



POLAND

Warsaw 2012

Global Entrepreneurship Monitor report – Poland 2011

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The report was prepared on the base of data collected by Global Entrepreneurship Monitor 2011 organised by Global Entrepreneurship Research Association.

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ISBN 978-83-7633-183-6

Edition I

Edition of 1000 copies

Printing house



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List of abbreviations

- APS – Adult Population Survey
- CSO – Central Statistical Office of Poland (pol. *Główny Urząd Statystyczny*)
- EEA – Entrepreneurial Employee Activity
- EU – European Union
- EU MS – European Union Member States
- GEM – Global Entrepreneurship Monitor
- GERA – Global Entrepreneurship Research Association
- IPO – Initial Public Offering
- IUS – Innovation Union Scoreboard
- MHEA – Medium/high job growth expectation early-stage entrepreneurial activity
- NES – National Experts Survey
- OECD – Organization for Economic Co-operation and Development
- PARP – Polish Agency for Enterprise Development (pol. *Polska Agencja Rozwoju Przedsiębiorczości*)
- R&D – Research and development
- SLEA – Solo/low job expectation early-stage entrepreneurial activity
- SME – Small and medium-sized enterprises (including microenterprises)
- TEA – Total early-stage Entrepreneurial Activity
- VC – Venture Capitals



Dear Sir or Madam,

Global Entrepreneurship Monitor (GEM) is the largest international research project in the area of entrepreneurship dissemination of knowledge on entrepreneurship and supporting the establishment of new firms. The initiative was launched in 1999 by Babson College of Boston and London Business School. In 2011, 54 countries worldwide were covered by GEM research (forming over 52% of the world population and 84% of the world GDP). Poland took part in the GEM project in 2004.

In 2011, Polish Agency for Enterprise Development, in cooperation with the University of Economics in Katowice, acceded to the project.

Numerous scientists all over the world use the GEM project, and in particular the data on entrepreneurship collected under the project. In 2012, the European Commission also expressed interest in GEM research by financing certain quantitative research and obtaining data for its own analyses.

I am hoping that our initiative, in particular this report entitled **Global Entrepreneurship Monitor Poland**, will form a valuable input into the discussion on the state and directions of entrepreneurship development in Poland. Data and other materials gathered for the purposes of the report allow for obtaining an interesting view on the development of entrepreneurship in the future as they focus on research of entrepreneurial intentions and motivations. Also the opinions of national experts in entrepreneurship, who evaluated the determinants of entrepreneurship development covering support programmes for entrepreneurs, financial sources for business activity, technology transfer, cultural and social determinants and women entrepreneurship proved extremely helpful in our study.

The diagnosis of the condition of entrepreneurship in Poland presented in GEM Poland report enables PARP and other institutions to react accordingly to the needs of current and future entrepreneurs by suggesting new types of support or by introducing new measures aimed at shaping attitudes advocating the development of entrepreneurship and innovation. Such data sources as this report allow for evidence-based policy which reacts to real problems.

I wholeheartedly invite you to read the report. I also hope that you will find information presented herein useful both for current work and to draw conclusions on the current Polish entrepreneurship and its development prospects.

Bożena Lublińska-Kasprzak

**President of the Polish Agency
for Enterprise Development**

1. Introduction

Entrepreneurship, as a social phenomenon, is a very complicated process causing many problems regarding the analysis of its nature. Despite several decades of research and improved knowledge, there are still no answers to many significant questions within this scope. For example, it is known that entrepreneurship creates economic growth and social development, but it is unclear how it happens. People establishing business activities have various motives – from economic and social to the will of accomplishment. However, it is unknown what configuration of motives has the greatest influence on the success of an undertaking. Finally, it is obvious that enterprising employees are valuable to their employers. However, methods of making the most of their potential are still searched for.

Global Entrepreneurship Monitor (GEM) attempts at answering these questions. It is the largest and the most prestigious research project on entrepreneurship focused on entrepreneurship at the early stage of activity. It is a purely research project, which enables better insight in the entrepreneurship process. It also has certain other advantages, and the most important include:

1. Methodological reliability – research within GEM is conducted in accordance with clearly specified and fulfilled methodology ensuring high quality and reliability of the results.
2. Independence – research conducted by research centres enables high level of independence and ensures solid results.
3. International comparability – research is conducted in the same way in every project member state, which ensures complete comparability of findings between the countries.
4. Comparability over time – although there are changes in research under the project, its basis remains unchanged, and thereby enables linear comparisons.

Changes in the project are aimed at adjusting it to the evolution of external conditions, as well as at obtaining more information. Novelty in the project is the introduction of two categories of individual entrepreneurship – providing smaller or greater number of new jobs, as well as ensuring greater significance of the organisational entrepreneurship.

2. Objectives, model and methodology of GEM

The Global Entrepreneurship Monitor was conceived in 1997 by the representatives of London Business School and Babson College. The first research was conducted in 1999.

Global Entrepreneurship Research Association (GERA) was formed in 2004 to manage the developing project. It is a not-for-profit organisation governed by representatives of the national teams and the three institutions sponsoring the project.

GERA's mission is to contribute to global economic development through entrepreneurship. To achieve this, GERA seeks to increase worldwide knowledge about entrepreneurship by conducting and disseminating world-class research that:

- uncovers and measures factors impacting the level of entrepreneurial activity among economies,
- aids in identifying policies that may lead to appropriate levels of entrepreneurial activity, and
- by recognising current relationships, helps to shape education systems in supporting successful entrepreneurship.

2.1. Objectives of GEM

The Global Entrepreneurship Monitor focuses on three main objectives:

- to measure differences in entrepreneurial attitudes, activity and aspirations among economies,
- to uncover factors determining the nature and level of national entrepreneurial activity,
- to identify socio-economic policy implications for enhancing entrepreneurship.

2.2. GEM models

GEM research is based on theoretical models of entrepreneurship established on the basis of years of scientific achievements. Two most important theoretical models are: the model of economic relationships and the model of individual entrepreneurial process.

2.2.1. Entrepreneurship as understood by GEM

While entrepreneurship is a multifaceted phenomenon with many different meanings, GEM operationalises entrepreneurship as: any serious attempt at new business or new venture creation, such as self-employment, a new business organisation, or the expansion of an existing business, by an individual, a team of individuals, or an established business. While entrepreneurship is defined narrowly as new business activity, it takes a broad view of what it recognises business activity to be. This has its implications in measuring the level of entrepreneurship in GEM that is not limited to registration of new business activity, but it is treated rather in behavioural than in institutional terms, and it includes both entrepreneurial activities aimed at registration of new business entities, and entrepreneurial activities in the existing organisations.

2.2.2. GEM model of economic development

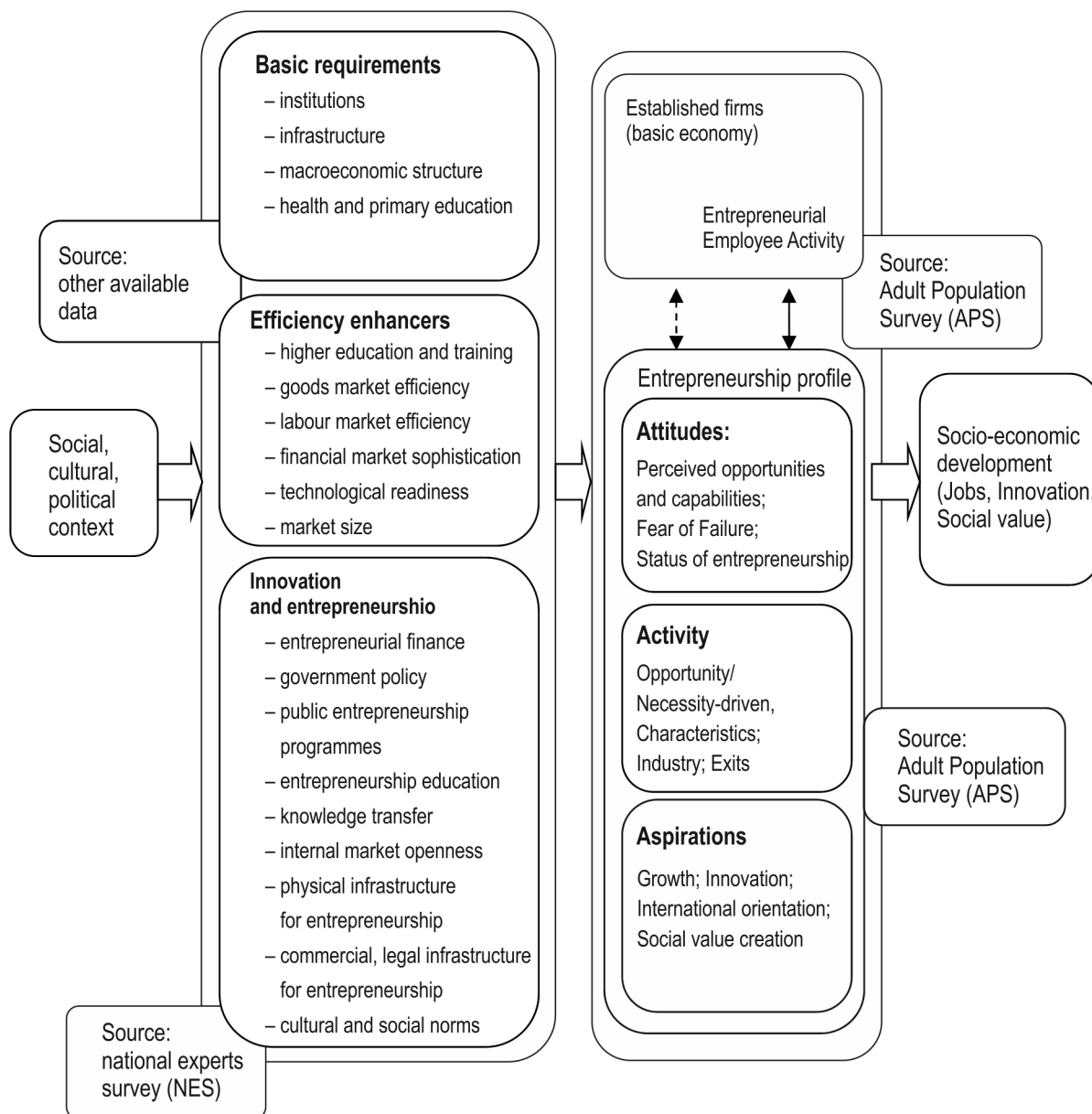
GEM model is based on several significant assumptions. First of all, an economy's prosperity is highly dependent on a dynamic entrepreneurship sector. Although this is true across all stages of development, the nature of this activity can vary in character and impact. Necessity-driven entrepreneurship, particularly in less developed regions or those experiencing declines in employment, can support economy when there are fewer work options available. More developed economies, on the other hand, generate more entrepreneurial opportunities as a result of their wealth and innovation capacity, yet they also offer more wage employment options to attract those that might otherwise become independent entrepreneurs.

Second, an economy's entrepreneurial capacity is based on individuals with the ability and motivation to start businesses, and may be strengthened by positive societal perceptions about entrepreneurship. Finally, high-growth entrepreneurship is a key contributor to new employment in an economy, and national competitiveness depends on innovative and cross-border entrepreneurial ventures.

GEM employs socio-economic approach in its research (figure 1). This model attempts to present entrepreneurship in two ways. First of all, it documents how entrepreneurship is affected by national conditions. It also shows that three major components of entrepreneurship cover: attitudes, activity and aspirations. These three components are presented in the form of conglomerate creating innovations, economic growth and new jobs. Detailed interactions between the components are subject to analysis. GEM monitors entrepreneurial framework conditions in each country through harmonised surveys of experts in the field of entrepreneurship, while the components of entrepreneurship are tracked using the adult population surveys. Comparison of those two approaches enables to generate data both at macro level in the countries, and at micro level of individual entities.

Since its inception, GEM has sought to explore the relationships between entrepreneurship and economic growth described by the above-mentioned framework conditions for entrepreneurship – national conditions shaping entrepreneurial activity. In the beginning of the project implementation, there were nine conditions that were later complemented in the research. The significance of these conditions increases along with the economic development. They were described in the second part of the report.

Figure 1. GEM model of economic development



Source: Bosma N., Wennekers S., Amoros J.E., *Global Entrepreneurship Monitor. 2011 Extended Report: Entrepreneurs and Entrepreneurial Employees Across the Globe*, London, Global Entrepreneurship Research Association 2012, p. 12.

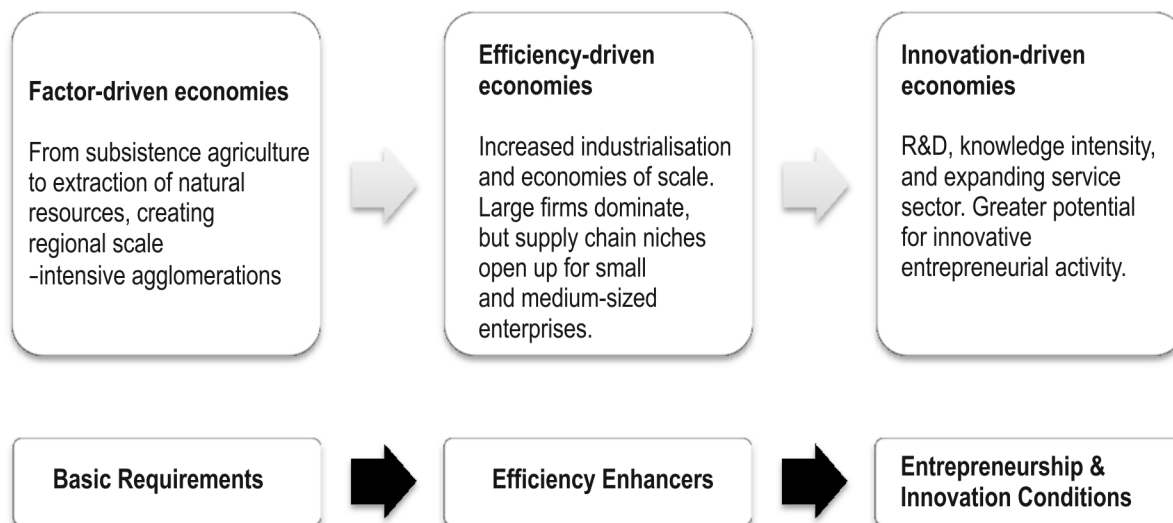
2.2.3. Phases of economic development

In recent years, GEM has introduced division of countries into three groups by phases of economic development: factor-driven, efficiency-driven and innovation-driven¹ (figure 2). In the factor-driven economies competitiveness is organised at the level of factors of production, such as labour and natural resources. Competitiveness is based on price, productivity is low, and labour costs are low. Countries transforming into efficiency-driven economies, along with increasing labour costs, must create more efficient methods of production and increase the quality of products and services. Countries transforming into innovation-driven economies may maintain high level of wages and high standard of living only if enterprises are able to compete on the basis of new and specialised products. In this phase, companies compete with advanced methods of production, and innovations.²

¹ M.E. Porter, J.J. Sachs, J. McArthur, *Executive Summary: Competitiveness and Stages of Economic Development*, in: *The Global Competitiveness Report 2001–2002*, M.E. Porter, J.J. Sachs, P.K. Cornelius, J.W. McArthur and K. Schwab (red.), New York, NY, 2002: Oxford University Press.

² Countries are categorised in groups according to the classification adopted in the *Global Competitiveness Report* issued by the World Economic Forum.

Figure 2. Three phases of economic development



Source: Bosma et alii, op.cit, p. 13.

In each of the three phases of economic development, the role of the country in supporting entrepreneurship and economic growth is different. In the case of factor-oriented economies, the most significant is to develop institutions, infrastructure, macroeconomic stability and health and primary education. In efficiency-driven economies government focus should be on getting labour and capital markets working more efficiently, attracting foreign direct investments and educating the workforce to successfully adopt technologies. In innovation-driven economies, the key role of the country is to provide and commercialise knowledge.

2.2.4. Entrepreneurship process

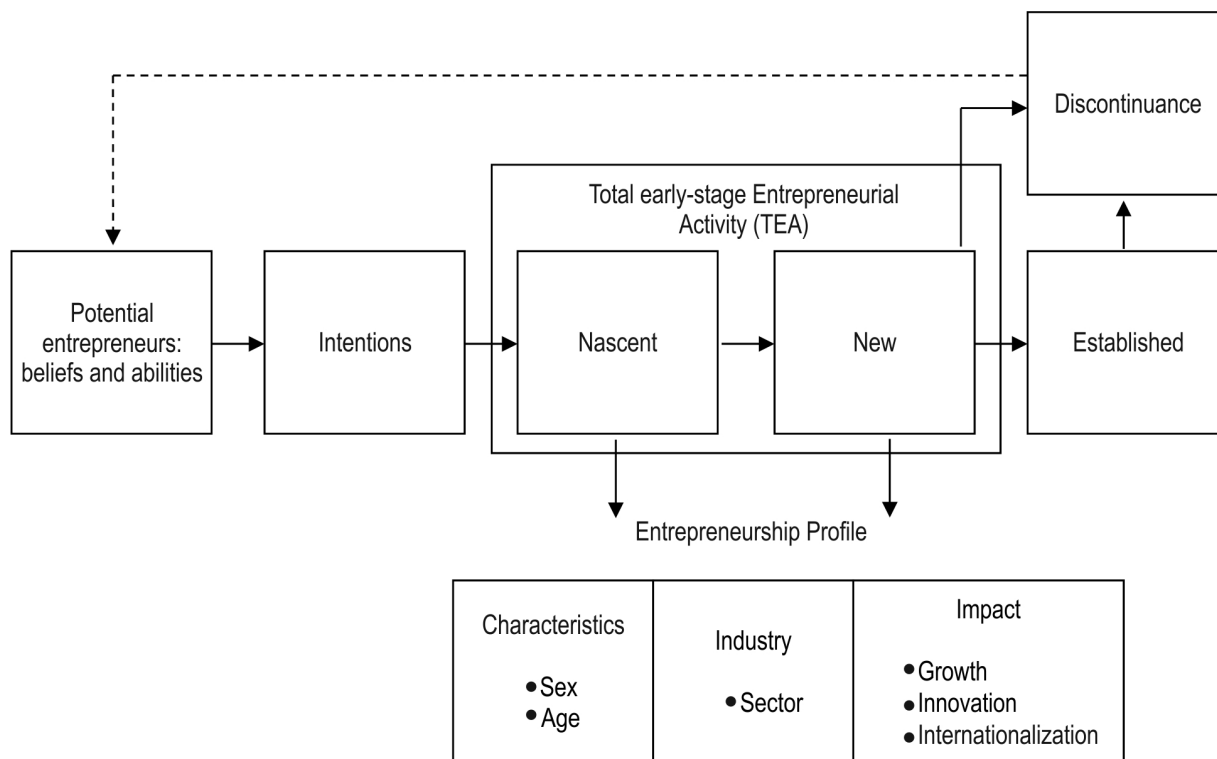
In GEM it is important to differentiate the business activity according to its phases (figure 3). At the same time phases before its formal implementation are also subject to the analysis, and most attention is paid to the phase of early-stage activity. It is one of the significant elements distinguishing GEM from other research projects on entrepreneurship where registration of new entities is studied on the basis of data of national statistical offices, which does not enable good insight in the nature of the new enterprises.

In modelling the process of entrepreneurship, GEM applies three stages of economic project development. Depending on the phase an entrepreneur is in, they may be defined as a nascent entrepreneur, a new entrepreneur or an established enterprise. In the GEM methodology, **nascent entrepreneurs** are individuals who have not established business activity yet but they plan to, and those who have already established business activity and are at its early stage – up to 3 months from establishment of business activity. Business activity is considered to be established in the case of paying wages for the period of three months. Such individuals start to take first steps to establish a business: they obtain financial support, do the business planning, apply for legal protection of their intellectual property. **New entrepreneurs** are people who established their business activities from 3 to 42 months before the beginning of the research. The period of 3.5 years is considered to be critical in running entrepreneurial activity. After surviving this period one may consider the first stage a success – establishment of business activity and transition to the next stage, management of the existing enterprise. **Established enterprises** have been operating at the market for the period longer than 42 months.

Apart from the phases, the GEM entrepreneurship process identifies beliefs and abilities of people preceding the decision about the establishment of business activity, as well as reasons for discontinuance by former entrepreneurs which is significant due to re-establishing business by some of them.

The approach based on research and analysis of people, not enterprises, is characteristic to GEM, and enables better insight in the nature of the entrepreneurship process. It gives twofold results. On the one hand, it enables the analysis of the entrepreneurship process in many schemes, e.g. identification of people with similar attitudes and characteristics. On the other hand, it provides the opportunity to discover more differences between the countries since we obtain information not only about the number of entrepreneurs in a country, but also about differences in their attitudes and characteristics in certain phases of running a business activity.

Figure 3. GEM model of entrepreneurship process



Source: Bosma et alii, op.cit. p. 10.

2.3. GEM research methodology

GEM applies several criteria differentiating entrepreneurial activity. The results of employing these criteria are the indicators used in the project.

2.3.1. Total early-stage Entrepreneurial Activity (TEA)

TEA is a central measure established in the GEM research. It presents the percentage of working age population involved in establishing business activities or running a new enterprise. In the GEM model of entrepreneurship process Total early-stage Entrepreneurial Activity includes nascent entrepreneurs and new entrepreneurs, but does not include established enterprises. Methodology of calculation of TEA measure is relatively complex and it is based on answers to several questions concerning intentions and actions taken in terms of establishing and running business activity. It has to be stated that TEA does not measure share of people running business activity, but share of people establishing and running business activity in early stage. In this context, it is a forward indicator since it enables to forecast intensity of business activity in the society.

2.3.2. Entrepreneurship vs. enterprises' development potential (MHEA, SLEA and EEA rates)

GEM aims at equalising two forms of entrepreneurship: establishing and running own business, and entrepreneurship in the workplace. In addition, in 2011 GEM introduced distinction between entrepreneurship with high and low potential to create new jobs and entrepreneurship in the workplace. In the research findings, this distinction means division into three types of activity:

- entrepreneurship with high potential of creation of new jobs (medium/high job growth expectation early-stage entrepreneurial activity – MHEA),
- entrepreneurship with low potential of creation of new jobs (solo/low job expectation early-stage entrepreneurial activity – SLEA),
- entrepreneurship in the workplace (organisational entrepreneurship, intrapreneurship – entrepreneurial employee activity – EEA).

Entrepreneurship with low potential represents two aspects:

- social – people pursue their need for independence or have no alternative options for work,
- economic – some self-employed contribute to the flexibility of the overall economy, but others could be more productive by working as an employee.

In accordance with the above division, countries may be classified by intensity of each of the three types of entrepreneurship. Thereby, a three dimensional space is created for each country. This may be simplified by classifying each country to one of eight groups established after identification of the country result in a certain dimension as being above/below the median score of all the countries.

Classification of these three groups is also important, since thanks to MHEA it is possible to identify the groups of enterprises that potentially may become high-growth enterprises.

2.3.3. Motives for entrepreneurial activity

Motives for establishing business activity are also significant to GEM. As a rule there are two contradictory motives: opportunity-driven and necessity-driven when there are no alternatives for work. As the project developed, the theory of entrepreneurial motivation evolved, and at present, apart from the above-mentioned motives, GEM identifies the following: development opportunity, increase of income, maintaining income, need for independence or mixed motivation.

2.4. Research within GEM

Research within GEM project is conducted in two parts. The first one is a typical quantitative adult population survey (APS) conducted on a sample of working age population. The second part of the research is the qualitative survey consisting in collection of national experts' opinions (national experts survey – NES).

2.4.1. APS

Adult population survey is conducted on a sample of at least 2,000 people in every country every year. In general, the survey is conducted with CATI method with consideration of land-based and mobile telephony applied in households. APS survey measures TEA, MHEA, SLEA and EEA. It also provides information about society's aspirations and perception of entrepreneurship, growth aspirations of entrepreneurs, their international orientation, as well as financing business activity. Results of this survey are presented in the first part of this report.

2.4.2. NES

National experts survey is conducted on a sample of at least 36 experts from various fields directly and indirectly connected to entrepreneurship. This part of the survey is aimed at identification of framework conditions for entrepreneurship in every country. In every country the group of experts is selected in accordance with the same criteria. The main criteria are: the type of activity (scientist, manager, politician, etc.) and experience in running entrepreneurial activity (entrepreneur, non-entrepreneur). Results of this survey are presented in the second part of this report.

2.5. Research methods and participating countries

The GEM project is managed by the Global Entrepreneurship Research Association realising managing, coordination and promotional functions. National teams are responsible for the considerable part of works. GEM is a bottom-up project. National teams have to organise themselves and co-finance the project implementation.

In 2011 fifty-four countries participated in the research, including 25 European countries, 12 Asian countries, 12 South American countries, United States of America, Mexico, Australia and only 3 African countries.

3. Results of the adult population survey (APS)

The survey conducted as part of GEM, in particular the adult population survey, enables to compare the profiles of examined countries in three dimensions: Entrepreneurial Attitudes and Perceptions, Entrepreneurial Activity and Entrepreneurial Aspirations. Entrepreneurial Attitudes and Perception reflect the degree to which people and the population perceive and appreciate entrepreneurship, in terms of both general and personal perception. In the area of Entrepreneurial Activity, the involvement of people in various stages of establishment and operation of a business are measured and the motives of business start-up are identified, such as perceived business opportunities or necessity-driven activity due to no better options available. Entrepreneurial Aspirations are related to the Entrepreneurial Intention in several categories: growth, job creation, market expansion, innovations and internationalisation.

3.1. Potential entrepreneurs: attitudes and capabilities

The individual process of entrepreneurship always begins with attitudes and perception of entrepreneurship by an individual. However, it is a social process that is culturally and historically determined. The perception of entrepreneurship in the United States, where the individual entrepreneurship made it possible to establish statehood, is completely different from the entrepreneurship in the countries of the former socialist block, where entrepreneurship was in practice forbidden and considered a criminal activity. Therefore, apart from individual disparities, also the differences between the countries in this area can be analysed.

The efforts made by the governments should be oriented towards a positive atmosphere for entrepreneurship, which translates into perception and individual attitudes. Those attitudes, beside the socio-cultural factors, are also shaped by the economic, political and legal as well as technological aspects. An important variable is represented for instance by labour conditions – research results indicate that countries with a higher employee security level have a lower level of entrepreneurship – establishment of one's own business in such conditions is for most people a choice that carries the higher burden of risk.

As far as Entrepreneurial Attitudes and Perceptions are concerned, the most important categories covered by the study include:

- Perceived Opportunities,
- Perceived Capabilities,
- Fear of Failure,
- Entrepreneurial Intention.

GEM also carries out quantitative measurements of cultural variables (in addition to the qualitative measurement in the NES study). The elements of culture that are measured include:

- Entrepreneurship as Desirable Career Choice,
- High-Status Successful Entrepreneurship,
- Media Attention for Entrepreneurship.

3.1.1. Entrepreneurial Attitudes and Perceptions

The table below presents a comparison of Entrepreneurial Intentions, Perceived Opportunities, Perceived Capabilities and Fear of Failure in particular countries. According to the principle used by GEM, the countries are divided into factor-driven economies, efficiency-driven economies and innovation-driven economies. The GEM survey classified Poland in the second group.

Table 1. Entrepreneurial Attitudes and Perceptions (%)

Country	Entrepreneurial Intention	Perceived Opportunities	Perceived Capabilities	Fear of Failure
Factor-driven economies				
Algeria	44.23	54.26	59.6	38.9
Bangladesh	31.99	64.43	23.63	63.05
Guatemala	29.21	55.09	71.01	29.9
Iran	33.43	32.01	46.39	25.35
Jamaica	21.41	49.14	78.6	32.23
Nigeria	57.65	85.54	83.68	29.78
Pakistan	26.92	39.69	42.61	31.19
Venezuela	28.4	48.45	66.86	23.48
Efficiency-driven economies				
Argentina	35.86	56.03	63.76	30.67
Barbados	11.48	43.95	66.91	20.01
Bosnia and Herzegovina	21.56	20.53	48.86	37.7
Brazil	32.27	43.06	52.78	35.32
Chile	48.61	56.56	62.06	30.6
China	43.36	48.84	43.9	34.94
Croatia	21.64	18.25	48.97	45.72
Columbia	58.46	73.06	61.32	32.58
Lithuania	20.56	23.2	35.4	48.24
Latvia	27.99	23.65	46.53	44.74
Malaysia	11.25	36.5	31.06	36.28
Mexico	25.82	43.46	60.64	32.73
Panama	27.24	46.1	63.66	15.56
Peru	41.57	70.33	72.85	42.77
Poland	26.94	33.1	51.99	54.05
Russia	6.18	27.06	33.2	46.41
Republic of South Africa	17.62	40.73	42.83	28.81
Romania	27.71	36.06	41.63	43.05
Slovakia	24.43	23.08	52.92	44.76
Thailand	35.19	40.14	42.68	60.47
Trinidad and Tobago	37.15	62.14	81.21	18.2
Turkey	11.32	32.36	42.08	26.51
Uruguay	42.46	53.65	61.06	37.7
Hungary	21.9	14.22	39.98	44.54
Innovation-driven economies				
Australia	14.52	47.83	47.42	43.75
Belgium	11.98	42.97	43.99	41.96
Czech Republic	14.62	23.9	39.22	39.84
Denmark	8.9	46.64	34.97	41.97
Finland	8.05	60.82	37.26	35.58
France	19.76	34.92	38.43	43.8
Greece	12.29	10.87	49.69	67.59
Spain	9.66	14.41	50.86	51.78
The Netherlands	9.76	47.78	41.87	36.64
Ireland	8.45	25.57	45.5	41.23
Japan	7.14	6.35	13.73	46.97
South Korea	17.24	11.24	26.72	39.58
Germany	7.6	35.17	37.14	49.92
Norway	10.87	67.07	33.24	38.2
Portugal	14.89	16.74	46.67	49.37
Singapore	15.31	21.44	24.1	38.97
Slovenia	10.03	18.37	50.79	39.3
Switzerland	10.26	47.4	42.45	35.13

cont. table 1.

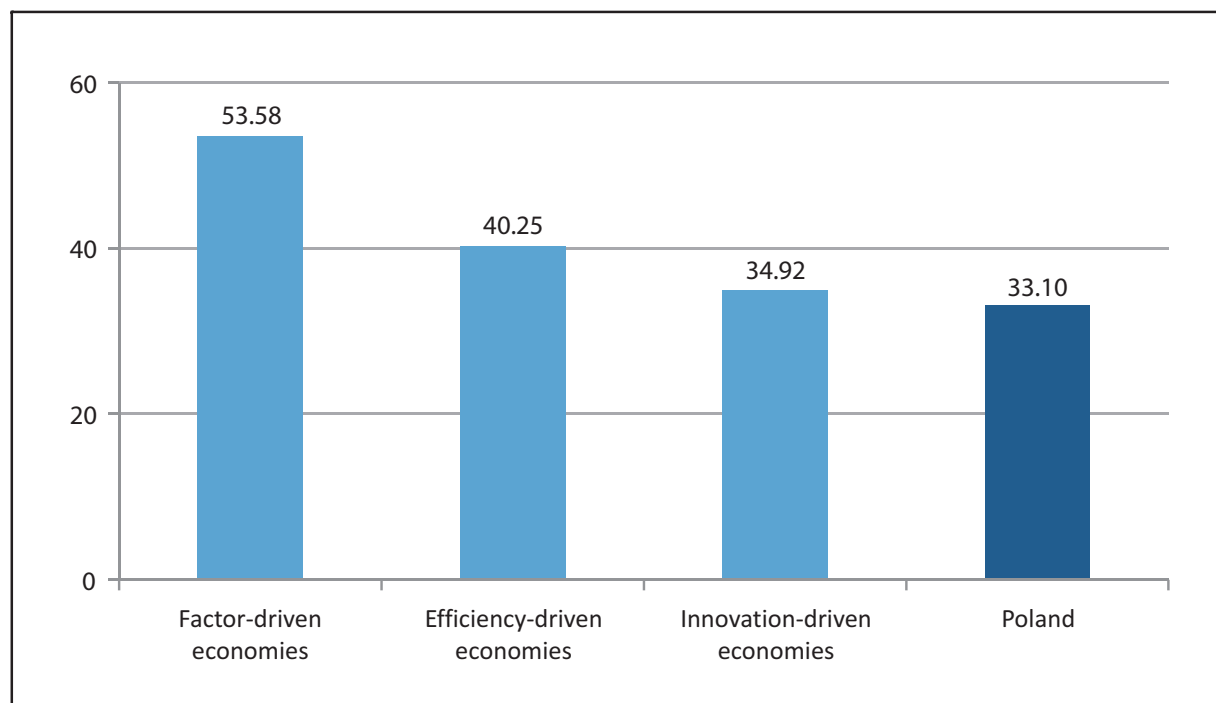
Sweden	10.42	71.49	40.32	37.05
Taiwan	29.71	38.92	28.61	42.38
USA	15.77	36.25	55.69	37.14
United Kingdom	10.37	33.3	42.47	45.75
UAE	6.4	43.72	62.07	47.09

Source: own elaboration on the basis of GEM 2011 data.

Entrepreneurial intentions are measured as a percentage of population of persons aged 18-64 who plan to establish a business within the next three years. Entrepreneurial intention clearly drops as the economic development rises – there are less people willing to start a business in developed countries. The average for factor-driven economies amounts to 34.2%, in the case of efficiency-driven economies it is 28.3% and in the case of innovation-driven economies it is as low as 12.4%. Poland with 26.9% is slightly below the average for its group of countries. This result places Poland more or less in the middle of the list of efficiency-driven economies. Interestingly enough, the results in this field seem to be determined not only by culture, but also by geographical location – the eastern countries have lower results (Russia – 6.2%, Malaysia – 11.3%), the European countries are situated near the average range, and the South American countries have very high results (Chile – 48.6%, Columbia – 58.5%). The value of that indicator consists in its anticipatory nature – it can be used to forecast the level of entrepreneurship at an early stage in the years to come (table 1).

The process of entrepreneurship commences when a business opportunity is identified and when the will to seize it emerges. Unfortunately, value of the indicator of people perceiving business opportunities for Poland is low. It is measured by the percentage of persons who claim that there are good conditions for business start-up in their neighbourhood within the next six months. That rate also falls as the economic development decreases – the average for factor-driven economies amounts to 53.6%, in the case of efficiency-driven economies it is 40.3%, and in the case of innovation-driven economies it is 34.9%. In Poland, slightly more than one-third (33.1%) of people perceive business opportunities. That rate is lower only in eight cases out of 24 in the group of efficiency-driven countries, and they are European countries. This indicator also suggests the level of entrepreneurship in the future (table 1, diagram 1).

Diagram 1. Level of Perceived Opportunities (%)



Source: own elaboration on the basis of GEM 2011 data.

Self-verification of one's own capabilities and knowledge takes place in the process of entrepreneurship after the identification of a business opportunity. The entrepreneurs ask themselves a question whether their capabilities and experience allow for the opportunities to be seized and to be successful in business. As far as self-evaluation of knowledge and capabilities necessary to establish a business is concerned, Poland is situated almost precisely within the average for its group of countries – 51.99% of people think they have the knowledge and capabilities as compared to the average at 52.01%. Like in the case of other indicators, the average for less developed countries is higher – 59.05%, and for the more developed countries it is lower – 41% (table 1).

Fear of failure is an important factor that limits the level of entrepreneurship at the national level. Despite an identified opportunity and the will to use it, and despite of positively perceived capabilities, some entrepreneurs give up the establishment of a business as a result of fear of failure. In Poland, the fear of failure is much higher than in the comparable countries and it might be an essential factor that hinders the entrepreneurship. Over 56% of Poles think that fear of failure can prevent them from starting up a business (table 1). This result is higher than the average in all groups of countries (34.2%, 37.2% and 43.1% in factor-, efficiency- and innovation-driven economies respectively). This indicator is higher only in three countries (Thailand – 60.5%, Bangladesh – 63.1% and Greece 67.6%). The above demonstrates a high level of uncertainty about the pursuing a business. The results of other studies (Busenitz, Gomez and Spencer, 2000) show that it might be connected with a complex and frequently modified law, as well as administrative procedures; economic slowdown experienced by most countries is also of major importance.

3.1.2. Cultural determinants of entrepreneurship

The table below presents the results for cultural variables: Entrepreneurship as Desirable Career Choice, High-Status Successful Entrepreneurship and Media Attention for Entrepreneurship. The questions about cultural variables are optional, therefore the results are not available for all the countries participating in the project.

Table 2. Cultural determinants of entrepreneurship (%)

Country	Entrepreneurship as Desirable Career Choice	High-Status Successful Entrepreneurship	Media Attention for Entrepreneurship
Factor-driven economies			
Algeria	80.25	81.8	51.47
Bangladesh	73.02	100	49.33
Guatemala	85.5	67.79	62.05
Iran	61.13	72.69	58.37
Jamaica	81.04	82.48	76.18
Nigeria	87.81	73.37	77.46
Pakistan	73.74	72.71	47.73
Venezuela	83.06	77.26	63.25
Efficiency-driven economies			
Argentina	75.85	69.4	65.57
Barbados	59.86	64.05	50.37
Bosnia and Herzegovina	82.17	71.02	42.73
Brazil	86.33	86.33	81.98
Chile	72.88	69.08	64.67
China	73.12	73.41	75.89
Croatia	65.33	46.95	40.9
Columbia	89.41	78.68	67.41
Lithuania	n/a	n/a	n/a
Latvia	n/a	n/a	n/a
Malaysia	51.51	51.27	73.5
Mexico	56.62	57.92	47.62
Panama	n/a	n/a	n/a
Peru	84.77	81.7	78.13
Poland	72.87	64.44	57.97
Russia	64.54	65.25	55.32
Republic of South Africa	72.75	72.15	73.54
Romania	67.85	69.42	56.74
Slovakia	54.55	64.43	55.11

cont. table 2.

Thailand	77.01	79.11	83.99
Trinidad and Tobago	83.58	81.8	61.39
Turkey	n/a	n/a	n/a
Uruguay	58.01	58.69	32.51
Hungary	53.75	78.23	33.76
Innovation-driven economies			
Australia	53.96	67.73	69.51
Belgium	63.61	54.76	47.17
Czech Republic	n/a	48.66	n/a
Denmark	n/a	n/a	n/a
Finland	45.53	83	67.37
France	65.76	67.95	46.92
Greece	61	69.08	32.49
Spain	65.15	66.49	44.58
The Netherlands	83.37	67.19	62.16
Ireland	45.94	82.71	56.42
Japan	26.03	54.74	56.95
South Korea	61.06	67.2	62.25
Germany	55.02	78.35	49.74
Norway	52.89	80.42	60.24
Portugal	n/a	n/a	n/a
Singapore	53.64	62.93	76.51
Slovenia	53.71	69.73	45.1
Switzerland	n/a	n/a	n/a
Sweden	51.78	70.82	62.33
Taiwan	69.04	62.73	85.84
USA	n/a	n/a	n/a
United Kingdom	51.94	81	47.3
UAE	71.08	73.17	62.8

Source: own elaboration on the basis of GEM 2011 data.

Cultural variables have a major impact on business start-up since they generate a positive atmosphere for such undertakings. Business start-up is much easier in a country, in which entrepreneurship is considered a desirable career choice, where entrepreneurs are attributed with high social status and where media often broadcast programmes that create a positive image of entrepreneurship.

Poland is ranked around the average in terms of all three indicators for the countries from the efficiency-driven economies. In terms of perception of entrepreneurship as a desirable career choice, the result is slightly above the average (72.9%–70.1%), yet slightly lower than in the case of high-status successful entrepreneurship and media attention for entrepreneurship (64.4%–69.2% and 58%–60% respectively). Like in the case of other variables, the culture of entrepreneurship is stronger in less developed countries; as the economic growth increases, the interest in entrepreneurship as the chosen professional career declines and the status of entrepreneurship and media attention for entrepreneurship decrease (table 2).

What appears important for the analysis of entrepreneurial attitudes and perceptions, is the comparison of Poland with other countries from our region that have a similar history and are at a similar stage of economic transformations. The table 3 shows a comparison of cultural variables in the Visegrad Group member states: Poland, Czech Republic, Slovakia and Hungary.

The Entrepreneurial Attitudes and Perceptions in Poland in that comparison are quite positive. There are more people than in the compared countries who express entrepreneurial intentions; when compared with the Czechs, the result is almost twice as high. The Perceived Opportunities rate is much higher than in other countries. The Czech Republic and Slovakia demonstrate a similar level, lower by 9–10 percentage points than in Poland, whereas the situation in Hungary in this respect is exceptionally difficult, which is the consequence of the economic crisis, on the one hand, and the difficult reforms undertaken by the Hungarian government, on the other. The knowledge and capabilities self-evaluation indicator in terms of entrepreneurship in Poland is at a similar level as in Slovakia, yet it is much higher than in the Czech Republic and Hungary (table 3).

Table 3. Entrepreneurial Attitudes and Perceptions and cultural determinants of entrepreneurship in the states of the Visegrad Group (%)

	Poland	Czech Republic	Slovakia	Hungary
Entrepreneurial Intention	26.94	14.62	24.43	21.9
Perceived Opportunities	33.1	23.9	23.08	14.22
Perceived Capabilities	51.99	39.22	52.92	39.98
Fear of Failure	54.05	39.84	44.76	44.54
Entrepreneurship as Desirable Career Choice	72.87	n/a	54.55	53.75
High-Status Successful Entrepreneurship	64.44	48.66	64.43	78.23
Media Attention for Entrepreneurship	57.97	n/a	55.11	33.76

Source: own elaboration on the basis of GEM 2011 data.

As mentioned before, in Poland there is an immense fear of failure in business. Also when compared to the southern neighbours, the results are disturbing: the fear of failure is lower there by 9-15 percentage points. On the other hand, Poland greatly outdistances comparable countries in terms of attractiveness of entrepreneurship as career choice. The social status of entrepreneurs, when compared with the Visegrad Group member states, is at an average level, much higher than in the Czech Republic, at a similar level as in Slovakia, yet much lower than in Hungary. The presence of entrepreneurship in the media in Poland is at a similar level as in Slovakia, yet it is much higher than in Hungary.

To sum it up, the Visegrad Group countries, despite being similar, have different cultural profiles of entrepreneurship. Perceived Opportunities are a strong driver of entrepreneurship in Poland. With reference to stereotypes, it might be the outcome of the traditional Polish resourcefulness and the ability to improvise, which promotes creativeness.

The factor that strongly hinders entrepreneurship in Poland is the Fear of Failure, however, Poles perceive entrepreneurship as desirable career choice. Fear of Failure is the lowest in the Czech Republic, nonetheless the least people declare the intention to establish an enterprise there. The entrepreneur status is rather low, which might be the result of the configuration of economic and legal factors; it applies mainly to the labour law and relations between employment on the basis of employment contract and the work as an entrepreneur. Slovakia features high entrepreneurial knowledge and capabilities self-evaluation; the other indicators assume average values. The Perceived Opportunities rate in Hungary is very low, just like the rate of Media Attention for Entrepreneurship. On the other hand, High-Status Successful Entrepreneurship is very high.

In addition, the profiles of other countries as regards the Entrepreneurial Attitudes and Perceptions are interesting. The United States have a profile with an average rate of Perceived Opportunities, high Perceived Capabilities and a quite low Fear of Failure Rate.

On the other hand, the Scandinavian countries have a very high level of Perceived Opportunities, their Perceived Capabilities are below the average, the Fear of Failure is also low, but the High-Status Successful Entrepreneurship is very high. However, such a configuration translates only to an insignificant degree into entrepreneurial initiatives, probably because of the high level of protection of workers and social security, as indicated by the low level of the Entrepreneurship as Desirable Career Choice. High-Status Successful Entrepreneurship is an expression of admiration of the people who, despite opportunities for easy vocational career, decide to take the risk and start up a business.

Japan is an interesting example as well; Perceived Opportunities, Perceived Capabilities, Entrepreneurship as Desirable Career Choice and High-Status Successful Entrepreneurship are at a very low level there. As a result, this translates into a very low level of initiative and hence of entrepreneurship.

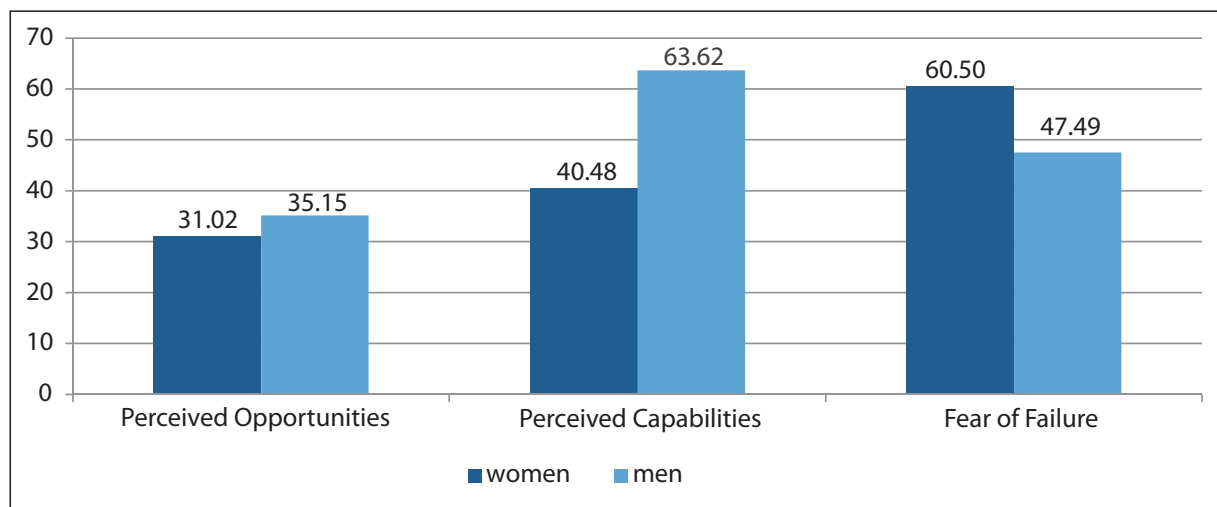
The impact of the economic situation can be clearly seen on the example of Greece, where Perceived Opportunities are very low, but the Fear of Failure is the highest there when compared to other countries.

3.2. Potential entrepreneurs among the women and men

The entrepreneurship of men and women differs to a great extent. The research conducted under GEM allows not only for the entrepreneurship of men and women to be quantified, but also for the disparities in the Entrepreneurial Attitudes and Perceptions to be captured. The diagram 2 presents the differences in Perceived Opportunities, Perceived Capabilities and Fear of Failure Rate between men and women in Poland.

Insofar as the difference in Perceived Opportunities is insignificant, the disparities in Perceived Capabilities and Fear for Failure Rate are considerable. Women evaluate their entrepreneurial knowledge and capabilities lower than men, they are much more afraid of failure in business. This translates into significant differences in the entrepreneurship of men and women in Poland (diagram 2).

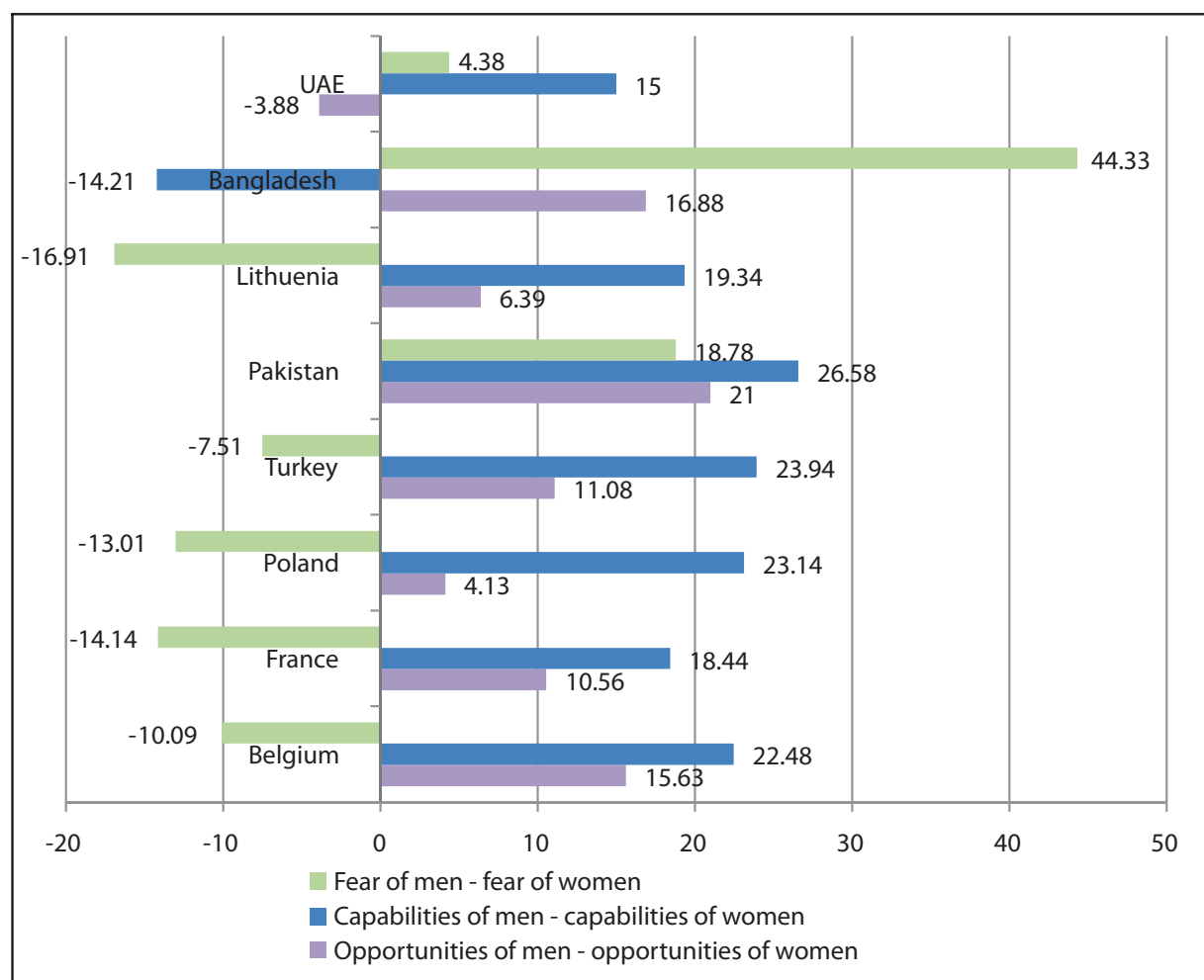
Diagram 2. Perceived Opportunities among men and women in Poland (%)



Source: own elaboration on the basis of GEM 2011 data.

The profiles of the Entrepreneurial Attitudes and Perceptions differ from country to country. The Diagram below presents the countries with the highest differences in one of the three factors of Entrepreneurial Attitudes and Perceptions. The results point to a difference between the indicator in a given country for men and the indicator for women. The positive values mean a higher rate for men whereas the negative values mean a higher rate for women.

Diagram 3. Perception of entrepreneurship among men and women in Poland in comparison with other countries (%)



Source: own elaboration on the basis of GEM 2011 data.

The slightest differences between men and women are noticed in the case of Fear of Failure Rate. Bangladesh is the exception in this case, where the difference between Perceived Opportunities of men and women amounts to 44.3 percentage points. It is doubly astonishing since, contrary to most countries, in Bangladesh it is men who are more often afraid of failure in business, which probably arises from national culture. A similar situation can be found in Pakistan and United Arab Emirates, although the differences in these cases are smaller. Nonetheless, Fear of Failure is much higher for women in most countries. The highest difference of that sort is noted in Lithuania – 16.9%. The difference between men and women as far as Fear of Failure is concerned is high for Poland when compared to other countries (diagram 3).

In most countries, men assess their knowledge and capabilities in the area of business higher than those of women. Bangladesh is the exception again since women there have higher self-evaluation than men by over fourteen percentage points. Pakistan is the country with the highest difference between the self-evaluation of men and the self-evaluation of women (26.6%); the results for Turkey, Poland and Belgium are also high (diagram 3).

Men typically identify more business opportunities than women. The largest difference can be found in Pakistan (21%); the results for Bangladesh and Belgium are also high. Just like previously, there are countries in which the relationship is reverse – women perceive more business opportunities than men. An extreme example of such a country is the United Arab Emirates, where the difference to the benefit of women amounts to nearly 4 percentage points (diagram 3).

3.3. Level of entrepreneurial activity

Chronologically, in the process of entrepreneurship, the stage following the identification of opportunities, the positive self-evaluation of knowledge and capabilities connected with establishment of business and after overcoming the fear of failure includes the measures aimed at business start-up. The entrepreneurs at that stage are literally referred to in GEM as nascent entrepreneurs. After three months of business operation, the entrepreneurs proceed to the next phase – new businesses or “baby businesses” – which is concluded when an enterprise reaches the age of 3.5 years. Both above-mentioned phases are included in the central GEM indicator – Total early-stage Entrepreneurial Activity (TEA).

3.3.1. Total early-stage Entrepreneurial Activity (TEA)

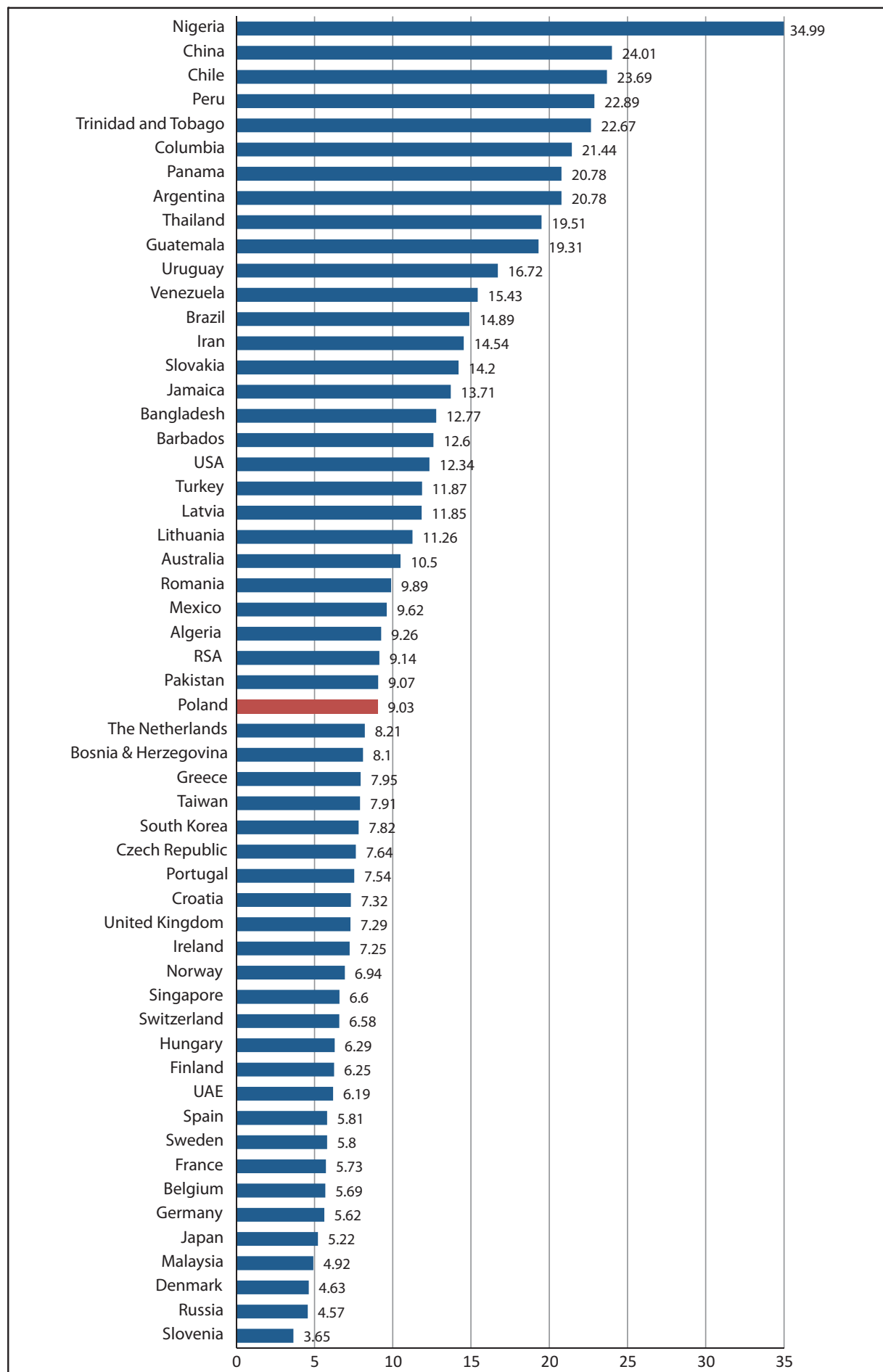
There are significant differences between countries worldwide in the level of early-stage entrepreneurship. The lowest level of early-stage entrepreneurship among all countries can be found in Slovenia. As few as 3.7% of persons aged 18–64 are involved in establishment of business activity or operation of young enterprises. The highest level of entrepreneurship was recorded in Nigeria, where more than one-third of the population establish or operate early-stage businesses (35%)³. Unweighted mean for all countries amounts to 11.39%. Poland with TEA rate at 9% is situated slightly below the average and closer to the median, which is defined by Pakistan at 9% (table 4, diagram 4).

It should be pointed out that at various stages of economic development, entrepreneurship might mean completely different activities for the people. In the economically underdeveloped countries, entrepreneurship might be considered handicraft or food production in a small agricultural holding whereas in the developed countries the term of entrepreneurship means other activities. Therefore, it is important to compare countries with a similar stage of economic development. The table below presents the TEA index broken down by factor-driven economies, efficiency-driven economies and innovation-driven economies.

The level of early-stage entrepreneurial activity declines as the economic development increases. Nonetheless, it should be pointed out that with Nigeria excluded, as its results can be questioned, the average for the factor-driven economies will amount to 13.4%, and hence the countries in the group of efficiency-driven economies are on average the most entrepreneurial ones. These results contradict the U-shaped pattern, which has been regarded so far as the explanation of the relationship of the level of early-stage entrepreneurial activity to the GDP per capita. The U-shaped pattern, which is a correlation between TEA and GDP per capita, demonstrated that the level of early-stage entrepreneurial activity is the highest in the countries with low level of economic development, subsequently it drops with increasing development to rise after exceeding a certain GDP level. Such a correlation was explained by market saturation with primary goods at a specific level of development and subsequently by delay in “switching to the second gear” in the form of innovativeness. The current results indicate a certain correlation: the level of early-stage entrepreneurship is most important in the efficiency-driven economies, although it should be taken into account in that case that classification of a country in one of the three groups does not result only from the level of GDP per capita.

³ It should be pointed out that the data from the study of adult population obtained in Nigeria did not meet all GEM requirements, therefore they should be analysed while keeping that reservation in mind.

Diagram 4. TEA index in all countries covered by the survey (%)



Source: own elaboration on the basis of GEM 2011 data.

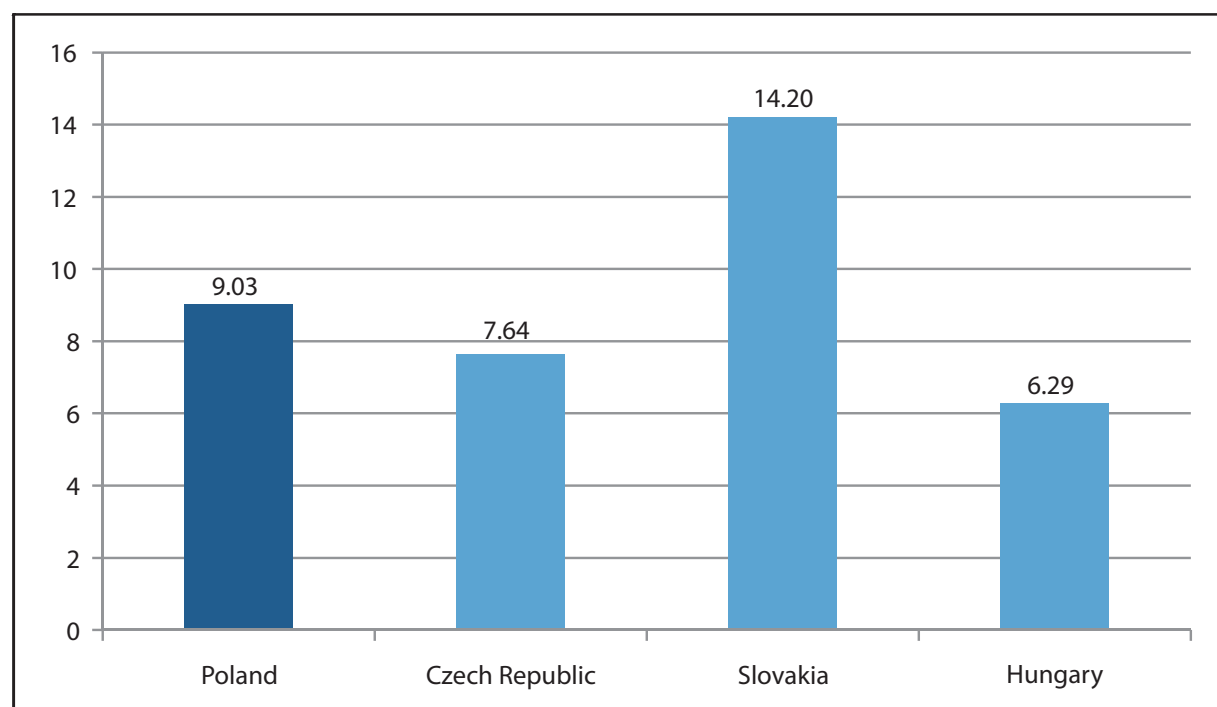
Table 4. TEA index in three groups of countries (own elaboration on the basis of GEM data quoted in %)

Country	TEA	Country	TEA	Country	TEA
Factor-driven economies		Efficiency-driven economies (cont.)		Innovation-driven economies (cont.)	
Pakistan	9.07	Latvia	11.85	Belgium	5.69
Algeria	9.26	Turkey	11.87	France	5.73
Bangladesh	12.77	Barbados	12.6	Sweden	5.8
Jamaica	13.71	Slovakia	14.2	Spain	5.81
Iran	14.54	Brazil	14.89	UAE	6.19
Venezuela	15.43	Uruguay	16.72	Finland	6.25
Guatemala	19.31	Thailand	19.51	Switzerland	6.58
Nigeria	34.99	Argentina	20.78	Singapore	6.6
Average	16.14	Panama	20.78	Norway	6.94
Efficiency-driven economies		Columbia	21.44	Ireland	7.25
Russia	4.57	Trinidad and Tobago	22.67	United Kingdom	7.29
Malaysia	4.92	Peru	22.89	Portugal	7.54
Hungary	6.29	Chile	23.69	Czech Republic	7.64
Croatia	7.32	China	24.01	South Korea	7.82
Bosnia and Herzegovina	8.1	Average	14.09	Taiwan	7.91
Poland	9.03	Innovation-driven economies		Greece	7.95
Republic of South Africa	9.14	Slovenia	3.65	The Netherlands	8.21
Mexico	9.62	Denmark	4.63	Australia	10.5
Romania	9.89	Japan	5.22	USA	12.34
Lithuania	11.26	Germany	5.62	Average	6.92

Source: own elaboration on the basis of GEM 2011 data.

Poland with the TEA rate at 9.03 is situated in the bottom part of its group of countries, however, it should be pointed out that most countries with a higher TEA rate include the countries that are less developed than Poland. When classified in the innovation-driven economies, the Poland's TEA index would be the third highest after the USA and Australia. Thus, again, Poland is worth comparing with the countries situated at a similar stage of development. A comparison of Poland with the Czech Republic, Slovakia and Hungary is presented below.

Diagram 5. TEA index in the countries of the Visegrad Group (%)



Source: own elaboration on the basis of GEM 2011 data.

In the group of Visegrad member states, Poland is left behind by Slovakia only, where the level of early-stage entrepreneurial activity amounts to 14.2%, but it outdistances the Czech Republic and Hungary, where the TEA index amounts to 7.6% and 6.3% respectively.

3.3.2. Entrepreneurship at various stages of development

Apart from the analysis of the TEA index, the GEM data make it also possible to disaggregate and analyse it separately for nascent entrepreneurs and new entrepreneurs, as well as to compare those two indicators with the percentage of established businesses and discontinuations of business. A comparison of nascent entrepreneurship rate, new business ownership rate, established business ownership rate and discontinuation of business in three groups of countries is presented below.

Table 5. Entrepreneurial activity rate broken down by the development stage (%)

Country	Nascent entrepreneurship rate	New business ownership rate	Established business ownership rate	Discontinuation of business
Factor-driven economies	11.15	5.47	6.10	5.23
Algeria	5.34	4.02	3.09	8.91
Bangladesh	7.08	7.07	11.6	2.5
Guatemala	11.76	9.13	2.54	3.76
Iran	10.81	3.94	11.21	6.23
Jamaica	8.97	5.04	5.14	12.7
Nigeria	24.69	10.3	9.59	3.02
Pakistan	7.47	1.7	4.08	1.51
Venezuela	13.05	2.57	1.57	3.21
Efficiency-driven economies	8.38	5.95	7.25	4.32
Argentina	11.79	9.23	11.82	4.32
Barbados	10.85	1.82	4.17	5.5
Bosnia and Herzegovina	5.43	2.8	4.99	6.69
Brazil	4.09	11.04	12.23	3.77
Chile	14.62	9.6	7	6.82
China	10.07	14.15	12.67	5.26
Croatia	5.27	2.12	4.2	3.61
Columbia	15.2	6.65	7.46	6.02
Lithuania	6.41	4.95	6.33	2.93
Latvia	6.84	5.3	5.67	3.01
Malaysia	2.45	2.47	5.23	2.6
Mexico	5.68	4.03	3.03	4.96
Panama	12	9.09	6.04	2.09
Peru	17.86	5.37	5.75	5
Poland	5.97	3.09	4.97	4.22
Russia	2.37	2.28	2.84	1.53
Republic of South Africa	5.22	4.02	2.35	5.59
Romania	5.56	4.51	4.57	3.91
Slovakia	9.24	5.34	9.64	7
Thailand	8.27	12.22	30.11	4.46
Trinidad and Tobago	13.91	9.25	6.91	3.93
Turkey	6.28	5.95	7.96	3.84
Uruguay	11	5.95	5.95	4.34
Hungary	4.83	1.55	2	2.29
Innovation-driven economies	3.97	3.05	7.22	2.70
Australia	6.03	4.69	9.06	4.34
Belgium	2.67	3.01	6.79	1.37
Czech Republic	5.14	2.71	5.2	2.69
Denmark	3.14	1.63	4.93	2.26
Finland	2.97	3.32	8.81	1.97
France	4.06	1.67	2.38	2.23

cont. table 5.

Country	Nascent entrepreneurship rate	New business ownership rate	Established business ownership rate	Discontinuation of business
Greece	4.41	3.67	15.79	2.95
Spain	3.32	2.53	8.85	2.2
The Netherlands	4.28	4.07	8.65	1.98
Ireland	4.28	3.14	7.98	3.43
Japan	3.25	2.04	8.31	0.71
South Korea	2.88	5.08	10.89	3.18
Germany	3.36	2.37	5.64	1.84
Norway	3.75	3.35	6.65	2.5
Portugal	4.57	3.03	5.71	2.86
Singapore	3.84	2.8	3.34	2.13
Slovenia	1.91	1.75	4.78	1.47
Switzerland	3.66	2.92	10.15	2.88
Sweden	3.47	2.33	7	3.15
Taiwan	3.61	4.44	6.34	4.87
USA	8.29	4.34	9.05	4.41
United Kingdom	4.72	2.57	7.16	2.02
UAE	3.66	2.62	2.7	4.75

Source: own elaboration on the basis of GEM 2011 data.

There is a considerable change of proportions between nascent entrepreneurs, new entrepreneurs and established businesses in the three groups of countries. In the factor-driven countries there are over twice as many people starting up a business than the new entrepreneurs. There are only slightly more established enterprises than new entrepreneurs, and there are more discontinuations of business than in other groups. When proceeding to efficiency-driven countries, the number of nascent entrepreneurs declines while the number of new entrepreneurs increases. In the innovation-driven countries, those indicators further get closer to each other up to the distance of one percentage point.

On the basis of the analysis of nascent entrepreneurs and new entrepreneurs, it is possible to identify the countries that are at the stage of acceleration or slowing down their entrepreneurial activity. The period of acceleration covers the countries where there are clearly more nascent entrepreneurs than new entrepreneurs and established businesses. Such countries include: Iran, Pakistan, Venezuela, Barbados, Croatia, Columbia, Peru, Hungary, Czech Republic, France and the United States.

On the other hand, there are countries in which the process of entrepreneurship slows down, there are more established businesses and new entrepreneurs than nascent entrepreneurs. Such countries include: Taiwan, South Korea, Belgium and Brazil. An interesting example involves Thailand, where there is a slowdown that might be caused by high entrepreneur saturation of the population – 30.1% of adults are entrepreneurs; with the nascent entrepreneurs and young entrepreneurs added, it turns out that every second adult in Thailand is an entrepreneur.

A comparison of Poland, Czech Republic, Slovakia and Hungary in the area of nascent entrepreneurs, new entrepreneurs, established businesses and discontinuations of business is presented below.

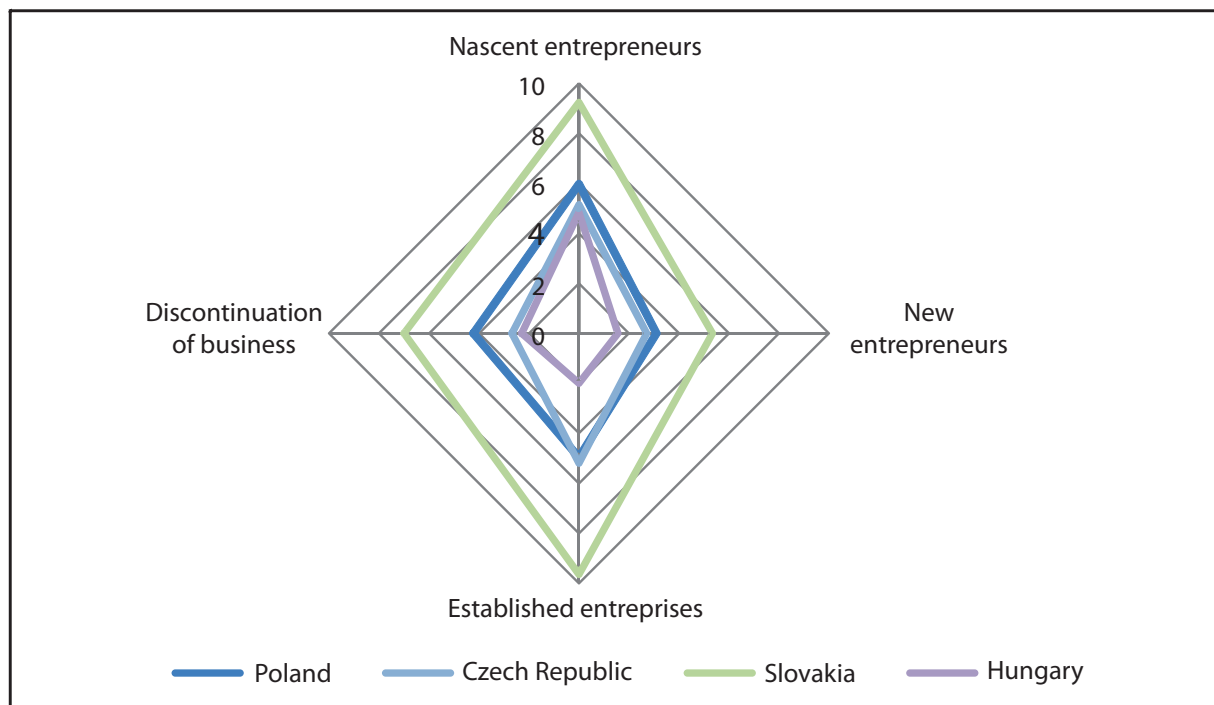
Table 6. Entrepreneurial activity rate broken down by the development stage in the countries of the Visegrad Group (%)

Country	Nascent entrepreneurship rate	New business ownership rate	Established business ownership rate	Discontinuation of business
Poland	5.97	3.09	4.97	4.22
Czech Republic	5.14	2.71	5.2	2.69
Slovakia	9.24	5.34	9.64	7
Hungary	4.83	1.55	2	2.29

Source: own elaboration on the basis of GEM 2011 data.

The profiles of entrepreneurship phases of the four countries differ slightly from each other. There is a slightly increased number of discontinuations of business in Slovakia and Poland when compared with the individuals that start up a business. There are considerably more nascent entrepreneurs in Hungary than new entrepreneurs and established businesses (table 6 and diagram 6).

Diagram 6. Entrepreneurial activity rate broken down by the development stage in the countries of the Visegrad Group (%)



Source: own elaboration on the basis of GEM 2011 data.

3.4. Various motivations to start up an entrepreneurial activity

When starting up their entrepreneurial activity, people are guided by various motivations. In most cases, the leading motivation is represented by an identified business opportunity and an intention to seize it, yet the motivations might be different as well. Many people establish a business activity to a certain degree due to necessity, or due to lack of better occupational alternatives. For others, the main motivation to start a business includes maintenance or increase in their personal income. A specific motivation to start up a business entails satisfaction of the need for independence; it frequently applies to people who, despite having a good job, decide to establish a company in order to be their own bosses.

The motivation to start up a business is a very important factor that determines its future. The results of numerous studies (e.g. Venkataraman, 1997; Sarasvathy, Dew, Velamuri and Venkataraman, 2003) show that the enterprises that were established because of the willingness to seize an identified opportunity have a higher survival rate and are more successful. GEM traditionally distinguishes two types of motivations: opportunity-driven and necessity-driven entrepreneurship. Table 7 presents a list of all countries within GEM broken down by two primary drivers of entrepreneurship.

As can be seen in the table, Poland belongs to the countries with the most disadvantageous structure of entrepreneurial motivation. The number of businesses established due to will to seize an opportunity is only slightly higher than the number of enterprises started up out of necessity. It might be evidence of a low development potential of Polish enterprises. A more disadvantageous ratio of the opportunity-driven entrepreneurship to the necessity-driven entrepreneurship can be found only in Bosnia and Herzegovina, Iran and Pakistan.

The second end of the scale is occupied by the countries where necessity-driven entrepreneurship represents an insignificant proportion of the total entrepreneurship. They include, first of all, the Scandinavian countries: Norway, Sweden, Denmark and Barbados. The country that has the worst structure of entrepreneurship among the innovation-driven economies is Ireland; low results are achieved by Greece and Spain as well. This is a sign of economic problems that are experienced by those countries and are related to the economic slowdown, the debt crisis and collapse of the labour market. Many people who lose a job probably search for new opportunities in entrepreneurship.

Again, the results pertaining to the motivation of entrepreneurship for the countries similar to Poland should be analysed. The percentages of individual components of motivation in Poland, Czech Republic, Slovakia and Hungary are presented below.

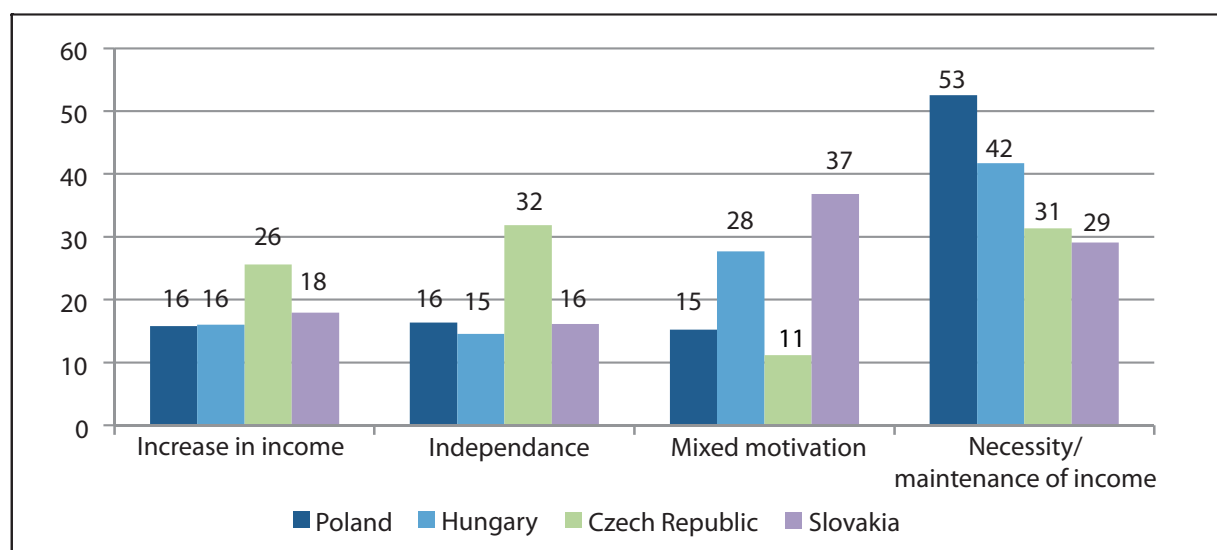
Table 7. Motivations to start a business activity (%)

Country	Opportunity	Necessity	Country	Opportunity	Necessity
Bosnia and Herzegovina	3.05	4.97	Greece	5.87	2.02
Iran	5.67	7.7	Japan	3.85	1.3
Pakistan	4.06	4.26	Columbia	15.99	5.38
Poland	4.55	4.3	Uruguay	5.57	1.85
South Korea	4.44	3.24	Peru	16.54	5.12
Romania	5.68	4.09	USA	9.07	2.62
China	13.64	9.74	Finland	4.31	1.14
Algeria	4.92	3.38	Germany	4.15	1.04
Croatia	4.61	2.59	Mexico	7.5	1.87
Republic of South Africa	5.79	3.18	Thailand	14.85	3.69
Jamaica	8.46	4.53	Portugal	5.97	1.34
Guatemala	12.76	6.47	United Kingdom	5.8	1.25
Argentina	13.79	6.88	Taiwan	6.48	1.38
Turkey	7.57	3.75	Singapore	5.39	1.07
Hungary	4.05	1.95	Australia	8.78	1.58
Nigeria	23.57	11.08	Trinidad and Tobago	19.01	3.37
Brazil	10.23	4.56	France	4.83	0.85
Ireland	4.86	2.14	UAE	5.14	0.89
Venezuela	10.78	4.4	Slovenia	2.96	0.44
Lithuania	7.97	3.2	Switzerland	5.52	0.75
Panama	14.1	5.59	Belgium	4.76	0.59
Chile	16.64	6.49	Malaysia	4.24	0.5
Russia	3.17	1.23	The Netherlands	6.98	0.75
Czech Republic	5.42	2.09	Denmark	4.25	0.33
Slovakia	10.18	3.91	Sweden	5.13	0.35
Bangladesh	9.28	3.49	Barbados	11.69	0.63
Latvia	8.43	3.07	Norway	5.99	0.3
Spain	4.16	1.5			

Source: own elaboration on the basis of GEM 2011 data.

Just like in the previous analyses, the profiles of the four countries differ from each other. The first two motivations (increase in income, independence) are opportunity-driven motives. The combined motive assumes a mix of the will to seize an opportunity and the necessity to establish a business; the necessity/maintenance of income is a necessity-driven motivation with no opportunity-driven component.

Diagram 7. Motivations to start a business activity in the countries of the Visegrad Group (%)



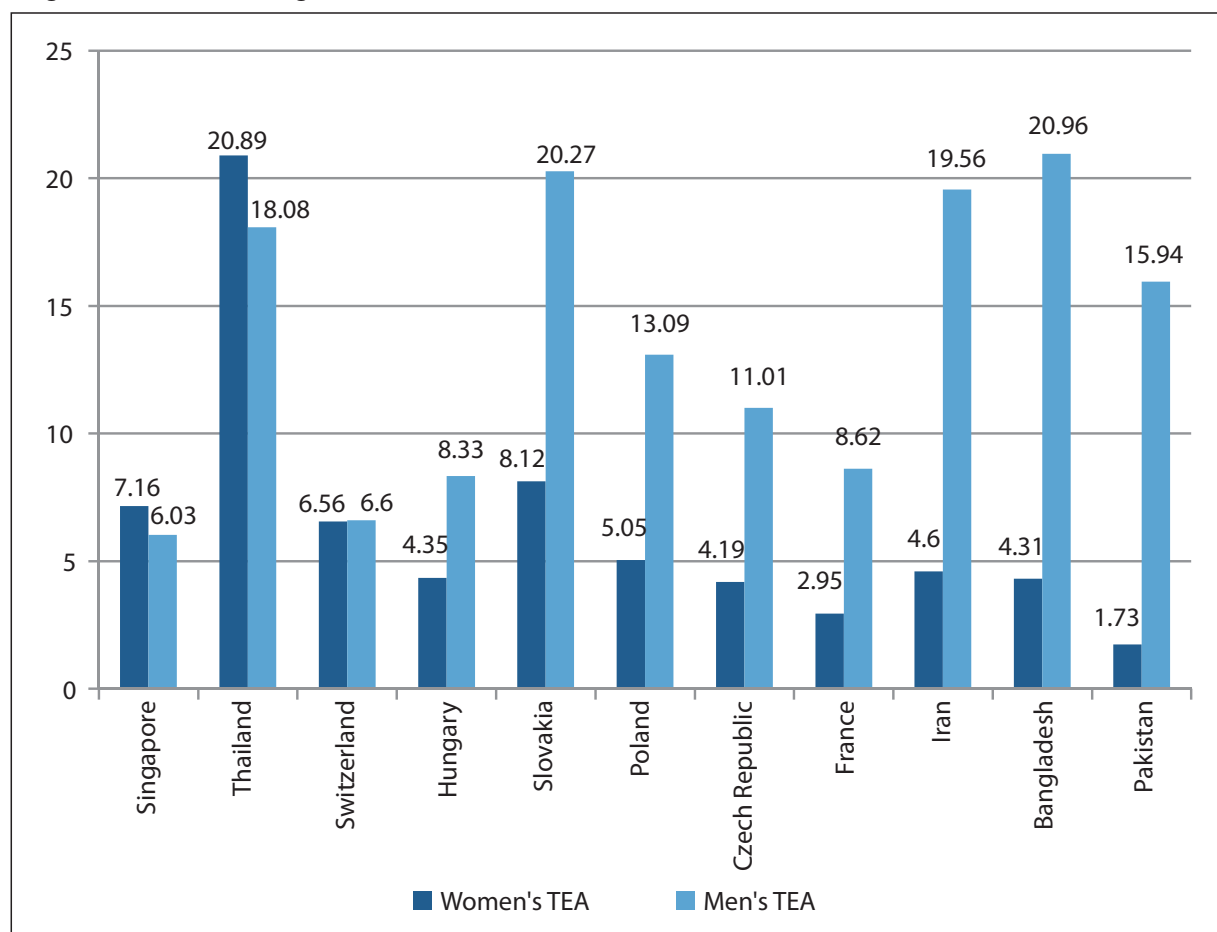
Source: own elaboration on the basis of GEM 2011 data.

It can be clearly seen that most entrepreneurs in the Czech Republic start up their business on the basis of willingness to use a business opportunity (diagram 7). The two first motivations represent over 57% of the total motivation, and pure necessity represents less than 1/3 of the motivations. As far as positive motives are concerned, the profiles of Poland, Hungary and Slovakia differ from each other only to a small degree, however, there are considerable disparities in the combined motivations and in the necessity/maintenance of income. The percentage of entrepreneurship without the component of opportunity-driven motivation is the highest in Poland and it amounts to 52.6%. On the other hand, the percentage of mixed motivation is much higher in Slovakia and Hungary than in Poland.

3.5. Entrepreneurship among women and men

The differences in Entrepreneurial Attitudes and Perceptions among men and women translate into the actual level of early-stage entrepreneurship in those two groups. Diagram 8 presents a comparison of men's and women's entrepreneurship in selected countries worldwide with the highest disproportions and in the countries of the Visegrad Group.

Diagram 8. TEA index among men and women in selected countries (%)



Source: own elaboration on the basis of GEM 2011 data.

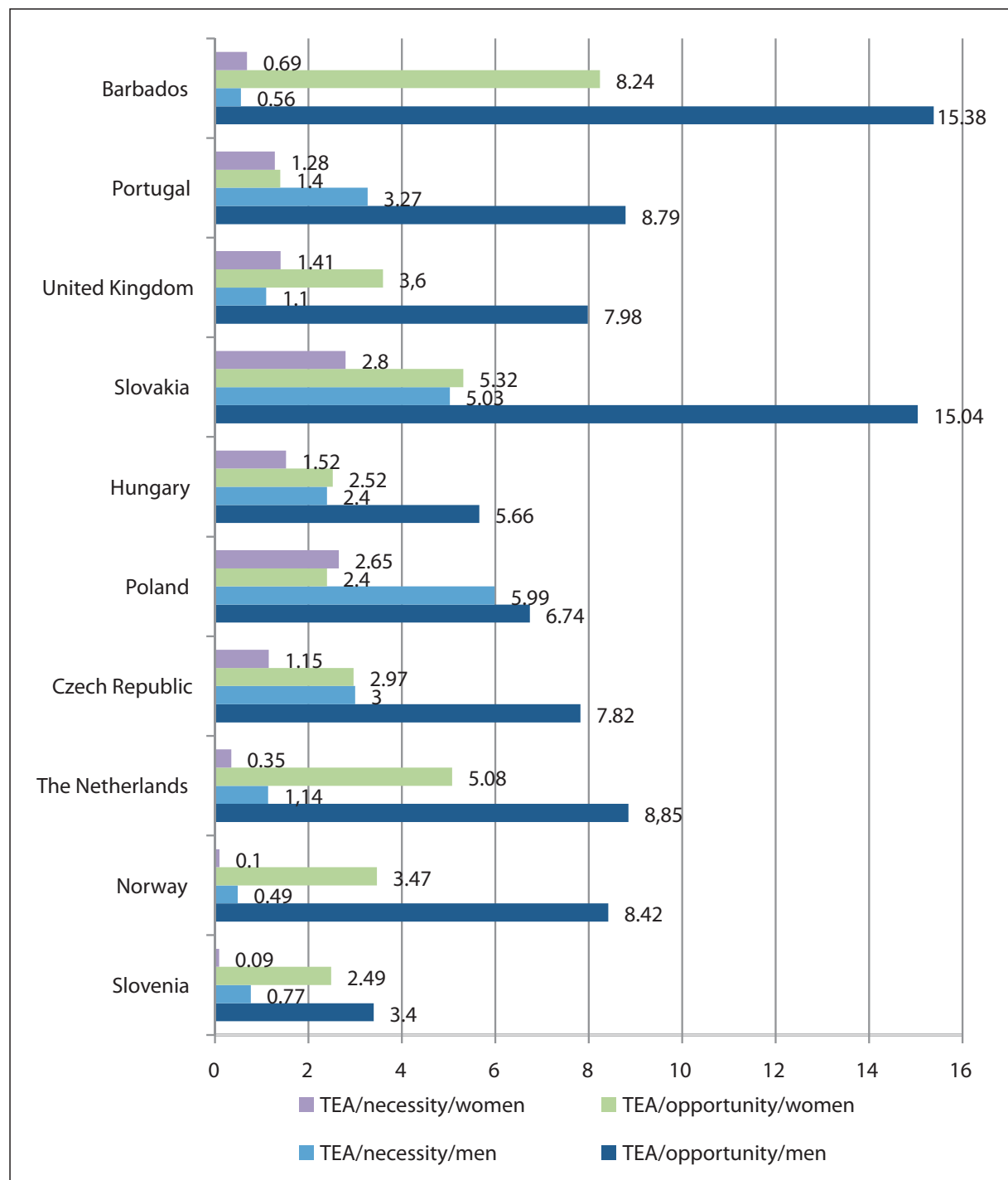
Poland is one of the countries with the highest disparity in the early-stage entrepreneurship level of men and women. Only in the case of six other countries participating in the study, the ratio of women's entrepreneurship to men's entrepreneurship is lower, and in the case of the European countries, they are the Czech Republic and France only. In Poland, thirteen per one hundred men and only five per one hundred women are involved in the creation or operation of young businesses. This is a serious barrier in the development of entrepreneurship, and it is caused by the entrepreneurial environment factors (diagram 8).

Extreme cases can be found in the Asian countries with prevailing Islam. Low entrepreneurship of women in those countries is, first of all, a consequence of cultural and religious factors. However, it is surprising to a certain degree that there is a disproportion in the women's and men's entrepreneurship in France, where State's assistance in the upbringing of children is highly developed. It should generate good conditions for women's entrepreneurship, yet the survey results indicate something different.

The situation in Hungary, Slovakia and Czech Republic is similar to that in Poland. There are much more enterprises operated by men than the ones operated by women. It is not much better in this respect in Hungary, where the entrepreneurship of men is more or less twice as high as the entrepreneurship of women; this quotient in other countries amounts approximately to 2.5.

There are countries where entrepreneurship among women is higher than among men. The highest entrepreneurship of women in relation to men can be found in the Far East countries – Singapore and Thailand. On the other hand, the entrepreneurship of men and women in Switzerland is almost at the same level.

Diagram 9. Motivation of men and women to start up a business in selected countries (%)



Source: own elaboration on the basis of GEM 2011 data.

There are also significant differences between men and women in the motivation to start up a business. In countries such as Slovenia, Norway or the Netherlands, the entrepreneurship of women is based on opportunity to a greater extent than in the case of man. Two matters should be pointed out here. Firstly, the necessity-driven entrepreneurship of women in those countries is very low, at the verge of statistical error, which reduces the reliability of results. Secondly, the total entrepreneurship

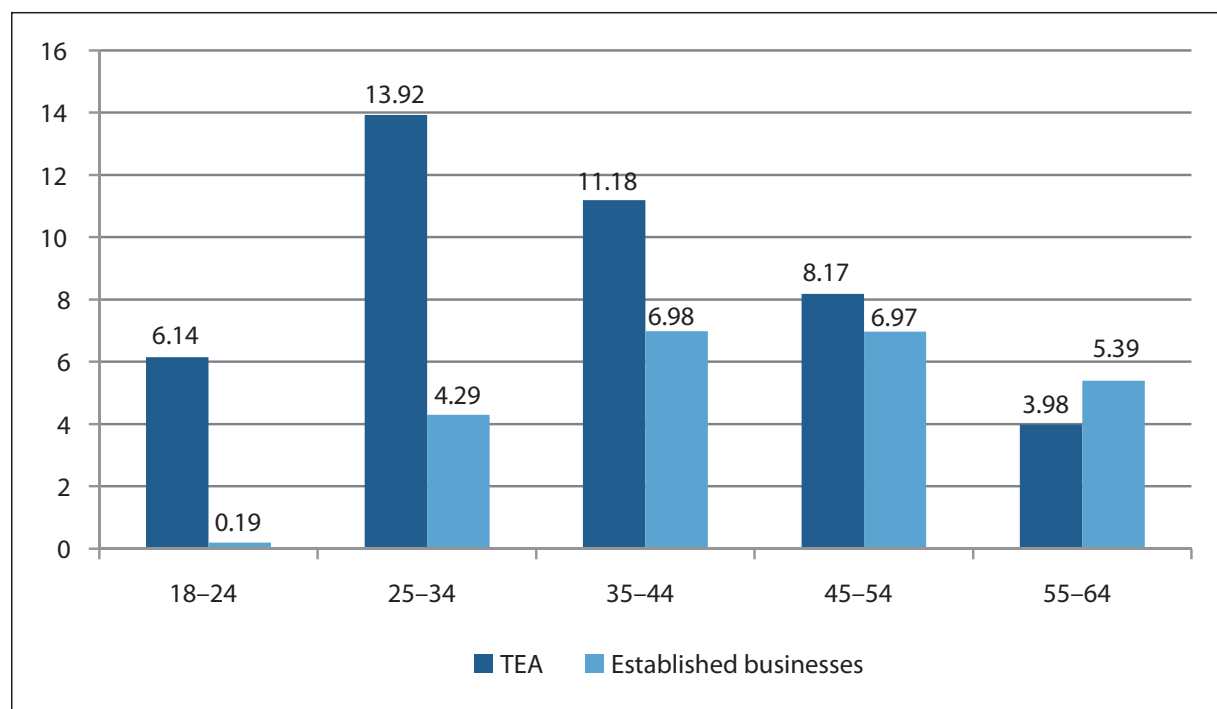
in those countries is based to the greatest degree on the will to seize an opportunity, both in the population of men and women. In the countries such as Portugal, Barbados and United Kingdom, there is an opposite relation, the entrepreneurship of women is based on the necessity and absence of better alternatives to a much greater degree than in the case of men. Again, it should be kept in mind that the disparities are insignificant and entrepreneurship in those countries (apart from Portugal) is to a greater extent an opportunity-driven entrepreneurship anyway.

In the Czech Republic, the entrepreneurial motivation of men and women has almost the same structure, 2.6 times more women and men start up a business due to will to seize an opportunity rather than due to absence of better alternatives. There are countries where entrepreneurship among women is higher than among men. The quotient of opportunity-driven entrepreneurship to necessity-driven entrepreneurship in Poland amounts to 1.1 for men and 0.9 for women, which means that more Polish women start up a business because they have no other way to act, rather than because they want to seize the perceived opportunities. In Hungary, this quotient amounts to 2.4 for men and 1.7 for women; the largest disproportion takes place in Slovakia, where men start up a business due to opportunity-driven motives three times more often than due to necessity-driven motives, whereas in the case of women that relation is reversed and they take up a business twice as often due to necessity-driven motives as in the case of opportunity-driven motives.

3.6. Entrepreneurship in age groups

People of different ages become entrepreneurs; according to the European Union guidelines, nowadays the focus is put on the support for entrepreneurship of disadvantaged people on the labour market, i.e. below the age of 25 and above the age of 45. The participation rate in individual age groups with reference to establishment and operation of business in Poland is presented below.

Diagram 10. TEA index in Poland by age groups (%)

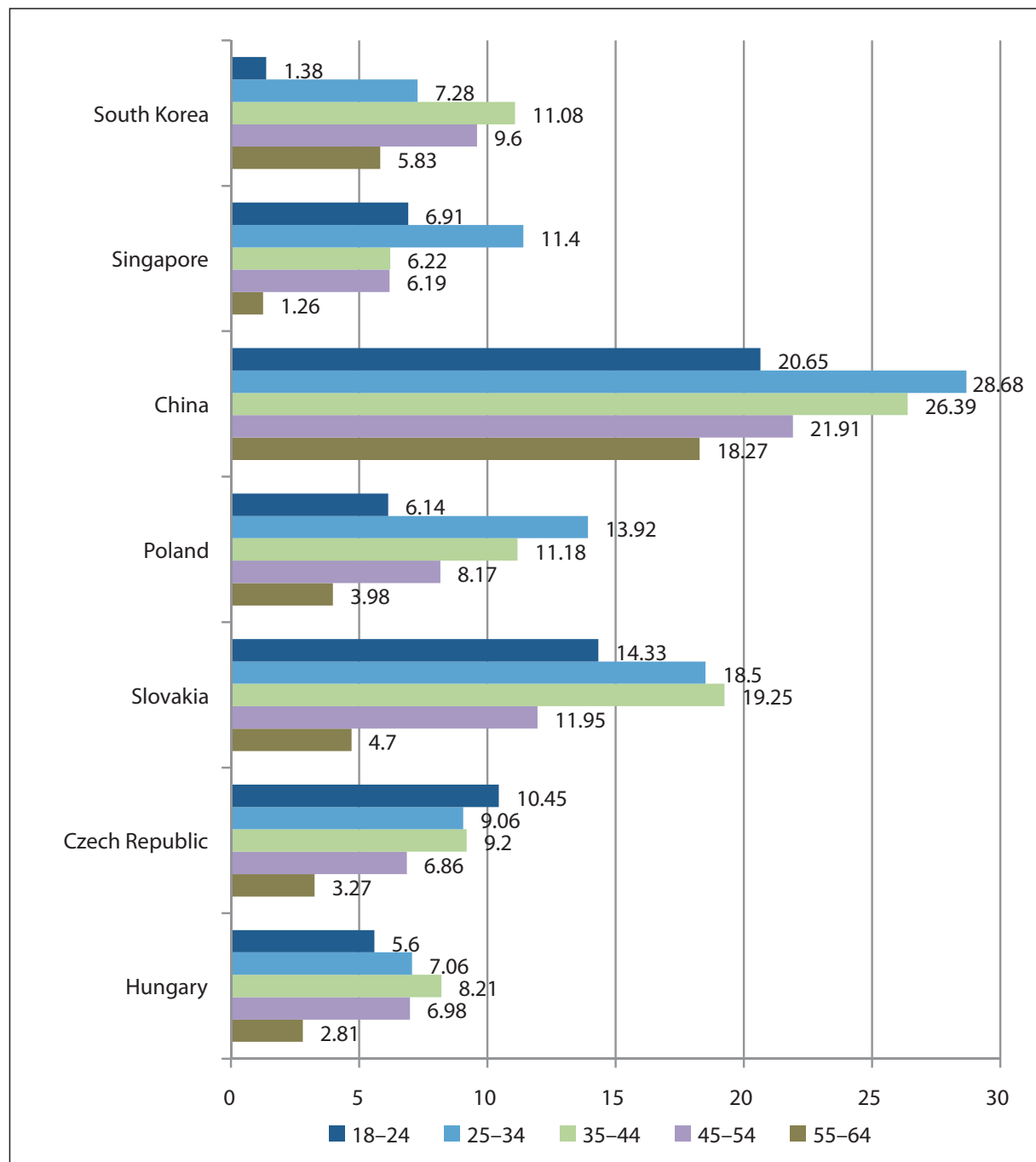


Source: own elaboration on the basis of GEM 2011 data.

Individuals aged 25-34 constitute an age group that is most active in the establishment of businesses. Nearly fourteen per hundred such people are involved in the establishment of business or management of a young enterprise (diagram 10). The entrepreneurship in the youngest age group is at a quite low level; it also declines after the age of 35 until it reaches 4 percent in the 55-64 age group. There are almost no owners of established enterprises in the youngest group, which is understandable in so far as the persons who have operated a company for 3.5 years in order to be classified in that group would have to start up their business at the age of 20, which is quite rare. Most owners of established businesses can be found in the 35-44 and 45-54 age groups – 7 percent each.

The age structure of entrepreneurship in other countries covered by the GEM survey might differ to a certain extent. Countries comparable to Poland and countries with a specific age structure of entrepreneurship are presented below.

Diagram 11. Percentage of individuals involved in TEA in age groups in selected countries (%)



Source: own elaboration on the basis of GEM 2011 data.

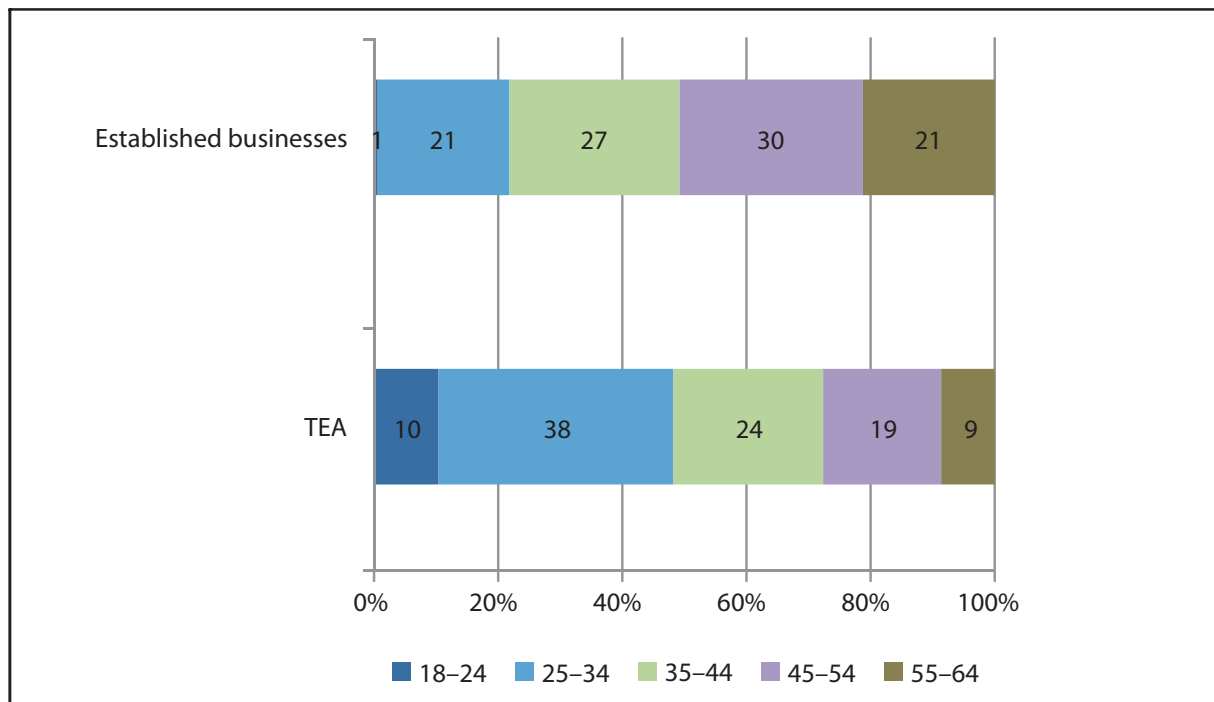
The countries of the Visegrad Group have a similar age structure as Poland, but there are many more young entrepreneurs in those countries. In the Czech Republic more than every tenth person aged below 24 is involved in the establishment of business; there are fewer entrepreneurs in the other groups. In the three other countries, unlike in Poland, there are more entrepreneurs in the 35–44 age group than in the 25–34 age group (diagram 11).

The age structure of early-stage entrepreneurship looks interesting in three Asian countries – South Korea, Singapore and China. Entrepreneurial activity in China is high in all age groups. Every fifth person aged below 24 and nearly every third person aged 25–34 is involved in the establishment or operation of a young enterprise. Subsequently, this rate drops, but among the persons aged 55–64 the early-stage entrepreneurial activity rate is still high and amounts to 18.3% (diagram 11). That phenomenon can be potentially explained by the overall stimulation of the economy in China, as well as the absence of a developed pension system that encourages people to be entrepreneurs even in the oldest age groups. The Chinese culture is also of major importance as it dictates respect for the elderly, which might facilitate the establishment and operation of their business.

Interesting results are derived from the comparison of two other Asian countries – South Korea and Singapore. The early-stage entrepreneurship in the latter country is the domain first of all of young people; after the age of 55 entrepreneurial activity takes place only occasionally. There is a completely different situation in Korea, where not many people below 24 years old are involved in the establishment of business, whereas among the elderly that index is quite high as compared to other age groups and amounts to 5.9%.

Age groups vary in the population size, therefore, apart from participation of entrepreneurs in individual age groups, one can study the age structure of the TEA index and established business ownership rate.

Diagram 12. The age structure of established business ownership rate and TEA index in Poland (%)



Source: own elaboration on the basis of GEM 2011 data.

Among the Poles classified in the TEA index, there are mostly people from the 25–34 age group (37.8%) and 35–44 age group (24.1%) (diagram 12). The percentage of young people is quite low and amounts to 10.4%, it is also low when compared with other countries taking part in the study, for which the average equals 14.62%. In certain cases, the percentage of individuals under the age of 24 in TEA reaches 30% (Lithuania – 27.6%, Iran – 30.5%). The percentage of persons aged 25–34 is at a higher level than the average (30.6%), which indicates that business start-up in Poland takes place later.

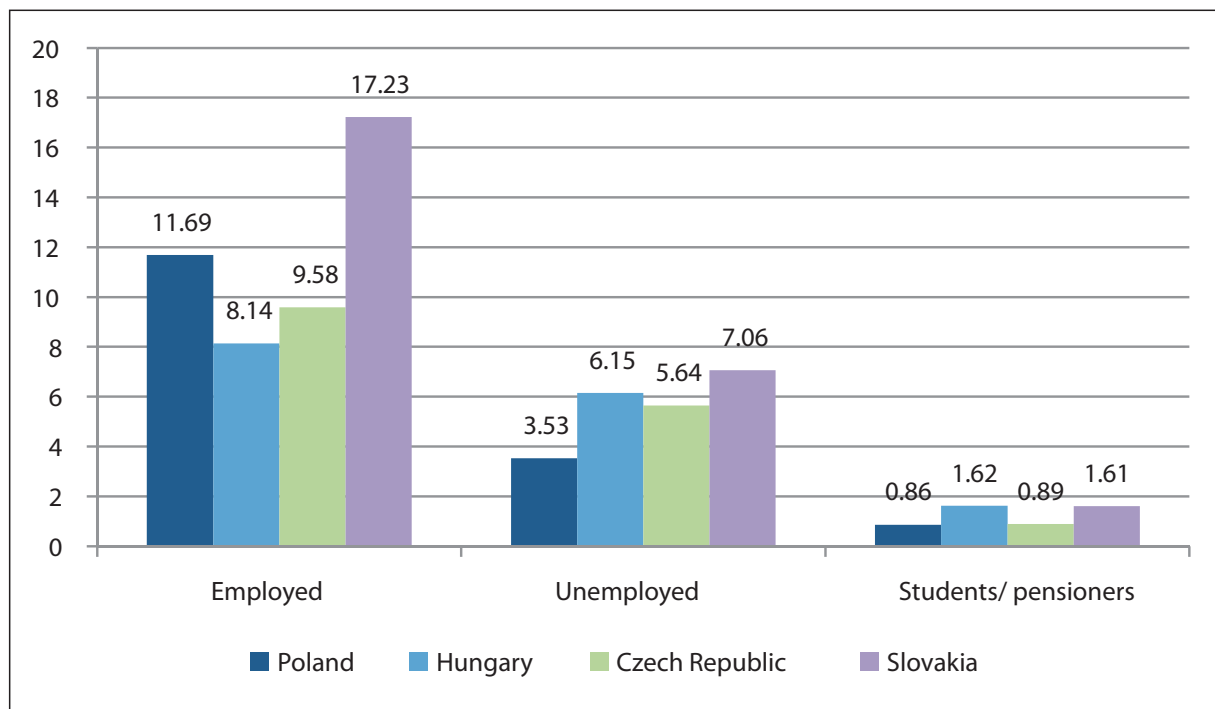
Similar results can be observed in the case of the age structure of owners of established enterprises. Only 0.6% of them are aged 18–24 (diagram 12). The percentage of young people among the owners of enterprises is lower only in Sweden (0.46%). It is probably connected with the Gross Enrolment Index at a higher level – it currently amounts to ca. 40 for Poland. In the countries where the percentage of young persons in entrepreneurship is higher, there are usually fewer people who decide to study and more choose entrepreneurship at an early stage of life. Just like in the case of the TEA index, there are more enterprise owners aged 25–34 in Poland (21.2%) than the average for GEM countries (17.5%).

3.7. Entrepreneurship by employment status, education and income

Establishing entrepreneurial activity depends on many social conditions, apart from entrepreneurship attitudes and perception, gender and age. GEM also conducts research on the dependence of intensity of entrepreneurial activity on employment status, education and income. The diagram 13 shows a comparison between Poland, Hungary, the Czech Republic and Slovakia in terms of entrepreneurial activity in groups of various employment statuses.

The term “unemployed” refers to people who are not employed at the moment of starting or running activity. In almost all countries participating in the research entrepreneurs are mostly employed by other organisation. The only exception is Croatia, where TEA index for employees amounts to 8.6%, and for the unemployed – 9.5%. In Poland, however, the disproportion

Diagram 13. TEA by employment status in the countries of the Visegrad Group (%)

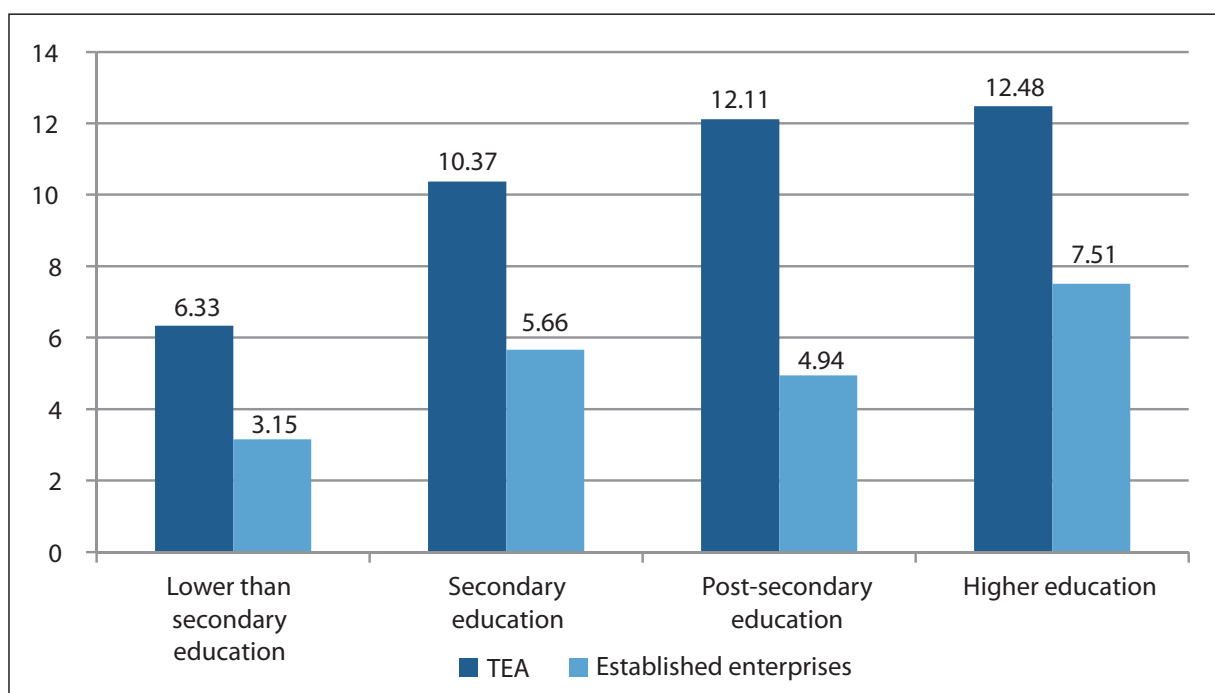


Source: own elaboration on the basis of GEM 2011 data.

is much more evident than in comparable countries. As few as 3.5% of the unemployed are involved in establishment of business activity or running a young firm. It must be related to the general low level of economic activity in Poland. Inactive persons do not attempt to enter the labour market as entrepreneurs. In Poland, entrepreneurial activity rate for students and retired persons is lower than in other countries. It amounts to 0.9% and is nearly two times lower than in Hungary and Slovakia (diagram 13). In comparison, in South American countries participation of students and retired persons is high, amounting to 7–9%.

Entrepreneurship researchers (e.g. Douglass, 1976; Isenberg, 2008; Peters and Brijal, 2011) believe that education has a positive impact on entrepreneurial activity. More information about this subject is to be found in a chapter presenting NES findings.

Diagram 14. TEA and established enterprises by education in Poland (%)

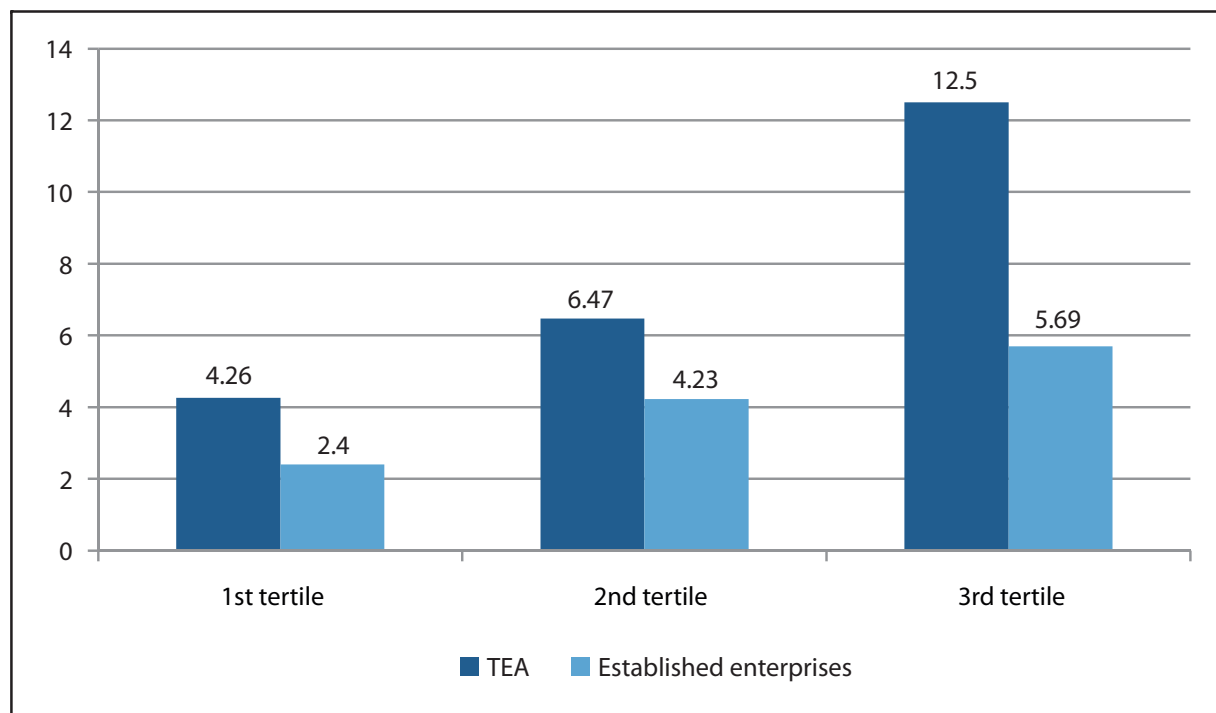


Source: own elaboration on the basis of GEM 2011 data.

As a rule, entrepreneurial activity increases with education. In the case of people with higher education it is almost two times higher than in the case of people with lower than secondary education (diagram 14). Similar dependencies are observed in most of the economically developed countries, although in some cases the most active group consists of people with post-secondary education (e.g. in Switzerland – 11.4%). It has to be stated, however, that it is difficult to compare these data due to significant differences between education systems.

On the basis of GEM data, it is possible to analyse entrepreneurship in households with various income. In the diagram below population was divided into three tertiles (with the limits of PLN 24 and 42 thousand) according to income. The diagram also presents the level of TEA and established enterprises in those groups in Poland.

Diagram 15. TEA and established enterprises by wealth of households in Poland (%)



Source: own elaboration on the basis of GEM 2011 data.

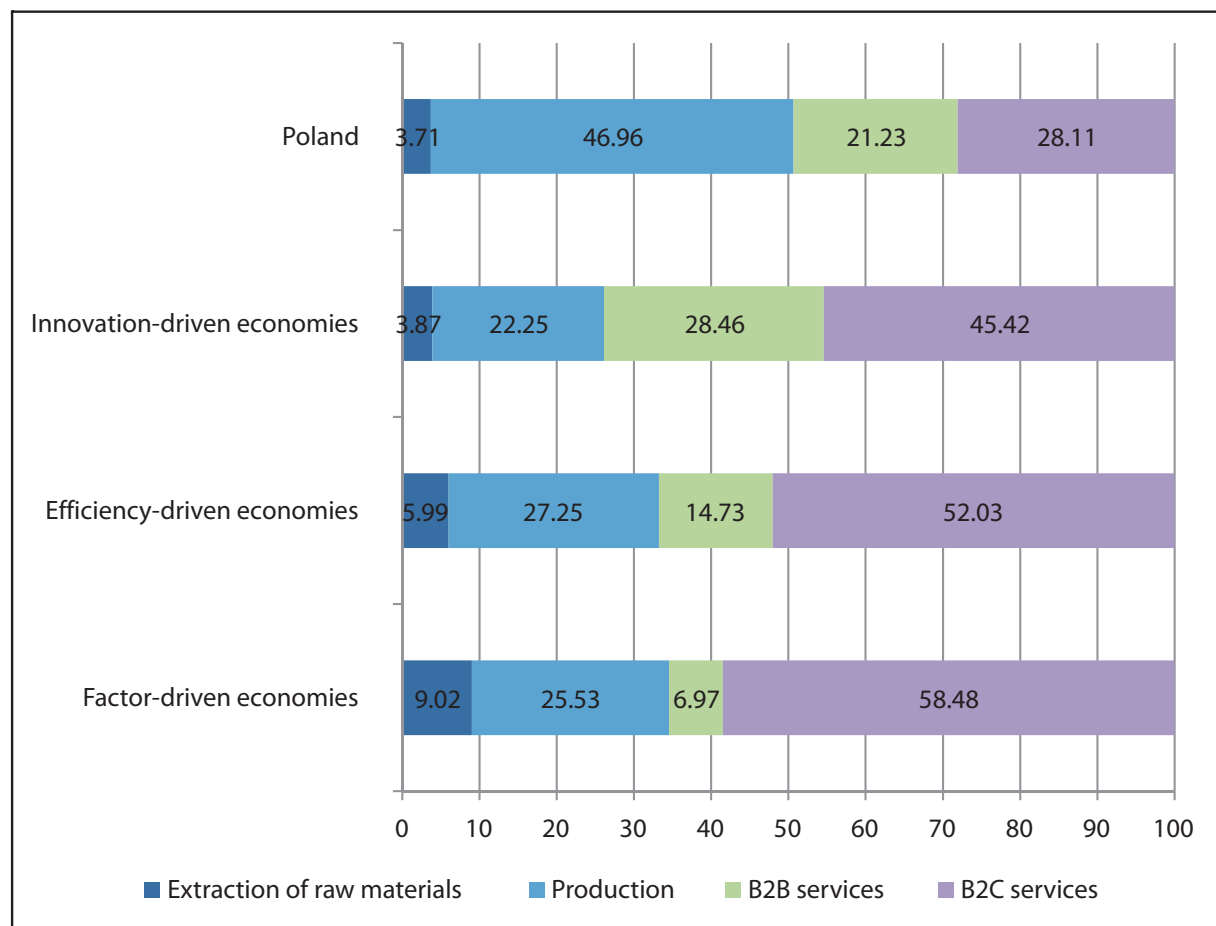
In Poland, just like in most of the countries subject to the research, the wealthiest people in the upper income tertile are the most entrepreneurially active. They are nearly two times more active than people in the second tertile and almost three times more active than those in the first tertile.

The relationship between entrepreneurial activity and income is characteristic to certain groups of countries. The first group includes Croatia, Lithuania and Russia. In those countries, in the first two tertiles the level of entrepreneurship is almost at the same relatively low level. In Russia, people in the first two tertiles hardly show entrepreneurial activity in the early-stage (0.41% and 0.55%). Level of entrepreneurship rapidly increases in the third tertile. The second group of countries are medium and highly developed countries: Malaysia, Denmark, France, Japan, South Korea and United Kingdom. In these countries the level of early-stage entrepreneurship is the lowest in the second tertile, while in the first and in the third tertile it is similar. The Republic of South Africa is a separate case since in this country the level of entrepreneurship decreases with income (13.8% – 11.5% – 7%). It is probably connected to the ethnic structure of the South African society.

3.8. Entrepreneurship in the economy sectors

There are significant differences between the countries classified to various economic development stages in sectoral structure of new economic undertakings. Diagram 16 compares Poland with average rates from three groups of countries in terms of share in the total amount of undertakings included in TEA of enterprises operating in: the extraction of raw materials, production, consumer services and business services.

Diagram 16. TEA rate by sectors of activity (%)



Source: own elaboration on the basis of GEM 2011 data.

As a result of economic development, share of enterprises in the sectors of extraction of raw materials and consumer services decreases and share of enterprises established in the business services sector increases. Poland presents itself in a specific way. Share of enterprises in mining sector is similar to this in innovation-driven economies, share of enterprises established in the B2B services sector is placed between efficiency-driven economies and innovation-driven economies. There is considerably lower share (than the average) of enterprises established in the sector of consumer services, and much higher in production.

While comparing Poland with other countries, one may find that Poland is a strongly production-oriented economy. Share of enterprises established in this sector is the highest in the analysed countries, it amounts to 47%. The following countries with the highest orientation to production are: Algeria (37.8%), Hungary (36.1%), Slovakia (36.1%) and the Czech Republic (34.5%). The impact of foreign investments is obvious. All the above-mentioned countries are very attractive for foreign investors due to low labour costs and qualified human resources. Algeria's asset is its attractiveness for French investors, and the asset of the countries of the Visegrad Group is their location in Central Europe and political stability. Of course, foreign investments may not be identified as entrepreneurship. However, they generate large numbers of suppliers and manufacturers of semi-finished products.

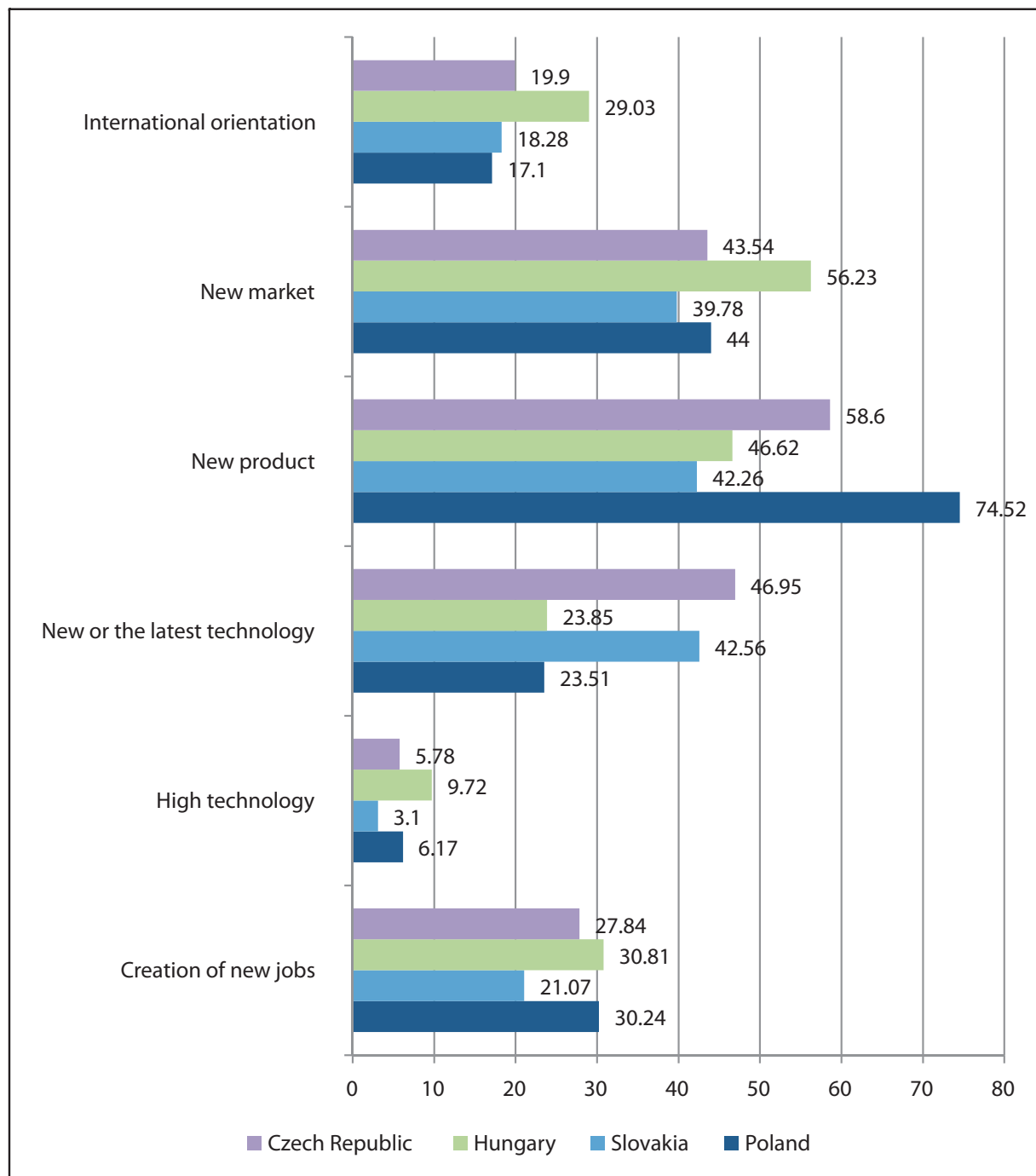
Moreover, in Poland there is very low (28.1%) share of enterprises established in the sector of consumer services, being the lowest in the countries subject to the research. The next country is Croatia, where the share of consumer services amounts to 29.4% which is surprising considering touristic orientation of this country. This may be explained, however, by the fact that the considerable part of tourist services is provided at B2B market where in Croatia 30% of enterprises are established – which is the greatest figure among the efficiency-driven economies.

3.9. Entrepreneurial aspirations

The third block of GEM interests, apart from entrepreneurial attitudes and perception, as well as entrepreneurial activity, are entrepreneurial aspirations. While the first block was aimed at answering the question of the genesis of enterprises, and the second block considered the number of enterprises established in various configurations, in the case of the third block it is

the most important to answer the question of the quality of enterprises understood as their development potential. This is divided into several categories of development of economic project, such as market expansion, new technologies, innovativeness, creation of new jobs and internationalisation. Diagram 17 compares the above-mentioned categories in Poland, the Czech Republic, Slovakia and Hungary. The data represent the share of TEA undertakings belonging to certain categories.

Diagram 17. Aspirations of entrepreneurs in the countries of the Visegrad Group (%)



Source: own elaboration on the basis of GEM 2011 data.

Strong international orientation is considered in GEM to be a declaration that at least 25% of clients are foreign clients. The highest percentage of enterprises with international orientation are established in Hungary, nearly three for ten entrepreneurs declare that more than one fourth of their clients are foreign clients. In this category, Poland has the worst results. It has to be stated, however, that other three countries have small population and, thereby, small domestic market. Poland, as a relatively large country, may develop part of businesses on its internal market. It has no positive impact on the total national export, but it is safer at the time of crisis, which is presented by the comparison between Poland and Slovakia (diagram 17).

Entering the market or creating the new market means that few or no other enterprises offer the same product or service. Again, the highest share of the new market in TEA may be observed in Hungary. In this category Poland slightly outruns the Czech Republic and Slovakia and is ranked at the average level for all countries. The situation is much more optimistic in the case of new products, i.e. those that are new for some or for all clients. Nearly three per four new entrepreneurs in Poland declare that their products are new (diagram 17). It is not only a higher result than in the case of three other countries, but also the third highest among all countries participating in the project (after Chile – 90.2% and Peru – 78.5%).

In terms of using new (available from 1 to 5 years) or the latest (available for less than one year) technologies, four comparable countries are divided into two subgroups. In the Czech Republic and Slovakia such technologies are applied in 47% and 42.6% of new enterprises respectively, in Poland and Hungary in 23.9% and 23.5% of new enterprises respectively. Surprisingly, the situation is opposite in terms of a new enterprise in the sector of new technologies. Most of these enterprises are established in Hungary – nearly every tenth, in the Czech Republic and Poland this rate amounts to ca. 6%, and in Slovakia it is the lowest – 3% (diagram 17).

Similar percentages of enterprises in four comparable countries declare creation of considerable number of new jobs (at least 10 new jobs in the next 5 years of business activity). In Hungary and Poland, it is declared by three out of ten new entrepreneurs, slightly fewer in the Czech Republic, and in Slovakia – slightly more than every second entrepreneur. The above results indicate that the situation in Poland does not differ much from other three countries in terms of growth orientation of new enterprises. It is, however, slightly different in profile of planned development (diagram 17).

3.10. Job expectation

As it was mentioned above, one of the key divisions in GEM is the division for solo/low job expectation early-stage entrepreneurial activity (SLEA) and medium/high job expectation early-stage entrepreneurial activity (MHEA). Low job expectation means creation of less than five new jobs within five years of activity, while high job expectation means the objective of creating five or more new jobs. Table 8 presents findings on low and high job expectation entrepreneurship.

Table 8. Low and high job expectation entrepreneurship (%)⁴

Country	SLEA	MHEA
Factor-driven economies	3.1	10.8
Algeria	4.2	7.8
Bangladesh	2.6	10.2
Guatemala	2.7	15.6
Iran	3.8	9.2
Jamaica	2.5	12.7
Pakistan	1.4	7.7
Venezuela	4.6	12.3
Efficiency-driven economies	4.7	8.0
Argentina	5.5	11.0
Barbados	2.8	9.8
Bosnia and Herzegovina	2.3	4.5
Brazil	3.3	12.6
Chile	9.6	9.3
China	7.9	11.2
Croatia	2.7	3.5
Columbia	10.8	10.3
Lithuania	5.6	5.6
Latvia	5.4	5.3
Malaysia	1.1	3.5
Mexico	2.3	7.8
Panama	2.1	13.1
Peru	7.6	16.1

⁴ Percentage values of SLEA and MHEA rates aggregate to the value of TEA rate for a country. For example: TEA rate for Poland amounts to 9%. 4.3% of these 9% respondents qualify for SLEA rate, and 4.7% for MHEA rate.

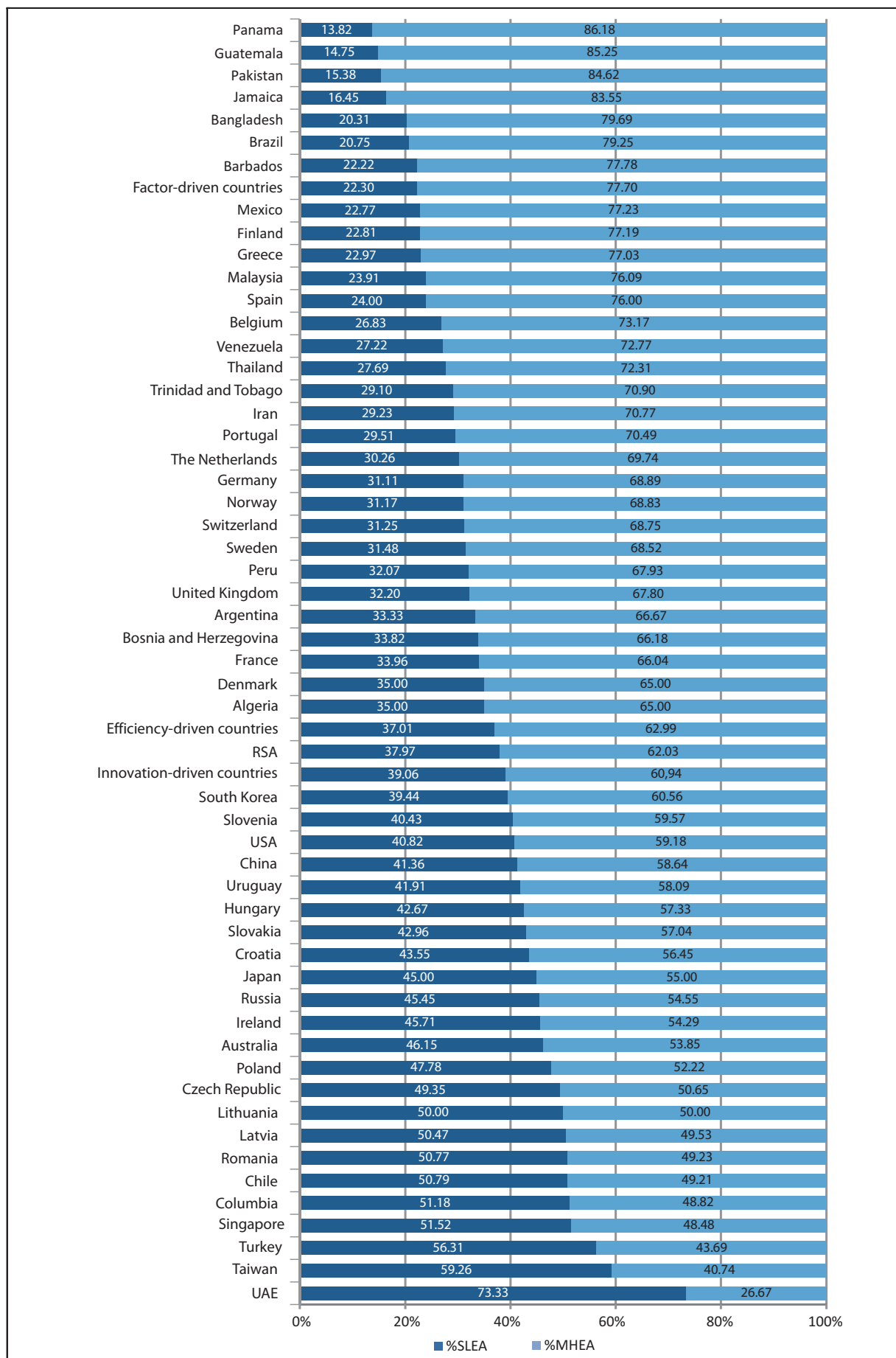
cont. table 8.

Country	SLEA	MHEA
Poland	4.3	4.7
Russia	2.0	2.4
Republic of South Africa	3.0	4.9
Romania	3.3	3.2
Slovakia	6.1	8.1
Thailand	5.4	14.1
Trinidad and Tobago	5.5	13.4
Turkey	5.8	4.5
Uruguay	5.7	7.9
Hungary	3.2	4.3
Innovation-driven economies	2.5	3.9
Australia	4.2	4.9
Belgium	1.1	3
Czech Republic	3.8	3.9
Denmark	1.4	2.6
Finland	1.3	4.4
France	1.8	3.5
Greece	1.7	5.7
Spain	1.2	3.8
The Netherlands	2.3	5.3
Ireland	3.2	3.8
Japan	1.8	2.2
South Korea	2.8	4.3
Germany	1.4	3.1
Norway	2.4	5.3
Portugal	1.8	4.3
Singapore	3.4	3.2
Slovenia	1.9	2.8
Switzerland	2	4.4
Sweden	1.7	3.7
Taiwan	4.8	3.3
USA	4	5.8
United Kingdom	1.9	4
UAE	6.6	2.4

Source: own elaboration on the basis of GEM 2011 data.

Poland has an unfavourable structure of early-stage entrepreneurship in terms of job expectation in comparison with other countries. Nearly 50% of people involved in early-stage entrepreneurship (48% of companies in TEA – diagram 19) declare to create four jobs at most within the next five years. There are not much more people declaring creation of more jobs (52%). However, comparison of MHEA shares in total population subject to the research (table 2) shows that there is relatively small number of such enterprises (4.8% in Poland, in comparison with the average of 8% in efficiency-driven economies). This means that developing enterprises will have smaller impact on labour market stabilisation than in other countries. It has to be indicated that all factor-driven economies have high entrepreneurial potential in terms of job expectation. Countries with low job expectation, where SLEA exceeds MHEA (Taiwan and United Arab Emirates), form a separate group.

Diagram 18. Share of persons establishing high and low job expectation enterprises in the number of people involved in establishing business activity or running a new enterprise (TEA) (%)



Source: own elaboration on the basis of GEM 2011 data.

3.11. Intrapreneurship

Establishing an enterprise is not the only form of entrepreneurship within the meaning of GEM. In the existing enterprise one may also become an organisational entrepreneur – an intrapreneur. In its research, GEM aims at encouraging this form of entrepreneurship and it gives equal status to starting individual activity with the assumption that in some countries this form is more efficient and it makes a greater contribution to the socio-economic development. Since research in this area is optional in GEM, findings are not available for all countries participating in the project. Two teams (Norway and Guatemala) did not conduct such research, and several other teams have no access to complete findings concerning employers' support for organisational entrepreneurship. The table below presents the share of people having a leading role in intrapreneurship in adult population and among employees within the last three years and at present.

Table 9. Intrapreneurship in countries subject to the research (%)

Country	Leading role in organisational entrepreneurship (activity within the last 3 years) in population	Leading role in organisational entrepreneurship (activity within the last 3 years) among employees	Leading role in organisational entrepreneurship (activity at present) in population	Leading role in organisational entrepreneurship (activity at present) among employees
Factor-driven economies	0.36	1.73	0.32	1.48
Algeria	0.82	3.88	0.7	3.27
Bangladesh	0	0	0	0
Iran	0.36	2.43	0.36	2.43
Jamaica	0.19	0.71	0.13	0.49
Pakistan	0.19	1.1	0.08	0.44
Venezuela	0.63	2.28	0.63	2.25
Efficiency-driven economies	2.25	5.31	1.78	4.23
Argentina	3.21	7.32	2.53	5.79
Barbados	0.74	1.54	0.67	1.37
Bosnia and Herzegovina	3.12	9.78	2.3	7.21
Brazil	1.02	3.11	0.84	2.58
Chile	3.46	12.93	2.63	9.85
China	2.09	4.83	1.73	3.98
Croatia	4.44	9.02	3.71	7.51
Columbia	1.67	4.92	1.45	4.28
Lithuania	4.87	8.14	3.37	5.64
Latvia	3.02	4.96	2.22	3.63
Malaysia	0.41	0.92	0.41	0.92
Mexico	0.94	2.26	0.82	1.97
Panama	0.15	0.32	0.09	0.18
Peru	1.36	7.3	1.16	6.11
Poland	2.83	5.74	2.31	4.69
Russia	0.6	1.02	0.44	0.74
Republic of South Africa	0.41	2.03	0.32	1.58
Romania	3.89	7.64	2.98	5.84
Slovakia	3.43	6.49	2.73	5.15
Thailand	1.38	4.86	1.38	4.86
Trinidad and Tobago	1.15	2.59	1.01	2.28
Turkey	0.7	2.12	0.61	1.82
Uruguay	5.2	9.83	4.39	8.28
Hungary	3.91	7.75	2.63	5.2
Innovation-driven economies	5.82	9.13	4.59	7.23
Australia	6.16	8.99	4.98	7.28
Belgium	9.37	13.49	8.55	12.28
Czech Republic	3.81	6.31	3.16	5.22
Denmark	15.09	20.74	9.18	12.61

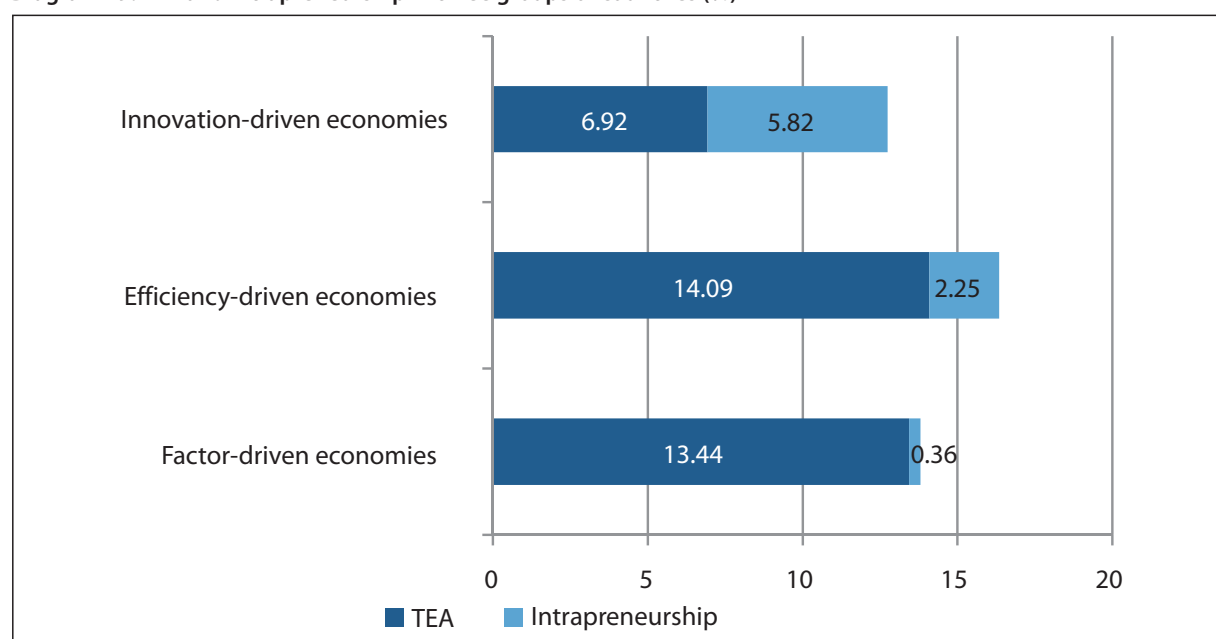
cont. table 9.

Country	Leading role in organisational entrepreneurship (activity within the last 3 years) in population	Leading role in organisational entrepreneurship (activity within the last 3 years) among employees	Leading role in organisational entrepreneurship (activity at present) in population	Leading role in organisational entrepreneurship (activity at present) among employees
Finland	9.42	13.37	8	11.35
France	4.74	7.46	3.89	6.13
Greece	1.61	4.86	1.27	3.82
Spain	2.72	6.05	2.46	5.48
The Netherlands	7.84	11.05	5.6	7.91
Ireland	5.91	10.41	4.59	8.06
Japan	3.35	5.65	3.09	5.21
South Korea	2.63	6.72	2.38	6.08
Germany	4.79	7.56	3.52	5.54
Portugal	4.03	6	2.6	3.88
Singapore	3.31	6.19	2.55	4.77
Slovenia	5.11	9.31	4.07	7.42
Switzerland	4.61	7.18	3.3	5.13
Sweden	16.18	22.16	13.5	18.39
Taiwan	2.02	3.91	2.02	3.91
USA	6.56	10.51	5.25	8.39
United Kingdom	5.25	8.12	4.27	6.61
UAE	3.59	4.85	2.74	3.69

Source: own elaboration on the basis of GEM 2011 data.

Intensity of organisational entrepreneurship increases with economic development. This confirms the assumptions resulting from previous research. As the economy develops, there are more and more medium-sized and large enterprises that in the process of increased competitiveness search for new competitive weapons and incline to intrapreneurship, enabling employees to use business opportunities in the existing structures. In the factor-driven economies only 1.7% of employees were involved in employee entrepreneurship within the last three years. This rate increases to 5.3% for efficiency-driven economies and to 9.1% in innovation-driven economies. Therefore, intrapreneurship completes start-ups to some extent if considering the related TEA and organisational entrepreneurship rates, the aggregated entrepreneurship in factor-driven economies will amount to 13.8%, in efficiency-driven economies – 16.3%, and in innovation-driven economies – 12.7%, as presented at diagram 19.

Diagram 19. TEA and intrapreneurship in three groups of countries (%)



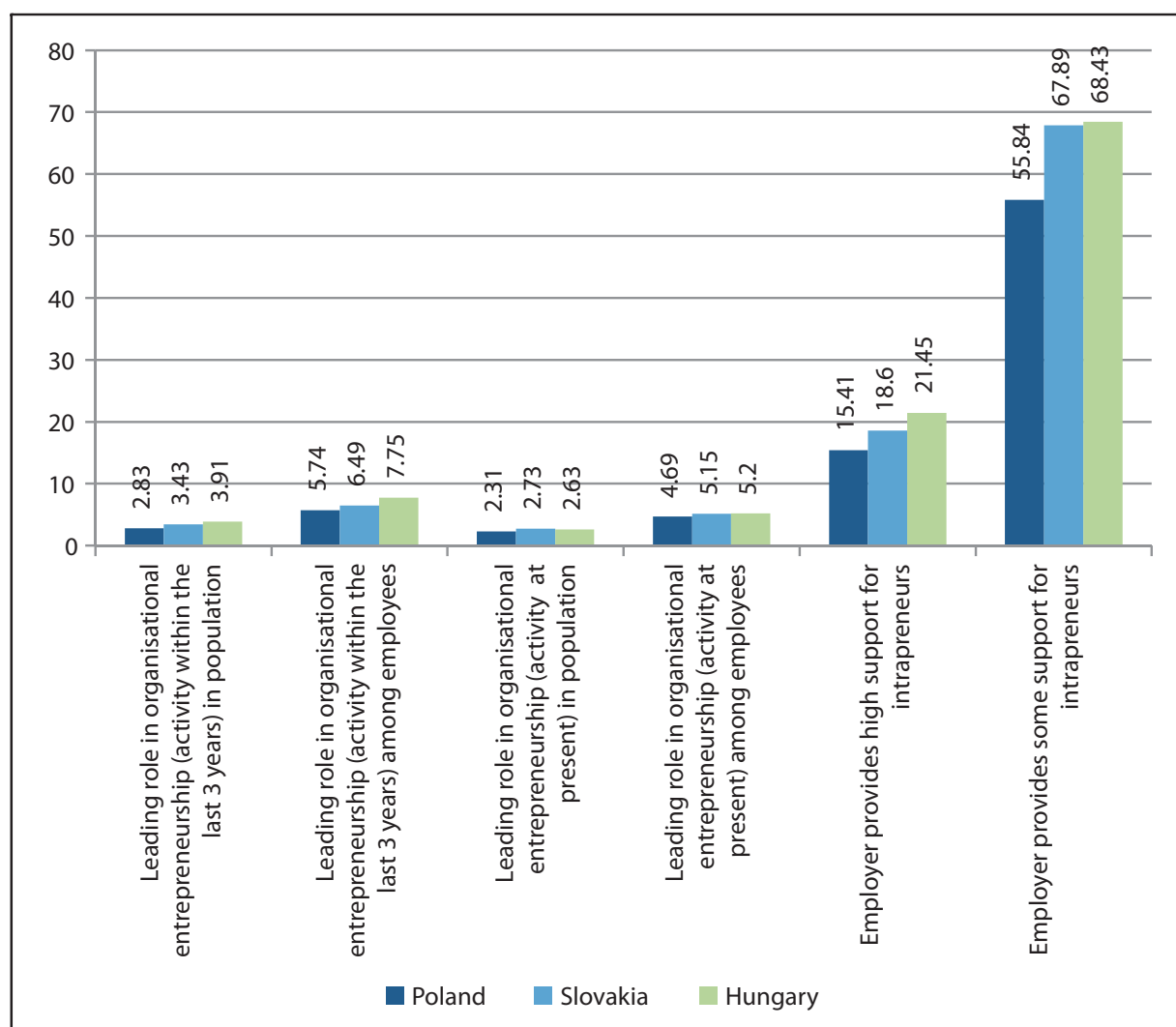
Source: own elaboration on the basis of GEM 2011 data.

These findings should be taken into account subject to the fact that not all countries participating in the research were included in the organisational entrepreneurship part of it. Also for the purpose of calculations organisational entrepreneurship was taken as activity in this scope among the population within the last three years, which means that employees who are active (from time to time) intrapreneurs are included in this rate.

In Poland, employee entrepreneurship is on the average level. For the last three years 2.8% of population and 5.7% of employees have been involved in it, and 2.3% of population and 4.7% of employees – at the moment of conducting the research. These findings are slightly higher than the average for efficiency-driven economies, but far lower than the results in the group of the most developed countries. Scandinavian countries and the Benelux countries are leaders in the organisational entrepreneurship. In Sweden and Denmark every fifth employee had a leading role in entrepreneurial activity in the workplace within the last three years. There are countries, however, where there is no organisational entrepreneurship at all. None of 1,932 respondents surveyed in Bangladesh was involved in intrapreneurship.

Another question asked in the research concerns creating atmosphere for development of organisational entrepreneurship by employers. Diagram 20 presents comparison of results and the intrapreneurship atmosphere in Poland, Slovakia and Hungary (the data for the Czech Republic are incomplete).

Diagram 20. Intrapreneurship in Poland, Slovakia and Hungary (%)



Source: own elaboration on the basis of GEM 2011 data.

Compared countries present similar organisational entrepreneurship profiles. In all categories Hungary comes off slightly better, while Poland comes off slightly worse. It also applies to the intrapreneurship atmosphere created by employers. 15.4% of employees in Poland state that their employers provide high support when employees create new ideas, and 55.8% state that their employers provide any support.

4. Determinants of entrepreneurship – results of national experts survey (NES)

4.1. Introduction – about the study and technical remarks

The level of entrepreneurship in a given country is determined by various factors. Per capita income and rate of unemployment in a given country, which can be regarded rather as macroeconomic categories, are highly important. Institutional factors resulting from the functioning of governmental and non-governmental institutions, form the other type of a determinant. Institutional determinants include government policy in the scope of supporting entrepreneurship, tax system, administrative procedures, financial system (determining the access to financing) and the educational system. Cultural and social determinants are a separate category and define the society's attitude to entrepreneurship, image of the entrepreneur in the society and attitude to women-entrepreneurs as well as the innovation and creativity level in the society. Clearly all those dimensions interpenetrate, e.g. cultural norms affect the way entrepreneurship is taught in a given country or the type of support offered to women-entrepreneurs.

This chapter focuses on the discussion of the above mentioned determinants, which may positively or negatively affect the level of entrepreneurship in a given country.

As mentioned in Chapter 2, GEM methodology covers the study of population of adults described in Chapter 3 and survey of national experts in entrepreneurship (National Experts Survey – NES) to be discussed in this chapter.

The survey covered 36 experts in the following fields: finance, government policies, governmental programmes, education and trainings, R&D transfer, service infrastructure, market openness, physical infrastructure, social and cultural norms. Each expert was asked to fill in an online questionnaire. The expert's task was to determine the level to which he/she agrees with statements in the following areas:

- access to finance,
- support from public policy,
- legal environment and taxes, public entrepreneurship support programmes,
- primary and secondary education, higher education and professional training,
- research, development and technology transfer,
- business commercial environment,
- stability of the market situation and legal obstacles to entry into the market,
- physical infrastructure,
- cultural and social norms,
- perception of the possibility to set up a business,
- intellectual property protection,
- supporting entrepreneurship of women,
- innovation,
- organisational entrepreneurship.

Each area covered 5–7 statements the expert was to relate to according to the following scale: completely true – 5 points, somewhat true – 4 points, neither true nor false – 3 points, somewhat false – 2 points, completely false – 1 point. Because all statements were positive, i.e. they reported that a given aspect in Poland has a positive impact on entrepreneurship, the more points were attributed to a given area, the better the situation was assessed. Then, average answers of all experts were calculated for given statements⁵. The higher the value of the average, the better a given aspect was assessed. Then, the respective statements were aggregated to areas specified above and averages were calculated for them as well. This analysis of results used both average results for the respective statements and the averages for the respective groups – depending on context and possibility of interesting presentation of the problem. Standard deviation was also applied at times as a measure of unanimity of experts.

⁵ Authors of the study are aware of the consequences of applying the average for the Likert scale; however, such solution was recognised the most optimum for comparison between so many countries in so many areas at a time.

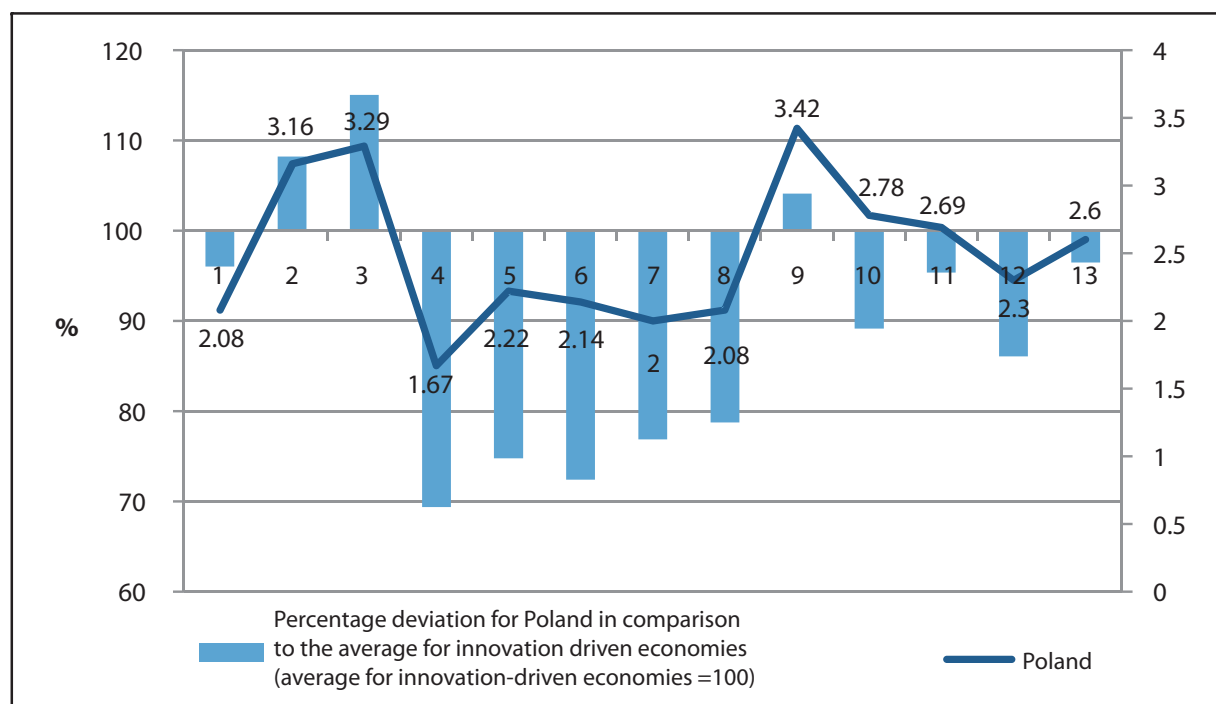
In addition, results for Poland were compared with average results for innovation-driven economies. Even though Poland is among the group of efficiency-driven economies, it was decided to compare our country with economies to which we would like to belong. Such a comparison has its consequences. It should be borne in mind that entrepreneurship in innovation-driven economies is on a lower level than in other groups. There are numerous reasons for this situation. Chapter 3 provides more information in this regard.

4.2. Government policy and programmes

Government policy and programmes are provided in three question blocks – the common ground for these blocks lies in the perception from the perspective of new and growing firms. The first block relates to the general attitude of the national and regional government to the development of firms, i.e. the question is whether new and growing enterprises are significant in the state policy at different levels of management (country, region) (statements 1–3 of the table under diagram 21). The second block relates to tax and administrative burden (statements 4–7) and the third one covers specific government programmes supporting the development of firms (statements 8–13).

As regards the first issue, i.e. the government policy, the average of questions for Polish experts (2.86) exceeded the average for innovation-driven economies (2.66).

Diagram 21. Government policy and programmes relating to new firms: Poland vs. innovation-driven economies



1 – Government policies (e.g., public procurement) consistently favor new firms; **2** – The support for new and growing firms is a high priority for policy at the national government level; **3** – The support for new and growing firms is a high priority for policy at the local government level; **4** – New firms can get most of the required permits and licenses in about a week; **5** – The amount of taxes is NOT a burden for new and growing firms; **6** – Taxes and other government regulations are applied to new and growing firms in a predictable and consistent way; **7** – Coping with government bureaucracy, regulations, and licensing requirements it is not unduly difficult for new and growing firms; **8** – A wide range of government assistance for new and growing firms can be obtained through contact with a single agency; **9** – Science parks and business incubators provide effective support for new and growing firms; **10** – There are an adequate number of government programmes for new and growing businesses; **11** – The people working for government agencies are competent and effective in supporting new and growing firms; **12** – Almost anyone who needs help from a government programme for a new or growing business can find what they need; **13** – Government programmes aimed at supporting new and growing firms are effective.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2011*.

The respective questions reveal that Polish experts assessed better the attitude of government policy and local authorities to new and growing firms than experts of innovation-driven economies (statements 2 and 3 in diagram 21). However, Polish experts refuse Polish decision-makers the consequence in actions for the benefit of new firms by giving this area only 2 points, i.e. 95% of the average for innovation-driven economies (statement 1). Public procurement policy was taken into account

in this statement as well. It is clear that despite the efforts of the last few years to of promotie law that is favourable to SMEs among the contracting authorities and contractors, information and educational measures of several institutions and subsequent amendments to the Public Procurement Law have failed to become regular measures for the benefit of improvement of functioning of this market.⁶

The second block of questions relates to *tax and administrative burden* to firms. Polish experts assessed this area very low (the average is 1.94 of the 5-point scale) – 38th place in the ranking of 49 countries analysed. The average assessment of experts for this area among the innovation-driven economies was better by nearly the whole point (2.71). This issue is subject to analysis presented in the world known ranking “Doing Business” by the World Bank. As opposed to GEM experts, it assessed particularly positively the last improvements introduced in Poland. In the last Doing Business 2013⁷ Poland was ranked 55th (in 2011 we were 62nd). The most positive changes were noted in the area of property registration (new organisation of burden division between Land and Mortgage Register Courts as well as digitalisation of documentation of the said units), tax payment (promotion of the electronic system to submit returns and make payments), contract execution (reduction of time to resolve economic disputes and improvements in bankruptcy procedure). Changes noted in the last Doing Business report are quite spectacular. No other country introduced so many significant changes last year. Noting that in the previous years the position of Poland did not change so radically in the ranking, strict assessment of GEM experts may relate to the currently slow process of removing tax and administrative obstacles. It should also be noted that the Doing Business report does not cover activity carried out by natural persons (making 92% of enterprises in Poland). Meanwhile, improvements on the part of administration – not widely known – are introduced also in this regard, the spectacular example of which is the Central Register and Information on Business Activity set up in 2011, ensuring fast, fully electronic and free-of-charge service of registration of entrepreneur being a natural person.⁸

Administrative and financial obstacles (related to the lack of capital to set up or develop a firm) are burdens most often mentioned by entrepreneurs themselves, both Polish and European. According to a cyclic report of the European Commission *Entrepreneurship in the EU and beyond*,⁹ 71% of the respondents (total European adults, irrespective of whether or not they have business experience) blame the complicated administrative procedures when setting up business activity and it is the second most frequently mentioned obstacle after difficulties in obtaining financial support. Poland reflects the EU average and is ranked 15th among 27 countries (where the 1st place is occupied by Romania with 84% of replies pointing out administrative burden). Comparisons between persons without or with business experience do not affect the order of significance of the respective obstacles and the level of assessment of their onerousness. 72% of the respondents of the first group recognise them, with 71% from among those with business experience. Respondents are therefore very unanimous in their assessment. The difference is in the population of persons not agreeing with statements presented – the share is higher for persons with business experience and lower for persons who did not want to or could not reply. To conclude, difficulties in meeting the complicated administrative requirements reoccurring regularly in numerous studies seem not to be a popular opinion, but a fact actually noted by the society, including persons experiencing such requirements personally.

The last area concerning government policy and programmes forms a set of questions covering *information availability and effectiveness, size and quality of assistance for new firms*. In total, Polish experts gave 2.58 points to this area as compared to 2.89 points given by experts of innovation-driven economies. Out of 49 countries in question, Poland is 29th in the ranking for this factor. As compared to Germany, Singapore and Switzerland, occupying the first three positions in the ranking, assessments of Polish experts differ by a one point or so to the disadvantage of Poland as compared to assessments for the said countries.

Organisation of government support was assessed the worst (statement 8 in diagram 21). As a rule, experts did not agree with the statement that one can obtain a wide scope of government support for new and growing firms by contacting one office and criticised indirectly the dispersed structure of the current system. This statement refers to another statement assessed the worst:

⁶ Measures for the benefit of enhancing the presence of SMEs on the public procurement market are at least bidirectional. On the other hand, the reason is ensuring such legal provisions that will open the market to small entities, followed by actual use of these provisions by contracting authorities. The second area of activity is education for contracting authorities and contractors. It is worth noting that currently the Act on the Public Procurement Law contains a number of provisions friendly for business entities. This knowledge has been promoted since 2010 as part of the information and educational project implemented jointly by the Polish Agency for Enterprise Development and Public Procurement Office. The aim of the project is to make both parties aware of the dysfunctions on this market, to demonstrate legal instruments allowing for the stimulation of this market by increasing the number of applicants, including those of the SMEs sector (possibility to obtain the most competitive tenders) and to promote good practice in the area of access conditions and tender evaluation criteria. The Act regulating public procurement is subject to subsequent changes as well. The last amendment adopted by the Sejm of the Republic of Poland on 12 October 2012 introduces the possibility of a technical dialogue with contractors and, in case of sectorial commissions, sets a system of contractors qualifications. It also introduces an option to oblige a contractor in building sector as well as in defence and security sector to subcontract, what extends the number of participants of public procurement market.

⁷ *Doing Business 2013. Smarter Regulations for Small and Medium-Size Enterprises*, The World Bank 2013.

⁸ Since 1 July 2011 there is the Central Register and Information on Business Activity (CRIBA) in Poland – the register of entrepreneurs being natural persons and carrying out activity in Poland. The register is an ICT system handled by the minister competent for the economy, pursuant to the provisions of the act on freedom of business activity. More: www.ceidg.gov.pl.

⁹ *Entrepreneurship in the EU and Beyond*, Flash Eurobarometr 283, The Gallup Organisation, December 2009.

nearly everybody seeking support from the government programme for a new or growing firm is able to obtain what they need – 12 in diagram 21.

The system to support enterprises in Poland has two main lines of division. The first division reflects the administrative structure of Poland, i.e. in short one can speak of national and regional programmes. The second division relates to the sources of financing: there are programmes fully financed from national public funds and programmes co-financed by the European Union funds. The second division is significant for the categories of the size of support, type of co-financed measures and separate control and supervision systems. On the national level, Polish Agency for Enterprise Development is the institution implementing the majority of support programmes for enterprises. In the light of opinions of entrepreneurs PARP is recognised to be the most important public partner in their development.¹⁰ Quite strong recent tendencies in development of support for enterprises in such areas as R&D, innovation, sustainable development result in the increase of the number and programmes, as well as institutions interested in developing the respective aspects of support. Relative institutional complication of such system as well as the corresponding professionalisation of subjects of support inclines to consider appointing a system coordinator. The role of the coordinator would be to quickly and effectively refer the entrepreneur to the competent institution or explain the possibilities and procedures to apply for support.

Further relating to the issue of development and professionalisation of the institutional environment, it should be noted that Polish experts appreciated the role of business environment institutions in the GEM study, in particular science parks and business incubators (the average assessment was 3.42, i.e. by 4% higher than the average for innovation-driven economies – statement 9 in diagram 21). Infrastructure of this area has in fact developed greatly in recent years in Poland. Even as compared to European standards we have a very developed network of business incubators. Within the last 22 years, except for the period between 1998 and 2000, the number of innovation centres in Poland has been increasing regularly, reaching the number of 821 centres in 2012 (we had 35 such centres in 1995 – map 1). Recent years mark the time of intensive development of parks, whose number has doubled between 2009 and 2012. As for incubators, not only their number has increased but they also have developed specialisations, therefore now we have technology incubators, business incubators and pre-incubators as well as university business incubators (there are 160 of such centres in total, and there were 34 in 1995).¹¹ Priorities of state policy and central and regional public support programmes experiencing considerable focus on the development of business environment institutions are the sources of development of those entities.

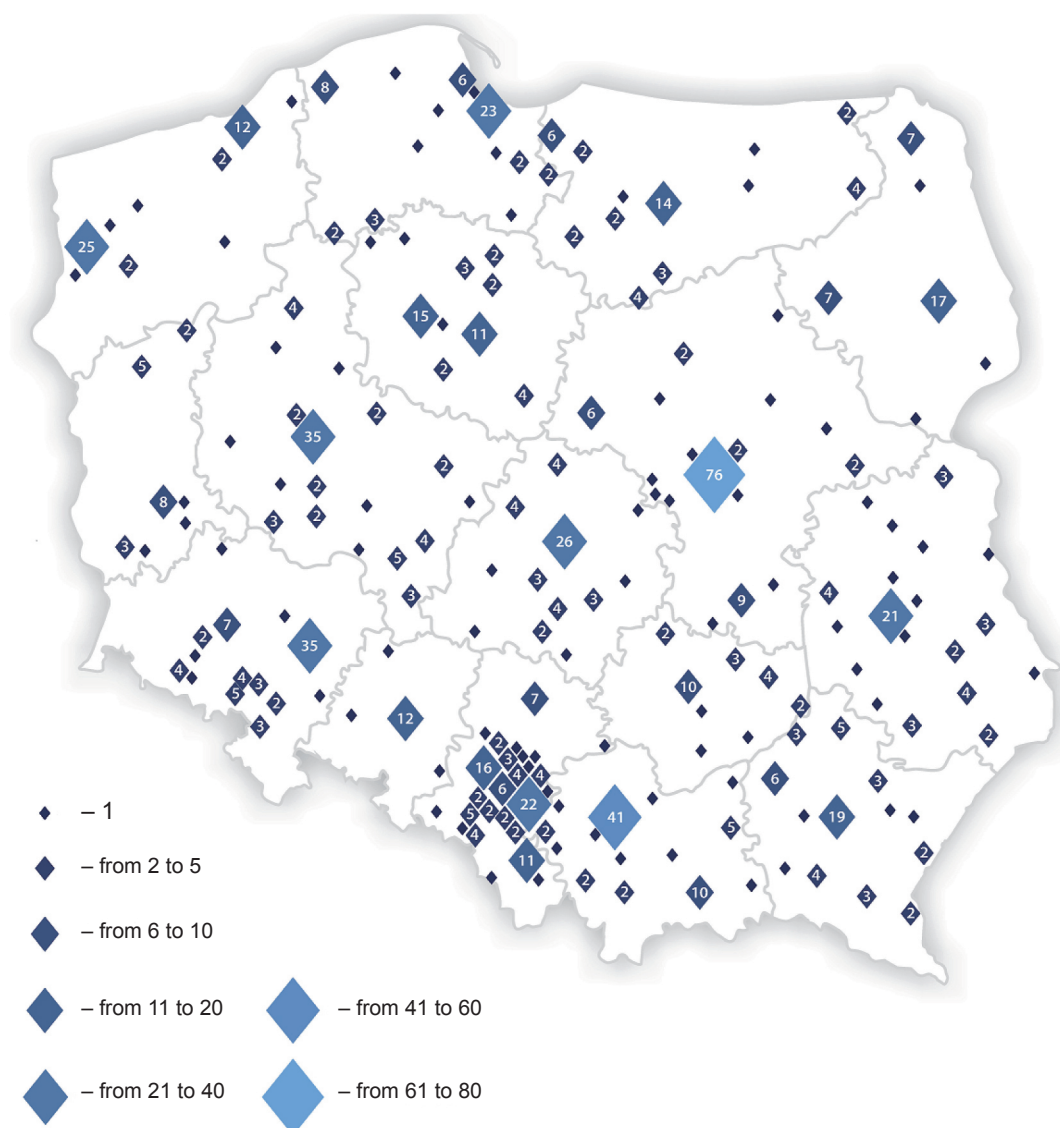
Results of experts' assessments demonstrate that changes to this area are noticeable and therefore the assessment by Polish experts of support provided by parks and entrepreneurship incubators is by 5% higher than assessment of experts from innovation-driven economies. However, this is the only statement which obtained higher marks in this group than the average for innovation-driven economies (diagram 21).

To sum up, the image of this area is not clear-cut, though in majority of issues assessments of Polish experts were lower than of experts from innovation-driven economies, the assessment is quite high against the background of other areas in question. The pace of obtaining the necessary permits and licences was assessed particularly negatively. However, it should be noted that entrepreneurs receive priority treatment on the level of public policy, which raises hopes for positive changes in this regard in the future.

¹⁰ Based on the study: *Wizerunek PARP wśród przedsiębiorców w Polsce*, TNS OBOP for PARP, 2009.

¹¹ A. Bąkowski, M. Mażewska, *Ośrodki innowacji i przedsiębiorczości w Polsce. Raport 2012*, PARP 2012.

Map 1. Centres of Innovation and Entrepreneurship in Poland in 2012.



Source: Bąkowski A., Mażewska M., *Ośrodki innowacji i przedsiębiorczości w Polsce. Raport 2012*, PARP 2012.

4.3. Financing the activity of enterprises

Access to financing is a key entrepreneurship development factor. Depending on the stage of enterprise development the type and size of need for external capital changes. Larger enterprises with certain history of activity have easier access to debt financing or capital on the primary market than small, often young entities. Results of survey carried out as part of the European Commission and European Central Bank project, entitled *Survey on The Access to Finance of Small and Medium-sized Enterprises*, (SAFE)¹² clearly confirm that access to financing is the second important problem of small and medium-sized enterprises in the EU MSs after the issue of finding customers – this is claimed by every 7th entrepreneur.

Confidence ensured by the possibility to use external capital has become an important factor supporting both market participants and the whole economy in the times of economic slowdown, in particular the one the economies of the United States and Europe have been facing since 2008.

¹² 2011 SME's Access to Finance Survey, Analytical Report, European Commission, 7 December 2011; The survey has been carried out six times to date, the last round took place in 38 countries, including 27 EU MSs and 17 countries of the Eurozone in the period between June and July 2009 and then in the period between August and October 2011.

CSO data reveal that for years own funds have been the main source of financing investment in Poland (69% in the case of enterprises and nearly 65% in the case of small and medium-sized firms).¹³ External sources of financing as well as credits and loans form only several per cent of the total investment expenditure by our entrepreneurs (11.5% and 17% respectively for all enterprises and SMEs). Budget resources provide solely ca. 4.5% of financing of enterprise investments and ca. 3% for small and medium-sized ones. As compared to data of the previous years, a slight increase was noted in 2010 in the share of national credits and loans, as well as budget resources in financing the activity of enterprises in Poland, whereas the share of own funds has not changed much.

Data presented in the *Raport Pekao S.A o sytuacji mikro i małych firm w roku 2011* [Report of the Pekao S.A. on the situation of micro and small companies in 2011] reveal that the reason behind failing to use external financing by smaller entities in Poland results from the lack of willingness to take credits (45%) or the lack of need to do so (40%).¹⁴ However, there is also the problem of lack of possibility to use external financing (e.g. lack of creditworthiness) – 13%, and too high costs of obtaining such capital (12%). The problem of insufficient information about external financing was also mentioned (4%).

The situation may change soon, however. IBnGR¹⁵ data point to the increase in demand for financing the activity of firms in the upcoming years. As much as 62% of the responding SMEs declared that they expect greater demand for financing their activity in the nearest future, i.e. increase in demand for repayable financing from national and foreign, commercial and non-commercial, including public sources, is to be expected. According to PARP study, bank credit in 2011 is the second important source of financing investment realised by small and medium-sized enterprises. From among firms using repayable financing last year, as much as 39% applied for running account credit, and 17% for working-capital credit, and only 12% for investment credit.¹⁶ However making this forecast real will depend on the development of macroeconomic situation as well as banks' attitude to financing activity of small and medium size companies.

Assessment by GEM experts of the *financing the development of entrepreneurship* factor seems interesting against this background. The total result is moderately positive: on the one hand the average assessment on the level of 2.52 should be considered rather low, but on the other hand, this result gives us the 16th position among 49 countries surveyed. Switzerland is the leader (assessment of Swiss experts 3.5), followed by Taiwan (3.21). In Europe, Poland is outdistanced by seven countries, i.e. Germany (2.95), the Netherlands (2.88), Portugal (2.87), Norway (2.81), Sweden (2.66), Lithuania (2.63) and Finland (2.62). The result for Poland is slightly worse than the average for innovation-driven economies (2.62) – by 5.3%.

Let us look at the respective forms of financing subject to experts' assessment in Poland. In total, experts assessed six types of financing: equity funding, debt financing, subsidies, funds available from private individuals, venture capital funds and funds available in a form of initial public offerings (IPOs) for new and growing firms.

Considering the fact that assessment ranged from 1 to 5, the respective instruments obtained rather average results (under 3). Within those instruments experts recognised subsidies to be providing the best access to financing for new and growing firms – statement 3 in diagram 22 (result 2.84) and the stock exchange since the possibility to obtain funds in form of initial public offerings obtained 2.74 (statement 6). The result for Poland in the scope of funds obtained by IPOs was decidedly better than the result for innovation-driven economies – as much as over 15%. As far as government subsidies are concerned, Poland has a slightly worse result than innovation-driven economies, i.e. by 4% lower than the average for innovation-driven economies.

Access of new and growing firms to funds provided by private individuals other than founders was assessed considerably worse by experts in Poland (statement 4 in diagram 22). The assessment was 2.24 in this case and was by as much as 12% lower than the average for innovation-driven economies – it should be indicated that among all the 6 forms of financing the possibility to use funds of private individuals other than founders was assessed the worst as compared to innovative countries. In the opinion of experts, it is equally difficult for young entrepreneurs to obtain funds as part of higher risk funds (e.g. venture capital funds – VC) (statement 5). The assessment of this form of financing was 2.43 and was nearly 7% worse than in innovation-driven economies. As far as access of young firms to VC funds is concerned, in experts' opinion the best situation in this area is noted in Switzerland (3.53). The other two forms of financing: equity and debt financing have been assessed similarly and obtained 2.58 and 2.64, respectively (statement 1 and 2 respectively). Still, as compared to innovation-driven economies, the possibility to use equity funding is worse by ca. 5% in Poland, and as for debt financing it is slightly easier in Poland (positive assessment by nearly 2%).

¹³ Central Statistical Office data for 2010.

¹⁴ J. Fulara, T. Kierzkowski, M. Mrowiec, A. Stasiak, T. Woźniczka, *Raport o sytuacji mikro i małych firm w roku 2011*, Pekao S.A., December 2011

¹⁵ *Mechanizmy inżynierii finansowej w podnoszeniu efektywności absorpcji środków UE i ich znaczenie w polityce spójności po 2013 roku*, IBnGR, Gdańsk, November 2010.

¹⁶ W. Załęski, *Badanie rynku wybranych usług wspierających rozwój przedsiębiorczości i innowacyjności w Polsce*, „Finansowanie zwrotne”, PARP 2012.

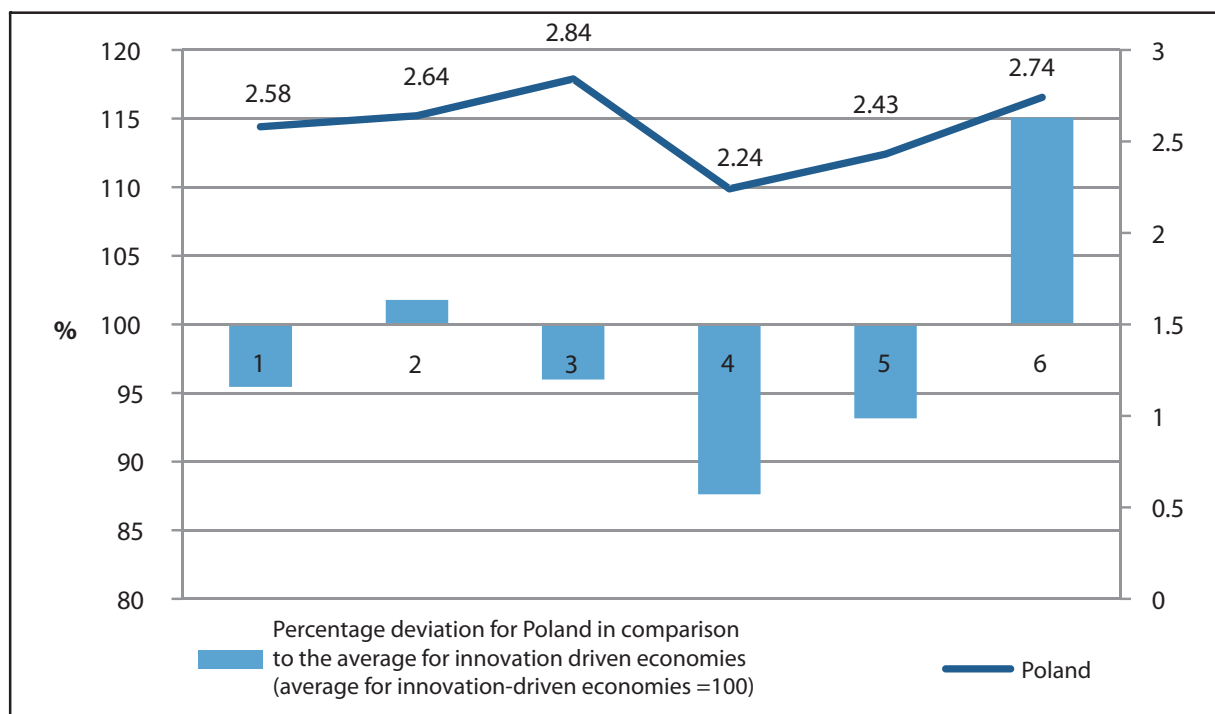


Diagram 22. Financing enterprises activities: Poland vs. innovation-driven economies

1 – There is sufficient equity funding available for new and growing firms; 2 – There is sufficient debt funding available for new and growing firms; 3 – There are sufficient government subsidies available for new and growing firms; 4 – There is sufficient funding available from private individuals (other than founders) for new and growing firms; 5 – There is sufficient venture capitalist funding available for new and growing firms; 6 – There is sufficient funding available through initial public offerings (IPOs) for new and growing firms.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2011*.

To sum up, it should be noted that assessment of financing the activity of new and growing firms as an entrepreneurship developing factor in Poland, carried out within unfavourable economic situation, was negative in the majority of areas assessed. Poland is worse than innovation-driven economies in four of the six areas. Availability of funds from private individuals other than founders and higher risk funds received the worst evaluation. There is reason to be glad only as regards the possibility to use debt financing and the stock exchange, because experts maintain that there is better availability of these resources in Poland than on average in innovation-driven economies.

4.4. Commercial and service infrastructure as well as physical infrastructure

This subchapter is devoted to issues related to, firstly, commercial and service infrastructure, i.e. banking, legal, accounting services as well as availability of providers and sub-contractors (statements 1–5 in diagram 23). Secondly, the issue of physical infrastructure will be presented, such as: roads, utilities, transport, waste management and telecommunications services and basic utilities, such as water, energy and gas (statements 6–10).

Statements in the Commercial and service infrastructure block allow for at least two corresponding remarks. Developed commercial and service infrastructure does not only mean convenience for domestic firms, but also it is an area of interest of foreign firms since it caters for easier start in a new country (certain tasks may be contracted externally on the spot; it is not necessary to analyse in detail the conditions in a given country because it is done by the contractor). Developed commercial and service infrastructure is also the sign of our times and a result of transfer of enterprises to hierarchical institutions, cumulating all its measures inside, towards network entities, i.e. with a contact-based activity management (transactions), where contacts are made with external entities.¹⁷ It is worth adding that the development of network structures would not be possible (or would develop slower) without the accompanying development of information and communication technology.

Polish experts assessed this area as average (the average of 2.9 points of all answers). Their opinion forms 93% of the average assessment of experts from innovation-driven economies. The assessment regarding Poland is the best for access to high-quality banking services – statement 5 in diagram 23 (3.81), and assessment of adequate size of the market of sub-contractors, suppliers

¹⁷ S. Łobejko, *Wykorzystanie kosztów transakcyjnych jako czynnika rozwoju przedsiębiorstw sieciowych*, SGH 2010.

and consultants – statement 1 (3.29). Domestic experts assessed rather negatively the costs of access to external services and easiness to obtain good quality services – in particular from sub-contractors, suppliers, consultants (statement 2). This negative assessment is a little surprising because these problems were not demonstrated in other surveys by the very entrepreneurs.

As compared to opinions of experts from innovation-driven economies, good assessment of banking services in Poland is noticeable again; it is higher than the average for those countries by nearly 18%. On the other hand, quality of legal and accounting services was assessed as average – statement 4 in diagram 23 (2.8). It is quite weak as compared to innovation-driven economies, where experts gave 3.5 points for quality of those services. Other opinions, as compared to assessment by experts from innovative countries, also fall below the average for those countries.

Polish experts have a more positive opinion on **physical infrastructure** for enterprises. In total, this block obtained 3.44 points. The assessment would be considerably higher if not for the negative opinion of experts about road, utilities and transport infrastructure, etc. – statement 6 in diagram 23 (2.14). Consequently, the average assessment by Polish experts is just 85% of the average for innovation-driven economies. In the case of other issues in this group, the assessment ranged from 3.41 to 4.06. Opinions about access to means of communication (telephone, Internet) and cost of basic utility services (statements 7–10) were the closest to the average assessment of experts from innovation-driven economies. It is worth mentioning that these problems, despite weak assessment as compared to innovative countries, are not the main obstacles mentioned by entrepreneurs as part of studies available, though this issue exists. In the last *Global Competitiveness Report*,¹⁸ Poland occupied the 124th in 144 countries position in terms of quality of roads and this factor obtained the weakest assessment as part of the infrastructure block. Meanwhile, the study of business community accompanying the ranking noted that in 16 factors hindering business, infrastructure was the 6th one, following legal provisions, strict labour law, bureaucracy, size of taxes and availability of external funding.

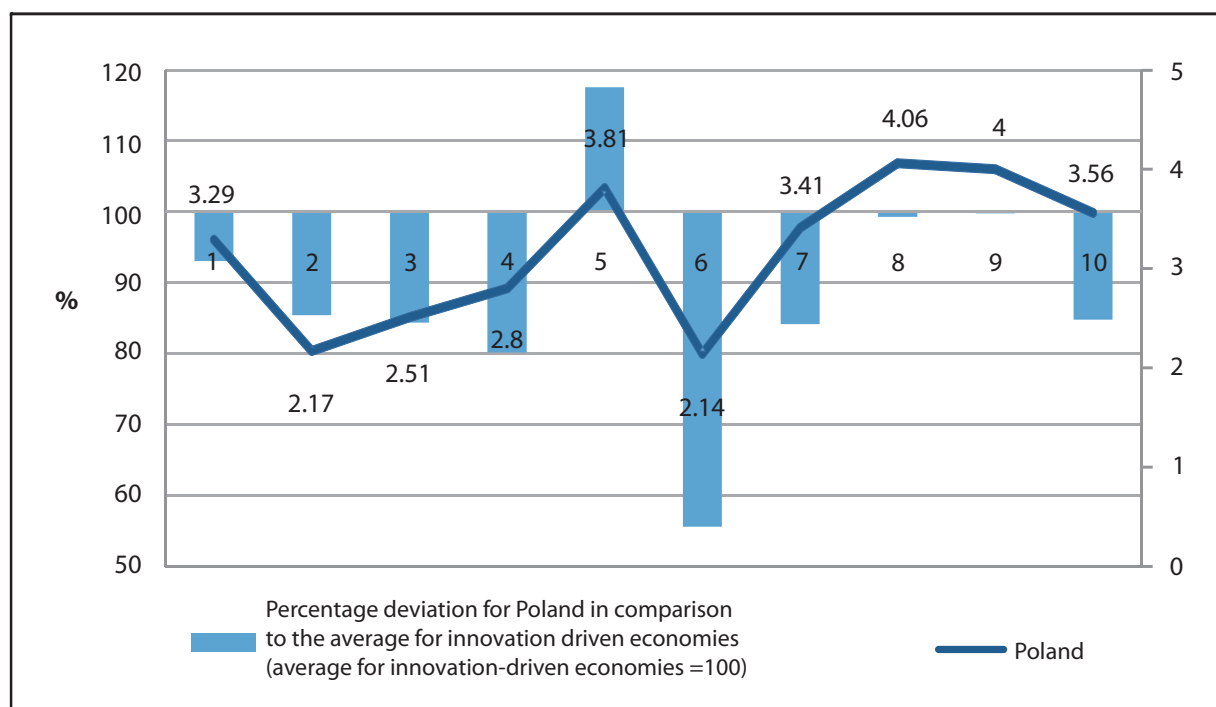


Diagram 23. Commercial, service and physical infrastructure: Poland vs. innovation-driven economies

1 – There are enough subcontractors, suppliers, and consultants to support new and growing firms; **2** – New and growing firms can afford the cost of using subcontractors, suppliers, and consultants; **3** – It is easy for new and growing firms to get good subcontractors, suppliers, and consultants; **4** – It is easy for new and growing firms to get good, professional legal and accounting services; **5** – It is easy for new and growing firms to get good banking services (checking accounts, foreign exchange transactions, letters of credit, and the like); **6** – The physical infrastructure (roads, utilities, communications, waste disposal) provides good support for new and growing firms; **7** – It is not too expensive for a new or growing firm to get good access to communications (phone, Internet, etc.); **8** – A new or growing firm can get good access to communications (telephone, internet, etc.) in about a week; **9** – New and growing firms can afford the cost of basic utilities (gas, water, electricity, sewer); **10** – New or growing firms can get good access to utilities (gas, water, electricity, sewer) in about a month.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2011*.

Despite considerably good assessment by Polish experts of the physical infrastructure block (apart from one statement, the other four range from 3.4 to 4 points), comparison with innovation-driven economies reveals that this area in fact requires significant

¹⁸ K. Schwab, *The Global Competitiveness Report 2012–2013*, World Economic Forum.

improvements. This may be summed up by saying that Poland reaches certain civilisation standards; however, it is still far behind the most developed countries. Commercial and service infrastructure was assessed worse than physical infrastructure, which may also be recognised as the outcome of the level of civilisational and economic development.

4.5. Entry to the market

Conditions for undertaking a business activity may be examined in respect to various aspects. On the one hand, the market situation understood as easiness to enter the market resulting from the entry obstacles (or their lack) is as important as costs of entry in the market (statements 3–6 in diagram 24). According M. Porter, obstacles to enter the market may result from e.g. the economy of scale – (it is necessary to launch large-scale production at the outset, which requires high costs) – loyalty of purchasers or lack of distribution channels and the necessity to establish them on one's own. In this context, market dynamics is also important, i.e. creation of new needs on the part of demand and new products to fulfil such needs (statements 1–2). The way business occasions on the market are perceived by possible entrepreneurs should not be ignored either.

Experts maintain that the Polish market is rather dynamic – statement 1 in diagram 24 (4.14). This value considerably exceeds the average for innovation-driven economies (the result is over 34% better). Actually, this is the best result from among all the countries in question and area receiving one of the highest marks in Poland. Experts were exceptionally unanimous in this regard (standard deviation was ca. 0.8).

As far as obstacles to entry in the market are concerned, the situation is decidedly worse. Experts' assessment of easiness to enter the market was 2.97, which is a rather low result on the 1 to 5 scale (statement 3). However, it is worth noting that it is the best result as compared to other countries in question. The average result that innovation-driven economies reach is about 9% lower.

Experts assessed the chance of initiating business activity in Poland above the average value (3.46). Experts in Poland assess this aspect as one of the positive ones. Simultaneously, the results which slightly exceed the average for innovation-driven economies (by ca. 3%). This block also covered the issue of high growth (statement 11), yet it was discussed in Chapter 4.9.

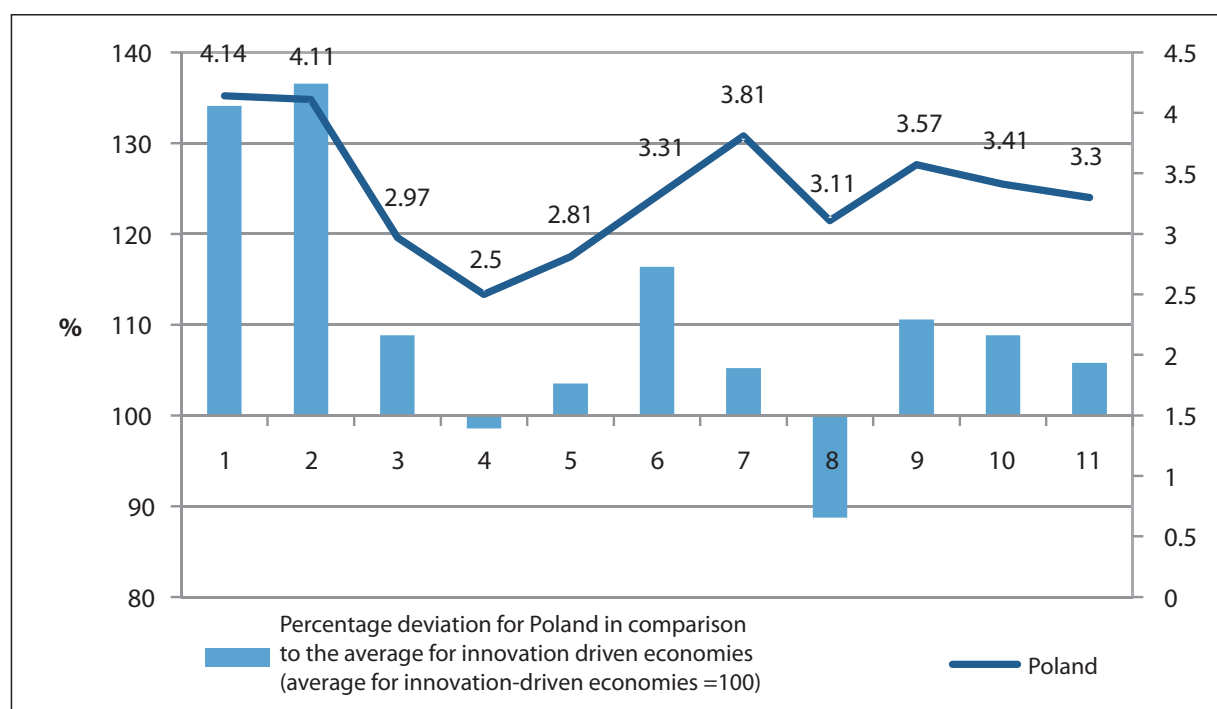


Diagram 24. Market entrance: Poland vs. innovation-driven economies

1 – The markets for consumer goods and services change dramatically from year to year; **2** – The markets for business-to-business goods and services change dramatically from year to year; **3** – New and growing firms can easily enter new markets; **4** – The new and growing firms can afford the cost of market entry; **5** – New and growing firms can enter markets without being unfairly blocked by established firms; **6** – The anti-trust legislation is effective and well enforced; **7** – There are plenty of good opportunities for the creation of new firms; **8** – There are more good opportunities for the creation of new firms than there are people able to take advantage of them; **9** – Good opportunities for new firms have considerably increased in the past five years; **10** – Individuals can easily pursue entrepreneurial opportunities; **11** – There are plenty of good opportunities to create truly high growth firms.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2011*.

To sum up, experts assessed positively the market possibilities of establishing a firm. In their opinion, the Polish market provides numerous occasions to establish a business and presents no obstacles to initiating activity. Great market dynamics may be considered the main virtue in this regard.

4.6. Research and development transfer

The block below presents the issue of innovation. It will cover the topics related to cooperation of science and business, access to results of research for firms and support of technology transfer.

Expenditure on research and development, cooperation of science and business, commercialisation of scientific solutions have been essential in recent years when discussing publicly the issue of innovation and have been a fixed element of government programmes of numerous countries. It is also the area where numerous obstacles of various sources meet. Evaluation of the condition of transfer of research and development in Poland points to at least four groups of limitations to the process: **structural** (resulting from the specificity of sectors of the economy and R&D sector, limited functionality of the strategy and policies applied), **systemic** (resulting from excess number of legal acts, excess of provisions and lack of provisions stimulating the research sector and the economy to innovative measures), **awareness-related and cultural** (lack of confidence in possible partners of the research and development transfer, limited understanding and acceptance of innovative attitudes in the society) and **competence-related** (limited skills and effectiveness of actions taken by participants of the innovation process management system).¹⁹

Experts analysing the phenomenon of technology transfer and knowledge commercialisation, next to obstacles, notice the driving forces of this system specific for Poland. Attention should first be paid to the pace of changes in the last 20 years – deep restructuring of the economy, fast production modernisation, introduction of new organisational solutions and impressive import of technology. The changes should be strengthened and continued as part of the current and future financial perspective (EU budget for 2007–2013 and 2014–2020). Therefore, Poland's presence in the European Union and development objectives set by the EU for MSs are further driving forces of our development²⁰. The regulations have also witnessed several significant changes stimulating R&D growth, as well as transfer of scientific solutions within the last few years.²¹ The awareness and cultural area is difficult for the reason of objective sustainability of cultural habits and thus difficulty in switching to different thinking. Level of awareness of current problems on the part of decision-makers should be assessed positively, which is reflected by in-depth diagnoses of the state of R&D in Poland (including the evaluation of the respective entities involved in the transfer of research results to the economy), covered by strategic and operational documents on various levels of state functioning.²² Nowadays, overcoming the existing patterns of thinking and functioning of the interested parties seems one of the most important tasks (the above mentioned awareness and cultural area), since it is already known that the said parties are dysfunctional and hinder technology transfer and knowledge commercialisation.

GEM experts' study reveals that Polish respondents assessed the above mentioned area very weakly. The average assessment for Poland of all the questions was 2.21, i.e. slightly over 85% the average for innovation-driven economies and 30th position in the ranking of all the countries in question. As for the most innovative countries participating in the study,²³ their results are obviously

¹⁹ K.B. Matusiak, J. Guliński, *System transferu technologii i komercjalizacji wiedzy w Polsce – siły motoryczne i bariery*, PARP 2010.

²⁰ *Ibidem*.

²¹ E.g.: Act of 25 July 2005 on certain forms of support for innovation activities amending the acts on income tax from legal and natural persons, the aim of which was to provide for a tax incentive to purchase new technologies. One of the most important legislative changes in recent years within the area of increasing establishment of stronger links between universities and the economic environment is provided by the amended Act on higher education law of October 2011, pursuant to which universities are obliged, *inter alia*, to pass rules of managing copyrights and related rights as well as industrial property rights and rules on commercialisation of the results of scientific research and development works. Amendment of Article 86a(1) of the Act allows the university to establish a special purpose vehicle in a form of a limited liability company or a joint stock company to commercialise the results of scientific research and development works. Special purpose vehicle is established by the vice-chancellor upon consent of the university senate or another collegial body of the university. The tasks of the special purpose vehicle include in particular converting to equity in limited companies or establishing limited companies to implement the results of scientific research and development works carried out at the university. The vice-chancellor, by way of agreement, may vest the management of industrial property rights of the university in the scope of its commercialisation in the special purposes vehicle.

²² Significant role in establishing the development cohesive priorities of Poland is played by arranging the development strategies, initiated in 2009 by the adoption by the Council of Ministers of the "Plan to arrange the development strategies", which initiated works on 9 integrated strategies subordinated to long-term and mid-term national development strategy. The solution substitutes 42 other strategic documents applicable by that time. Report Poland 2030 is the diagnostic basis for drawing up the development strategies. The Report was drawn up by the Team of Strategic Advisors of the President of the Council of Ministers in May 2009.

²³ Countries covered by the group of Leaders in the Innovation Union Scoreboard obtained the following total points for the Research and development transfer block: Finland – 2.57, Sweden – 2.63, Germany – 2.85. Innovative economies outside Europe: USA – 2.56, Taiwan – 2.87, with the average for innovation-driven economies of 2.59 points.

better than Polish, yet the positive differences as compared to the average for innovation-driven economies are little, too. As a rule, except for Switzerland, none of the average assessments of all the countries subject to GEM study exceeds 3 points. What does it signify? It shows that it is the problematic area for numerous countries and thus one of the most current development challenges in the world. This also signifies that we are well aware of the fact that research and development transfer should be more efficient. Meanwhile, it is a complicated process involving numerous entities, thus the pessimism of GEM experts assessing the respective statements is greater.

Out of six statements, only in one case the average assessment of Polish experts exceeds the average for innovation-driven economies. This relates to statements 4 in diagram 25 – *There are adequate government subsidies for new and growing firms to acquire new technology*. The difference as compared to the average is considerable, by nearly 10% more. The availability of new technologies for new and growing firms received quite good result as compared to innovation-driven economies (though not as regards points obtained for this statement by Polish experts) (statement 3). The assessment of Polish experts is 95% the average for innovation-driven economies, which must relate to the previous statement and directly refer to subsidy schemes available as part of Operational Programme Innovative Economy, aimed either at the development of own R&D resources or the purchase of finished technologies. However, it turns out that among the other statements these two are only element of this “puzzle”, depending greatly, as far as effectiveness is concerned, on proper functioning of the other areas described in this block.

Assessment of this block is recognised negative. Except for public support, all the areas require considerable improvement.

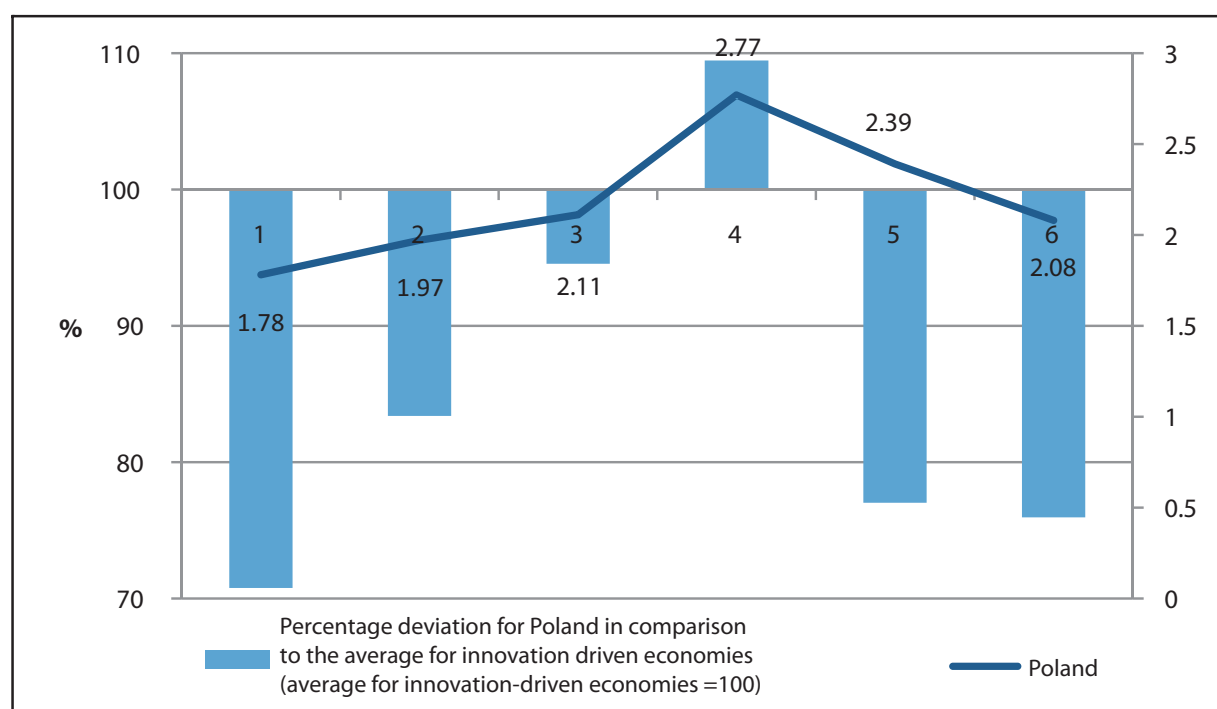


Diagram 25. R&D Transfer: Poland vs. innovation-driven economies

1 – New technology, science, and other knowledge are efficiently transferred from universities and public research centers to new and growing firms; **2** – New and growing firms have just as much access to new research and technology as large, established firms; **3** – New and growing firms can afford the latest technology; **4** – There are adequate government subsidies for new and growing firms to acquire new technology; **5** – The science and technology base efficiently supports the creation of world-class new technology-based ventures in at least one area; **6** – There is good support available for engineers and scientists to have their ideas commercialized through new and growing firms.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2011*.

4.7. Intellectual property law

Intellectual property law refers to various works of human activity (e.g. invention, musical work, utility model) allowing their creators deriving material benefits on account of being their holder. Well drawn up intellectual property law, its observance and use in business and personal activity is considered one of the significant factors of innovation development. Countries in which intellectual property is not protected and there is no respect for such law in the society it may result in limited interest in innovation as well as lack of inflow of external investors fearing the imitation of their products/works. Current discussion

on the intellectual property law becomes considerably complex, especially in the context of development of information and communications technology. In general, legal provisions fail to keep pace with human activity on the Internet and it is highly questionable how far they should be protected in view of such deep changes of social needs and market changes. Opinions are becoming increasingly strong that it is namely too strictly protected intellectual property that limits innovation development, fails to allow to fully use achievements to date – develop or process into new works.

In the light of the discussion and changes noted (in particular the Internet) and stimulated by these discussions, intellectual property law is still one of the basic measures of innovativeness of economies. As regards the most frequently quoted Innovation Union Scoreboard – IUS, Poland is 6th to last of the 27 EU MSs in the area of intellectual property. Meanwhile, inasmuch as the number of patent applications submitted at the European Patent Office is very low (8% for the EU MSs), considerable improvement is noted for the increasing number of industrial designs registered in the European Union (over half of European average already). On the other hand, the European average is reached by Poland for the protection of utility models.²⁴

In the case of GEM study, *intellectual property* is assessed from the perspective of versatility of law in this area, its effectiveness and cultural norms related to the respect of somebody else's intellectual property. On the 5-point scale, the average for all the questions among all Polish experts was 2.89 points, and respect for inventor's rights was given the highest mark – statement 5 in diagram 26 (3.68 on average), as well as versatility of law – statement 1 (3 on average). As regards experts from innovation-driven economies, the same two statements obtained the highest number of points. For Poland, effectiveness of execution of legal provisions was given the lowest mark – statement 2 (2.34 on average), i.e. just over 70% of the average for innovation-driven economies. Respect for patents, copyrights and trademarks (statement 4) is the element given the lowest mark in innovation-driven economies. Assessment of Polish and foreign experts is similar for their respective countries in this regard.

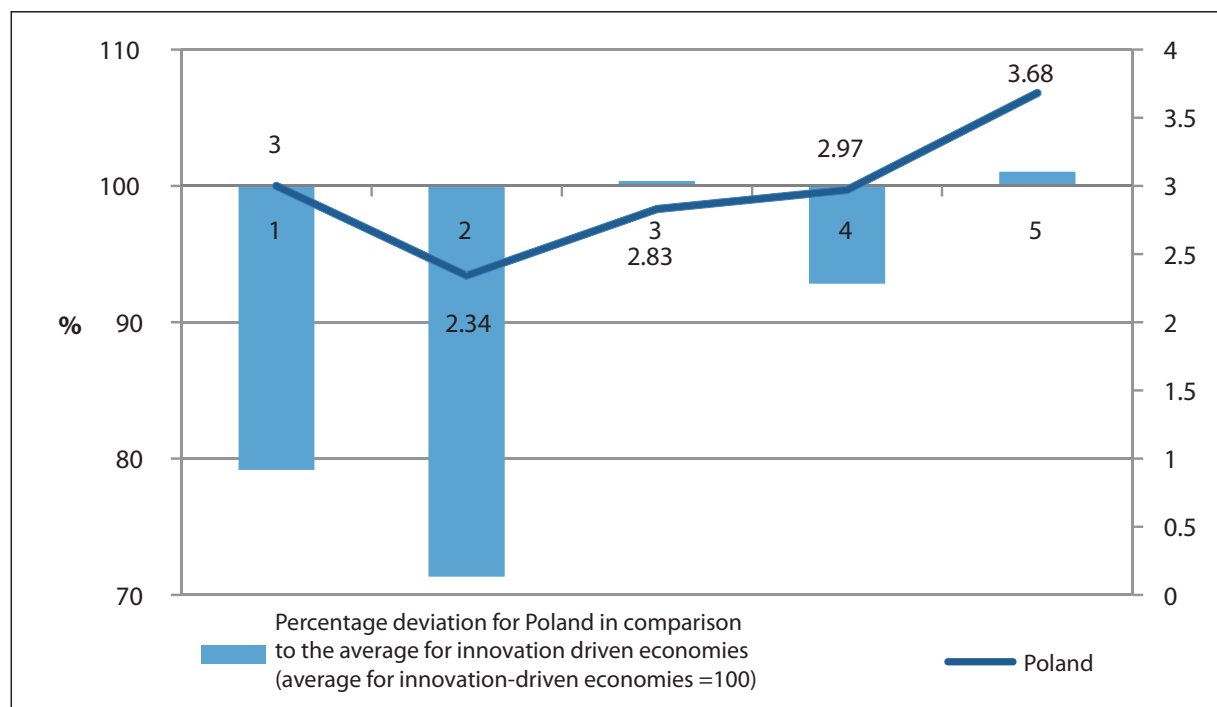


Diagram 26. Intellectual Property Rights: Poland vs. innovation-driven economies

1 – The Intellectual Property Rights (IPR) legislation is comprehensive; **2** – The Intellectual Property Rights (IPR) legislation is efficiently enforced; **3** – The illegal sales of ‘pirated’ software, videos, CDs, and other copyrighted or trademarked products is not extensive; **4** – New and growing firms can trust that their patents, copyrights, and trademarks will be respected; **5** – It is widely recognized that inventors’ rights for their inventions should be respected.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2011*.

The total indicator of assessment of Polish experts in nearly 87% of assessment for innovation-driven economies. Meanwhile, results of the aggregated area for countries covered by the group of Leaders of innovation in IUS (Sweden – 3.25, Germany – 3.58, Finland – 3.38) reveal that assessment of Polish experts is in fact visibly lower (2.89). The differences are not, however, as strong as it could seem from the technological distance between Poland – the country of moderate innovators – and the group of leaders in innovation.

²⁴ Innovation Union Scoreboard 2011, European Commission, Pro inno Europe.

4.8. Interest in innovations

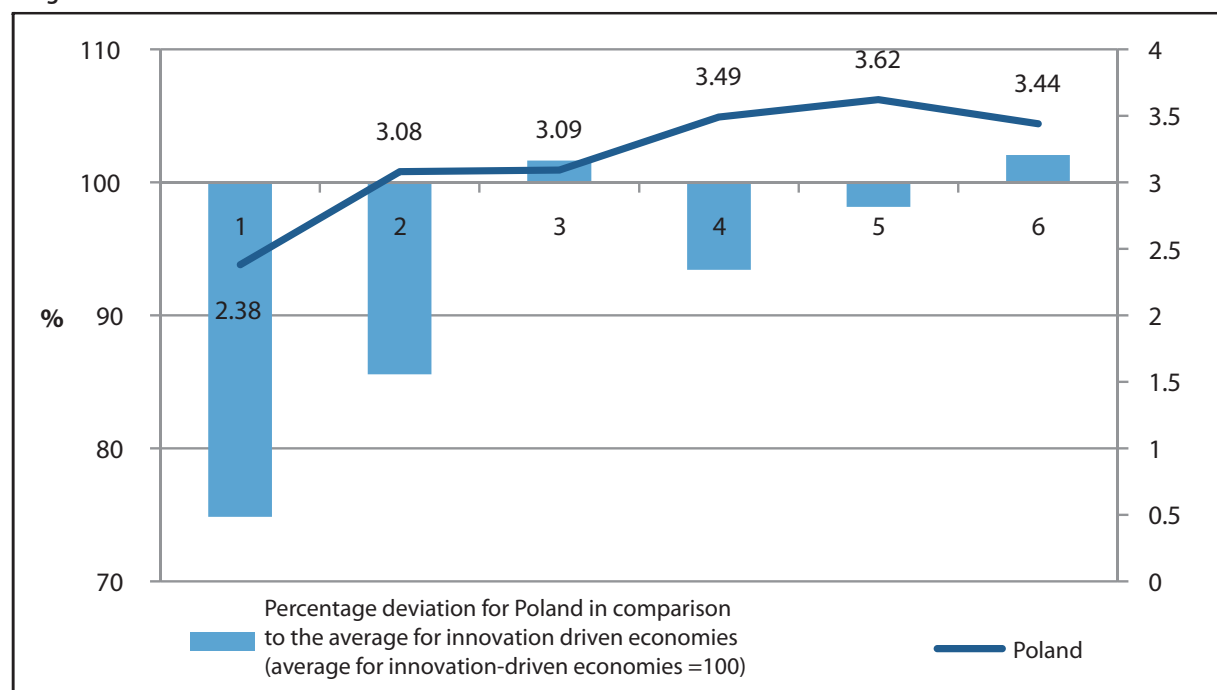
The interest in innovation block attempted at synthetically comparing entrepreneur behaviour (statements 1–3, diagram 27) and consumer behaviour (statements 4–6) in the innovation area. This is an interesting operation allowing for approximate assessment of whether there is compliance of the offer of firms with social (consumers') expectations in the innovation area in a given country. Inasmuch as the innovation potential of Polish firms is presented in appropriate literature, the respective basic dimensions of innovation of enterprises are measured, study into the bases of pro-innovation attitudes among consumers are not so popular, though surely this type of analyses may be carried out for the purposes of individual firms.

The issues predominating in various analyses of the role of the society in the innovation process relate in particular to such notions as social capital, human capital, creative potential and cultural potential. The analysis of these notions throws light on the condition of a given society and its potential input in innovation growth. It is quite low in Poland in the light of numerous studies (in particular in the area of social capital and creative potential); though on the other hand there are departures which undermine previous certainties.²⁵ In compliance with the slowly unveiling tendencies, Polish experts seem to notice the innovative potential of consumers, and to a lesser extent they notice it in the very entrepreneurs.

In the opinion of Polish experts, *firms* are rather not willing to experiment with new technologies and new types of activities. In their opinion, attach medium significance to innovation. As regards the innovation process, they also gave average mark to the share of firms with well-established position or rather fail to notice their special role. The total average experts' assessment for the three issues of this area was 2.84 points, i.e. just over 86% of the average for innovation-driven economies (3.28 points). The assessment of willingness of companies to experiment was the weakest of the three (75% of the average for innovation-driven economies) – statement 1.

The opinion on consumers' attitudes is better – experts assessed consumers' interest in new products and services, as well as innovations in general over the average. The case is similar for consumers' openness to products and services offered by new entities on the market. The average total assessment by Polish experts (3.52 points) is very close to the assessment by experts from innovation-driven economies (3.62 points).

Diagram 27. Interest in innovation: Poland vs. innovation-driven economies



1 – Companies like to experiment with new technologies and with new ways of doing things; **2** – Innovation is highly valued by companies; **3** – Established companies are open to using new, entrepreneurial companies as suppliers; **4** – Consumers like to try out new products and services; **5** – Innovation is highly valued by consumers; **6** – Consumers are open to buying products and services from new, entrepreneurial companies.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2011*.

²⁵ This relates to e.g.: the phenomenon described by Edwin Bendyk in the book entitled: "Bunt w sieci" demonstrating, *inter alia*, new forms of participation in culture, which the Internet has shaped in Poland, including the well-known protest of Internet users against ACTA, presenting an unusually strong social group, practically omitted by social studies carried out to date.

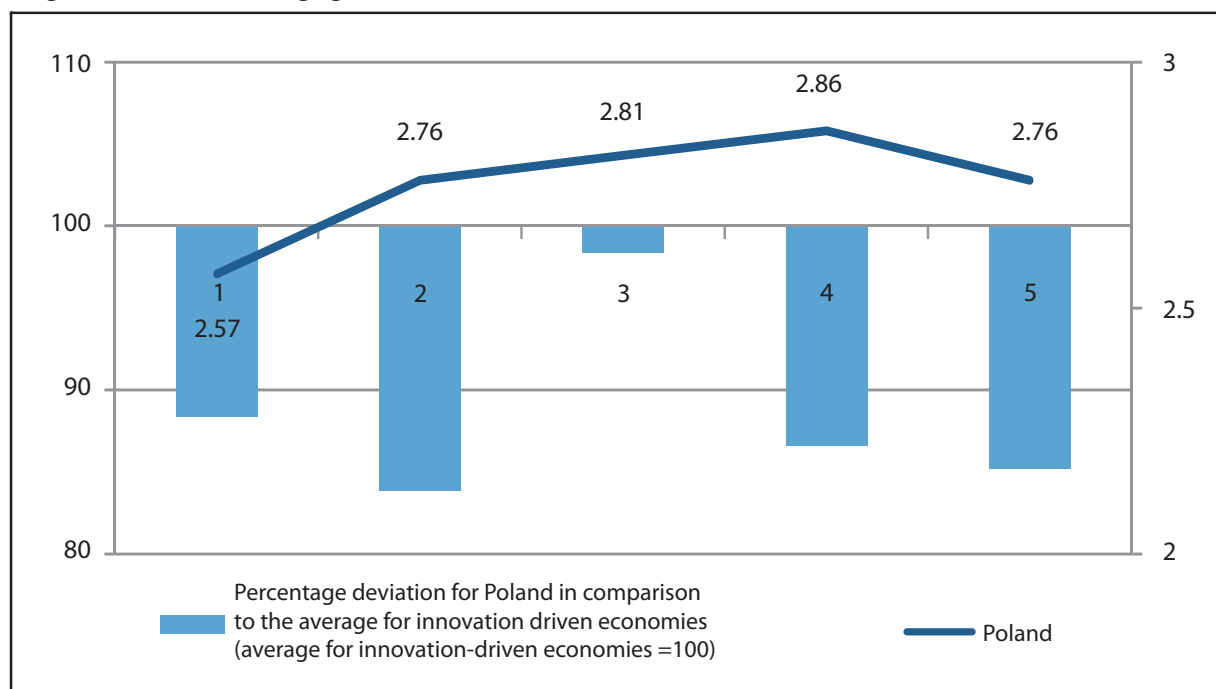
Comparing entrepreneurs' and consumers' attitudes it turns out that a certain level of divergence may be noted in Poland. The difference between the average of total points given to consumers and entrepreneurs is 0.67 points for the benefit of the consumers. In the case of innovation-driven economies the difference is half as small and stands at 0.33 point. As far as the respective questions are concerned, the greatest divergence for Poland is noted for the statement regarding willingness to experiment with new technologies – statements 1 and 4 (difference for the benefit of the consumer is 1.1 points). In the case of innovation-driven economies the difference in question is 0.56 points. In simple terms, it may thus be assumed that Polish consumers – on the level of attitudes and expectations – are very similar to consumers from innovation-driven economies. In the opinion of experts, these expectations are not met by Polish entrepreneurs, which translates into gap between sales and demand. This rather alarming information has a certain positive element as it reveals the growth potential as opposed to the situation in which both groups in question would demonstrate low indicators.

4.9. Support for high growth

It is worth underlining at the beginning that the sector of enterprises affects the development of the economy through economic growth and employment increase. However, only few enterprises contribute considerably to this growth. The majority of firms have no ambitions to dynamically develop and have maintained a fixed level of turnover and employment. The few firms are called high-growth firms, gazelles or firms with high growth potential.²⁶

High-growth firms may contribute to economic development in other ways as well. The majority of the firms are very unstable because of the fact that fast growth strategies usually involve considerably greater risk. This results in the very dynamic substitution of “old” firms with “new” ones, which in turn contributes to great dynamics of the economy. High-growth firms also contribute to greater innovativeness in the economy and greater labour productivity. They often affect the development of new technologies and products. They may become inspiration for new entrepreneurs. What is more, research has shown that ambitious entrepreneurship is a more important determinant of economic growth than entrepreneurship in general.

Diagram 28. Attention to high growth: Poland vs. innovation-driven economies



1 – There are many support initiatives that are specially tailored for high-growth entrepreneurial activity; **2** – Policy-makers are aware of the importance of high-growth entrepreneurial activity; **3** – People working in entrepreneurship support initiatives have sufficient skills and competence to support high-growth firms; **4** – Potential for rapid growth is often used as a selection criterion when choosing recipients of entrepreneurship support; **5** – Supporting rapid firm growth is a high priority in entrepreneurship policy.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2011*.

²⁶ All these categories may be defined in different ways. Certain definitions treat them as synonyms, others are separate (e.g. *High-growth firms in the UK: lessons from an analysis of comparative UK performance*, Department for Business, Enterprise & Regulatory Reform, November 2008, p. 4.). For the purposes of this study we will not go deep into the definition nuances and we will assume that these are dynamically growing companies or ones which may grow dynamically in the future.

In the NES study experts were asked to assess 5 areas related to support for high growth and the issues related to possibilities of fast growth for firms as well as to skills necessary for high growth (the latter two were mentioned in the previous subchapters). Support for high growth in Poland was assessed rather negatively. The average assessment of the respective areas was 2.74, which is a fairly low result. Moreover, Poland was given 15% less as compared to the average for innovation-driven economies. Rather equal marks were given to all aspects of high-growth support. Only one aspect (statement 3) regarding competence of people who provide support to high-growth firms was evaluated on similar level as in case of innovation-driven economies. Poland reached considerably lower results for other aspects (diagram 28).

The blocks of matters relating to market entry and education also cover issues related to fast growth. On the one hand, experts evaluated the possibilities of establishing high growth firms quite highly (3.30 – about 6% better than in countries with innovation-driven economies – statement 11 in diagram 24). On the other hand, their assessment of the knowledge and skills of Poles as regards the establishment and management of such firms was rather low (1.92 and ca. 92% of the average for innovation-driven economies – statement 7 in diagram 29).

Moreover, results of the adult population survey (APS) reveal that growth-related ambitions in Poland may be considered high. 30% of enterprises at an early stage of development (Total early-stage Entrepreneurial Activity) have great expectations as to employment growth (understood as willingness to employ more than 10 persons with simultaneous increase of their employment by 50% in 5 years). This is one of the highest results among the European countries participating in the GEM study in 2011. Furthermore, there are about 9% of firms with high expected employment increase among the firms participating in the market for over 3 years, which is also among the higher results.²⁷

Comparison of the above-mentioned data reveals that experts' opinions differ from the way the very entrepreneurs perceive the situation. Firstly, experts are far more pessimistic about the chances for fast growth of enterprises in the context of low skills of entrepreneurs. The phenomenon may be explained by the lack of self-criticism of entrepreneurs (which is noted also in other studies)²⁸. Secondly, it is worth noting that entrepreneurs are optimistic about the perspective of growth despite weak – as the experts claim – support system for this type of growth. Even though the available data fail to demonstrate how the entrepreneurs perceive the fast growth support system, it may be assumed that they do not take note of the necessity, nor even possibility to use State aid in this regard, in their growth forecasts.

Other studies suggest²⁹ that fast growth of firms is more determined by such factors as the society's level of education, market dynamics and entrepreneurship level in the society, which are areas that are not direct instruments addressed to entrepreneurs. However, the role of flexible labour market and easy access to sources of financing (but not necessarily to government funds) was stressed.

To sum up, according to experts the fast growth support is quite low, though their opinions are not coherent with views of the very entrepreneurs.

4.10. Education and trainings

Another area of the study covers education and trainings. In this area, experts were asked 6 questions regarding primary, secondary and higher education, as well as professional training and lifelong learning (statements 1–6 in diagram 29). Subsequently, experts were asked if the level of knowledge and skills of possible entrepreneurs was sufficient to successfully run a company (statements 7–11).

The topic of education and its impact on entrepreneurship level is studied widely. Study results show that the education level has positive impact on effects of business activity, which supports the necessity to train prospective entrepreneurs.³⁰ Moreover, it is paramount to introduce entrepreneurial training already at early stages of education.³¹ It was established that it is best to teach motivation to achievements, need for autonomy, creativity, setting goals, etc. at the primary and secondary school level. At the higher level, the highest effectiveness is attained through teaching specific skills necessary to run a firm. They may take a form of entrepreneurship or economy classes or they may form a part of other classes (e.g. project homework or team work). This study on a group of experts shows that the level of teaching entrepreneurship in Poland is unsatisfactory.

²⁷ D. Węclawska, *Firmy typu high-growth – zarządzanie i uwarunkowania wzrostu in: Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce*, Polska Agencja Rozwoju Przedsiębiorczości, Warsaw 2012.

²⁸ More on the issue: W. Orłowski, R. Pasternak, K. Flaht, D. Szubert, *Procesy inwestycyjne i strategię przedsiębiorstw w czasach kryzysu*, PARP 2010, Raźniewski R. (ed.), *Strategia niszy rynkowe jako specyficzny element potencjału rozwojowego mikroprzedsiębiorstw*, PARP 2010.

²⁹ D. Węclawska, *op.cit.*

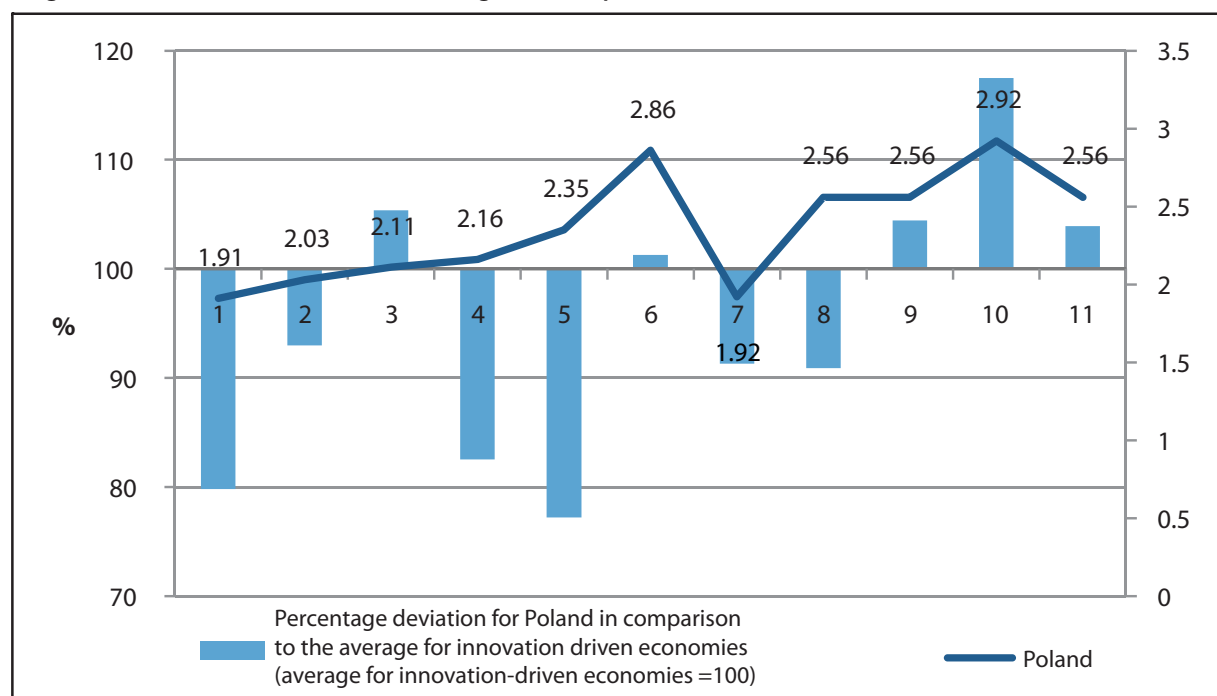
³⁰ D. Węclawska, P. Zadura-Lichota, *Wpływ edukacji na postawy przedsiębiorcze i przygotowanie młodych Polaków do działalności gospodarczej, in: Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce w latach 2008–2009*, PARP, Warsaw 2010.

³¹ I. van der Kuip, I. Verheul, *Early development of entrepreneurial qualities: the role of Initial Education*, SCALES-paper N200311, EIM Business and Policy Research, 2003.

First of all, experts maintain that primary and secondary education provides very weak encouragement for creativity, self-sufficiency, personal initiative and specific knowledge of how the market operates as well as setting up and running businesses (the average of 2.02 points on the 1 to 5 scale, where 1 means completely false, and 5 completely true). In the context of the above mentioned theory, very low result for statement 1: "Teaching in primary and secondary education encourages creativity, self-sufficiency, and personal initiative" should be particularly worrying. This is one of areas on this block with the worst score (1.91). Higher education (statement 4) was assessed slightly better (the average of 2.16). Both results, however, are lower than the average for countries with innovation-driven economy. Particularly large difference is noted for teaching creativity and innovation in primary and secondary schools (ca. 20% below the average result for countries with innovation-driven economy) and in the case of higher education (ca. 16%) – statement 4. In this area, vocational and professional education was definitely given the best score (2.86), which was close to the level obtained by countries with innovation-driven economy. It is also worth underlining that experts were fairly unanimous in their opinion on education and training (standard deviation for the respective answers was about 0.9).

The observations noted above reveal that education in Poland is considered an important factor of entrepreneurship growth and such challenges are faced not only in Poland. Negligence of teaching entrepreneurship in primary schools is particularly alarming. Inasmuch as higher education provides various initiatives and reforms (e.g. higher education reform), aimed at the improvement of the level of entrepreneurship teaching, primary and secondary education demonstrates little activity in this area. The above mentioned higher education reform of 2011 introduced the National Qualifications Framework for Higher Education, specifying the outcomes of education, e.g. in the category of competences of team work, creativity and entrepreneurship.

Diagram 29. Education, abilities and knowledge to start up: Poland vs. innovation-driven economies



1 – Teaching in primary and secondary education encourages creativity, self-sufficiency, and personal initiative; **2** – Teaching in primary and secondary education provides adequate instruction in market economic principles; **3** – Teaching in primary and secondary education provides adequate attention to entrepreneurship and new firm creation; **4** – Colleges and universities provide good and adequate preparation for starting up and growing new firms; **5** – The level of business and management education provide good and adequate preparation for starting up and growing new firms; **6** – The vocational, professional, and continuing education systems provide good and adequate preparation for starting up and growing new firms; **7** – Many people know how to start and manage a high-growth business; **8** – Many people know how to start and manage a small business; **9** – Many people have experience in starting a new business; **10** – Many people can react quickly to good opportunities for a new business; **11** – Many people have the ability to organize the resources required for a new business.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2011*.

Since entrepreneurship education was rated low, it is not surprising that the experts assessed *the level of skills and knowledge necessary for starting up business activity in Poland* as average (2.5). This area is among those with the lowest rates as regards education and training block. However, this result is on the average level of innovation-driven economies. It may be concluded indirectly that there are no other sources in Poland to provide information on how to successfully run a firm (e.g. family or media). It should also be noted that according to APS study Poles assessed their skills considerably better – 52% of respondents consider

them sufficient, which equals the average for countries with efficiency-driven economies and exceeds the result of countries with innovation-driven economies by 11 percentage points.

Knowledge associated with setting up and running a firm with high growth potential was assessed particularly low (1.92 – statement 7 in diagram 29. A separate paragraph in Chapter 4.9 is devoted to this issue. As compared to the average for innovation-driven economies, knowledge of setting up and running a small firm was also poor – statement 8 (ca. 10% below the average). Ability to react quickly to new business opportunities was assessed the best by experts – statement 10 (2.92 and ca. 8% above the average).

To sum up, the level of teaching entrepreneurship in Poland is rather low, which is reflected in low firm managing skills.

4.11. Social and cultural norms

For some time now, the researchers have been noticing the impact of cultural factors on the level of entrepreneurship in the country. While economic determinants (e.g. per capita income or technology development) accounts for the main changes to the level of entrepreneurship in time, variation between countries is explained mainly by institutional and cultural factors. It was assumed that an entrepreneur plays a social role, therefore it is entwined in the social, political and cultural context. Entrepreneurs may play their roles in several dimensions: economic – as economic growth and jobs creators, social – as creators of a middle class with its value system and style of living, on the level of local communities they should create civil society, and mentally – through innovative solutions created by entrepreneurs – they contribute to overcoming everyday habits and routine in usual activities.

Cultural factors shape the environment of business activity. In 1995, Davidson searched for cultural determinants of entrepreneurship and defined the aggregate psychological trait providing that if a country has more highly-entrepreneurial people, it simultaneously has more entrepreneurs, and the country's entrepreneurship level is higher.³² As obvious as it is, the statement allows to connect the entrepreneurship level on the country and individual level. It also underlines the individual factor as opposed to external entrepreneurship determinants.

The second view explaining entrepreneurship in the cultural context is the concept of social legitimacy of entrepreneurship.³³ Higher level of social legitimacy of entrepreneurship manifests itself through greater attention paid to teaching entrepreneurship, higher social status of entrepreneurs as well as through such solutions as e.g. tax reliefs for this group.

Another theory – social exclusion – seeks the sources of entrepreneurship in social exclusion of certain groups. In other words, entrepreneurship level depends on differences in values and beliefs between the entire society and the potential entrepreneur. It is the difference in values that makes the prospective entrepreneur seek other solutions than work in a typical organisation. This is the opposite concept to the legitimacy theory.

At the beginning of the 1980's, Geert Hofstede suggested the theory of indices diversifying the cultures of countries. The measurements are based on differences in functioning within a family, society, at school and in public life. The theory was used e.g. for inter-cultural management in organisations. Four indices were suggested:³⁴ Power Distance Index – PDI, Individualism Index – IDV, Masculinity Index – MAS and Uncertainty Avoidance Index – UAI. The majority of studies reveal a positive relation between the entrepreneurship level and PDI, the greater Power Distance Index in the society has positive impact on the level of entrepreneurship. Greater Power Distance Index relates to greater subordination and obedience to superiors. In such an environment entrepreneurial individuals (characterised by an internal locus of control and the need of independence) do not feel well and decide to set up their own businesses. In the countries where the Power Distance Index is smaller and thus superior-subordinate relationship is lower, entrepreneurial individuals may fulfil their need of independence within an organisation. This concept and the cultural dimension (high PDI value for Poland) may partially explain the relatively high level of entrepreneurship in Poland. This is also related to the level of intrapreneurship, but it is the topic for a separate analysis.

The concept of social legitimacy is particularly useful to explain e.g. the significance of image of entrepreneurs. First of all, Glinka's analysis of cultural determinants of entrepreneurship lead to the conclusion that social perception of entrepreneurs, attitude to wealth and image of the economy are of immense significance when taking decisions on setting up an enterprise. The author underlined the role of entrepreneur's image in the society presented by the media, public opinion and social authorities.³⁵

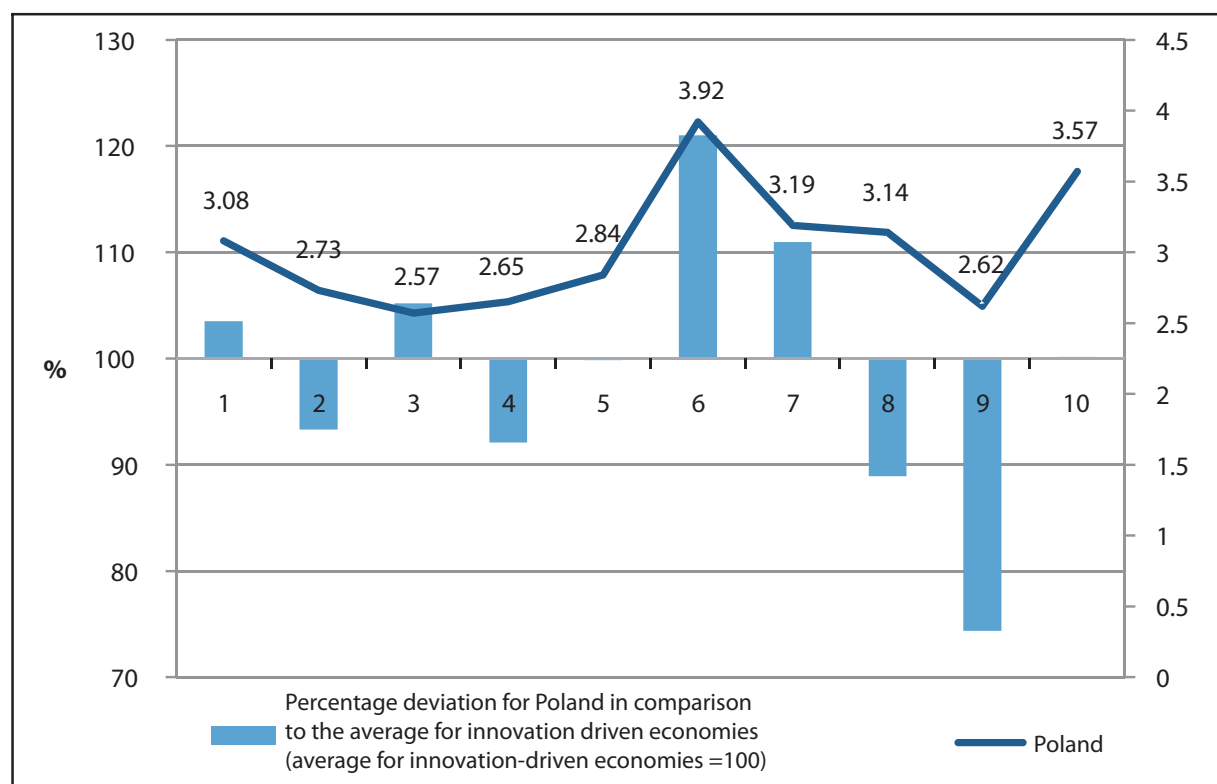
³² N. Fuduric, *The sources of Entrepreneurial Opportunities. Perspectives on Individuals and Institutions*, Publication Series, Department of Development and Planning, Aalborg University No. 2008-7, p. 27.

³³ *Ibidem*, p. 28.

³⁴ G. Hofstede, *Cultures and organisations. Software of the mind*, McGraw-Hill, 1991.

³⁵ B. Glinka, *Kulturowe uwarunkowania przedsiębiorczości w Polsce*, Polskie Wydawnictwo Ekonomiczne, Warsaw 2008.

Diagram 30. Cultural and social norms: Poland vs. innovation-driven economies



1 – The national culture is highly supportive of individual success achieved through own personal efforts; **2** – The national culture emphasizes self-sufficiency, autonomy, and personal initiative; **3** – The national culture encourages entrepreneurial risk-taking; **4** – The national culture encourages creativity and innovativeness; **5** – The national culture emphasizes the responsibility that the individual (rather than the collective) has in managing his or her own life; **6** – The creation of new ventures is considered an appropriate way to become rich; **7** – Most people consider becoming an entrepreneur as a desirable career choice; **8** – Successful entrepreneurs have a high level of status and respect; **9** – You will often see stories in the public media about successful entrepreneurs; **10**– Most people think of entrepreneurs as competent, resourceful individuals.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2011*.

Secondly, the results of the Eurobarometer 2009 survey demonstrate that entrepreneurs are perceived negatively in Poland. On average as much as 9% of the population in the European Union (EU27) has negative opinion on entrepreneurs, in Poland this number is much higher – as much as ca. 18%.³⁶

In the course of the study the experts were also asked to express opinions on social and cultural norms as well as the image of entrepreneurs which could positively affect the level of entrepreneurship in the country.

Social image of entrepreneurship (statements 6–10 in diagram 30) was recognised to be rather average (the level of 3.27), yet slightly below the average for innovation-driven economies (3.37). One aspect of this area could require further analysis, namely the opinion that starting a new company is a good way to become rich (statement 6). Experts agreed very strongly with this statement (the level of 3.92) and simultaneously were quite unanimous (standard deviation 0.76). This result is also far beyond the average for innovation-driven economies (circa by 20%). Such a difference in attitude to one's own firm as a source of income may stem from the fact that in innovation countries similar income is expected both as an employee and a self-employed person, while being an employee ensures greater stability and security. The experts also assessed positively the opinion of the society concerning entrepreneurs as being competent and resourceful – statement 10 (3.57). On the other hand, experts were uncertain in their assessment of the presence of positive stories about entrepreneurs in the media – statement 9 (standard deviation 1.11). This aspect was assessed rather low (the level of 2.62) and considerably below the average for innovation-driven economies (circa 25% less). The level of agreement as to the statement that entrepreneurs achieving success have good social position and respect was also assessed far below the average for this group of countries – statement 8 (circa 11%).

Social and cultural norms (statements 1–5 in diagram 30), understood as social support for the strive for personal success, underlining the role of self-sufficiency, entrepreneurship, creativity and innovation in the society, were assessed rather low. This result is slightly below the average for innovation-driven economies.

³⁶ Entrepreneurship in the EU and beyond. Analytical Report, Flash Eurobarometr 283, The Gallup Organization, 2009, p. 163.

The results above demonstrate that social image of entrepreneurs is average as compared to countries with innovation-driven economies. Let us not forget that in this group of countries, entrepreneurship is the lowest among all three groups – due, e.g., to the more attractive possibility to work as an employee. The results suggest that Poland needs to improve the image of entrepreneurs. Measures in this regard should translate into the increase of the level of entrepreneurship.

4.12. Female entrepreneurship

This chapter presents the assessment of female entrepreneurship development determinants. The analysis covers both social and cultural determinants (statements 1–3, diagram 31) as well as issues relating to capabilities and chances to set up business activity on account of gender (statements 4 and 5).

In European and other countries in the world ca. 187 million women carry out business activity.³⁷ This group covers over 104 million women setting up their businesses and going through the first phase, while the remaining 83 million includes women, who run their companies for more than 3.5 years.

Permanent disproportion between genders in the area of business activity may be alarming – for the last 9 years, i.e. between 2002 and 2010 such disproportions were recorded in the countries in question.³⁸ This is also confirmed by the World Bank data quoted in the OECD report: *Women in Business. Policies to Support Women's Entrepreneurship Development in the MENA Region*³⁹ providing that just over one third (35.3%) of global enterprises are run by women. Moreover, as compared to men, women usually start by establishing small enterprises and most often fail to grow, remaining on the micro-enterprise level, having a lower capitalization level and less frequently deciding to enter foreign markets.⁴⁰

This undoubtedly results from the fact that women, as opposed to men, often regard their own abilities and chances for success in business activity to be worse, they are less motivated and are more afraid they will fail. The differences are most visible in the developed countries.

Entrepreneurship in Europe, measured by the number of the self-employed (enterprises without employees), demonstrates that even though we are 5th in Europe in terms of the number of such enterprises, we still rank 12th (with the indicator of 35.1%) in the share of such enterprises run by women. The ranking of 29 European countries is led by Switzerland, where nearly every second one-person enterprise (47%) is owned by a woman.⁴¹

In terms of the number of employers (i.e. firms with employees), Poland places quite well as compared to other European countries (7th among 29 European countries and 6th in the EU). Moreover, we are 3rd in the EU and in Europe, with the indicator of 30.5%, as far as the share of firms run by women among such enterprises is concerned. We are outdistanced only by Latvia (33.6%) and Bulgaria (30.53%).⁴²

Analysis of the number of enterprises (self-employed and with employees), as compared to the percentage of firms run by women, demonstrates the lack of relation between these categories. Women-run enterprises are often in the minority in countries with a high number of employers (e.g. in Turkey). A reverse relation is also noted, e.g. in Latvia, Bulgaria and Portugal, where among the enterprises with employees those run by women are exceptionally frequent. Therefore, the development of female entrepreneurship depends on other factors.

Experts evaluated the conditions of female entrepreneurship in Poland very positively (3.48). Poland was 18th as compared to the other countries covered by the GEM 2011 study, and at the same time the best result in this regard was 4.00 and was obtained by Norway. The result for Poland turned out slightly better (by circa 2%) as compared to the average for innovation-driven economies. Among the European countries the better mark in this category, next to Norway, was obtained by: Finland (3.93), Sweden (3.71), the Netherlands (3.64), France (3.58), Slovenia (3.56), Latvia (3.54) and Ireland (3.50) – the total of 8 countries.

Experts took into account the cultural and social conditions of development of female entrepreneurship as well as support for female entrepreneurship. They claim that setting up new businesses is a socially approved career path for women – statement 2 in Diagram 31 (result 3.65). Moreover, it is a very good result as compared to the other countries participating in the GEM study, since in this category we are 16th (3.72), in the general ranking of 49 countries. Jamaica (4.29) and Singapore (4.22) are the countries with the greatest acceptance of female-entrepreneurs. Hungary, with the result of 2.27, has the lowest social acceptance of female-entrepreneurs. As compared to innovation-driven economies, the result of Poland is better by over 2%.

³⁷ Data relate to 2010, 59 countries in the world, *Global Entrepreneurship Monitor 2010 Women's Report*, GEM 2011.

³⁸ Ibidem.

³⁹ *Women in Business. Policies to Support Women's Entrepreneurship Development in the MENA Region*, OECD, 2012.

⁴⁰ Ibidem.

⁴¹ *OECD Labour Force Survey 2011*.

⁴² Ibidem.

The assessment of GEM experts coincides with the results of PARP study devoted to female entrepreneurship in Poland. Even though “among over 40% of female entrepreneurs, unemployed and inactive and nearly 40% of women working as an employee, the whole or most of housework” is done by women alone,⁴³ there is more or less equal division of household duties between a woman and her husband/partner in families of every second woman performing hired labour and every third female-entrepreneur. This means that cultural norms according to which women’s main roles are maternity and taking care of the household are becoming extinct.

Appropriate education undoubtedly contributes to the fact that the increasing number of women can set up their businesses. Women in Poland are generally better educated than men. BAEL data for 1st quarter of 2012 demonstrate that there are over 22% women with higher education in Poland, whereas there are 5 percentage points fewer men with such education, i.e. 17%. However, education profiles demonstrate that women’s education is mostly in humanities, social and general studies, while men decidedly lead in terms of science, engineering and construction.⁴⁴ The comparison of the data with PARP study results on female entrepreneurship, according to which the level of education is negatively correlated with running a business activity,⁴⁵ because better educated people find hired labour easier, demonstrates that the sheer fact of women having high education does not necessarily encourage them to set up business activity. On the other hand, divergences are noted for educational profiles, which may make certain female groups set up their own firms, so to speak, depending on the current market demand.

GEM experts assessed capabilities (i.e. knowledge and skills) and chances of women and men to set up companies. They agreed that women and men are equally able to set up a business – statement 5 in diagram 31 (the result of 4.38, 7% higher than the average for innovation-driven economies). Moreover, they claim that both genders have equal chances of setting up their own business – statement 4 (result 3.73). Equality of chances in Poland was assessed better than in innovation-driven economies – by over 16%. As far as this category is concerned, we are 5th in the general list of all countries subject to the GEM 2011 study, after Finland (3.86), Norway (3.82), Thailand (3.81) and Taiwan (3.78). As far as assessment of equality in terms of capabilities of both genders is concerned, we are the 8th country in the general list of all countries subject to the GEM 2011 study – in this case Finland occupies the 1st position with the 4.69 result.

Existence of an effective system of institutional childcare is one of the key factors supporting the development of female entrepreneurship. This is particularly important in the context of balancing professional and private life. Inasmuch as women (both employees and self-employed) claimed in the PARP study that their own firm improves their management of time devoted to household duties and work, two thirds of the responding entrepreneurs (irrespective of gender) maintain that carrying out one’s own business limits time devoted to household duties.

Institutional care is undoubtedly very important and OECD data demonstrate that Poland has one of the lowest percentages of children aged less than 6 in crèches or nursery schools.⁴⁶ PARP study results point to the problem of availability of institutional care, both on the level of pre-school and early school education. The female entrepreneur respondents claim that there are too little public small childcare facilities and that fees are often too high as compared to their financial means. Kurowska⁴⁷ maintains that the reasons of insufficient development of institutional childcare are various. Undoubtedly, the possibility that relatives could take care of the children was one factor (supported by legal solutions facilitating women with a 30-years work experience going into early retirement at the age of 55, by law at the age of 60), followed by high formal requirements limiting the establishment and handling of such facilities and the rule according to which establishment, handling and maintenance of nursery schools is municipality’s (called in Polish nomenclature *gmina*) own task, which increased fees for the use of this form of care due to *gminas’* limited budgets. Changes in all those areas give hope for the improvement of the existing situation. Higher retirement age⁴⁸ and the new act on care of children up to 3 years of age⁴⁹ as well as the planned support from the state budget to *gminas* facilitating the subsidising of costs of care of children in nursery schools should improve the current situation in the years to come.

⁴³ B. Balcerzak-Paradowska, M. Bednarski, D. Głogosz, P. Kuzstelak, A. Ruzik-Sierdzińska, J. Mirosław, *Przedsiębiorczość kobiet w Polsce*, PARP 2011, p. 87.

⁴⁴ Data from BAEL for the 1st quarter of 2012 for females and males aged 15 and over with higher education – percentage of females and males with a given profile in the population of females and males with higher education.

⁴⁵ B. Balcerzak-Paradowska, *op.cit.*, p. 65.

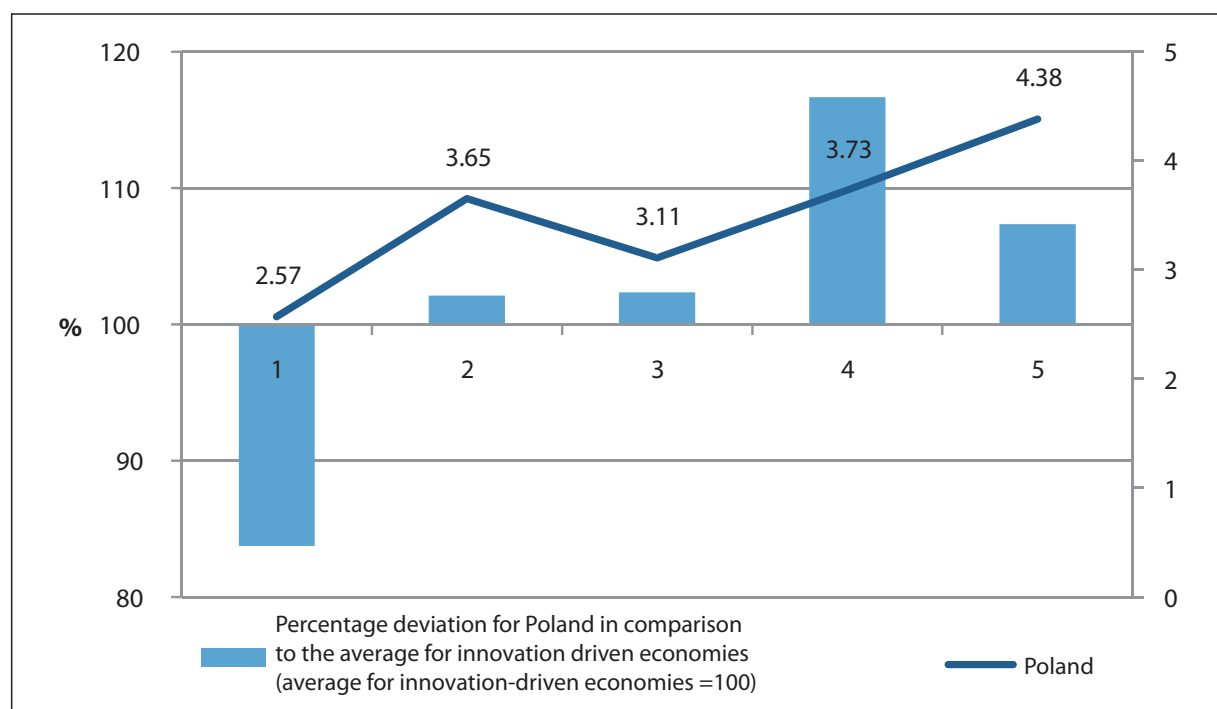
⁴⁶ *OECD Family Database 2011*; in Poland 47.3% of children aged 3–5 are covered by institutional care, which in comparison with 40 countries in the world gives us the 3rd place to last before Greece and Turkey (OECD average is 77%). As far as care of children up to 2 years old is concerned, only just under 8% of children are covered by care, which gives us the 4th place before Malta, Mexico and Czech Republic with the OECD countries average of 30%.

⁴⁷ A. Kurowska, I. Dwórznik, P. Franczak, Expertese entitled: *Prawo sprzyjające przedsiębiorczości kobiet w Polsce. Rekomendacje zmian*, PARP 2011.

⁴⁸ The significance of this factor will decrease in the upcoming years as since 2013 it will be impossible to use earlier retirement; the statutory retirement age has also been changed – 67 years, and at the same time women will be allowed to go on earlier retirement at the age of 62. Partial retirement will amount to 50% of salary earned.

⁴⁹ Act of 4 February 2011 on care of children up to 3 years of age (Dz.U. No 45, item 235) largely lifts those limitations by introducing, inter alia, new forms of care of children, e.g. children clubs, day minders or nannies (in this case a new incentive in form of activating contracts was also introduced; the contracts forming an incentive to legal employment of children minders in form of ZUS contributions made by the state).

Diagram 31. Women's support to start up: Poland vs. innovation-driven economies



1 – There are sufficient social services available so that women can continue to work even after they start a family; **2** – Starting a new business is a socially acceptable career option for women; **3** – Women are encouraged to become self-employed or start a new business; **4** – Men and women get equally exposed to good opportunities to start a new business; **5** – Men and women are equally able to start a new business.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2011*.

However, according to GEM experts, the access to social services (statement 1) is decidedly insufficient for women to be able to continue work even after starting a family. Assessment in this category reached only 2.57 and was over 16% lower than the average for innovation-driven economies. Poland occupies the 30th position in terms of available social services supporting women according to the general GEM ranking. Nordic countries – Finland (3.86) and Norway (3.8) – are at the top of the ranking of European countries.

Experts maintain that women in Poland are offered incentives to become entrepreneur or to start a new business activity (3.11) (statement 3). The result slightly exceeded the average for innovation-driven economies (by about 2%). However, Poland occupies the 19th position in this area in the total list of 49 countries under the GEM study. Norway, with the result of 3.78, is the best country in terms of incentives to start a business.

The fact that women have considerable potential to grow by running their own businesses is reflected by their active attitude – more than three in five women working as an employee (63%)⁵⁰ and every second unemployed and inactive woman consider setting up their own firms in the next five years. Moreover, 64% of the same group of working women and 58% of the unemployed and inactive women had considered setting up a company in the past, which means that with appropriate support the increase of the number of new entities owned by women might be noticed soon.

Certainly, female entrepreneurship development conditions in Poland will be of significance. Experts' assessment reveals that there is good reason to be positive – in five areas assessed four results were better for Poland than for countries with innovation-driven economies. Statements 4 and 5, concerning equality of chances and ability to set up a firm, were assessed particularly positive in the context of the said countries. There is, however, room for improvement in the area of availability of social services to allow women to continue work after starting a family. The above mentioned changes introduced in 2011 and 2012, not yet fully implemented during the experts' study, give hope for the future.

⁵⁰ Balcerzak-Paradowska B. et al., *op.cit.*

4.13. Intrapreneurship

This chapter presents results of assessment of intrapreneurship growth determinants in Poland by describing such factors as: support for taking up entrepreneurial/innovative measures by enterprise employees on the level of education of society and as part of operating enterprises (support from employers and colleagues) as well as existence of top-down decision-making systems in companies.

Intrapreneurship (also: employee and organisational entrepreneurship) means taking up new voluntary projects by employees under the existing organisation. Therefore it is called employee or organisational entrepreneurship.

The idea of intrapreneurship is attributed to Gifford and Elizabeth Pinchot, presenting in their 1978 study *Intra-Corporate Entrepreneurship* the notion of employee entrepreneurship as an answer to problems of large corporations – interestingly enough problems attributed mainly to their size. According to G. and E. Pinchot, larger organisations often experience a kind of isolation of managers from ordinary workers, leading to the situation in which solutions to problems of the organisation are decided away from specialist knowledge. In such situations, companies often employ the solution of decentralisation of the decision-making process by replacing the organisational structure with a more horizontal one, with independent divisions. However, G. and E. Pinchot maintain that this is insufficient from the point of view of the need to identify creative workers, whose pro-entrepreneurial activity may considerably contribute to the success of the whole organisation. Therefore, modification of the decision-making process from top-down to bottom-up, i.e. where any employee may suggest solutions and decisions, is a significant factor determining enterprise growth. The intrapreneurship approach guarantees satisfaction and fulfilment of individual employees and improvement of functioning as well as increase in productivity of the whole organisation.

The issue of intrapreneurship has been taken up since the 1980's by numerous researchers identifying entrepreneurial activities of employees to be the source of new competitive advantages for modern enterprises, manifesting itself in increased innovation, productivity, profit and general revival of the company.⁵¹

Maier and Zenovia (2011)⁵² studied similarities and differences between entrepreneurs and intrapreneurs and compared the latter to revolutionaries fighting for changes to “revive” the company from the inside. Martiarena (2011)⁵³ believes that intrapreneurs – contrary to entrepreneurs – are less prone to take on risks and are less equipped with the skills that are typical for entrepreneurs. Moreover, as they become more experienced in undertaking intrapreneurial activities, intrapreneurs become more and more like entrepreneurs – at the beginning they remind more of regular employees, but with time they become so-called engaged intrapreneurs, i.e. intrapreneurs who expect to become shareholders of the company – they display all typical characteristics of entrepreneurs.

3M is one of the examples of enterprises where intrapreneurship is the key approach to business. 3M applies the rule that an employee may devote at least 15% of his working time to implementing tasks related to his own business ideas. Steve Jobs also described the team working on Macintosh as an intra-project of Apple. Undoubtedly, both 3M and Apple are the giants that numerous smaller enterprises see as companies which have fulfilled their dreams or simply examples of companies operating in a different reality.

Experts carrying out the GEM study also assessed entrepreneurial activities of employees in Poland (statements 1, 4, 5 on diagram 32). As far as assessment of support for intrapreneurship growth under a given enterprise is concerned, Poland obtained 2.94 points – lower than the average for countries with innovation-driven economies by circa 4%. Poland occupies the 23rd position in the general list of countries covered by the GEM 2011 study. Singapore is the leader with the result of 3.77. Norway (3.31) and Switzerland (3.3) are on the top of the ranking in Europe.

Experts also assessed whether or not the traditional decision-making model (top-down) prevailed in the companies. Considerably high mark of 3.72 confirms that entrepreneurs in Poland adopt the model of responsibility in which decisions remain in the hands of managers and owners. The result is similar to the average for innovation economies (3.79, 98% of the average). However, Poland occupies the 35th position in the general list of 49 countries subject to the GEM 2011 study. Greece is the leader with the result of 4.3.

The results above base line on the assessment of five areas, where statement 3 in diagram 32 obtained the highest mark (3.77). The statement confirmed the lack of a dispersed decision-making system in Polish small and medium-sized enterprises (statement 2) (in the case of large entities – the assessment was 3.71, and at the same time the result for innovation-driven

⁵¹ B. Antoncic, *Intrapreneurship: a comparative structural equation modeling study*, Industrial Management & Data Systems, Vol. 107 No 3, 2007 pp. 309-327, Emerald Group Publishing Ltd.

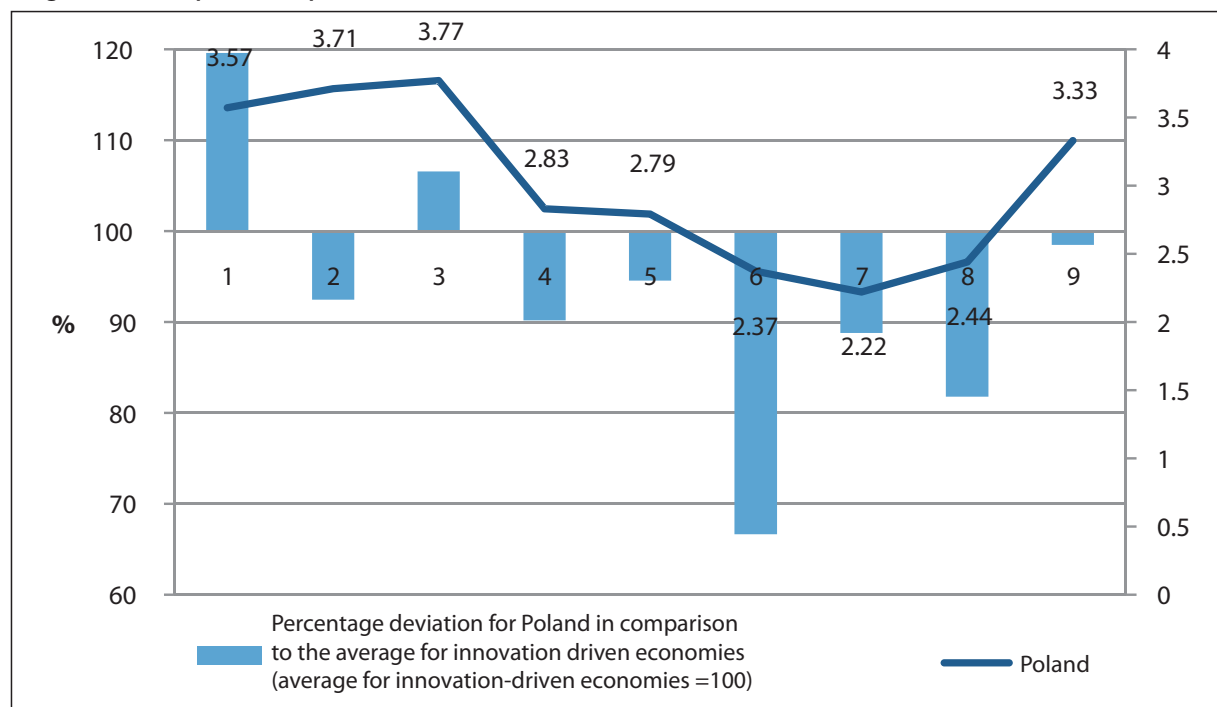
⁵² V. Maier and C. Zenovia, *Entrepreneurship vs Intrapreneurship*, Review of International Comparative Management, Volume 12, Issue 5, December 2011.

⁵³ A. Martiarena, *What's so entrepreneurial about intrapreneurs?* Small Business Economics, published online 01 July 2011.

economies was higher by 8%, and lower by 7% for SMEs). This means that Polish large enterprises, contrary to SMEs, as compared to innovation-driven economies, more often abandon the traditional decision-making model – it turns out that Polish owners prefer the centralised model of management, which most often fails to perform well when a certain level of growth is reached. The preference among owners of smaller entities to rely on their own decisions is closely related to the size of their enterprise and results mostly from the confidence in own skills and mistrust towards the employees.

Experts also agreed as to the statement (1 in diagram 32) that Poland has no formal limitations for employees willing to set up their businesses by using resources, knowledge and contacts obtained as an employee of the current company – a relatively high mark of 3.57. This result is far better than that of innovation-driven economies (by approximately 20%). Lower marks (at the level of ca. 2.8) were given to statements concerning the assurance of support from employers and colleagues for employees bringing new ideas. As compared to innovation-driven economies, the behaviour of Polish colleagues is on a similar level (statement 5) (assessment for Poland is by 6% lower than in innovation-driven economies); however, employee attitude (statement 4) is considerably worse (by nearly 10% as compared to those countries).

Diagram 32. Intrapreneurship: Poland vs. innovation-driven economies



1 – There are no formal restrictions if you want to start a business using the resources, knowledge and contacts obtained from your current job as an employee; 2 – Top-down decision making strategies dominate bottom-up decision making strategies within large organizations; 3 – Top-down decision making strategies dominate bottom-up decision making strategies within small and medium sized organizations; 4 – Employers provide support to employees who come up with new ideas; 5 – Employees support colleagues who come up with new ideas; 6 – Entrepreneurs have much less access to social security than employees; 7 – The education system emphasizes innovative and pro-active behavior of individuals in general; 8 – Employers stimulate proactive behavior by employees; 9 – The level of employment protection is deterring employees to start their own business.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2011*.

B. Antoncic (2007)⁵⁴ maintains that intrapreneurship growth depends on two groups of factors: external environment of the enterprise and internal – specific to a given organisation.

As for the external environment, the most important factors having positive impact on employee entrepreneurship growth include: dynamics of the market/branch in which the entity is operating, technological growth and opportunities to apply new technologies, demand for new technologies. Unfavourable factors include: sudden market changes and strong competition.

On the level of the very enterprise the important conditions include: communication openness (defined as quality and quantity of information disseminated within the company, sharing of and access to information and responsibility for providing and disseminating the information); existence of systems to monitor pro-entrepreneurial activities in the company; constant search for information about the changes in the company's environment, seeking possible threats and opportunities; obtaining feedback from the customers and – the most important factor of all – enterprise management process. As for the last area, involvement

⁵⁴ B. Antoncic, *op.cit.*

of managers in the company's activity is important, along with the support for employees, trust in an individual employee, adequate motivation and award system for creative and pro-entrepreneurial employees. The values, i.e. mission, vision of the company shared by managers and employees as well as a specific code of ethics applied by a given organisation, often uniting employees around one common idea and motivating involvement in additional activities for the benefit of the enterprise⁵⁵ are certainly worth mentioning here.

GEM experts assessed conditions of employee entrepreneurship growth in Poland in four areas. Two cumulative indicators were established on this basis, i.e. indirect – public external intrapreneurship growth factors (statements 6, 7 on diagram 32) and direct – external factors (statements 8, 9). As far as these factors are concerned, Poland obtained 2.88 and 2.33 points respectively – lower than the average for innovative economies by 7% and 4%.

The greatest disparity between the average for innovative economies and Poland lies in the assessment of the entrepreneurs' and employees' access to social security (statement 6 in diagram 32). Polish experts fail to fully agree with the assumption that entrepreneurs have worse access to social security than their employees. Poland's result in this area was just 2.37, i.e. 67% of the average for innovative economies. Another greater difference, according to Polish and innovative economies' experts, related to stimulating proactive behaviours of employees by employers (statement 8) (the assessment for Poland was 2.44 – by 10% lower).

The education system as an important element of innovative and proactive attitude of the society (statement 7 in diagram 32) was also assessed. Poland got an unfavourable mark of 2.22, while the assessment of this system in innovative economies was 2.50. Employee entrepreneurship growth is also supported by the level of employee protection, discouraging employees from setting up their own enterprises (statement 9 in diagram 32) – the assessment for Poland was 3.33. This result is similar to the average for innovative economies (3.38).

According to GEM 2011 study covering adults in Poland (APS, compare with chapter 3.11), intrapreneurs form 2.8% of the population and 5.7% of employees (who had taken entrepreneurial actions as part of the employing entity three years before the study). The results are slightly higher than the average for countries with economies similar to ours (efficiency-driven), yet simultaneously they are nearly twice as little as the average for innovative economies (5.8% and 9.1% respectively).

Technological progress and globalisation processes in the modern world make the entrepreneurs carry out activities in a flexible way allowing for great adjustment to change. On the other hand, in order to maintain high competitive position, they must be highly-entrepreneurial and persist in creating new solutions. This, in turn, requires participation of people – employees with typical characteristics of entrepreneurs: high activity and willingness to be active, creativity and innovation, responsibility, involvement and high quality of tasks performed.

Employees creating conditions for intrapreneurship growth are in a good position. What can the entities in the opposite situation do? G. Pinchot claims that companies should start with assuring greater freedom and independence for individual employees and then introducing a system to promote entrepreneurial behaviour in an enterprise.

However, experts' assessment reveals that intrapreneurship growth in Poland may be difficult for several reasons. Our enterprises are dominated by the top-down decision-making model, support for creative employees by employers and colleagues is insufficient to be recognised as an incentive for employee entrepreneurship growth.

4.14. Summary

The analysis of all the areas in question leads to interesting conclusions. On the one hand, the level of administrative and tax burden was considered high, and the education system insufficient for entrepreneurship growth. On the other, it was concluded that entrepreneurship growth is one of the priorities of the government. Experts assessed support for high growth equally low. What is more, both technology transfer and commercial and service infrastructure were given negative marks. Experts had positive opinions about physical infrastructure and conditions to enter the market.

It may be assumed on these grounds that Poland has positive conditions for small entrepreneurship growth, i.e. "small business" that are characterised by of low ambition for intensive growth and reluctance to take up large-scale, risky, innovative projects.

Certainly, Polish entrepreneurship has potential for further development towards more ambitious type of activity. This is, *inter alia*, reflected by high assessment of consumer innovation. However, in order to achieve this it is necessary to improve technology transfer, support for high-growth companies, access to financing (in particular of the most risky projects) and quality of commercial and service infrastructure (e.g. in the scope of management accounting). As already mentioned in Subchapter

⁵⁵ B. Antoncić, *op.cit.*

4.9, more ambitious entrepreneurship has decidedly greater impact on the pace of economic growth, therefore actions in this respect are worthy of effort.

What also should be stressed is the significance of cultural determinants of entrepreneurship (assessed quite moderately), which in turn translate into other areas, e.g. education or tax system. However, in order to change the social attitude, the suitable actions should be taken very early – at primary and secondary school. Therefore, a type of vicious circle is established here: social attitudes to entrepreneurship affect the methods of teaching entrepreneurship, and change of attitudes is easier to carry out at early stages of education. Consequently, intentional shaping of social attitudes is necessary, on the one hand, by reaching a wide group of recipients, and on the other, by teaching entrepreneurial behaviour as early as in primary school.

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Notes

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