organizational culture is to perform these functions, it should be based on the following (Pierzchawka, 2005, p. 282):

- innovative employees: they should be selected in a competition procedure, based on such criteria as openness to changes, acceptance for the diversity of the organization staff, the potential for innovative approaches to generating ideas and putting them into effect),
- developing creativity and innovation through training (supporting and encouraging training on how to develop and evaluate innovation, a training system focusing on development, innovativeness, support for idea-building activities, accepting and supporting education outside the organizations (e.g. innovativeness training),
- supporting the development of an organizational culture of a willingness to learn, in particular, encouraging and fostering the process of continuous learning, offering different paths of development and training opportunities, supporting creative activities, rewarding independent learning and thinking,
- empowering employees: fostering practices which empower employees by getting them more involved in decision making, delegating more responsibility, getting them more involved in management processes within the enterprise,
- taking into account employees' ideas when planning for the future (using the best individual solutions put forward by employees, supporting the implementation of innovative plans),
- managers who support innovative employee activity (a common practice of sharing knowledge, skills and experience, fostering innovativeness, a manager who is an authority on innovativeness, open to challenges and changes, who trusts his/her



employees, gives them freedom and space for innovative activities, assumes the role of the teacher of future management staff),

- creativity seen as work requirement and standard (innovativeness and creativity are treated as an element necessary for career development, and are used as criteria for evaluating performance),
- participation in risk-taking (ensuring that employees have the initiative in the decision-making process, involving clients in participation),
- a suitable reward system (financial and non-financial incentives to take an innovative approach),
- acceptance of and permission to take the risk (learning by doing, using risk assessment techniques while at the same time accepting the generation and implementation of ideas).

In this approach, employees have significant freedom to act, but at the same time learn how to take responsibility for the whole organization. Taking this path seems to be a must in today's business environment. It is worth highlighting, however, that not all of the above elements can be applied in all situations. Of special importance are factors such as type of work, the structure of work processes, staff mindset and attitudes and the circumstances of an enterprise.

### 1.3. The essence of entrepreneurial attitudes

In 2017, a survey focused on entrepreneurial attitudes and behaviors was carried out in Poland for the 7<sup>th</sup> time. Similar surveys are conducted in a number of different countries, which enables the comparison and evaluation of individual economies. The Global Entrepreneurship Monitor Report published based on the survey also includes ample information on the entrepreneurial attitude of people from different countries, aggregated as a set of entrepreneurship indicators (Table 1.1).

**Table 1.1.** Selected indicators of entrepreneurship in Poland and in the EU (average)

| Indicator   | 2015   |        | 2016   |        | 2017   |        |
|---|--------|--------|--------|--------|--------|--------|
|   | Poland | Europe | Poland | Europe | Poland | Europe |
| Entrepreneurship as a desirable career choice (% of adults who believe that setting up one's own company is a good career path) | 61     | 56     | 62     | 57     | 79     | 59     |
| High status of successful entrepreneurs (% of adults who believe that successful entrepreneurs deserve recognition)             | 56     | 66     | 56     | 67     | 68     | 67     |



|   |     |     |      |     |     |     |
|---|-----|-----|------|-----|-----|-----|
| Media attention for entrepreneurship (% of adults who notice the subject of entrepreneurship in the public media and in the Internet) | 52  | 55  | 58   | 54  | 51  | 54  |
| Entrepreneurial intentions (% of adults who declare their intent to start a business in 3 years)                                      | 20  | 13  | 21   | 12  | 10  | 11  |
| Perceived opportunities (% of adults who perceive business opportunities in their environment)  | 33  | 37  | 40   | 37  | 69  | 41  |
| Entrepreneurial capabilities (self-assessment) (% of adults who believe they have sufficient skills and knowledge to run a business)  | 56  | 43  | 60   | 44  | 52  | 43  |
| Fear of failure (% of people who perceive business opportunities but fear of failure prevents them from starting a business)          | 48  | 39  | 48   | 41  | 34  | 37  |
| TEA (people in the process of setting up a business or who have been running a business for up to 3.5 years as a % of adults)         | 9.2 | 7.8 | 10.7 | 8.6 | 8.9 | 8.1 |
| Established enterprises (people who have been running a business for longer than 3.5 years as a % of adults)                          | 5.9 | 6.6 | 7.1  | 6.8 | 9.8 | 7.0 |
| Discontinuation of business (% of adults who discontinued business in the last 12 months)   | 2.7 | 2.6 | 3.8  | 2.8 | 2.9 | 3.0 |
| Necessity-driven entrepreneurship (people who set up a business for lack of other employment opportunities as a % of TEA)             | 28  | 22  | 27   | 20  | 9   | 20  |



|  |    |    |    |    |    |    |
|--|----|----|----|----|----|----|
| Innovation Driven Opportunity (people who set up a business wanting to make use of an opportunity to improve their standard of living by an increase in income or by achieving independence as a % of TEA) | 46 | 48 | 52 | 52 | 68 | 50 |
|--|----|----|----|----|----|----|

Source: Global Entrepreneurship Monitor Report Poland 2017/2018, PARP, Warsaw 2018.

The figures presented above point to robust entrepreneurial attitudes among Poles: 79% of the respondents believe that running own business is a good way of furthering professional career (what is worth emphasizing is that this figure is 20 percentage points higher than the EU average). The “High status” indicator also grew in the period covered by the survey. It is appropriate to highlight at this point that the attitude to business owners has changed over the years. In the centrally planned economy those who ran their own business were not only disfavored by the authorities but were also looked at with suspicion and disapproval by the society, as reflected in the pejorative name given to owners of small farming and gardening business (Polish: *badylarz*, literally: “stick farmer/gardener”). Yet the GEM report shows that 68% of those surveyed appreciate the effort made by family businesses, and value their work and performance. At the same time the percentage of those who are afraid to set up their own business decreased significantly over the last year and is now 3 percentage points lower than the EU average.

Entrepreneurial attitudes cut across several psychological and personality dimensions, and can be shaped by practice and experience. It is difficult to definitively state whether the list of entrepreneurial traits presented in Table 1.2 is complete. It is also debatable whether a certain intensity threshold for a given trait is required or whether some of them have to co-occur.

**Table 1.2.** Characteristics fostering and impeding entrepreneurial activity

| Impeding   | General categories  | Fostering  |
|--|---------------------|--|
| <ul style="list-style-type: none"> <li>- relying mostly on others for care and support</li> <li>- degrading oneself</li> <li>- submissiveness</li> <li>- rejection and isolation</li> <li>- making excuses for failing to succeed</li> </ul> | psychological needs | <ul style="list-style-type: none"> <li>- tendency to dominate</li> <li>- propensity to achieve and possess</li> <li>- striving for ownership and autonomy</li> <li>- success- and power-orientation</li> </ul> |



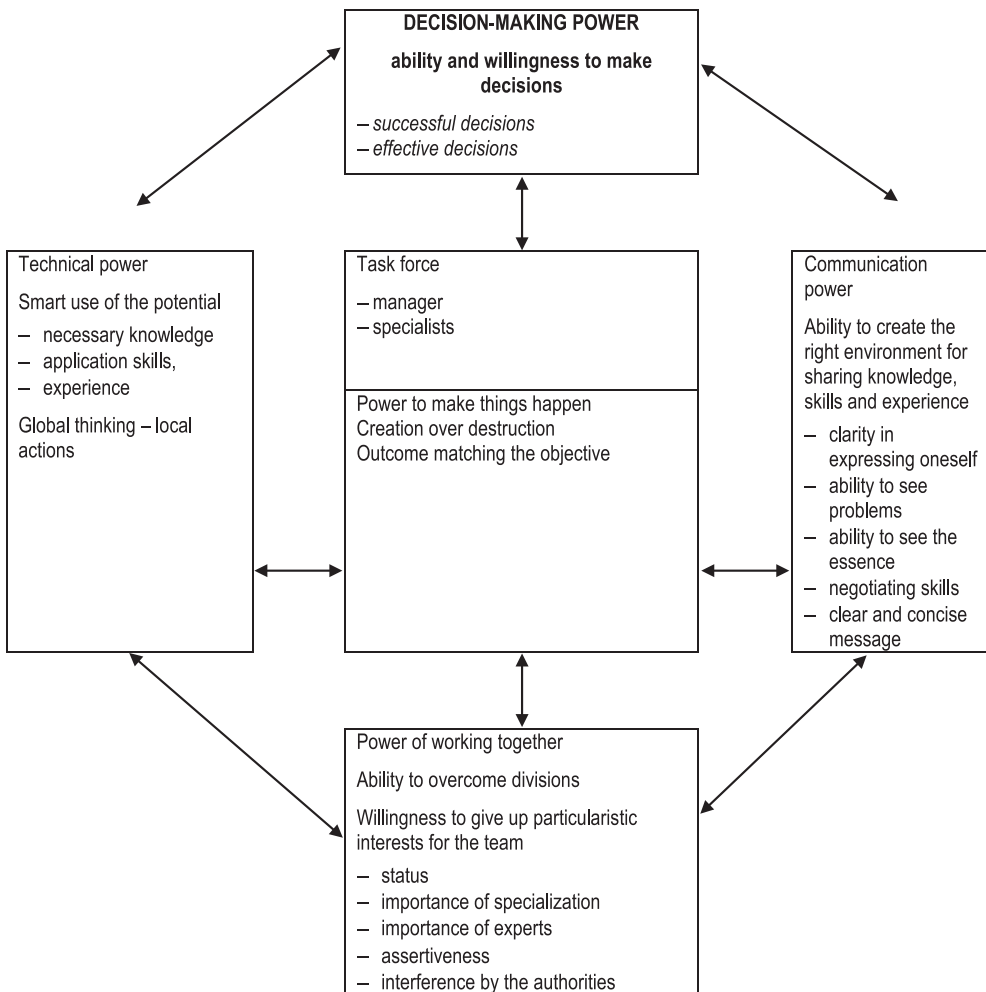
|   |                           |  |
|---|---------------------------|--|
| <ul style="list-style-type: none"> <li>- fears</li> <li>- reluctance, timidity instead of independence</li> <li>- desire to keep one's assets and not to multiply them</li> </ul> | motivation                | <ul style="list-style-type: none"> <li>- ability to overcome fears and depression, and other risks</li> <li>- tendency to acquire more possessions</li> <li>- success- and achievement-orientation</li> <li>- reasons for "being an entrepreneur"</li> </ul> |
| <ul style="list-style-type: none"> <li>- difficulties with decision making</li> <li>- instability</li> <li>- learned helplessness</li> </ul>                                      | decisions                 | <ul style="list-style-type: none"> <li>- decisiveness</li> <li>- decisions right for a given situation</li> <li>- consistency</li> </ul>   |
| <ul style="list-style-type: none"> <li>- avoiding risky situations and decisions</li> </ul>   | risk                      | <ul style="list-style-type: none"> <li>- treating risk situations as opportunities to succeed</li> <li>- taking risky decisions</li> </ul>   |
| <ul style="list-style-type: none"> <li>- no psychological resistance</li> <li>- low stress and frustration threshold</li> </ul>   | success and failure       | <ul style="list-style-type: none"> <li>- psychological resistance</li> <li>- high stress and frustration threshold</li> <li>- ability to act under pressure</li> </ul>   |
| <ul style="list-style-type: none"> <li>- conservative approach</li> <li>- conformity</li> <li>- lack of creativity</li> </ul>   | innovation and creativity | <ul style="list-style-type: none"> <li>- pioneer approach</li> <li>- creativity</li> <li>- ingeniousness</li> <li>- imagination and divergent thinking</li> <li>- intuition</li> </ul>   |
| <ul style="list-style-type: none"> <li>- introversion</li> <li>- problems with contacts and working with others</li> <li>- lack of leadership skills</li> </ul>                   | cooperation               | <ul style="list-style-type: none"> <li>- extroversion</li> <li>- leadership skills</li> <li>- creative management,</li> <li>- being trusted by others</li> <li>- negotiating and motivating skills</li> <li>- knowing what people need</li> </ul>            |
| <ul style="list-style-type: none"> <li>- fears and concerns</li> <li>- laziness</li> <li>- pessimism</li> </ul>   | barriers                  | <ul style="list-style-type: none"> <li>- optimism and activity</li> <li>- knowing oneself</li> </ul>   |
| <ul style="list-style-type: none"> <li>- melancholic</li> </ul>   | temperament               | <ul style="list-style-type: none"> <li>- sanguine</li> <li>- high energy and balance.</li> </ul>   |

Source: Encyklopedia biznesu [*Encyclopedia of Business*], Fundacja i Innowacja, Gdańsk 1995, Vol. I, p. 683.

Undoubtedly, the most sought-after candidates for managerial positions (Mroziwski, 2008, p. 105–106; Cieślak, 2006, p. 44) should be people perceived as leaders, who will foster the values and competitiveness of an enterprise and who embrace its long-term strategy. They should also be role models and understand all details of



day-to-day work to be able to teach their employees about the mission of the enterprise in the best possible way. In line with the idea of entrepreneurship, they should also teach and appreciate teamwork. This task can prove difficult most likely because the spirit of cooperation is missing. From a very young age children and teenagers at each level of education are trained to compete with each other rather than work as a team. However, groups are usually more effective in dealing with a problem than individuals (Fig. 1.2), and the outcomes of group work are often surprising. Interestingly, the outcomes are more often surprising if a given group comprises more people with entrepreneurial traits. Unfortunately, a meeting of a large group of entrepreneurial individualists may generate conflicts.



**Fig. 1.2.** Diagnosing the potential of an entrepreneurial task force

Source: J.D. Antoszkiewicz, Z. Pawlak, Techniki menedżerskie. Skuteczne zarządzanie firmą, Warsztaty menedżerskie, [Managerial techniques. Successful business management. Manager's toolbox] Poltext, Warsaw 2000.



In enterprises which rely on processes fostering entrepreneurial activity, the staff will be encouraged to take active part in task forces, including those whose main area of operation is innovation. Importantly, the number and quality of innovations are fundamental for the development of an enterprise as they are an indicator of how well the organization is developing.

Innovation is present in those areas of economic and social activity which in the long term drive the advancement of civilization, structural changes, increased efficiency in management and living conditions. In a broad sense, innovation is understood as creative changes in the social system, economic structure, technology and nature (Janasz, 1999, p. 75). Ph. Kotler (Kotler, 1994, p. 101) offers an even broader understanding of innovation as any good, service or idea that is perceived by anyone as new. According to Stawasz (p. 39), an enterprise is seen as innovative only when:

- it is involved in research and development (or purchases R&D projects),
- it regularly implements new research and technological solutions,
- new items account for a significant share of the production volume,
- it is continuously bringing innovation to the market.

A standard innovation implementation process is illustrated in the figure below



**Fig. 1.3.** Process of innovation

*Source:* own work based on W. Janasz, *Innowacyjne strategie rozwoju przemysłu [Innovative strategies for industrial development]*, Szczecin 1999.

Innovation and suitable human resources are one of the main determinants of market success. They become particularly important in today's knowledge-based economy, since "post-industrial economy, called knowledge-based economy, has a number of special characteristics. In terms of the most important value drivers, knowledge-based economy firstly relies on knowledge, as opposed to agrarian economy which relied on land and industrial economy which was based on capital. Secondly, intangible factors play a key role. This translates into greater market focus on services than on tangible goods. And in the area of investment it is reflected in more frequent investment in intangible assets as value creators than in tangible assets" (Urbanek, 2011, p. 12). Both human resources and intellectual capital are of critical importance as their quality translates directly into entrepreneurship and entrepreneurial attitudes of the public. These aspects have become an important element of the European Commission document: Europe 2020 strategy.

## 1.4. Conclusions

The paper offers a review of the significance of entrepreneurial processes, with a special focus on the role of human resources and innovativeness. The surveys by the Polish Agency for Enterprise Development and Wrocław University of Economics and



Business show that Poles are entrepreneurial and are not afraid to take risks. This suggests that entrepreneurship in Poland has good prospects, as Poles are more and more aware of available opportunities and open to new forms of career advancement. Furthermore, when looking at innovative and entrepreneurial processes as elements of enterprise operations, it is important to remember that they do not take place automatically, but there are many factors that can undermine them, such as an excessively rigid structure allowing little space for free activity or having no plan for the future, which means being stuck in the tried and tested well known patterns (usually seen as a “safe haven”). Such organizations are usually inflexible and change-resistant while only those entities that can change and transform rapidly will be able to meet the demands of the current business environment. This highlights the importance of fostering and promoting organizational culture focused on learning, development and creativity.



## CHAPTER 2

# The concept of nascent entrepreneurship: the genesis and further development

### 2.1. Introduction

Entrepreneurship remains an important concept in a number of scientific fields. Quite naturally, it fits well in economics – the science that entrepreneurship originates from. The origins of entrepreneurship and some considerations on its economic implications can be traced back to Cantillon and the 18<sup>th</sup> century. More recently, in the 20<sup>th</sup> century, entrepreneurship appeared also in the fields of management and psychology.

Entrepreneurs are believed to be crucial for economic development, promotion of innovativeness, and creating business opportunities where other people cannot see any potential for successful business. And it is yet to be established whether some people are actually born to be entrepreneurs or they can be taught to become ones. If they can be taught, then entrepreneurship education is of a great importance. However, if they are mostly born to be entrepreneurs, all those educational efforts are in vein. At some point, the attention of researchers was focused on personality traits, such as internal locus of control or risk-taking propensity, just to name a few. Personality traits are generally innate, therefore they cannot be created by any process of learning, however their manifestation can possibly be strengthened in that way. Further research into the nature of entrepreneurship revealed that personality traits are not a satisfactory explanation of why some people decide to pursue business opportunities, whereas others do not. Additionally, personality traits do not explain why some entrepreneurs are successful and others are not.

All this led to a gradual re-orientation of research on entrepreneurship. More attention was paid to process-based aspects of business foundation as well as to entrepreneurial activities and behaviours. Researching into the founding process of a new business venture involves studying the person (or the team) that is responsible for all activities undertaken before the business is actually born – nascent entrepreneur. The term itself appeared in the last decade of the 20<sup>th</sup> century and started gaining popularity along with important research projects, such as Panel Study of Entrepreneurial Dynamics (PSED) or Global Entrepreneurship Monitor (GEM).

The aim of this chapter is to analyze the development of nascent entrepreneurship concept over the years and to assess to what extent this promising idea of studying entrepreneurship advanced our understanding of this phenomenon.



## 2.2. The birth of nascent entrepreneurship concept

Even though the concepts of entrepreneurship and entrepreneur are a few centuries old, they regained much of scientific attention only half a century ago. It is in the seventies when the renaissance of small business (or more broadly of small and medium sized enterprises – SMEs) took place. According to Dominiak (2005) there were three major reasons for that: 1. technological progress, including the development of ICT; 2. long-lasting economic development and; 3. stagflation that occurred as a result of the first oil crisis and challenged macroeconomic policies based on the Keynesian paradigm. A growing number of SMEs in the economy, successfully competing with large enterprises, resulted in more emphasis placed on entrepreneurs when it comes to researching into economics and management.

Whereas economics and management focus mostly on the role of entrepreneurs from general (economics) and particular (management) perspective and their significance for the examined context, psychology aims, to a great extent, at explaining why some people become entrepreneurs. Psychological approach to entrepreneurship can be divided into two streams: studying entrepreneurial personality and the cognitive aspects of entrepreneurship.

In this first (and older) stream researchers try to explain entrepreneurial career choice made by individuals in terms of their unique personality traits and the needs that drive their entrepreneurial behaviours, while others who lack those features – do not engage in such activities. One of the pioneering researchers in this field was McClelland who claimed that the need for achievement and need for power are major attributes distinguishing entrepreneurs from others (Rahman, Rahman, 2012). Later, internal locus of control was proposed as the element that differs entrepreneurs from managers (Ward, 1993) or even as a factor contributing to entrepreneurial success (Brockhaus, 1980). The third most renowned factor allegedly characterising entrepreneurs is risk-taking propensity which is sometimes interpreted as propensity to innovate (Mueller, Thomas, 2001) while innovative activity is explicit in Schumpeter's description of the entrepreneur. Entrepreneurial traits have been studied extensively in the United States. However, cross-cultural studies and studies in non-U.S. contexts are rare and in most cases limited to comparisons between one or two countries or cultures. Thus the question is raised: do entrepreneurial traits vary systematically across cultures and if so, why? Culture, as the underlying system of values peculiar to a specific group or society, shapes the development of certain personality traits and motivates individuals in a society to engage in behaviors that may not be evident in other societies. Hofstede's (1980. Many papers, however, show that definite findings on some unique traits leading to entrepreneurial career choice or entrepreneurial success are – at best – rather doubtful (Altinay, Madanoglu, Daniele, Lashley, 2012; Carland, Hoy, Carland, 1988; Verheul, Thurik, Grilo, Van der Zwan, 2012; Wong, Cheung, Venuvinod, 2005) Hoy, Boulton and Carland (1984).

Cognitive approach to entrepreneurship is based mostly on perceptions, memory and mental processes. In this approach entrepreneurs are different from non-entrepreneurs because of the differences in mental models used to assessing situation, interpreting signals coming from their environment, perceiving opportunities and evaluating



them. This perspective is useful in explaining, for example, why some entrepreneurs are characterised by risk-taking propensity, while others are not. It is well possible that some entrepreneurs simply do not perceive running their business as a risky activity. In this way entrepreneurs' perceptions may prove much more important than their objective qualities (Simon, Houghton, Aquino, 2000).

Both approaches presented here are founded on the assumption (even if not explicitly stated) that entrepreneurs are substantially different from non-entrepreneurs and consequently, both groups are quite homogeneous. Therefore, differences between entrepreneurs are small and negligible as compared to non-entrepreneurs. That view was strongly opposed by Gartner (1985) who pointed out that differences between entrepreneurs, their businesses and their industries may be huge and, supposedly, often bigger than differences between entrepreneurs and non-entrepreneurs. With this publication Gartner started a new path in contemporary research on entrepreneurship: study on new venture creation. In order to grasp the whole phenomenon of new venture creation, it is necessary to adopt the view that the business foundation process is the result of mutual interactions between the founder and the environment (Katz, Gartner, 1988). In this view the entire foundation process is a kind of a social process during which the founder creates links with other people and organizations, acquires resources from beyond the boundaries created in the founding process and engages key stakeholders that are vital for the venture (Shook, Priem, McGee, 2003).

The focus on new venture creation leads to an increased interest in the persons responsible for this creation. They are not entrepreneurs yet, as their venture is not a fully operative business. It may even never be a working business, as the process of creation may never be completed. Therefore, new venture creation is actually about businesses *in statu nascendi*, meaning they are in the process of creation, where the outcome is still uncertain. And the person leading this process is called a nascent entrepreneur.

The term "nascent entrepreneur" is attributed to Paul Reynolds who used it for the first time in 1992 in his publication in *Frontiers of Entrepreneurship Research* (Davidson, 2006). In the theoretical sense, nascent entrepreneurship is perceived as an element of evolutionary theory of entrepreneurship. Evolutionary theory of entrepreneurship focuses on four major basic concepts: variation, adaptation, selection, and retention. Nascent entrepreneurship is here the main source of variation, with very diversified intentions of nascent entrepreneurs, and their founding processes comprising of various numbers of activities and actions, creating different sequences.

A nascent entrepreneur is by definition a product of a temporary situation. They appear when the decision to start activities leading to new venture creation is made. This is the moment of conception – it allows to distinguish nascent entrepreneurs from general population. The moment of conception marks the beginning of the gestation process, when a prospective business is being formed by a nascent entrepreneur. The gestation process finishes when business is born and at the same time nascent entrepreneur disappears being transformed into an actual entrepreneur.

Nascent entrepreneurship as a concept is quite simple, but in the operational sense it is rather complicated. It is questionable what undertaken activities can be treated as the beginning of the gestation process and how many such activities should be undertaken



to qualify a person as a nascent entrepreneur. It is also somewhat unclear which moment should be treated as the birth of a business.

In this first aspect, the broadest and most inclusive approach to nascent entrepreneurship, the beginning of the gestation process could be marked by thinking the business idea over and discussing it with some competent individuals. This is usually the most common first new business-related activity, and that was the initial view on nascent entrepreneurship (Reynolds, 1997). Later, for research purposes, a more narrow approach is used and nascent entrepreneurs are defined as those who started one (or two, depending on the research philosophy) activities from a list of approximately 30 typical actions undertaken during the gestation process. Most of the actions included in this catalogue are taken from the PSED project (Zięba, 2015).

The birth of a business is only seemingly easy to define. Obviously, it is possible to maintain that this is the moment of formal business registration, which is probably the easiest and the most unambiguous solution, but this way of defining the birth of a business does not capture the essence of the phenomenon. It is well possible that a business operates before formal registration, so actually it is born before being registered. It is equally possible that a business is registered while being still not operational. Hence, it is an often accepted view that the birth of a business is marked by some symbolic event, such as first employment or first sales. Both events are typical for a working business: having employees or selling products, therefore if a business does so, it may be counted as born. The drawback of this approach is the lack of holistic view on business operations and focus on some particular aspects of business operation. More holistic alternatives are: referring to nascent entrepreneur's own judgement whether their business is already born (which is based on so-called cognitive scripts, but criticised for its subjectivity) and generating positive cash flow (which is perceived here as a sign of ability of a business to survive). The last approach was used in PSED to distinguish between a start-up and a fledgling new venture.

The explanation of when nascent entrepreneurs appear (the moment of conception) and when they successfully disappear (the birth of a business), is followed in the next sections by a discussion of some of the general directions in nascent entrepreneurship research. They can be divided into three major domains, reflecting subsequent stages of a new venture creation process: studies on factors leading to the nascent entrepreneur status (antecedents of nascent entrepreneurship), on activities undertaken during the venture creation process (business planning and execution), and on nascent entrepreneurship outcomes (successful birth of a venture or failure/discontinuance). In this chapter, the focus is placed upon nascent entrepreneurship antecedents and outcomes.

### **2.3. Antecedents of nascent entrepreneurship**

Studies on antecedents of nascent entrepreneurship bear some resemblance to the "personality traits" strand of research on entrepreneurship: they are founded on the premises that some factors or features make people more likely to become involved in a new venture creation process in the leading role of a nascent entrepreneur. Those antecedents can be roughly divided into three groups.



The first one would be mostly about trying to answer the broad question of **who nascent entrepreneurs are**. What is their age and gender, education and general background (including exposure to entrepreneurship by being involved in family business). What personal features and attitudes, as well as cognitive abilities they have. Last but not least, what is their work experience and business experience. The second group is about **what nascent entrepreneurs want to achieve**. Studies in this domain focus mostly on motivational factors and intentions stemming from those motivations. The third one deals with **what nascent entrepreneurs' external environment is like**. This may encompass institutional support for entrepreneurs, macro-, mezzo-, and microeconomic policies of the government (and local governments), cultural determinants and regional conditions.

Factors such as gender are relatively well-researched with respect to entrepreneurship and it is a well-established fact that more men become entrepreneurs than women. But this only tells us that more men than women successfully complete the founding process and provides no information on proportions between the two genders when entering the founding process. It is reasonable to expect that there can be some differences between motivations, goals and activities undertaken by men and women. In fact, it appears that women slightly less frequently than men prepare business plans and plan to employ staff, while more often they apply for grants and subsidies from governments and business support institutions. The observed differences are not large and have a limited impact on the outcomes of founding processes (Alsos, Ljunggren, 1998; Davidsson, Honig, 2003). Gender-based differences are also analysed using cross-country data sets (Minniti, Nardone, 2007). Men are certainly over-represented among nascent entrepreneurs, as numerous GEM reports show. One of the explanations is the higher participation of men in labour force in most countries, which may not be a sufficient explanation in some cases. Sweden has a very high rate of female participation, and yet male domination is relatively very strong (stronger than in the USA). Alternative explanations include institutional factors (Davidsson, Honig, 2003; Delmar, Davidsson, 2000), as well as the fear of failure (Wagner, 2007).

There is a number of studies analysing propensity to become a nascent entrepreneur with age as one of the major factors – most of them based on GEM Executive Reports. Apart from relatively young age, education and prior business experience influence the probability of becoming a nascent entrepreneur (Manolova, Edelman, Brush, Rotefoss, 2012; McCann, Vroom, 2015). Cognitive abilities and biases prove to be important factors behind nascent entrepreneurship as well (Baron, 2007; Cassar, Craig, 2009).

In the quest of what nascent entrepreneurs want to achieve, their motivations play the central role, as they represent the reasons why nascent entrepreneurs decide to pursue business opportunities. When it comes to actual entrepreneurs, numerous studies focused on their motivations and quite much is known about them (Hayter, 2011). Yet, it is essential to study nascent entrepreneurs' motivations separately from actual entrepreneurs' motivations, as they might be different in a number of ways.

First of all, hindsight bias makes less credible the actual entrepreneurs' opinions about what their motivations were like when they tried to start their business. This is especially true when they are asked about their founding motivations after a long time since they actually started their business. In this case they say *what they remember and*



*believe* to be their motivation at that time. Additionally, the question whether founding motivations are positive (pull factors) or negative (push factors) may prove to be important for the successful completion on the founding process. Hence, motivations of nascent and actual entrepreneurs may be different, as some of nascent entrepreneurs may more likely be eliminated from the pool by the failure of their founding process (Zięba, 2015).

Nascent entrepreneurs' motivations can be divided into five major categories: financial success, independence, self-realization, social contribution and willingness to innovate (Carsrud & Brännback, 2011). Financial success is one of the most obvious motivations, rooted deeply in neo-classical economics, where the owner of a business seeks primarily to maximise profit. Financial success seems to be also positively correlated with growth intentions and venture growth. Interestingly, the motivation of independence is found to be even more important for choosing entrepreneurial career path, but it negatively correlates with intended and achieved employment growth, suggesting that nascent entrepreneurs seeking independence want their businesses to be relatively small (Cassar, 2007). As far as independence is concerned, it may also be linked to some financial aspects of running a business (financial independence). Self-realization is a purely non-financial factor and it ranks quite high among other motivating factors (Carter, Gartner, Shaver, Gatewood, 2003). Social contribution proves to be especially important in the context of social entrepreneurship, where nascent entrepreneurs declare their major motivation for new venture creation is helping their community, supporting the economy and economic development. The desire to innovate is also present in this social context. Unfortunately, both the focus on social goals of the future business and novelty of the solution used in this business decrease the likelihood of success (Renko, 2013).

External environment for nascent entrepreneurs includes institutions and their policies, cultural determinants and regional conditions. The perceived importance of entrepreneurship and, consequently, of nascent entrepreneurs, is high among politicians and decision makers. Supportive policies aimed at entrepreneurs and those interested in pursuing entrepreneurial career seem to be important both from the perspective of the resource dependence theory and the population ecology theory (Begley, Tan, Schoch, 2005). Apart from the objective characteristics of the entrepreneurial environment, nascent entrepreneurs' perceptions of this environment are also crucial for the exploitation of an existing business opportunity or the creation of such an opportunity (Edelman, Yli-Renko, 2010). More generally, entrepreneurial cognition serves as a kind of intermediary between the objective institutional context and the decision to start own business made by nascent entrepreneurs. This may explain why female nascent entrepreneurs' perceptions differ from those of their male counterparts. Differences in the ways of processing information may also affect perceptions of both extrinsic and intrinsic factors leading (or not leading) to starting own business (Aragon-Mendoza, del Val, Roig-Dobón, 2016). An entrepreneurship-friendly environment, rich in formal and informal networks, offering incubator facilities as well as abundant physical infrastructure is vital for high-technology entrepreneurial activities (Neck, Meyer, Cohen, Corbett, 2004). However, the question whether this entrepreneurship-friendly environment should be built with the use of government regulations or rather created spontaneously without such regulations is still





to be established. The impact of government regulation and deregulation on nascent entrepreneurship remains inconclusive (Stel, Storey, Thurik, 2007).

When it comes to cultural factors, it is widely believed that some cultures are more entrepreneurship-oriented, whereas others are less. But this kind of conventional wisdom is often challenged. Some researchers prove that, in spite of major cultural differences, entrepreneurs do not think differently in many aspects important from the business-related point of view (Mitchell, Smith, Seawright, & Morse, 2000) or claim that cultural orientations influence business founding activities in a modest way (Hopp, Stephan, 2012). Even the notions already deeply rooted in entrepreneurship research, such as Hofstede indices, may sometimes prove to be very weak determinants of nascent entrepreneurship activities. Nevertheless, cultural entrepreneurship still remains the topic of numerous publications (Wry, Lounsbury, Glynn, 2011). Cultural and economic aspects of entrepreneurship and nascent entrepreneurship are also influenced by globalization and this impact is probably of a dual character. On one hand, entrepreneurial cultures present in developed countries may spread to the less developed ones. On the other hand, the increased level of competition and constant inflow of technological innovations in many cases makes nascent entrepreneurial activities more complex and more risky.

Cultural and political factors have usually country-level dimensions, although some cultural traits, as well as institutional and political elements, can be of a regional character. Apart from that, regional determinants of nascent entrepreneurship are usually considered to be linked with clusters in two different dimensions: business clusters and knowledge clusters. Knowledge spill over theory is able to explain why the availability of technological, financial and human capital attracts nascent entrepreneurs to start their business in some particular locations (Sternberg & Wennekers, 2005) and why the proximity of business networks and universities is a vital factor to start-up decisions, especially in high-technology industries (Neck et al., 2004; Verheul, Carree, Santarelli, 2009). Regional differences prove to be important for the proper design of entrepreneurial support policies, especially in the context of population decline in most of the developed countries, which becomes a more and more serious threat for new venture formation. Obviously, the smaller the population, the smaller (eventually) the number of businesses. The regional context decides to a great extent on the intensity of this relation and must be taken into account when designing policies aimed at coping with the decrease in the number of new businesses (Delfmann, Koster, McCann, Van Dijk, 2014).

## 2.4. Outcomes of nascent entrepreneurship

While nascent entrepreneurs take a long journey, with its beginning marked with their decision to begin some activities aimed at new venture creation and its end marked by the successful creation of a new venture, it is always uncertain whether they will be able to complete this journey. The natural focus on those who have succeeded is easy to explain, as successful new business founders are much more available to researchers than their unsuccessful counterparts. This focus, however, results in a systematic bias. For the complete understanding of the entrepreneurial process it is also vital to conduct research into entrepreneurial exit. Entrepreneurial exit, defined as “the process by which



the founders of privately held firms leave the firm they helped to create; thereby removing themselves, in varying degree, from the primary ownership and decision-making structure of the firm” (DeTienne, 2010) is an inevitable part of the entrepreneurial process. It is generally analysed mostly in relation to existing businesses, where the founder decides to harvest the value created over time of being an entrepreneur, however entrepreneurial exit may also be defined differently (Hessels, Grilo, Thurik, van der Zwan, 2011) potential, intentional, nascent, young and established entrepreneurship. We use individual-level data for 24 countries that participated in the Global Entrepreneurship Monitor during 2004, 2005 and 2006 (some 350,000 observations. Nevertheless, the same approach may be used to analyse abandoning the foundation process, where the business is not actually up and running. In this case, the major idea is not about harvesting the value created, but rather saving remaining resources and minimising losses. Since the notion of entrepreneurial exit refers basically to exiting from an existing business, in the case of nascent entrepreneurs it is more accurate to speak of “disengagement” (Khan, Tang, Joshi, 2014), as opposed to “engagement”, as those two terms capture both possible outcomes of nascent entrepreneurship.

There are four major reasons for disengagement: resource deficiency, extensive opportunity costs and negative perception of new venture outcome, leadership problems, and technical difficulties. As far as resource deficiency is concerned, Khan and Joshi (2014) prove that the decision to disengage depends mostly on goal commitment and Bandura’s self-efficacy: the more goal committed and the higher the level of self-efficacy demonstrated by nascent entrepreneurs, the less likely their disengagement is. Interestingly, the perception of competition intensity has no direct influence on disengagement, however it indirectly weakens the negative influence of goal commitment on disengagement.

A negative perception of new venture outcome may sometimes be a result of negative emotions accompanying the role of a nascent entrepreneur, such as the fear of failure, insecurity, etc. It shows that perceptions which create those emotions are important for the decision whether to continue the founding process or not. While such perceptions and emotions are purely subjective, high opportunity costs may also be a factor that pushes nascent entrepreneurs into disengagement. This factor is more objective, as it takes into account the value of all efforts made so far to start the business and compares this value with the market response (or expected market response) to the new venture.

The stakeholder theory emphasises the importance of trust relationships between business stakeholders and the entrepreneur. This leadership related aspect of new venture creation may result in disengagement for a number of reasons which include poor or insufficient communication with potential customers, investors, key partners and other important stakeholders, as well as errors in venture creation management (Pollack, Barr, Hanson, 2017) romantic relationships, co-workers. The latter is a broad category, encompassing social and human capital management, improper resource allocation, avoiding necessary risk-taking and taking too much of unnecessary risk.

Technical difficulties are the last of the four reasons for disengagement. This factor is especially important in high-technology industries or industries that are heavily based on knowledge. Lack of skills, inability to acquire the necessary technologies, and similar





problems may reduce the potential of a prospective new venture to generate satisfactory stream of revenue. What is important, studies show that there is no significant difference between those who abandon the start-up process and those who do not when it comes to the number of problems or the type of problem encountered during the process. However, if nascent entrepreneurs are able to anticipate technical issues and address them in advance, they may also be able to avoid disengagement (van Gelderen, Thurik, Patel, 2011).

The decision of engagement in the actual venture start-up may stem from three fundamental reasons: commitment and sense of purpose, ability to attract required resources and performance-driven attitude of a nascent entrepreneur. Commitment and sense of purpose make nascent entrepreneurs' determination stronger and more durable. When they give their business ideas thorough consideration and devote their time and energy to necessary preparations, they are more likely to continue their pursuit of entrepreneurial career even if the general economic situation is not favourable (Davidsson, Gordon, 2016).

The ability to attract sufficient resources is also associated with a greater likelihood of engagement. The acquisition of financial, human and social resources, as well as the technology required for the new venture proves that a nascent entrepreneur is successful in communicating with investors, partners, employees and other stakeholders, which is a promising sign for future development (Dimov, 2010).

Being performance-driven seems to be an important factor for the engagement of nascent entrepreneurs, as suggested in some studies (B. A. Mueller, Wolfe, Syed, 2017; Spyropoulou, Katsikeas, Skarmeeas, Morgan, 2018) theorized to influence a host of entrepreneurial behaviors as well as firm performance. The current study explores one set of pathways leading from developer passion to performance, identifying self-regulatory mode (locomotion and assessment. Activities that are typical for such performance-driven behaviour include setting key performance indicators, undertaking marketing activities, strategic planning and communicating with stakeholders.

When discussing nascent entrepreneurship outcomes it is impossible to avoid answering the question of what is actually meant by "successful outcome of nascent entrepreneurship". The notion of success can be linked with three entities: nascent entrepreneur, new venture and external measures of success (Schutjens, Wever, 2000). The first approach is based on asking whether the nascent entrepreneur is satisfied with the results of the founding process. It may also include some more sophisticated measures, referring to scalability, growth aspirations, etc.

Successful outcome can also be defined on the basis of the characteristics of a new venture. Success criteria for a new venture may include: obtaining legal entity through registration (formal indication of successful business creation), obtaining positive cash flow, reaching a certain level of employment or turnover (Arenius, Engel, Klyver, 2017). They are certainly more objective than the above mentioned criteria based on subjective judgement of the nascent entrepreneur, but on the other hand they tend to be connected with phases later than new venture creation (for instance, obtaining a positive cash flow or reaching a given level of employment may take some time).



External measures of success may refer to how external investors or decision makers define success with regard to nascent entrepreneurship. It could be simply legal registration of the new venture, percentage of market share gained or likelihood of IPO following the emergence of the venture.

## 2.5. Conclusions

Analysing the literature on the nascent entrepreneurship phenomenon, it becomes clearly visible that it is based on a very diversified theoretical background. Some studies try to integrate two or even more theories, but this is relatively rare. This scarcity leads to the lack of any broad theory of nascent entrepreneurship. Another reason for this lack is also the scarcity of studies on nascent entrepreneurs that go in the integrative manner over subsequent phases of nascent entrepreneurship. After the famous PSED (Panel Study of Entrepreneurial Dynamics), its continuation in the form of PSED II and a few small-scale projects that followed in other countries, we do not see such important scientific initiatives any more. The Global Entrepreneurship Monitor (GEM) cannot replace longitudinal projects like the PSED, even though the GEM still serves as a valuable source of data and knowledge on nascent entrepreneurship. In spite of the growing body of literature on nascent entrepreneurship, one single comprehensive theory of this phenomenon does not seem to emerge yet. Is it possible at all to create such a theory, taking into account what a multifaceted concept it is? Regardless of whether the answer to this question is positive or not, studying nascent entrepreneurship is worthwhile, as it advances our understanding of the process of new venture creation.

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## **Entrepreneurialism in modern universities: new models of supporting education and research activities**

### **3.1. Introduction**

The current shift from the managed economy towards an entrepreneurial economy has stimulated vigorous debates about supporting entrepreneurship through “entrepreneurship policy”; governments at different levels (including the regional, national and the EU level) are now making energetic efforts to encourage start-ups, as well as successive progress and growth (Thurik et al., 2013, pp. 302–310).

The model of the entrepreneurial economy puts emphasis on the relationships between adaptability, diversity, innovation, “clustering”, etc., and economic development; it also focuses on knowledge-based economic activity in the globalized business environment (Audretsch, Thurik, 2004, pp. 143–166). So the entrepreneurial economy is associated with disseminated innovation and the initiation of innovative projects (Audretsch, Thurik, 2001, pp. 267–315). The main element of innovation is knowledge; government organizations, innovative enterprises and academic institutions are all involved in creating and transferring new knowledge (Kruja, 2013, pp. 7–17). Today, efficient use of “knowledge capital” depends on its ability to spread among individuals, institutions, regions and business areas (Audretsch et al., 2011, p. 6).

In view of the above, it is hard to overestimate the role of modern universities in ensuring economic prosperity of the EU countries in the agenda of building “smart” knowledge-based economies, in generating and disseminating knowledge and innovation. As higher education institutions are now working in a turbulent environment distinguished by the emergence of an entrepreneurial economy, they face a number of concerns and issues.

Entrepreneurialism (i.e., operating in an entrepreneurial mode) is associated with the ability of a university to adapt to the volatile global environment and its capacity to support sustainable education and research. In this context, the following challenges are faced by contemporary universities: identifying sources of income, establishing a diversified income base, building mechanisms through which income is received, creating adequate resources, attracting research funds, and developing relevant managerial mechanisms for using them most efficiently. However, in higher education, entrepreneurialism can be defined not only in economic terms; it is also associated with developing new models of supporting education and research activities that may be organized and funded in innovative ways (Shattock, 2009, pp. 1–8).

The purpose of the chapter is to discuss such dimensions of university entrepreneurialism as institution-wide and departmental initiatives through which an academia can generate sufficient resources to be further invested in building new facilities, recruiting



new staff and creating new educational services designed to facilitate effective teaching, learning, and research. The chapter also addresses the challenge of creating synergy among the increasingly more specialized and centralized support for research and educational activities in an “entrepreneurial” university. The research includes the analysis of theoretical literature on the research topic, EU documents on higher education, and strategic plans of some European universities.

The research was carried out in the frame of Cost Action CA15221 – “Advancing effective institutional models towards cohesive teaching, learning, research and writing development”.

### 3.2. Universities in modern knowledge-based economies

To attain a sustainable future, the European Union is now focusing on three mutually supporting priorities specified in “European strategy for Smart, Sustainable and Inclusive Growth”: smart, sustainable and inclusive growth, which presupposes 1) developing an economy built upon knowledge and innovation; 2) stimulating more resource-efficient, environment-friendly and competitive economy; 3) creating new jobs and providing social and territorial cohesion (COM(2010) 2020, 2010).

Both economic and social growth significantly depend on knowledge in its different types and forms, such as knowledge generation, acquisition and use (COM(2000) 6, 2000). The “knowledge society” relies for its growth on the creation of new knowledge and its dissemination through education and training systems (COM(2003) 58 final, 2003).

In 1997, the Commission of the European Communities declared that “knowledge-based policies” stimulating “innovation, research, education, and training” could be regarded one of the four main pillars of internal policies of the EU (COM (97) 563 final, 1997). Building a knowledge-based society, being a priority for the EU countries, requires extra investments in generating new knowledge activities, which would enable knowledge development and exchange; this can be implemented through the construction of a European Research Area or a European Education Area (Shattock, 2009, pp. 1–8).

In the agenda of “European strategy for Smart, Sustainable and Inclusive Growth” (COM(2010) 2020, 2010.), it is vital to increase the performance and international attractiveness of European higher education institutions enhancing the quality of education and training, as well as improving the educational outcomes and the “outputs” of educational organizations. Thus, European universities are now encountering many challenges in the agenda of creating the European Higher Education Area and European Research Area for delivering quality higher education; Bologna Declaration, 1999; COM(2000) 6, 2000; Berlin Communiqué, 2003; COM(2003) 58 final, 2003; Standards and Guidelines for Quality Assurance in the European Higher Education Area, 2005; Bergen Communiqué, 2005; London Communiqué, 2007). They also face pressures in terms of becoming more competitive in the constantly changing global environment. Modern higher education institutions compete for students, staff, resources, research funds, etc. Today, non-profit organizations are becoming more involved in entrepreneurial work (Ansoff, 2007). With



limited resources, universities are now trying to be more “entrepreneurial”, that is acting in an entrepreneurial style.

One of European responses to the unprecedented challenges which European higher education faces is the emergence of the so-called “entrepreneurial university”, which is characterized by innovation via performing traditional teaching and learning activities, conducting research, disseminating knowledge, as well as through strong leadership and governance (EC-OECD, 2012). In general, entrepreneurialism can be viewed as contemporary universities’ adaptiveness to a turbulent external environment, and their capacity to produce innovation through generating fresh ideas (Shattock, 2009, pp. 1–8).

### **3.3. Entrepreneurialism in a contemporary university: searching for new models of supporting education and research activities**

#### **3.3.1. Entrepreneurial university: going beyond traditional teaching and learning**

It is apparent from the foregoing that the higher education market is evolving rapidly, the process being determined by significant changes in the global environment. The role of universities is also changing; more emphasis is being put on the economic input to the society and entrepreneurial activities (Clauss et al., 2018/1, pp. 1–34). The emergence of the “mass” higher education has brought about the modification (diversification) of the traditional university model in which teaching and research were given the same importance (Shattock, 2005, pp. 13–26).

As said by Etzkowitz (2003, pp. 109–121), the “academic enterprise” is transformed together with the transition to a knowledge-based economy; in the process, the university mission progresses through three evolving phases: 1) teaching; 2) teaching and research; 3) entrepreneurial – economic and social development, teaching and research.

In view of this, some burning issues addressed by modern universities in the agenda of becoming more competitive (that is more “entrepreneurial”) can be summarized as follows (COM(2003) 58 final, 2003):

- attaining sustainable incomes and spending them most efficiently;
- achieving academic and managerial autonomy;
- generating substantial resources for accomplishing academic and research excellence;
- better contributing to the society;
- ensuring closer co-operation between educational organizations and enterprises for better dissemination and use of knowledge.

It is obvious that an entrepreneurial university is associated with changing university practices, internal culture and philosophy, strategies and policies (Mihajlovic, 2016, pp. 215–226). There is no universal definition of an entrepreneurial university yet, as there is a plurality of approaches (EC-OECD, 2012). In this paper, the following definition will be used to describe such an institution: an entrepreneurial university can be defined as an educational organization that is a potential source for innovative interdisciplinary



and industrial areas each contributing to one another; such organization must have a corresponding support structure for both academics and students to “start new ventures” (Etzkowitz, 2003, pp. 109–121). The entrepreneurial university is a favourable place for innovation because of the fast human capital reproduction, its students being “potential inventors” (ibid.).

Entrepreneurial universities have to adapt to the turbulent global environment by establishing new organizational forms; their authority, management and governance structures should be modified for increasing “flexibility, efficiency and effectiveness”; in the process, new procedures and methods of allocating resources have to be employed (Sporn, 2001, pp. 121–134). In this context, the intensification of university “entrepreneurialism” (of the whole institution and across its units) embodies an additional element of this diversification (Shattock, 2005, pp. 13–26). However, entrepreneurial universities do not withdraw from their previous functions of teaching and general research (Etzkowitz, 2003, pp. 109–121).

The challenge for an entrepreneurial university is to incorporate traditional teaching and research activities in its strategy developed in the entrepreneurial agenda. This necessitates the modernization of standards for university performance, and calls for designing suitable university performance metrics integrating research and teaching, for example, percentage of staff involved in both teaching and research, how fast new research is incorporated into the curriculum, etc. (Fuller, 2005, pp. 17–42).

Etzkowitz (2003, pp. 109–121) characterizes academic entrepreneurship as both “endogenous” and “exogenous” in terms of what internal and external influences drive university-based innovation. A holistic approach to describing an entrepreneurial university should be used, as there is a need for universities to develop appropriate organizational structures and business models used for establishing relationships and assisting communication between internal and external stakeholders in the agenda of promoting entrepreneurial activities (Clauss et al., 2018/2, pp. 1–8). According to Williams (2009, pp. 9–32), there are different dimensions of university entrepreneurialism to be considered: new private higher education institutions and novel developments in public higher education institutions, major institution-wide initiatives, smaller-scale departmental, faculty and centre ventures, and freelance teaching research and consultancy.

Some institution-wide and departmental initiatives aimed at generating sufficient resources necessary for facilitating effective teaching, learning, and research are discussed below.

### **3.3.2. “A Guiding Framework for Entrepreneurial Universities”: a few ideas for the effective management of institutional and cultural change**

“A Guiding Framework for Entrepreneurial Universities” (EC-OECD, 2012) was developed in 2012 under the guidance of the European Commission, Directorate General for Education and Culture in cooperation between the OECD LEED (Local Economic and Employment Development) Programme. The target audience of the Framework are university management boards responsible for strategic planning and decision-making.



The above Framework offers some ideas for developing a set of institution-wide and departmental initiatives, serving as a self-assessment tool used to determine strengths and weaknesses of a particular university in the context of its strategy creation and implementation. This is done through identifying the university's current position and a potential sequence of actions with due account to the external environment – both local and national (EC-OECD, 2012).

The Framework identifies seven areas related to the management of a higher education institution that may need improvements; these areas include some commonly recognized features of an entrepreneurial university (ibid.):

1. Leadership and Governance
2. Organizational Capacity
3. People and Incentives
4. Entrepreneurship development in teaching and learning
5. Pathways for entrepreneurs
6. University-business/external relationships for knowledge exchange.

In Table 3.1, the main areas of action in an entrepreneurial university and the related tasks and objectives are described.

**Table 3.1.** Main areas of action in an entrepreneurial university

| Area of action                                 | Related tasks and objectives  |
|--|---|
| Leadership and governance                      | <ol style="list-style-type: none"> <li>1. Integrating entrepreneurship in the university strategy and ensuring commitment to implementing the strategy in the entrepreneurial agenda</li> <li>2. Establishing appropriate models for coordinating and integrating entrepreneurial activities across the entire university</li> <li>3. Giving certain autonomy to all structural units</li> <li>4. Encouraging regional, social and community development</li> </ol>   |
| Organizational capacity, people and incentives | <ol style="list-style-type: none"> <li>1. Diversifying funding sources and decreasing dependency on state and public funding</li> <li>2. Developing a sustainable financial strategy</li> <li>3. Creating synergies between internal stakeholders</li> <li>4. Employing staff with an entrepreneurship background</li> <li>5. Investing in staff development in the entrepreneurial agenda, investing in entrepreneurship education, supporting business start-ups and other entrepreneurial activities</li> <li>6. Boosting and rewarding entrepreneurial behaviour of the academic staff</li> </ol> |





|   |   |
|---|---|
| <p>Entrepreneurship development in teaching and learning</p>                | <ol style="list-style-type: none"> <li>1. Establishing specific structures facilitating entrepreneurial development</li> <li>2. Delivering entrepreneurial learning through the university, promoting diversity and innovation in teaching and learning</li> <li>3. Encouraging entrepreneurial behaviour through teaching and extra-curricular activities</li> <li>4. Establishing mechanisms by which teaching staff can arrange the expected learning outcomes regarding entrepreneurship (knowledge, skills and competences) in the degree programmes</li> <li>5. Integrating collaboration with industries and increasing external stakeholders' engagement in teaching and learning</li> <li>6. Incorporating research results into entrepreneurship education and training</li> </ol>  |
| <p>Pathways for entrepreneurs</p>   | <ol style="list-style-type: none"> <li>1. Fostering the awareness of the academic staff and students about the significance of developing various entrepreneurial abilities and skills</li> <li>2. Stimulating entrepreneurial behaviour</li> <li>3. Creating an environment that is favourable for developing entrepreneurial skills and competencies</li> <li>4. Providing individuals and groups with support services and opportunities: from the pre-start-up phase through to the growth phase of business development, e.g. network development and mentoring</li> <li>5. Mentoring by academic and industry staff</li> <li>6. Facilitating access to private finance (for students and graduate entrepreneurs)</li> <li>7. Offering broad access to business incubation facilities: premises, access to laboratories, research facilities and IT services, etc.</li> </ol>  |
| <p>University – business/ external relationships for knowledge exchange</p> | <ol style="list-style-type: none"> <li>1. Developing a policy offering guidance on how all types of relationships with industry, the public and private sector etc., can be established, coordinated and managed</li> <li>2. Establishing partnerships with regional and local organizations, SMEs, social enterprises, schools, alumni and entrepreneurs</li> <li>3. Establishing strong links with incubators, science parks and other external initiatives, creating opportunities for dynamic knowledge exchange</li> <li>4. Giving the opportunity to engage more comprehensively with the external environment through a range of entrepreneurial activities as a) part of an active curriculum (learning factories) and internship; b) through social meetings and activities</li> <li>5. Supporting staff and student mobility between the university and the external environment</li> <li>6. Connecting research, education and industry activities to influence the so-called knowledge ecosystem</li> </ol> |





|  |   |
|--|---|
| The Entrepreneurial University as an internationalized institution | <ol style="list-style-type: none"> <li>1. Supporting the internationalization process: incorporating an international, intercultural or global aspect into the aims and functions of education</li> <li>2. Supporting the international mobility of academic staff and students</li> <li>3. Inviting international and entrepreneurial staff</li> <li>4. Demonstrating internationalization in the approach to teaching by offering access to novel approaches to teaching and learning</li> <li>5. Participating actively in international networks</li> </ol>   |
| Measuring the impact of the Entrepreneurial University             | <ol style="list-style-type: none"> <li>1. Collecting evidence of the result of performing activities on the entrepreneurial agenda for evaluating the impact of the entrepreneurial strategy</li> <li>2. Evaluating the level of engagement in entrepreneurial teaching and learning across the educational organization</li> <li>3. Evaluating the impact of entrepreneurship teaching and learning on a regular basis</li> <li>4. Monitoring and assessing the universities' knowledge exchange and dissemination activities on a regular basis</li> <li>5. Monitoring and evaluating of the impact of start-up support on a regular basis</li> </ol> |

Source: EC-OECD (2012).

### 3.3.3. Supporting education and research activities in an entrepreneurial university

Kirby et al. (2011, pp. 302–316) have explored a few internal (institutional) facilitators that may enable educational and research activities in an entrepreneurial university:

1. *Formal facilitators* – creation and delivery of entrepreneurial courses for students, support for technology transmission; support of start-ups, development of flexible organizational structures, establishment of strong relationships with the industry, creation of incubators and Science Parks.;
2. *Informal facilitators* – promotion of positive attitudes of students and staff towards entrepreneurship (e.g. by developing entrepreneurial projects, etc.), promotion of positive attitudes of staff towards entrepreneurship (e.g. by developing entrepreneurial projects, etc.), creation of entrepreneurial cultural values, promotion of entrepreneurial “role models” (e.g. on the basis of organizing business forums, meetings, etc.), development of new ways of teaching, establishment of consistent rewards and incentives for staff for promoting entrepreneurial spirit across the university.

In point of fact, the above facilitators can be acknowledged as institution-wide and departmental initiatives itemized in the university's strategic plan and later implemented across the higher education institution, being an integral part of the novel models of education and research support.

The strategic initiatives incorporated in an entrepreneurial university's strategy rest on new modes of knowledge creation and knowledge exchange in the complex university



environment. The management of a modern educational organization includes the following functional domains (Stukalina, 2014, pp. 80–90): education, research and innovation, related services and infrastructure and staff (Human Resources). In a broader sense, the management of a higher education institution involves the seven areas of action identified in “A Guiding Framework for Entrepreneurial Universities” (EC-OECD, 2012). The developed strategy should be appropriately resourced in accordance with a university’s strategic objectives, the entrepreneurial approach to education and research being an integral element of a university’s strategy in the “entrepreneurial agenda”.

A few innovative strategic initiatives incorporated into strategic plans of some leading European universities are summarized in Table 3.2.

**Table 3.2.** Some initiatives incorporated into strategic plans of modern universities in the entrepreneurial agenda

| Functional domain      | Institution-wide and departmental initiatives as reflected in strategic plans  |
|------------------------|--|
| Education              | <ul style="list-style-type: none"> <li>– Expanding the number of scholarship programmes on the basis of the funds from businesses</li> <li>– Developing research-intensive educational programmes based on integration between teaching and research to ensure the ability to innovate and progress with the global market</li> <li>– Developing joint programmes and interdisciplinary courses for stimulating knowledge exchange for supporting entrepreneurial activities</li> <li>– Introducing new forms and methods of education regarding diverse target groups (including business)</li> <li>– Intensifying international mobility opportunities for students (internships and on-course opportunities to study, conduct research or gain work experience)</li> <li>– Increasing the number of courses and programmes provided through distance-learning; introducing technological innovations in teaching/ learning activities</li> <li>– Engaging “knowledge workers” from outside the academia to teach entrepreneurship courses, and in this way building relationships with entrepreneurial communities and stimulating students and academics to participate in entrepreneurial activities</li> </ul> |
| Human resources/ staff | <ul style="list-style-type: none"> <li>– Implementing Action plans, such as the Race Equality Charter (aimed at improving the representation, development and success of minority ethnic staff in higher education), Mindful Employer (providing organizations with easier access to information and support for staff undergoing stress, anxiety, depression or other mental health conditions), etc.</li> <li>– Developing pension plans, childcare provision, flexible working policies, new affordable homes for staff in partnership with the private sector</li> <li>– Creating opportunities for personal and career development of all staff</li> <li>– Stimulating social innovation and societal entrepreneurship by engaging academic staff in national advisory councils, research committees, etc.</li> </ul>   |



|                             |  |
|-----------------------------|--|
| Research and innovation     | <ul style="list-style-type: none"> <li>- Enhancing the opportunities and support for early-career researchers</li> <li>- Monitoring the scientific output of academic staff and developing reward mechanisms for this output</li> <li>- Engaging with business and NGOs to increase the capacity and value of non-public-sector-funded research on a sustainable basis</li> <li>- Expanding strategic international research collaborations</li> <li>- Promoting participation in competitive calls, university patents and university start-ups</li> <li>- Engaging an increasing number of students in executing projects at businesses and institutions</li> <li>- Intensifying links with businesses and institutions with an emphasis on the international aspect</li> <li>- Creating research centres with a strong innovative potential in collaboration with industrial partners and leading research institutions</li> <li>- “Capitalizing” entrepreneurial research and intellectual property created through research activities</li> </ul> |
| Services and infrastructure | <ul style="list-style-type: none"> <li>- Creating a capital investment programme in the research and entrepreneurial environment: the estate, libraries, collections, equipment, IT, etc.</li> <li>- Reducing energy consumption and investing in energetic efficiency</li> <li>- Diversifying sources of income and investment including through partnership with the private sector, commercial activities, philanthropy and the breadth of sources of research funding</li> <li>- Expanding innovation areas around the university, such as Science Parks for creating optimal conditions for technological innovation</li> <li>- Investing in digital tools and infrastructure for supporting open access to research data</li> <li>- Intensifying public engagement through special events and programmes (museums, libraries, associations, etc.)</li> </ul>   |

*Source:* own elaboration based on University of Oxford Strategic Plan 2018–2023; University of Amsterdam Strategic Plan 2015–2020; University La Sapienza Strategic Plan 2016–2021.

As seen from the table above, there are many areas of overlap; the majority of initiatives are intended to bridge different domains to the greatest benefit of all strategic stakeholders of a higher education institution. So the implementation of the initiatives reflected in the strategic plan of an entrepreneurial university is carried out “in sync”, that is concurrently; creating synergy among specialized and centralized support aimed at attaining synergistic effects is an essential pre-requisite for their successful execution.

According to the entrepreneurial approach to education and research, in the process of their implementation, the major focus is put on the following issues (to name a few): solving problems, offering opportunities to strategic stakeholders, supporting authenticity, creating value to external stakeholders, supporting innovativeness, regular experimenting, interacting with the real world, team-working, managing risks (Lackéus, 2015, p. 16). The expected outcomes may be summarized as follows: students and academics will acquire the entrepreneurial skills and competencies necessary



for a successful career in the future knowledge-based economy, not to mention their contribution to further development of society. According to Lackéus (2015, p. 21), the following entrepreneurial competencies are supposed to be developed in a contemporary entrepreneurial university (this list is not exhaustive): increased tolerance of uncertainty, increased energy input, increased persistence, constructive feedback from the external environment, improved self-awareness, increased entrepreneurial passion, established entrepreneurial identity.

### 3.4. Conclusions

The recent shift from managed economy towards entrepreneurial economy has put more emphasis on knowledge-based economic activities, innovation and new knowledge as strategic resources of modern organizations. Dissemination of knowledge and innovation which is directly related to “knowledge capital” efficiency, can be regarded as an important pre-requisite of economic prosperity of a country. In this respect, the role of universities in producing and sharing new knowledge is increasing considerably. The capacity of a modern academia to generate innovation through new knowledge is associated with the emergence of the so-called “entrepreneurial university”.

In higher education, entrepreneurialism can be defined in economic terms (generating sufficient resources and diversified income base), and in terms of creating new efficient models of supporting education and research activities. So entrepreneurialism in a contemporary university is related to its ability to adjust to the unpredictable and highly competitive international environment, and its competence to provide academic and research excellence associated with the sustainable development of a knowledge-based society.

From the point of view of educational management, one of the main challenges for a university is to integrate traditional educational and research activities into its strategy developed in the entrepreneurial agenda, which demands introducing substantial changes in its culture, structure, teaching/learning practices and research procedures.

Some commonly recognized features of an entrepreneurial university are associated with the adopted leadership and governance practices, organizational capabilities, integration of entrepreneurship in the curricula, human resources, an entrepreneurship-conducive environment, relationships between an academia and business (industry). They can be regarded as key areas of action in the context of managing the university’s functional domains – education, research and innovation, related services and infrastructure and staff.

Some institution-wide and departmental initiatives, serving as “facilitators” that enable education and research in an entrepreneurial university, should be part of an entrepreneurial university’s strategy based on novel forms of supporting education and research activities which, in turn, are based on new modes of knowledge exchange. Most of the initiatives are aimed at linking different domains to the good of strategic internal and external stakeholders. The list of initiatives to be implemented within the framework of centralized support for research and education in an entrepreneurial university presented in this paper is incomplete, since it is based on the analysis of strategic plans



of a limited number of academic staff. As the evolution of higher education continues, more universities start operating in the entrepreneurial agenda, so further research can be expanded to more cases.



## **Diffusion of knowledge and skills as a result of foreign direct investments**

### **4.1. Introduction**

In the contemporary world, technology has become the key to competitiveness in the economy and economic development of countries. Many years ago, investing in the development and popularization of new technologies was regarded as a driving force of the economic growth. New technologies enable more efficient methods of work and bring new prospects for human activity. They also enable to improve quality, increase efficiency, shorten the period of time for a product to enter the market and satisfy the human needs which have not been satisfied as yet. Through diversification of commodities and services in the market, technical innovations, planning processes applied by companies, implementation, control and assessment of technical changes, modern technologies bring opportunities for increasing competitiveness and development. The growth in economic wealth brings benefits for the whole society because it provides for more widespread satisfaction of human needs and better quality of life of individuals and their families. The way of utilizing those benefits and their range is, first and foremost, the question of the socio-economic policy.

A crucial role in the scope of acquiring new technologies is ascribed to foreign direct investments which are mainly executed by pro-innovative companies which fundamentally include transnational corporations. Owing to the participation of those international companies, there is the diffusion of technologies which is passing and utilizing the combination of knowledge, skills, experience, technical and organizational solutions used for the production, as well as application of commodities and services, from a given place to another. In the context of transfer on an international scale, it is based on the distribution of technology from the country of its origin to other international markets.

The objective of the research was to recognize the problem regarding the range and effects of cooperation between companies with a foreign capital and entities in the country of location of foreign direct investments located in the Lubuskie Voivodeship, as well as to identify the scale of influence of branches of the world's largest transnational corporations operating in the Lubuskie Voivodeship on domestic entities with respect to the diffusion of knowledge and skills. Moreover, the impact of direct foreign investments on the development of broadly understood entrepreneurship was also shown. It was indicated that direct investments are not only a flow of financial resources, but also a whole package of intangible resources which are transferred to foreign subsidiaries or branches, creating the basis for effective competition with local entities.

In the deliberations, specific and generally available reference literature has been used, as well as empirical material originating from reports published by Statistics



Poland, the Gdańsk Institute for Market Economics (IBnGR), the Foreign Trade Research Institute (IKCHZ) and the Polish Information and Foreign Investment Agency (PAIiIZ) – generally a list of the largest foreign investors in Poland. Research was carried out by means of empirical research which uses the survey as a specific form of statistical surveys.

## **4.2. Foreign direct investments as a form of expansion of transnational corporations within the contemporary economy**

Transnational corporations (TNCs) are the main feature of the contemporary world economy and one of the major subjects of the process of globalization. They are very diverse companies with respect to their size, range, object, forms and methods of operation. The grounds for setting up transnational corporations on such a large scale have been the excessive internationalization and globalization of production and capital, caused by transfers of capital, technology and highly-qualified personnel carried out by highly developed countries. The United Nations Conference on Trade and Development (UNCTAD) defines a transnational corporation as an incorporated or unincorporated enterprise, consisting of a parent company and its foreign affiliate. The parent company controls at least 10% of ordinary shares

or voting power in business entities localized outside the country of its origin. Foreign units are entities towards which the investor (the parent entity) has the right to participate in the management (WIR, 2005). It is worth noticing that the term transnational corporation is strictly connected with the term foreign direct investments because it is transnational corporations through which foreign direct investments are executed (Lech, 2010, p. 216). We should yet remember that transnational corporation is a broader term than foreign direct investments as it is an institutional expression of capital investment, and still – production, distribution and other issues related to direct activity in foreign markets belong to its nature (Sporek, 2010, p. 278).

Foreign direct investments are a special form of capital involvement executed outside the home country. They are capital investments whose nature is full or partial transfer of production factors outside the home country in order to obtain long-term benefits from a foreign involvement (Macias, 2010:8). The object of investor's interest is the activity itself and company bottom-line revenues, as well as prospects of its development. Direct investments are not only about financial resources transfer, but also about the whole package of non-material resources which are channeled to foreign branch offices or agencies, providing them with grounds for efficient competing with local entities (Kola-Bezka, Kuźel, Sobczak, 2009, p. 13–14).

FDI offers potential opportunities for technology transfer and thus contributes to productivity growth. Most often this is done through transnational corporations (Ciborowski, 2013, p. 145) – Table 4.1.



**Table 4.1.** Indicators of the impact of foreign direct investment on technology transfer to selected countries in 2013–2018

| Country / year | 2013–2014 | 2014–2015 | 2015–2016 | 2016–2017 | 2017–2018 |
|----------------|-----------|-----------|-----------|-----------|-----------|
| Ireland        | 1) 6.3    | 1) 6.4    | 1) 6.3    | 1) 6.1    | 1) 6.1    |
| Singapore      | 5) 6.3    | 2) 5.9    | 2) 6.0    | 2) 5.9    | 2) 5.9    |
| Slovakia       | 26) 5.1   | 18) 5.1   | 10) 5.3   | 16) 5.2   | 16) 5.2   |
| Czech Republic | 27) 5.1   | 36) 5.0   | 22) 5.0   | 30) 5.0   | 30) 5.0   |
| Estonia        | 31) 5.1   | 34) 5.0   | 35) 4.8   | 43) 4.7   | 43) 4.7   |
| Spain          | 53) 4.8   | 65) 4.7   | 38) 4.8   | 31) 4.9   | 31) 4.9   |
| Poland         | 75) 4.6   | 68) 4.7   | 63) 4.5   | 37) 4.9   | 37) 4.9   |

*Source:* own study based on The Global Competitiveness Report, 2013–2014: 512; 2014–2015: 509; 2015–2016: 536; 2016–2017: 403; 2018–2018: 402.

The above data present indicators regarding the impact of FDI on technology transfer to a given country in 2013–2018. In individual years, the number of countries covered by the survey fluctuated from 125 to 148. The index equal 1 determines that foreign direct investments were to a small extent connected with the transfer of technology to a given country. The maximum indicator value could amount to 7 and meant that FDI had a significant impact on technology transfer in the opinion of the host country. The number in parentheses indicates the position of a given country in the ranking. It can therefore be noted that it was Ireland that benefited most from the transfer of technology in the form of FDI. As for Poland, the impact of FDI on technology transfer, measured by the indicator in individual years, was 4.72.

The main component of technology is knowledge. In economic sciences, three kinds of knowledge are distinguished (Grudzewski, Hejduk, 2004, p. 134):

- explicit knowledge which is information that is easy to articulate and consolidate as material carriers; it is most often reflected in the formal language, subject to systematization and codification as texts, drawings, databases, as well as materialization as material and non-material goods; as a consequence, explicit knowledge can be distributed easily and in any way;
- and quiet, hidden (tacit) knowledge which is a supply of skills, first of all, of skills collected during collaborative work, workshops, by means of conversation, talks, shared experience; it consists of both information of sheer practicality and beliefs, private opinions and even intuition; tacit knowledge is a fundamental category of the human capital, it is acquired subconsciously and applied in the same way, it is difficult to articulate and even more difficult to record electronically.

Another attempt to classify the channels of the contemporary international migration of technology divides them according to the kind of transferred knowledge and the carrier of knowledge. There are (Balcerowicz, 1987, p. 79):

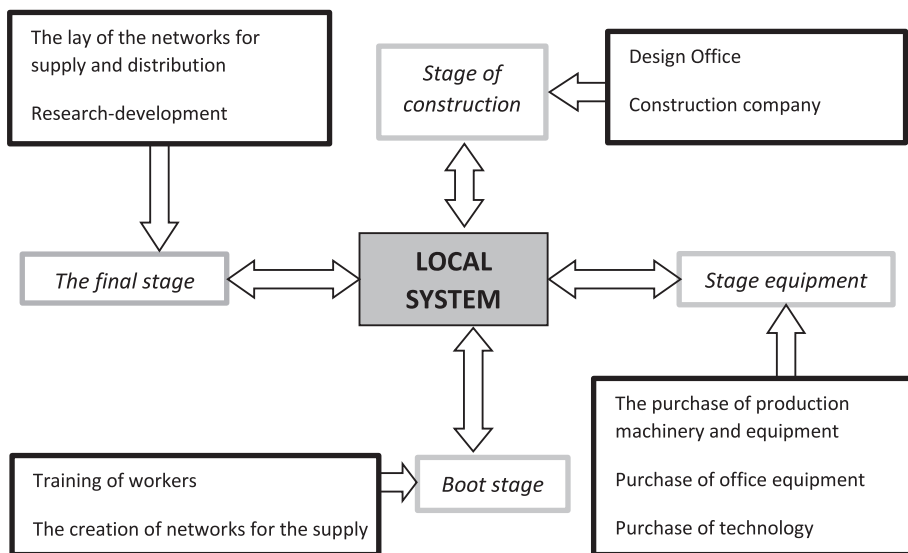
- international active and passive licensing operations,
- sale of patents abroad and commercial espionage





- international consulting and using foreign professional subject literature,
- importing foreign products as specimen and their copying,
- student education abroad,
- staff training abroad or by foreign specialists in the home country,
- international conferences and symposia, etc.
- international industrial cooperation, including cooperation in the scope of research and development,
- international direct investments and technical cooperation inside transnational corporations,
- international trade of manufactured objects and other modern products,
- international industrial fairs and exhibitions, and migration of population.

Technology transfer, modernization and introduction of innovations are the greatest benefit for the region receiving foreign investments. They are especially valuable in the peripheral and underdeveloped regions. Those regions usually need new development concepts, strategies of activity which, through the application of science and technology, enable the modernization of the region. Yet, in order to make technology development happen, conspicuous financial inputs are needed which underdeveloped regions are devoid of. The solution to this problem is foreign investments which can bridge this gap. The detailed characteristics of the potential influence of foreign greenfield investments on the local market have been demonstrated in Fig. 4.1.



**Fig. 4.1.** The potential impact of foreign investment, implemented from the ground up on local environment

*Source:* own elaboration based on Smętkowski, 2000: 94.

Apart from technology transfer, an important impact of foreign investments on the host region is the application of modern models of management and labour organization.



Companies with foreign capital introduce modern models of management by means of the latest techniques and procedures. This, in turn, makes them more advantageous over local companies. Local companies do not want to lag behind and introduce novelties, which is an important element increasing competitiveness in host regions.

### 4.3. Foreign direct investment and the development of entrepreneurship

The migration of capital on the international scale is one of important factors of developmental processes of the contemporary world economy. The intensification of international capital circulation, with a particular emphasis on foreign direct investments, originates in economic development disparities in particular countries and regions of the world. Insufficient domestic capital resources, lack of modern technologies and methods of management result in the positive perception of foreign capital which is a factor essentially influencing domestic structural transitions. Because of its nature, the role of foreign direct investment is not solely limited to supplementing the internal accumulation of capital but, what is more, it involves the transfer of knowledge, technology, skills, organizational and managing solutions. There are also certain expectations connected with the inflow of foreign investments. All of them boil down to the expected reviving impact of foreign capital on developmental processes. This impact depends on both the scale of the incoming investments, mainly direct ones, as well as the structure of foreign direct investments in its broadest sense. (Karaszewski 2000, p. 596). Entering of a foreign investor into the market of a host country will produce direct effects, also known as primary effects, and indirect and external ones.

*Primary effects* are connected with the effects which the influx and implementation of foreign direct investments produces on the receiving economy. The functioning of a foreign branch in the host country will also affect its economy indirectly through the interaction with other entities operating in it. Additionally, the activity of each company, including the one with foreign shareholding, is connected with the rise of external effects. All kinds of foreign direct investment interactions in the host country may be of a positive or negative character. We can analyze them, however, using three approaches: *qualitative, quantitative and location effects*. **The direct quantitative effect** concerning the influx of foreign direct investments is the kind of primary interaction of direct investments in the economy of their location whose size cannot be measured – cannot be subject to quantitative evaluation. Because of a foreign investor's activity, there appear positive quantitative effects, connected for example with the improvement of the efficiency of management and productivity of companies taken over, increase in capital, research and development expenditures, increase in export, terms of trade improvement owing to the lowering of costs of import, the inflow of technologies, licenses, rise of salaries, etc. (Witkowska, 2000, p. 651).

Apart from measurable effects, direct investments may also yield effects whose measurement is obstructed. These are **direct quality effects**. The positive effects of quality character which are connected with the influx of foreign direct investments include, inter alia: the introduction of new techniques of management, personnel training, creating



environment protection standards at the workplace, the transfer of modern knowledge and skills, the improvement of the structure of import and export as a result of foreign companies' activity. Primary quality effects may also be negative, for example connected with: the increase of fear and instability of employees as a result of the entry of foreign investors into a given entity, stress accompanying the necessity of learning new behaviors, application of undesirable practice in employment, the risk of influx of "dirty" technologies to countries with lenient environment protection standards, the risk of reserving workplaces of lower and medium level of management for the domestic workforce.

Referring the direct effects to a particular territorial entity of a given country, in other words – a particular location, let us highlight primary location effects. These will be both quantitative and qualitative effects related to a given area of a country, for example the increase of a region in Gross Domestic Product of the given economy or its export.

**Positive quantitative indirect effects** are the result of relationships between foreign and domestic entities. They are connected with the influence of companies with foreign shareholding on the activity, profitability and scale of activity of local companies. Thus initiated multiplier mechanism accumulates positive quantitative effects in economy. They are, for example: increase in demand generated by a foreign investor for produce and employment of contractors, increase in profit and, as a result, in budget income, improvement in local manufacturers' productivity, increase in export by domestic entities as a consequence of cooperation with companies with foreign capital, etc.

Negative quantitative indirect effects will be connected with the avoidance by foreign entities of cooperation with domestic suppliers and using imported supplies. This may result in reducing the scale of operation of local companies, strengthening competition and superseding less effective manufacturers, lowering budget income, increasing unemployment rate and dropping wages of employees working in industries which are in crisis due to the inflow of foreign direct investments. The adverse impact of companies with foreign capital on current account deficit can produce indirect effects such as the necessity of its financing, for example from national foreign currency reserves.

**Indirect qualitative effects** cause a situation where procedural patterns and new methods of management and organization permeate local entities which purchase new technologies.. Functioning of a foreign entity contributes to the fact that those behaviors permeate the local business as a consequence of demonstration and learning. The degree to which indirect qualitative effects appear is determined by the level of (Kokko, 1994, p. 279–293):

- competition in the market in which local and foreign entities operate,
- workforce training and managing staff at the disposal,
- the foreign investor's requirements as to local suppliers, the higher the requirements, the higher the pressure on assuming new methods of production organization and management.

If the highlighted indirect qualitative or quantitative effects appear in the local markets, given regions of a country, then they will be classified as **indirect effects of location**.



## 4.1. Direct foreign investments in the flow of new solutions in the sphere of knowledge and skills

The lack of internal capital accumulation in many developing countries leads to seeking various sources of financing for the economy, among which direct foreign investments play an important role (Frajtag-Mika, 2009, p. 165). Modern technology, knowledge and investing in people are in our times essential, if not the most important factors of the long-term development of enterprises, and, in consequence, of the economic growth of a given country. Investments aiming at growing of those aspects of corporation value increase, to a considerable degree, their domestic competitive dominance. In this case, connections and cooperation of national companies with enterprises with foreign capital are also important, as their expansion contributes to, among others, filling the gap of capital deficiency, the transfer of state-of-the-art technologies, knowledge and skills, as well as the diffusion of modern organizational solutions.

The purpose of the study was to get to know the issues concerning the scope and effects of cooperation between enterprises with foreign capital with entities in the country of foreign direct investment location.

The conducted research was focused on the activities of transnational corporations located in the Lubuskie Voivodship, mainly in the high-risk sectors: automotive and electronic, and wood and paper. The research was carried out in 2017. As a result of the actions taken, 14 correctly completed (out of the total of 42) research questionnaires were obtained, which means a maneuverability of 33% (Table 4.2).

**Table 4.2.** The structure of enterprises broken down by size

| EMPLOYMENT SIZE | SMALL ENTERPRISES | MEDIUM ENTERPRISES | LARGE ENTERPRISES |
|-----------------|-------------------|--------------------|-------------------|
| N = 16          | 2                 | 7                  | 5                 |
| Segment weight  | 12.5              | 43.75              | 31.25             |

*Source:* own elaboration based on the results of the survey.

The results obtained in the research procedure allowed us to meet the goals, and in particular to diagnose the cooperation of the branches investigated with the enterprises of the country of the deposit and initiating transnational diffusion of knowledge and skills by corporations. This chapter presents the results of a survey regarding:

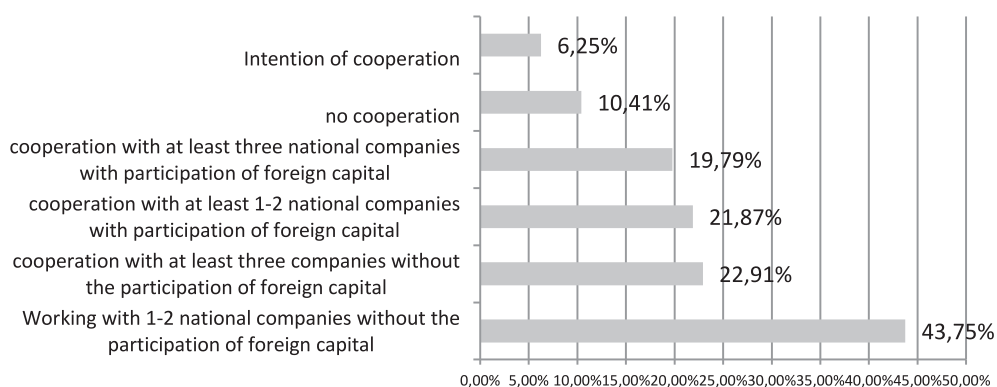
- part A – cooperation with enterprises of the country of investment,
- part B – initiation of knowledge and skills diffusion.

Branches of transnational corporations located in Poland which participated in the survey, engage in cooperation with local entities. Almost 85 % of the surveyed enterprises show that this cooperation has a permanent character and concerns connections with economic partners from the area of operations of the surveyed enterprise. The remaining 15% of enterprises have limited (occasional) economic contacts with local entities or do not have such contact at all. The cooperation conducted by enterprises with foreign capital pertains to, in the majority of cases, contacts with Polish enterprises

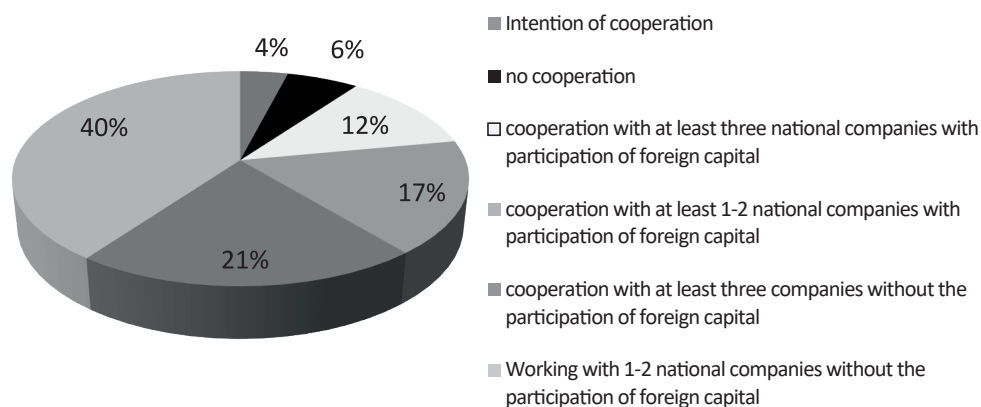


without foreign capital. Over 60 % of the provided answers clearly show that Polish enterprises are the largest group of economic partners for enterprises with foreign capital. At the same time, almost 40% of respondents declare cooperation with one or two, and 20% – with at least three Polish enterprises. Nearly 30% of the surveyed enterprises cooperate with other enterprises with foreign capital, including 17% cooperating with one or two other enterprises with foreign capital, and 12% – with at least three. Figure 4.2 presents the scope of the cooperation of enterprises with foreign capital with enterprises from the country of investment.

a. according to the number of enterprises



b. according to the number of indications



**Fig. 4.2.** The scope of the cooperation of enterprises with foreign capital with enterprises from the country of investment

Explanations and comments: the answers in part (a) do not total 100% because respondents could indicate more than one of the variants of the answers

Source: own elaboration based on the results of the survey.

The surveyed group of enterprises with foreign capital mentioned: gaining advantages and increasing the market share (4.47), achieving the benefit of the specialization



(3.88) and lowering the market risk (3.87) as the most important of the suggested motivations for cooperation with national entities.

The average assessment of the significance assigned by the respondents of this survey to the provided motives of cooperation was described in table 4.3. The higher the average value and the closer to 5.0 it is, the greater the significance assigned by the surveyed enterprises to a given motivation. It must be emphasized that the determination of cooperation was exclusively of a declarative character on the part of the enterprises, which means that the declarations are based on respondents' own understanding of cooperation, which to some extent can be different.

**Table 4.3.** The importance attributed by the investigated companies with country investments to particular motivations for cooperation

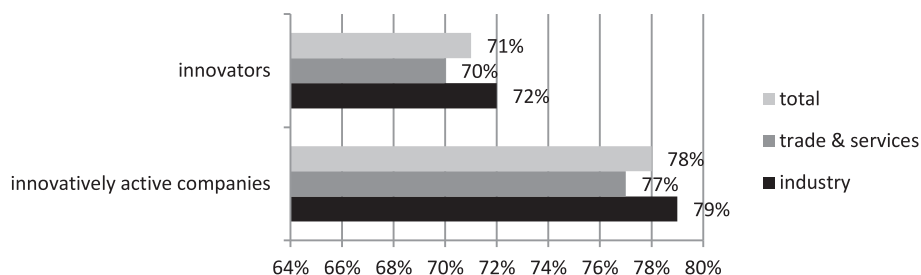
| THEMES OF COOPERATION                                       | SUBSIDIARIES WITH THE PARTICIPATION OF FOREIGN CAPITAL<br>N=96 |
|---|--|
| access to knowledge and experience                          | 3.80   |
| reducing the cost   | 3.47   |
| increasing business innovation and its products             | 3.01   |
| increasing bargaining power in comparison to other entities | 3.73   |
| reducing the risk   | 3.87   |
| achieving the benefits of specialization                    | 3.87   |
| achieving economies of scale and increasing market coverage | 4.47   |
| the average   | 3.88   |

The scale of the response: 1 – I do not agree, 2 – I partially disagree, 3 – I have no opinion, 4 – I partially agree, 5 – I agree

Source: own elaboration based on the results of the survey.

The results of the innovation activity survey conducted among the affiliates of the world's largest transnational corporations operating in the Lubuskie Voivodeship revealed that the majority of medium-sized and large enterprises on the market of the said voivodeship engaged in innovative activities – nearly 60% of them undertook innovative projects. The key factor in innovation development and implementation was research and development, yet, considering enterprises with foreign capital in Poland, innovation was also pursued by means of cooperation with other companies and the purchase of tangible and intangible assets (licenses, patents, copyrights, etc.). The most frequent action undertaken within this scope was the purchase of new or significantly improved machinery, equipment and software – made by 74% of the surveyed industry enterprises. What is more, the effectiveness of tangible assets and software purchases with respect to innovation was rated as very high.



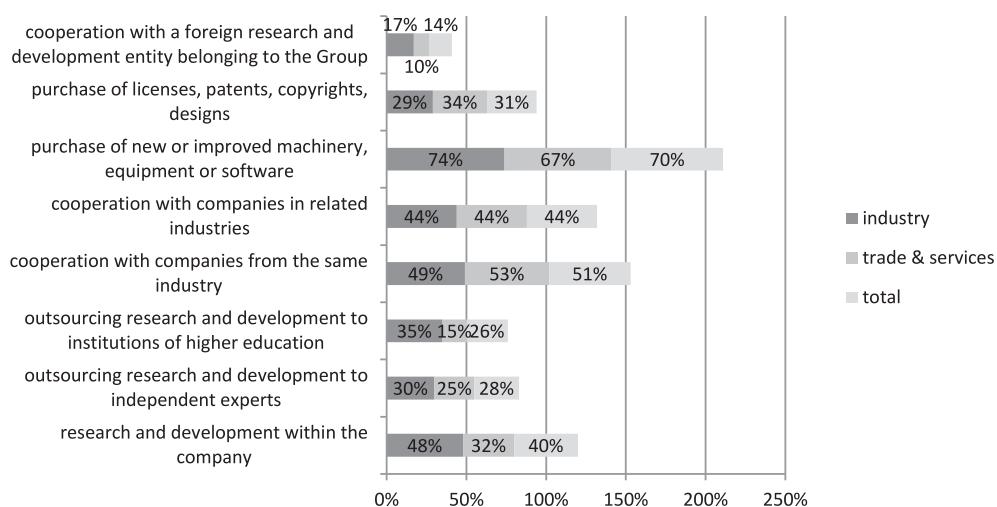


**Fig. 4.3.** Innovative activities of enterprises (%)

Explanations: innovators – companies that have implemented at least one type of innovation

Innovatively active companies – companies which began work on at least one type of innovation

Source: own elaboration based on the results of the survey.



**Fig. 4.4.** Actions taken by innovatively active companies (%)

The answers do not add up to 100% because respondents could indicate more than one of the variants of answers

Source: own elaboration based on the results of the survey.

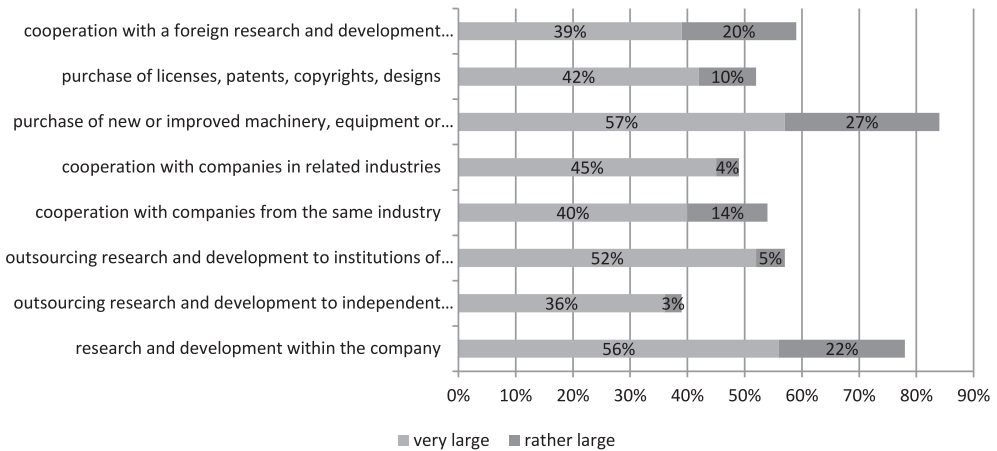
As regards cooperation on innovation projects, there was a widespread practice of working together with other companies in the same, or in a related branch. This type of cooperation was pursued by half of the companies and it was also slightly more popular among trade and services companies. The effectiveness of cooperation with other companies (in particular within the same branch) was assessed rather positively, with a relatively small number of definitely good ratings. Still, research and development remained as the key form of operations aimed at producing innovations.

Research and development work within a given company or corporate group was most often assigned to individual employees. This type of work organization is more popular in the automotive and electronics industries than in the wood and paper industries



(76% and 65% respectively). The least frequently employed forms of R&D work organization were project groups in the country of investment or cross-border project groups.

The research results discussed above are demonstrated in the graph below.

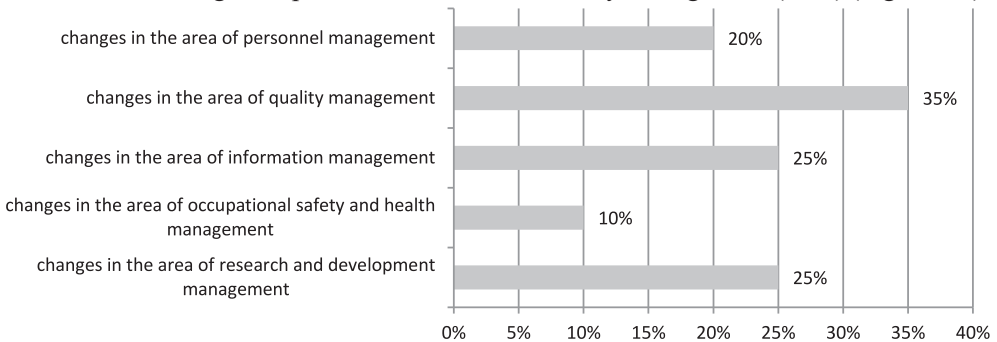


**Fig. 4.5.** The effectiveness of actions taken in terms of the diffusion of technology, knowledge and skills by the investigated companies (industry)

The answers do not add up to 100% because respondents could indicate more than one of the variants of answers

*Source:* own elaboration based on the results of the survey.

The study revealed that the impact of foreign capital on the management and organization systems of enterprises was acknowledged by as many as 80% of the surveyed companies. They indicated that the majority of the changes occurred in quality management (35%). Slightly fewer changes were observed in corporate research management and development (25%) and in information management (25%). Changes in human resources were reported by 20% of the surveyed entities. The lowest number of changes occurred, according to respondents, in health and safety management (10%) (Figure 4.6).



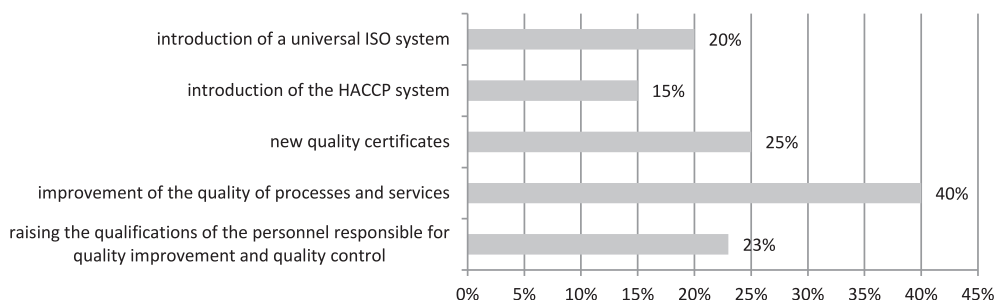
**Fig. 4.6.** The Management System and the Organization of the company and the inflow of foreign capital (in %)

*Source:* own elaboration based on the results of the survey.





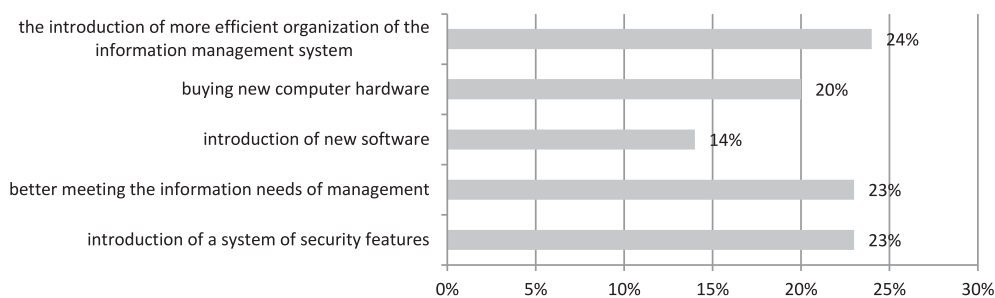
Quality management is one of the most crucial aspects in the functioning of any enterprise. 76% of the enterprises surveyed confirmed the influence of foreign capital on the changes in quality management, with major changes reflected in the improvement of the quality of processes and services (40% of responses). The companies also indicated the importance of new quality certificates (25% of enterprises) for the strengthening of their competitive advantage. Other significant changes are: raising the qualifications of personnel responsible for quality improvement and quality control (23%) and the introduction of a universal ISO system (20%) (Figure 7).



**Fig. 4.7.** Changes in the sphere of quality management caused by the influx of foreign capital in the test group of companies (in %)

*Source:* own elaboration based on the results of the survey.

Information management in an enterprise allows for better business organization and faster response to any type of corporate problems. Therefore, the surveyed companies with foreign capital were asked to assess the impact on information management effected by foreign capital. According to 32% of respondents, there was no such impact. However, other surveyed companies introduced more efficient organization of information management systems (24%) and introduced data processing security systems (23%). Several enterprises declared that they started to better meet the information needs of executives (23%) and also purchased new IT equipment (20%) (Figure 4.8).

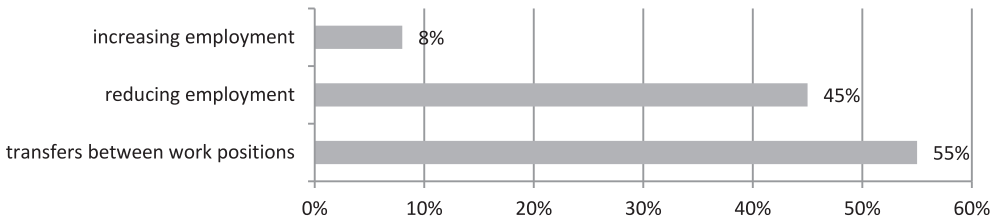


**Fig. 4.8.** The impact of foreign capital in the form of FDI on the changes in the sphere of information management in the enterprise (in %)

*Source:* own elaboration based on the results of the survey.



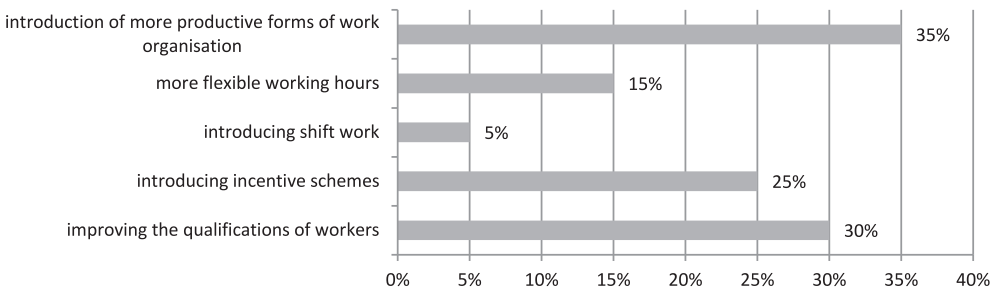
The study also revealed that foreign capital in the form of foreign direct investment contributed to a change in employment (60%). In most cases it influenced shifts between positions aimed at adapting them to the needs of the enterprise (55%). An increase in employment was indicated by 45% of the surveyed investors. The study showed that only 8% of the companies reduced the number of employees as a result of the entry of foreign capital (Figure 4.9).



**Fig. 4.9.** The impact of foreign capital in the form of FDI on employment in the enterprise (in %)

Source: own elaboration based on the results of the survey.

The results of the study showed that foreign direct investment also affected the changes in the employment policies of companies. The majority of the respondents (about 69%) admitted that FDI had a significant impact on employment policies in their companies; 35% of them introduced more efficient work organization, 30% raised the level of qualifications of employees, and 25% introduced new or improved the previously used incentive systems (Figure 10). Some introduced more flexible working hours (15%). The lowest number of respondents – only 5% – introduced shift work under the influence of foreign capital.



**Fig. 4.10.** The impact of FDI on the employment policy of the undertakings participating in the study (in %)

Source: own elaboration based on the results of the survey.

The results of the above analysis allow to draw the following conclusions:

- FDI has a significant impact on the shaping of the company systems that are inter-related with the broadly understood knowledge and skills of this company – among others, the management and organization system, quality management as well as employment;



- FDI has a positive impact on the employment policies of the surveyed enterprises, in particular – on work efficiency and personnel qualifications;
- FDI contributes to increased employment rate;
- thus, FDI has a positive impact on strengthening a company's competitive advantage.

### 3. Summary

The meaning of foreign direct investments, as one of the most important factors of the transfer of knowledge, technology and innovation, as well as of growth and modernization of the domestic economy, increases along with the growing deficiency of domestic financial means which makes it impossible to conduct actions aiming at the improvement of the country's competitiveness and independent development of innovations. The diffusion of knowledge by means of expansive activity of foreign entrepreneurs is a chance for the reduction of technological gap between regions of developed countries and regions of developing countries. The aim of this research was to identify the scale of the influence of branches of the world's largest transnational corporations operating in the Lubuskie Voivodeship on national entities in the sphere of the diffusion of knowledge and skills.

Based on the conducted analysis of the survey material, it can be argued that the appearance of foreign capital in enterprises from the country of investment was, in most cases, connected with undertaking investments in these enterprises, and these were not one-off initiatives, but they were continued in consecutive years. It contradicts the appearing opinions on the adverse impact of foreign capital on the Polish economy, in the form of taking over and eliminating local companies. Moreover, investments pursued by enterprises with foreign capital involved the purchase of fixed assets, staff training and modernization of buildings and structures, which proves that foreign capital is engaged into rather laborious areas of activity. As for investment plans of enterprises with foreign capital, they focus around traditional factors of production; some growth of interest in technologies is noticeable, which gives hope for the development of technologically intensive fields that create attractiveness of a country and raise its competitive position.



## CHAPTER 5

# A comparative analysis of the influence of institutional and economic environment on enterprises' activity results of Ukraine and Poland

### 5.1. Introduction

Not only does entrepreneurial activity result in the growth of GDP, but it also leads to increasing the competitiveness of enterprises and of the national economy as a whole. In general terms, competitiveness reflects the ability of the economy to compete on world markets. Sometimes it is defined as the capability of long-term economic growth. Determinants of high quality associated with the adequacy of the institutional environment and macroeconomic environment characteristics become more and more decisive for competitiveness. Indicators relating to science, innovation and the use of human capital, which reflect the level of a country's technological and innovation competitiveness, are very important.

A significant part of the research in the context of this chapter is the definition of dependencies between the quality of the institutional environment and the results of business activities which are manifested through the growth in the competitiveness of the national economy.

### 5.2. The importance of institutional and economic conditions for the development of an enterprise

Results of a country's entrepreneurial activities are influenced by various formal and informal institutions related to the functioning of law, or culture. As Baumol (1990) has noted, the efforts of entrepreneurs depended on the functioning of economic, political and legal institutions. These efforts could be productive or unproductive, while depending on the results of the activities of an institutions. The results of individual activities of an enterprise could be defined by profit at the micro level, but such an effect was not always observed at the macro level, generating economic growth.

The question 'what determines entrepreneurship' is very important. A sufficient number of countries could achieve significantly higher economic growth if they had a favourable economic and institutional environment, as all business entities are influenced by institutions. Bowen and De Clercq (2008) proposed that government policy could be much more productive if institutions were adequately designed and if they were properly performing their functions, unless the government was trying to exert a direct impact on business activity. In this way, the state as an agent formed proper institutional environment and directed the entrepreneurial spirit in a productive way, which provided economic growth.



The institutional environment could act as a system of incentives for entrepreneurs in productive or unproductive, or even destructive way. In the situation where benefit from illegal business exceeded its costs, it would be a benefit for entrepreneur, but it would not contribute to macroeconomic growth. So, if the benefits of illegal businesses exceeded their costs, entrepreneurial activity would tend to be more destructive.

However, if the institutional environment fostered productive entrepreneurship, that is entrepreneurship bringing benefits not only at the micro-, but also at the macro level, it would dominate. Imperfect or ineffective legislation could push to profit-searching behaviour out of the market rules. Entrepreneurs could lobby for some particular decision or seek subsidies in order to prove social or economic importance of their activities. Due to such activities, they obtain additional profit that they would not obtain in normal market conditions.

North (1990) also contributed to the research on the impact of institutional environment on entrepreneurial behaviour. He considered entrepreneurs to be main agents of change. Organizations would adapt their strategies and activities to the opportunities and limitations created for them by formal and informal institutions.

Dakhli and De Clercq (2004), Hall and Jones (1999), Kwok and Tadesse (2006) studied the problem of institutional and economic influence on entrepreneurial activity. Bowen and De Clercq (2008) based on a GEM (Global Entrepreneurship Monitor) report indicated the reverse dependence between a country's corruption level and the level of entrepreneurs' interest in prospective projects. Researches clearly stated that low quality of institutional environment had to be compensated for, and complemented by informal institutions – rules that existed in society and economy. Aidis et al. (2008) mentioned as an example the post-Soviet system of reciprocity „blat”, Lee and Anderson (2007) cited Chinese „guanxi” as an important element inherent to a country's business relationships. These systems were either an addition to, or a substitute of formal institutions in a situation when in the economy the institute of law did not contribute to private economic initiative. As a result, entrepreneurship was forced to stay in the gray zone and to find its own regulatory mechanism.

Central and Eastern Europe economies transformation period resulted in changes in both formal and informal institutions, for example, the perception of corruption, entrepreneurs' nepotism or lack of social responsibility. However, changes in the field of informal institutions were occurring in a relatively slower pace. On the one hand, entrepreneurs should adapt to the changing institutional environment, and, on the other, it could be argued that their operations contributed to a continuous evolutionary game. Changes in the quality of institutions could be viewed from two perspectives, one of which is that assumed by North (1990), in which institutions have exogenous character, and the other, as assumed by Aoki (2001), in which institutions have endogenous character.



### 5.3. Competitiveness of the national economy

If it is assumed that the main goal of the national economy is to raise the living standard of the population, it would be worth remembering that such a goal could be achieved through the effective use of national capital and labour resources on the background of the economic and institutional conditions created by joint activities of the government and business entities. Such a goal would depend on the results of enterprises. That was the reason why Porter (1990) defined the competitiveness of the national economy as the reflection of the efficiency of entrepreneurship. The approach based on manufacturing productivity level enabled the possibility of adopting many design concepts and projects that promoted the growth of competitiveness. Establishing a link among microeconomic, meso-economic and macroeconomic competitiveness demonstrated the subordination of the meso-economic level and the macroeconomic level to the microeconomic level. Therefore, the only place where productivity and efficiency were created, was in an enterprise; and branch, sector and the entire national economy provided more or less favourable conditions and existing driving forces aiming to promote or block effective activity of the enterprise. Therefore, Porter (2001) assumed, that the competitiveness at the macro-level was something more than the sum of the competitiveness of business entities.

Representatives of the World Economic Forum (WEF) also believed that competitiveness would reflect the correspondence of national economic institutions and economic structure with the opportunities to provide growth that was noticeable on the background of the overall world economy structure. Therefore, based on WEF Annual Report (2011), the national economy would be competitive on international level if its institutions and its policies supported the rapid and long-term growth of the economy.

A similar definition was used by the European Commission, according to European Competitiveness Report (2010), adhering to the statement that competitiveness is the ability of the economy to provide citizens with a high and growing standard of living and broad access to employment based on a sustainable basis. This concerned the institutional and political conditions through which productivity and production could grow by sustained and balanced rates.

In general, approaches to determining the competitiveness of countries show that it was based on results or factors orientation. According to Radło (2008), a country's competitiveness concerned results achieved by economies, including the level of GDP, the share in world trade, both quantitatively and qualitatively. Such definitions focused on assessing the level of competitiveness achieved by the country. The change of position would occur when the conditions of the country's participation in world trade were changing. The disadvantage of this definition was that it concentrated primarily on business results, regardless of their causes. In contrast to the results orientation, factors orientation focused on assessing the sources of economy's competitiveness that affect the future competitive position, including the size and structure of productive resources or the effectiveness of their use. Such definitions assessed the ability of the country's economy to withstand international competition, in other words, its ability to compete.



The mixed results-factors orientation definitions combined both approaches, taking into account the existing economic potential and achieved competitive position, as well as the factors that influence economic growth potential and are related to the ability to compete. Definitions of this type were most complete, since according to Radło (2008) they were taking into account the interaction between the level of economic development achieved and the number of factors that give rise to competitiveness.

According to the Global Competitiveness Report (2002), it was assumed that competitive countries had the economic base to achieve rapid and long growth taking into account the level of national income at the time of launch. A very positive aspect of such an approach was the fact that it emphasized the role of achieved levels of growth and economic development as determinants of competitiveness sources. Therefore, this approach combined elements of factors- and results orientation. However, it did not elaborate on the problem of factor competitiveness, perceiving the national economy as a whole.

In the World Bank Annual Report (2003) competitiveness was identified with the competitive performance of entrepreneurial activity. It referred to the amount of added value created per unit of borrowed funds received by enterprises. Within this approach, competitiveness was a constant process of innovation, enhancement and improvement of the factors and actions on which the amount of added value created depended. Gaining a competitive advantage was not equivalent to obtaining a comparative advantage. This was due to the fact that many countries, besides the comparative advantage resulting from, for example, low labour costs or large reserves of minerals, were at a low level of development, and there was no prospect of growth for their economies. Such a definition had a clear factors orientation, and its basic advantage was the emphasis on the role of innovation in creating and retaining the ability to compete.

A completely different vision of competitiveness factors was used by WEF and the International Institute for Management Development (IMD). According to IMD World Competitiveness Rankings 2018 Results (2018), the methodologies used by these institutions were designed in such a way that one could assess the level of national economy's competitiveness by using one indicator, calculated on the basis of a complex algorithm that takes into account several hundred factors. In these methodologies the roles of the macro environment and the international environment in shaping international competitiveness were fully taken into account. The practical significance of this approach is high, but accepted factors classification, including the lack of links allocation among the factors, indicated its imperfections. Such methodologies of assessing international economic competitiveness met the accepted definition of competitiveness, but did not focus solely on the assessment of the microeconomic environment, but covered factors relating both to enterprises (business strategies) and the current situation in the micro and macroeconomic environment.



## 5.4. Assessment of the level of national economies' competitiveness

Different methods were at the base of creating international competitiveness ratings. According to IMD World Competitiveness Rankings 2018 Results (2018), IMD in Lausanne used two-thirds of official statistics and one-third of expert assessment. To characterize the competitiveness of national economies, 314 indicators were used. In a ranking formulated in this way, only 60 countries were included. Since 2001 IMD changed the classification model of competitiveness factors, by dividing them into four groups, it gave it greater impartiality and objectivity:

- 1) economic situation (national economy, international trade, foreign investments, employment, prices);
- 2) effectiveness of the government (public finances, fiscal policy, institutional structures, business structures, legislative field for enterprises, education);
- 3) effectiveness of management (productivity, labour market, financial markets, management practices, globalization impact);
- 4) infrastructure (basic infrastructure, technological infrastructure, scientific infrastructure, human health and the environment, values system).

WEF methodology is more liberal. Contrary to IMD according to WEF Annual Report 2017–2018 (2018) it consists of one-third of statistics and two-thirds of expert evaluations. More countries are included in the WEF methodology.

According to expert opinions of WEF, competitiveness of the national economy includes 12 issues by which Global Competitiveness Index (GCI) is calculated:

- 1) institutions;
- 2) infrastructure;
- 3) macroeconomic environment;
- 4) health and primary education;
- 5) higher and vocational education;
- 6) efficiency of commodity markets;
- 7) labour market efficiency;
- 8) level of financial market development;
- 9) technological readiness;
- 10) market capacity (size);
- 11) business environment maturity;
- 12) innovation.

In order to determine countries' GCI, WEF first groups them according to economic development level.

According to this approach, there are three groups of countries:

- 1) countries at the initial stage of development;
- 2) countries at the mature stage of development;
- 3) countries at the stage of innovation development.

For countries in the first group, the source of competitiveness is the possession of resources or cheap labour. Price competition dominates there, and the low level of wages





reflects a low level of productivity. The level of competitiveness of the second group of countries is determined by labour market productivity, high level of education and professional training of employees. In this case, complex manufacturing processes develop, desire to improve product quality dominates in the competition area, real added value increases. The innovation development stage is characterized by the ability to compete in global markets by the absolute novelty of the created goods, their uniqueness for the highest quality and increasing complexity, which is the basis of high living standards.

**Table 5.1.** Classification of countries by stage of development

| Stage of factor orientation<br>(35 countries)           | Transition from 1 <sup>st</sup> to 2 <sup>nd</sup> stage<br>(15 countries) | 1 <sup>st</sup> stage of productivity orientation<br>(31 countries) | Transition from 2 <sup>nd</sup> to 3 <sup>rd</sup> stage<br>(20 countries) | 3 <sup>rd</sup> stage of innovation orientation<br>(36 countries) |
|---|--|---|--|---|
| India<br>Moldova<br>Kirghizia<br>Pakistan<br>Tajikistan | Azerbaijan<br>Kazakhstan<br>Kuwait<br><b>Ukraine</b><br>Philippines        | Bulgaria<br>Georgia<br>China<br>Russia<br>Serbia                    | Latvia<br><b>Poland</b><br>Romania<br>Lithuania<br>Hungary                 | Estonia<br>Germany<br>USA<br>Czech Republic<br>Slovenia           |

Source: Developed by authors based on WEF Annual Report 2017–2018 (2018).

It should be noted that compared to WEF Global Competitiveness Reports 2014–2015 (2015), Ukraine has lost its position among productivity orientated countries and has entered the transition group from 1<sup>st</sup> to 2<sup>nd</sup> stage due to the need of refocusing its resources on military objectives because of Russia's military aggression. Poland has maintained its position at the transition stage to innovation development group.

According to the global rating of the Swiss research group IMD which takes into account the four groups of indicators – the macro environment, the quality of state regulation and infrastructure and business efficiency – in 2013 Ukraine has risen by 7 positions in comparison with the previous year, occupying the 49<sup>th</sup> position. In 2014, the position of Ukraine has remained the same. However, in 2015 IMD rating has confirmed that the war in the east of Ukraine, economic and financial losses, problems inherited from the previous government – unsatisfactory business climate and infrastructure development levels along with inadequate competence of regional governments – have led the recession of Ukraine to the 60<sup>th</sup>, penultimate position. The 2016 IMD rating has given a positive signal for Ukraine and the world. Ukraine has moved to a higher position, around which the country's indicators have fluctuated over recent years. Poland, on the other hand, has been staying steadily within the 33<sup>rd</sup>–34<sup>th</sup> position, except 2014 and 2017.

Leaders of the IMD rating have remained unchanged – the United States which have regained the leadership, Hong Kong and Switzerland, although their positions have changed. China has strengthened its position, as well as the Scandinavian countries which have established themselves in the top ten.



**Table 5.2.** Ukraine and Poland in the IMD rating

| Country        | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 |
|----------------|------|------|------|------|------|------|
| USA            | 1    | 4    | 3    | 1    | 1    | 1    |
| Switzerland    | 5    | 2    | 2    | 4    | 2    | 2    |
| Hong Kong      | 2    | 1    | 1    | 2    | 4    | 3    |
| Germany        | 15   | 13   | 12   | 10   | 6    | 9    |
| China          | 13   | 18   | 25   | 22   | 23   | 21   |
| Lithuania      | 32   | 33   | 30   | 28   | 34   | 31   |
| Poland         | 34   | 38   | 33   | 33   | 36   | 33   |
| Czech Republic | 28   | 28   | 27   | 29   | 33   | 35   |
| Estonia        | 30   | 30   | 31   | 31   | 30   | 36   |
| Russia         | 45   | 46   | 44   | 45   | 38   | 42   |
| Ukraine        | 59   | 60   | 59   | 60   | 49   | 49   |
| Hungary        | 47   | 52   | 46   | 48   | 48   | 50   |
| Romania        | 49   | 50   | 49   | 55   | 47   | 55   |

Source: Developed by authors based on IMD World Competitiveness Rankings 2018 Results (2018).

It should be noted that IMD rating analysts have assessed not only the current position of the countries, but also in retrospect, from 1997. Two groups of countries were defined: those that in the analyzed period have improved their competitiveness level and those which have deteriorated their competitiveness level. If last year Ukraine left the first of these groups according to this analysis, now it is worth stressing the first signs of stabilization and bringing it to the countries that have improved, albeit slightly, their position, in comparison with Poland

Despite the results of this year's WEF studies, Ukraine has managed, in the conditions of political and economic instability, not only to retain its previous position, but also to improve its results. Despite the continuation of hostilities as a result of Russian aggression, and the need to spend significant costs to strengthen country's defense capability, Ukraine has risen by 4 positions over the last year, occupying the 81<sup>st</sup> position among the 137 examined countries. Poland, on the contrary, lost 3 positions from its best, 36<sup>th</sup> position during the last years.

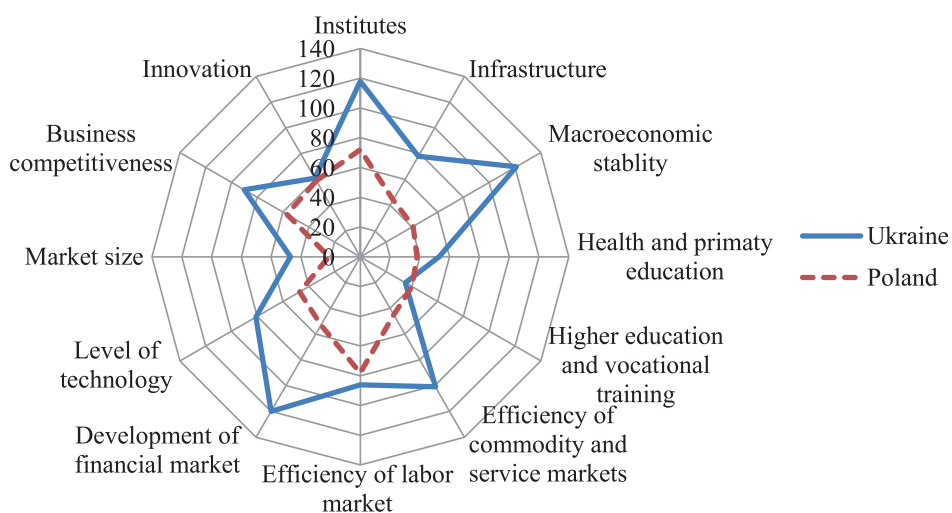
The most important reasons of Ukraine's position rise are the increase of confidence in public institutions and the raise of domestic market's efficiency, increase in the proportion of individuals improving their educational level, a widespread use of IT communications in business and private life. In Poland, in turn, financial and labour market efficiency have decreased, the level of institutions has deteriorated. The level of innovation and labour market efficiency in both countries are the same, the level of higher education and vocational training in Ukraine is even higher than in Poland.



**Table 5.3.** Ukraine and Poland in the GCI rating

| Country             | 2010/2011 | 2011/2012 | 2012/2013 | 2013/2014 | 2014/2015 | 2015/2016 | 2016/2017 | 2017/2018 | Index value | Change 2017/2018 2016/2017 |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|----------------------------|
| Switzerland         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 1         | 5.86        | –                          |
| Singapore           | 3         | 2         | 2         | 2         | 2         | 2         | 2         | 3         | 5.71        | –1                         |
| USA                 | 4         | 5         | 7         | 5         | 3         | 3         | 3         | 2         | 5.85        | +1                         |
| Germany             | 5         | 6         | 6         | 4         | 5         | 4         | 5         | 5         | 5.65        | –                          |
| France              | 16        | 18        | 21        | 23        | 23        | 22        | 21        | 22        | 5.18        | –1                         |
| China               | 27        | 26        | 29        | 29        | 28        | 28        | 28        | 27        | 5.00        | +1                         |
| Estonia             | 33        | 33        | 34        | 32        | 29        | 30        | 30        | 29        | 4.85        | +1                         |
| Poland              | 39        | 41        | 41        | 42        | 43        | 41        | 36        | 39        | 4.59        | –3                         |
| Latvia              | 70        | 64        | 55        | 50        | 42        | 44        | 49        | 54        | 4.40        | –5                         |
| Russia              | 63        | 66        | 67        | 64        | 53        | 45        | 43        | 38        | 4.64        | +5                         |
| Kazakhstan          | 72        | 72        | 51        | 50        | 50        | 42        | 53        | 57        | 4.35        | –4                         |
| Bulgaria            | 71        | 74        | 62        | 57        | 54        | 54        | 50        | 49        | 4.46        | +1                         |
| Romania             | 67        | 77        | 78        | 76        | 59        | 53        | 62        | 68        | 4.28        | +6                         |
| Ukraine             | 89        | 82        | 73        | 84        | 76        | 79        | 85        | 81        | 4.11        | +4                         |
| Georgia             | 93        | 88        | 77        | 72        | 69        | 66        | 59        | 67        | 4.28        | –8                         |
| Moldova             | 94        | 86        | 87        | 82        | 82        | 85        | 100       | 89        | 3.99        | +11                        |
| Number of countries | 139       | 142       | 139       | 148       | 144       | 140       | 138       | 137       |             |                            |

Source: developed by authors based on WEF Annual Reports 2010/11–2017/18 (2011–2018).

**Fig. 5.1.** Twelve competitiveness aspects of Ukraine and Poland

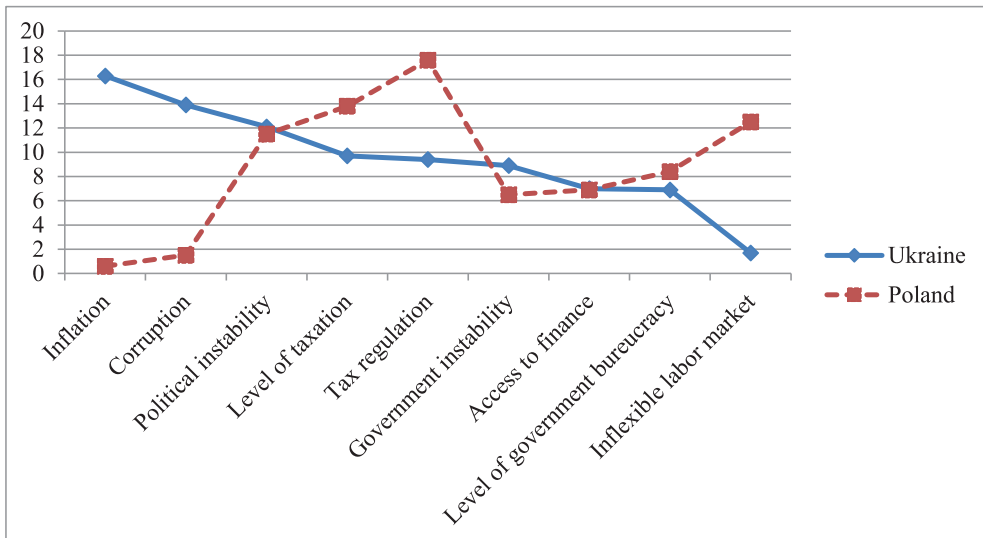
Source: Developed by the authors based on WEF Annual Report 2017/18 (2018).



Among twelve aspects of competitiveness, problems common to both countries should be mentioned: the ineffective institutional business environment and rather low labour market efficiency. Ukrainian businessmen put particularly low scores to courts independence. Among the most problematic factors in conducting business in Ukraine, inflation (16.3), corruption (13.9) and political instability (12.1) could be mentioned. Taxes (9.4) and taxation (9.7), as well as access to finance (7.0) should be included in the weaknesses of Ukraine.

The weakest sides of Polish economy according to WEF Report were also tax regulations (17.6), taxation (13.8), inflexible labour market (12.5), political instability (11.5), government bureaucracy level (8.4), the lack of skilled workers (7.0) and access to finance (6.9).

Despite the much higher position of Poland in the rating, the business of both countries has many similar problems.



**Fig. 5.2.** The major problems of Ukraine and Poland hindering entrepreneurial activity  
*Source:* developed by the authors based on WEF Annual Report 2017/18 (2018).

First of all, political instability, present in both countries, should be mentioned which, however, has different causes and sources. In particular, world magazine *The Economist* has named Ukraine as one of the twenty most unstable countries in the world among the 165 countries. The index of instability has been calculated on the basis of 12 socio-political and 3 economic indicators. Ukraine eventually has taken the 16<sup>th</sup> position, while Poland has taken the 136<sup>th</sup> position. At the same time, Ukrainian independent centre of political studies (2018) estimated the level of political instability in Ukraine as higher than average (7–8 points in the 10-points scale). The main challenges to political stability in Ukraine remain war in the East of Ukraine, systemic corruption and law enforcement bodies conflict related to it. According to the Institute of economic research and consultations, 58.3% of respondents (this number has significantly increased compared



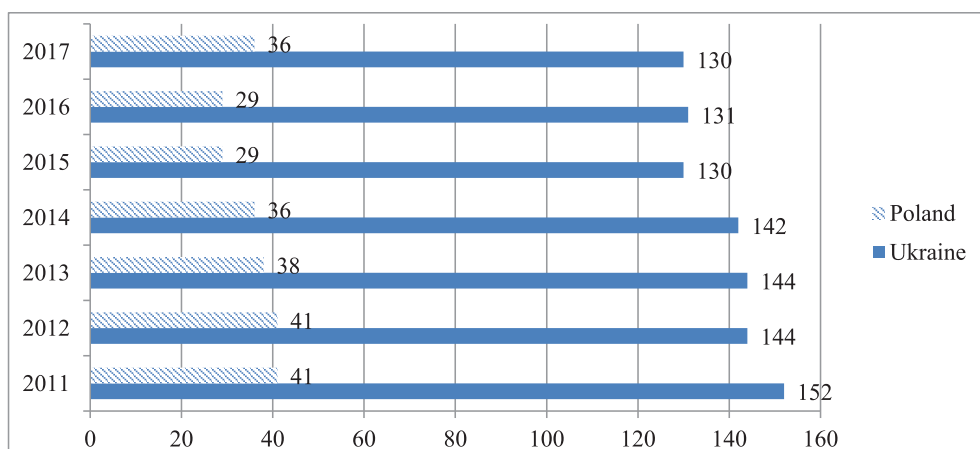
to the previous period) has described the adverse political situation as a significant obstacle of doing business.

In Poland, according to the Union of Entrepreneurs and Employers (ZPP) (2018) political instability is considered high for various reasons, among them – Brexit, migration crisis, risk of economy's slow-down. The Polish Union of Entrepreneurs and Employees has named the main problems of entrepreneurship, among which the instability of laws (18%), an excess of bureaucratic responsibilities (11%), complex commercial law (10%), high taxes (10%) could be mentioned. As much as 76% of the respondents has spoken for simplified and clear legislation and pointed to blurred legislation (82%), labour legislation hostile to entrepreneurs (66%), administrative requirements (51%) as main obstacles to entrepreneurship.

Formal institutions in the form of law consist of two elements. The first element deals with the quality of legislation and regulation – whether it is transparent, gradual and logical, whether it contains contradictions or legal loopholes and how it impacts business. The second one deals with effective judicial and executive system. If noticeable shortcomings were marked in this element, property protection would be restricted and contracts execution would be complicated. The costs of doing business and transaction costs by default would be higher.

The most prominent indicators that characterize these institutions are the index of economic freedom and the corruption perceptions index (CPI). Transparency International has published CPI data which show disturbing facts, that the majority of countries, particularly the studied ones, despite efforts to fight corruption, have been demonstrating slow progress. Many countries have not nearly moved from the deadlock, and some have remained at the same position.

Transparency International has informed that Ukraine and Poland changed their positions in the rating of CPI last year. Ukraine has ranked 130<sup>th</sup> out of 180 in CPI rating in 2017, and has somewhat improved its position, unlike Poland.



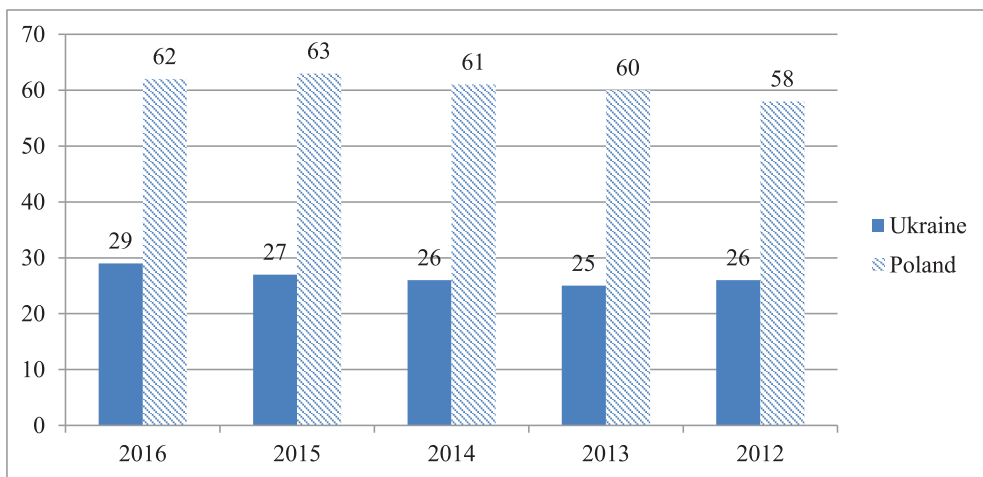
**Fig. 5.3.** Dynamics of rating change by CPI

*Source:* developed by the authors based on Transparency International Corruption Perceptions Index 2017 (2018).



The index showed that more than two-thirds of the world's countries scored less than 50 points, while the average result was 43 points on a scale, where 0 indicates the highest level of corruption perceived by the public, and 100 is the lowest. The best performing region was Western Europe, with an average score of 66 points.

Corruption fighting requires more than just adopting well-designed laws. Corrupt individuals are very resourceful in finding ways to bypass formal constraints; therefore, according to Transparency International experts, grassroots approaches to combat corruption are generally more effective in the long run than isolated institutional and legal reforms. Civil society and mass media are extremely important for pressure on the government and the government's maintenance of honesty and responsibility. The analysis of CPI shows that in countries where mass media and non-governmental organizations are vulnerable, the level of corruption is usually high.



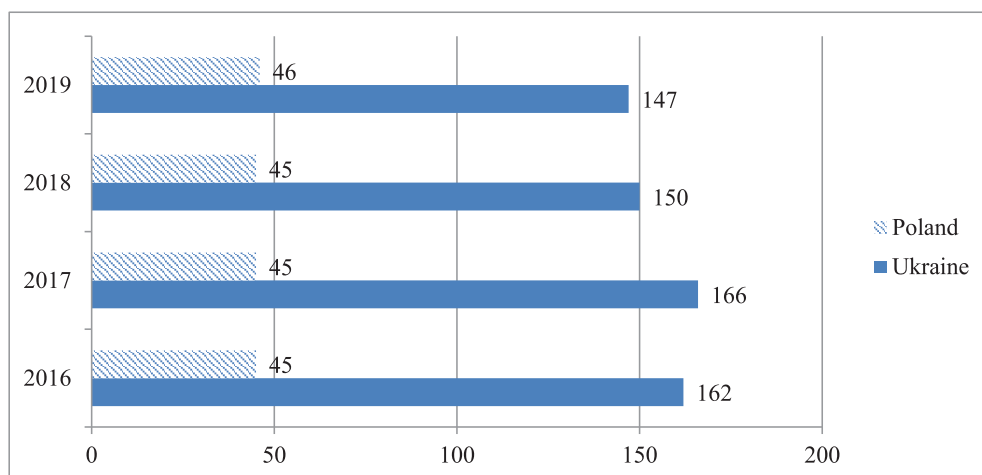
**Fig. 5.4.** The value of CPI

*Source:* Developed by the authors based on Transparency International Corruption Perceptions Index 2017 (2018).

As a result of the study, Ukraine has received 30 out of 100 possible points. This is 1 point higher than in 2016 (29 points, 131<sup>st</sup> position out of 176 countries). But in the dynamics, the results of last year are lower than in 2016. In the World CPI rating Ukraine has overtaken Russia for the first time since 2010 (29 points), which hasn't improved its position over the last year. The results of other neighbours are considerably better: Poland – 60 points, Slovakia – 59 points, Romania – 48 points, Hungary – 45 points. Compared to the previous year, Ukraine has gone up by 2 positions.

An assessment of institutional environment quality has a long tradition. The most well-known indicators include the Freedom Index, which is calculated by the Heritage Foundation.



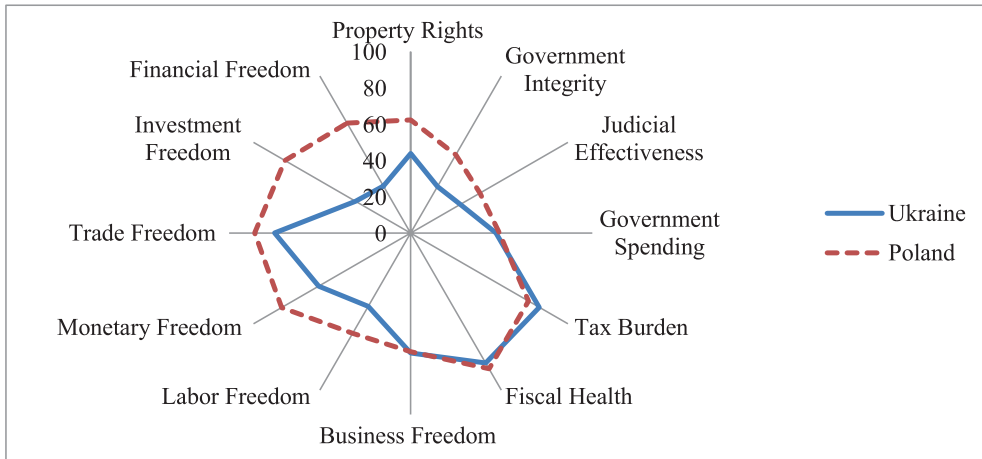


**Fig. 5.5.** Freedom Index of Ukraine and Poland

*Source:* developed by authors based on the Heritage Foundation's 2019 Index of Economic Freedom (2019).

The total value of Ukraine's freedom index in 2019 is 52.3 and it has grown by 0.4 points in comparison with the previous year. The total value of Poland's freedom index is 67.8 and it has fallen by 0.7 points. Poland's overall value is lower than the regional average, but it is higher than the world average. Poland has the 23<sup>rd</sup> position among 44 European countries, Ukraine has the 44<sup>th</sup> position. But, in general, Ukraine has positive dynamics, except for 2017, and improves its position significantly. Poland, on the other hand, shows slightly negative tendencies. Positive economic reputation of Poland has been obtained through structural reforms: liberalization of trade, low taxes and regulation, favourable business environment. The enthusiasm about reforms has decreased recently on the background of political and economic uncertainty which has contributed to the volatility of the currency and the weakening of investment rate. Problems included deficiencies in road and rail infrastructure, rigid labour code, weaknesses in commercial court system, state bureaucracy and burdensome fiscal system for entrepreneurs. Reforms are also needed to maintain the independence of the judiciary and to reduce opportunities for corruption.

Progress in Ukraine is hampered by the implementation of many necessary but ambiguous structural reforms, such as reducing subsidies and raising energy tariffs, fiscal consolidation and fight against corruption. Economic growth has been proceeding partly due to remittances of migrant workers. Ukraine needs to develop its capital markets, privatize state-owned enterprises and improve its legal base, as well as the rule of law.



**Fig. 5.6.** Components of Freedom Index of Ukraine and Poland

*Source:* developed by authors based on The Heritage Foundation's 2019 Index of Economic Freedom (2019).

As can be seen from Figure 5.6, according to the indicators of business freedom, fiscal health and public spending, both countries are at the same level, while the general tax burden in Ukraine is even slightly lower. The largest gap is in financial and investment freedom.

Studies have shown that Ukrainian legislation protects property rights. Hypothecs and mortgages have been fixed, and the government has reduced the fee for a building permission in 2018. The judiciary is subject to political pressure, it is characterized by corruption and bribes, so the public trust in the efficiency of the judiciary is weakened. Criminal sanctions for corruption are not being implemented effectively, and corruption continues. The right to purchase and dispose of property in Poland has been protected by law, the judiciary is independent, but there are frequent complaints about slow and sometimes politicized judicial system which have reduced confidence in the government's ability to uphold property rights. The prosecution of corruption is most often encountered in public procurement, where regulations or permits have been issued in favour of specific companies. Several known corruption investigations that have appeared in 2016 pointed to problems that remain in public institutions.

The maximum tax rate on personal income in Ukraine is 20% and the highest rate of income tax is 18%. Other taxes include value added tax and property taxes. The total tax burden is 33.1% of total domestic income. Over the past three years, government spendings have amounted to 42.1 % of the country's output (GDP), and budget deficits amounted to an average of 1.9% of GDP. The state debt is equal to 75.6% of GDP. The highest tax rate in Poland is 32%, and the income tax rate is 19%. Other taxes include value added tax and property taxes. The total tax burden is 33.6% of the total domestic income. Over the past three years, government expenditures amounted to 41.3% of the



country's production (GDP), and budget deficits amounted to an average of 2.3% of GDP. Public debt is equivalent to 51.4% of GDP.

The process of launching business in Ukraine has been optimized, but licensing requirements are still time consuming. In general, political instability continues to complicate regulatory uncertainty in commercial transactions. The Labour Code is obsolete and inflexible. Under the influence of international financial institutions, the government has expanded control over natural gas prices in 2018. Regulatory reform in Poland is in a state of stagnation and levels of business freedom lag behind many other European countries. But modernization of the regulatory environment in Poland has contributed to the transition to market economy. Labour costs are relatively high, and trade unions have a significant impact on the termination of contracts and other labour issues. Poland has been the largest recipient of EU subsidies, but the European Commission has threatened that it would freeze its subsidies if Poland did not cooperate with the "core values of the EU".

The total value of exports and imports of Ukraine and Poland is almost the same –102.2% and 102.8% of GDP respectively, and the average applied tariff rate is 2.5% and 2.0%. As of June 30, 2018, according to the WTO, there have been 143 non-tariff measures in Ukraine. The current conflict with Russia undermines trade and investment flows, while state-owned enterprises distort the economy. About 64% of adult Ukrainians have access to an account in an official banking institution. Poland implements a series of non-tariff barriers to trade across the EU, including technical and product-specific regulations, subsidies and quotas. New law on investment promotion has been adopted in 2018. The financial sector continues to expand. FTSE Russell has raised Polish stock market to the status of a „developed market”.

The analysis of the state of business activity regulations by the 2015 version of the World Bank in Doing Business report. The Going Beyond Efficiency (2016) report shows a positive trend for both Ukraine and Poland. So, in 2015, Ukraine for the first time entered the first hundred countries in the rating of the ease of doing business, and it improved its position in the following years. Now it occupies the 80<sup>th</sup> position, which is 64 positions better than in 2008. Poland is on the 24<sup>th</sup> position.

## 6. Conclusions

Based on the research and results of the systematic analysis of socioeconomic processes carried out by leading experts and research universities, a list of six main factors could be identified, the elimination of which would significantly improve the performance of Ukrainian economy. Due to the International Council for Science (2015) they include:

- the war in eastern Ukraine and the occupation of the Crimea, as a result of which Ukraine loses up to 25% of GDP;
- shadow economy which according to various estimates is about half of GDP;
- the scale of corruption caused by the shadow economy reaches 14% of GDP;
- imperfect pension system which accounts for another 13% of GDP;
- servicing of public debt which annually costs about 10% of GDP;



— the energy intensity of GDP which is 3–5 times higher than the indexes of developed countries.

Unlike Poland, which has achieved high rates of economic growth by accessing the EU's large scale market and has been rapidly integrating with international manufacturing networks, Ukraine has been using the strength of the national economy, such as multi-sectoral infrastructure availability, educated human capital, favorable geographic location in the European area, and one of the largest markets in Europe, in order to take strategic decisions in three main directions of the crisis program:

- effective response and preventive measures to integrate the risks of public administration inefficiency;
- adaptation to demand changes in the global economy with a simultaneous stimulation of domestic market development;
- creation and development of high value-added manufactures.

Crisis situation is a good moment for a profound change in Ukrainian economy orientation towards qualitative changes and an emphasis on innovation factors to increase its competitiveness, subject to macroeconomic and social changes. Poland's economy can serve as an example to follow.

## Summary

In this book, the authors decided to present some diversified aspects of contemporary entrepreneurship. As always, the choice of those aspects could be challenged or questioned. What is certainly unquestionable is the fact that entrepreneurship plays a major role in modern economies and there are reasons to think its role will become more and more important in the years to come.

At the time of publishing this book the second wave of the COVID-19 pandemic hits the global economy. The economic future of the world is uncertain and so are social and psychological consequences of this disaster. Violent and rapid changes that happen in virtually all economies call for more entrepreneurship than ever. The economies today are subject to deep unexpected transformations, creating serious threats to many businesses or even whole industries, but at the same time offering unprecedented chances and opportunities. Entrepreneurial economies may be able to use their qualities to their benefits.

In the longer perspective, the need for entrepreneurship development stems from the development of artificial intelligence (AI), which would most likely radically change the economic landscape, bringing vast changes to economies, labour markets and social relations between members of the society.

All that calls for increased and intensified entrepreneurial education, which should be included in the school curricula from the very beginning of the education process. University education with regard to entrepreneurship should be perceived as a kind of finishing touches for completing the whole entrepreneurial education course. The role of universities cannot be limited to feeding students with entrepreneurship-related contents of courses. They should become more of “entrepreneurship hubs”, linking scientists, researchers, academic teachers, decision makers, politicians, business owners and entrepreneurs.

Last but not least, we still need to know more and understand more about the entrepreneurial process with its tremendous complexity. Interdisciplinary and transdisciplinary approach is crucial here in order to use, accumulate and disseminate the knowledge on who, how and when decides to pursue entrepreneurial career. Performing all those tasks is certainly not easy, but moving from “Entrepreneurship Today” to some kind of “Entrepreneurship Tomorrow” requires intensified efforts to accomplish those goals.



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