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Global Entrepreneurship Monitor report – Poland 2012

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Dear Readers,

I have the pleasure to present the second edition of the **Global Entrepreneurship Monitor report – Poland 2012**. It is based on the results of research carried out under the largest international research project in the area of entrepreneurship i.e. Global Entrepreneurship Monitor (GEM).

In the 13-year-long history of GEM, 2012 was another year in which the number of countries covered by surveys increased to 69, which translates into the three fourths of the global population and almost 90% of the global GDP. Poland was present in GEM in 2004, and then joined the group of the countries participating in the project again in 2011, as a team formed by the Polish Agency for Enterprise Development and the University of Economics in Katowice.

Numerous scientists all over the world use the GEM results, 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 part of quantitative survey and obtaining data for its own analyses and publications.

This year's **Global Entrepreneurship Monitor report – Poland 2012** presents the condition of entrepreneurship in Poland compared to the other European countries and the USA in 2012, as well as in relation to the previous year. It describes intentions and motivations of Poles to start business activity and its further development. It also shows determinants of entrepreneurship in such aspects as support programmes for entrepreneurs, access to financing, technology transfer, cultural and social determinants, as well as entrepreneurship of women, high growth companies and young people.

An interesting aspect, to which a separate chapter in the Report is dedicated, concerns business relations where we looked at cooperation among early-stage entrepreneurs and established enterprises with regard to their current functioning and innovative activity. We also analysed that subject in terms of age and gender of the entrepreneur.

Both the conclusions on business relations and other data from the Report regarding the condition of entrepreneurship or determinants of its development provide a lot of valuable information to understand the needs of current and future entrepreneurs. Such knowledge allows to create the entrepreneurship policy responding to specific challenges.

On behalf of the authors of the Report, other persons involved in the implementation of the GEM project in PARP and the University of Economics in Katowice and myself, I would like to thank all the Experts who participated in the National Experts Survey in 2012.

I wholeheartedly invite you to read the Report.

Bożena Lublińska-Kasprzak
President of the Polish Agency
for Enterprise Development

1. Executive summary

The state of entrepreneurship in Poland is not perfect

Entrepreneurial attitude

Entrepreneurial attitudes of the Polish society are ambiguous. On one hand, in comparison to other European countries we come off quite positively in terms of a willingness to start up an enterprise in the nearest years, we also assess very well our knowledge on running an enterprise. On the other hand, our society lacks the ability to notice business opportunities. What is more, a percentage of people who are able to perceive them has decreased over the years 2011-2012 by about 13 p.p. Comparing to other European countries, the Polish society is characterised by a very high level of fear of failure. This negative result worsened over the years 2011-2012.

Image of entrepreneurship

When compared to the rest of Europe, the Poles perceive entrepreneurs quite well. They give a very low assessment only to the social status of entrepreneurs. It should also be noted that the perception of entrepreneurship deteriorated during the years 2011-2012. To some extent, this may be related to the problems regarding the market of parabanks, widely reported in the media, which occurred more or less at the time of carrying out the survey.

Level of entrepreneurship

The level of entrepreneurship in Poland varies depending on the stage of the firm growth. Early-stage entrepreneurship in comparison with Europe is at a medium level. On the other hand, the number of established enterprises is rather low. It is also worth noting that in the years 2011-2012, a percentage of both groups increased. We come off rather negatively in terms of a percentage of entrepreneurs discontinuing their business.

Motivations

In Poland, we deal with a very high percentage of people who decide to start up an enterprise out of necessity. What is more, this situation deteriorated over the period 2011-2012, which, to a great extent, may be certainly attributed to the worsening of the economic situation. The fact that the majority of enterprises have been established out of necessity results in a lower level of growth-related ambitions and hence may inhibit the creation of jobs and added value by enterprises.



New enterprises by economy sector

As for the sectors, in which new enterprises are started up, Poland is a very specific country. We are characterised by the fact that it is production which is the dominant sector, rather than services as it is observed in other countries.

Growth-related ambitions

Comparing to other European countries, Polish entrepreneurs seem to be less ambitious when it comes to the growth of their enterprises. Their statements in relation to the employment growth are quite cautious, particularly in case of employing of more than 10 employees within 5 years.

Figure 1. Balance of entrepreneurship in Poland in 2012

 <ul style="list-style-type: none"> • High entrepreneurial intentions • High assessment of business knowledge • Desirable career choice 	 <ul style="list-style-type: none"> • Low capability of noticing business opportunities • High fear of failure • Low social status of entrepreneurs • Relatively low number of established enterprises • Low percentage of ambitious enterprises • High percentage of discontinuation of business • Very high percentage of enterprises started up out of necessity
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Source: own elaboration on the basis of the *Global Entrepreneurship Monitor 2012* data.

Women are still behind

Female entrepreneurial capacity is considerable, although for some reasons is not implemented. Women notice opportunities for establishing a company, however, they are significantly limited by low perceived capabilities and fear of failure. This still results in a significant difference between men and women in starting business activities. However, it should be noted that in case of early-stage entrepreneurship, the difference in the years 2011-2012 decreased, so a percentage of new enterprises started up by women is growing.

Cooperation – does it pay?

Firstly, Polish entrepreneurs cooperate in a surprisingly large scope. However, we may put forward a hypothesis that they regard cooperation as a necessary evil. They realise that they are not able to survive without cooperation, but once they achieve the more stable situation in the market, they reduce the intensity of business relations.

Secondly, cooperation is strongly related to the high growth ambition, export activity and application of new technologies. Therefore, such a company profile confirms the greater business sophistication of owners.

Do institutional determinants support entrepreneurship?

There is no clear answer to this question. In some aspects, the institutional environment works very well and is supportive to the growth of entrepreneurship. In other aspects – just the opposite. The best example of this first area is the openness and dynamics of the Polish market, which has been assessed very positively by the experts involved in the survey. The Polish Achilles heel remains the educational system, in particular at the primary and secondary level, which, in their opinion, does not support creativity, self-sufficiency and personal initiative.

Table 1. Values of the most important survey indicators in 2012 in Poland

Entrepreneurial intentions	24.2%
Perceived opportunities	20.4%
Perceived capabilities	53.9%
Fear of failure	58.7%
Entrepreneurship as desirable career choice	67.9%
High-status successful entrepreneurship	57.1%
Positive media attention for entrepreneurship	56.3%
TEA	9.4%
Established enterprises	5.8%
Discontinuation of business	3.9%
Necessity-driven entrepreneurship	40.7%
%TEA at least 10 new jobs and employment growth by at least 50% within 5 years	15.6%

Source: own elaboration on the basis of the *Global Entrepreneurship Monitor 2012* data.

2. About the GEM study

Although the Global Entrepreneurship Monitor has been dynamically developing since its inception in 1997 and conduction of the first research in 1999, the year 2012 was undoubtedly a special time for the project. The surveys covered 69 countries which bring together 74% of the world's population and 87% of the gross world product. These are the highest results in the history of the project, including the survey sample – 198 thousand respondents was a record in 2012.

GEM is the largest and most prestigious entrepreneurship-related research project which focuses on early-stage entrepreneurship. This project is purely scientific, which allows it to gain a deep insight into the process of entrepreneurship.

The Global Entrepreneurship Monitor has three main objectives:

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

2.1. 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.

2.1.1. Interpretation of entrepreneurship in GEM

While entrepreneurship is a multifaceted phenomenon with many different meanings, GEM operationalizes this concept as: “any 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.

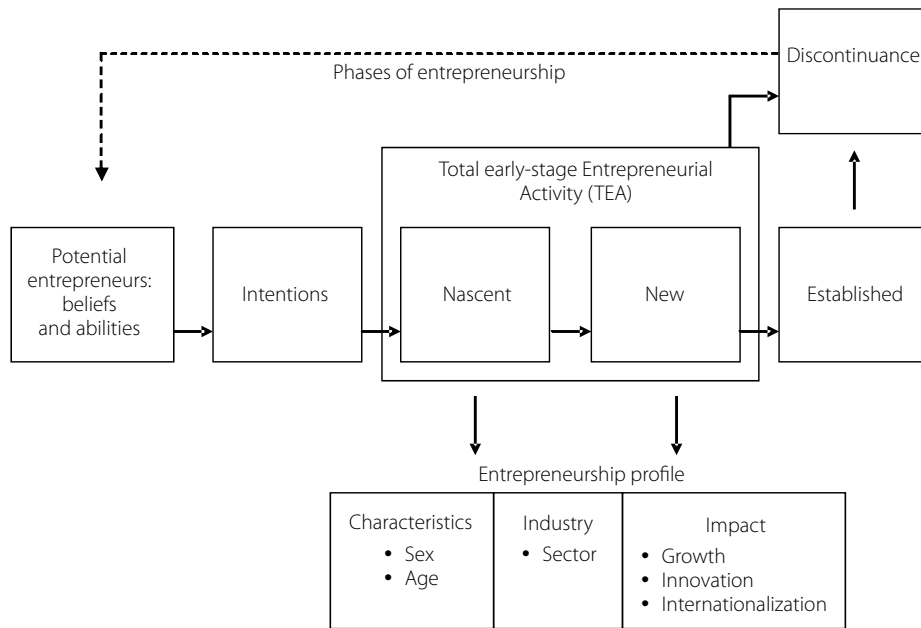
2.1.2. Model of entrepreneurship process

In GEM, it is important to differentiate the business activity according to its phases (Figure 2). What is more, phases before formal registration 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 into 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 when wages are paid 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 between 3 and 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 to be a success, i.e. the company has been established and now it is in transition to the next stage – management of the existing enterprise.
- **established enterprises** are those who have been operating on the market for the period longer than 42 months (3.5 years).

Figure 2. GEM model of entrepreneurship process



Source: Bosma N., Wennekers S., Amoros J.E., *Global Entrepreneurship Monitor 2011 Extended Report: Entrepreneurship and Entrepreneurial Employees Across the Globe*, London, GERA 2012, p. 10.

Apart from the phases, the GEM entrepreneurship process identifies beliefs and abilities preceding the decision regarding setting up 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 featured in to GEM, and enables better insight into the nature of the entrepreneurship process. It gives twofold results. It enables the analysis of the entrepreneurship process in many dimensions, 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.

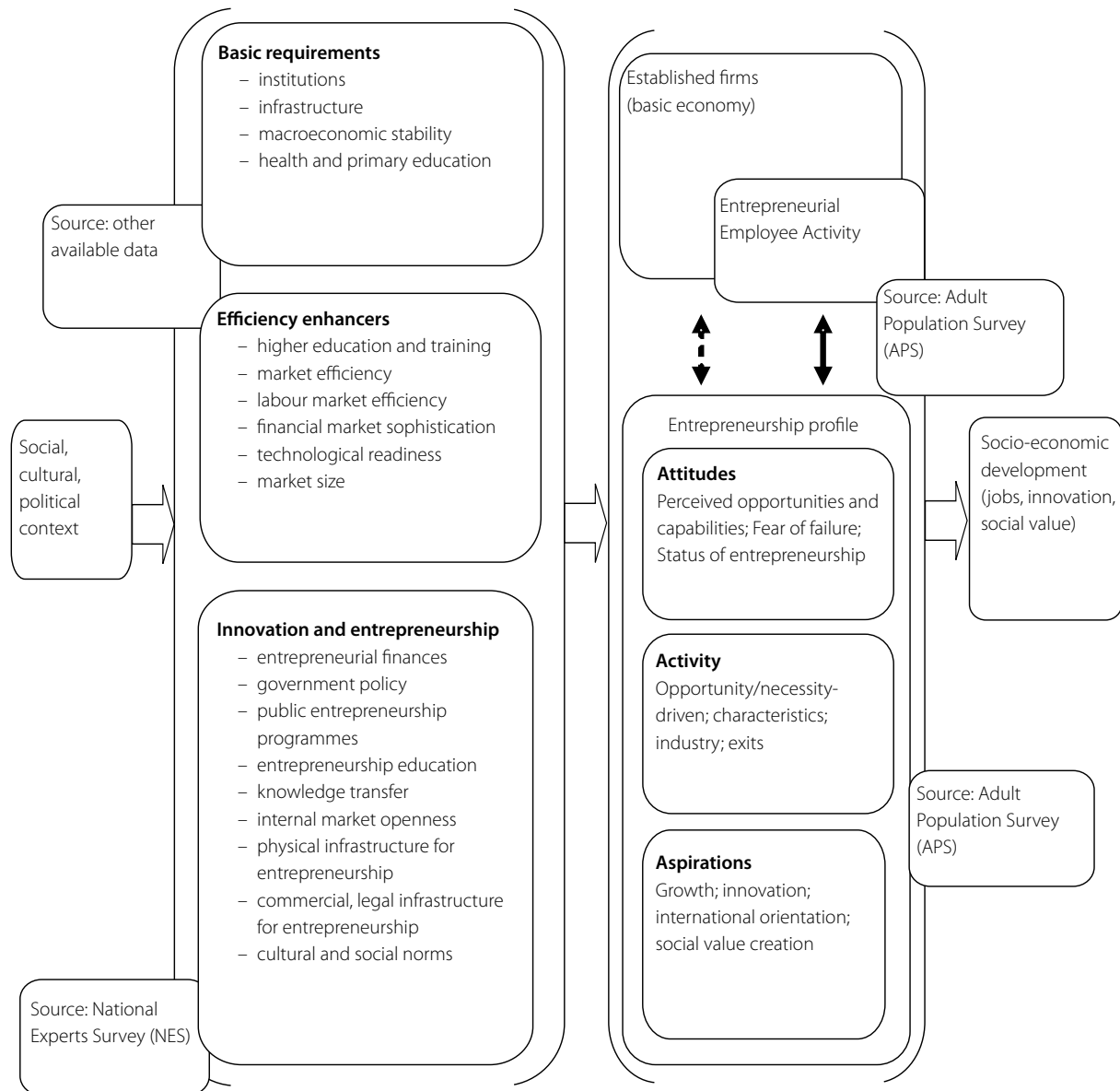
2.1.3. GEM model of economic development

GEM model of economic development 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 social perception of 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 model (Figure 3) based on the above socio-economic approach presents how entrepreneurship is affected by national conditions, it also shows three major components of entrepreneurship: attitudes, activity and aspirations. These three components are presented in the form of conglomerate creating innovations, economic growth and new jobs while detailed interactions between the components are not subject to analysis. The set of factors related to the national environment initially consisted of nine items, however, it has been expanded over the years with the research. GEM monitors entrepreneurial framework conditions in each country through 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.

Figure 3. GEM model of economic development



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

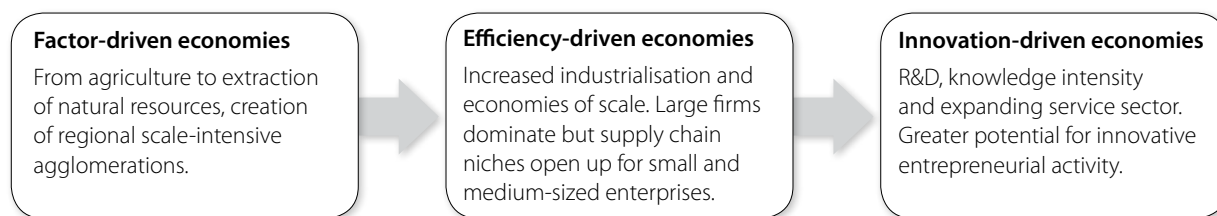
2.1.4. Phases of economic development

A new approach introduced by GEM in 2008, is division of countries into three groups by phases of economic development: factor-driven, efficiency-driven and innovation-driven¹ (Figure 4). 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, so are labour costs. 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** are able to 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 and other innovative solutions². **In 2012, similarly as in previous years, Poland was included into the efficiency-driven economies.**

¹ M.E. Porter, J.J. Sachs, J.W. Mc Arthur, *Executive Summary: Competitiveness and Stages of Economic Development*, in: *The Global Competitiveness Report 2001-2002*, M.E. Porter, J.J. Sachs, J.W. Mc Arthur and K. Schwab (ed), 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 4. Three phases of economic development



Source: Bosma N., Wennekers S., Amoros J.E., *Global Entrepreneurship Monitor 2011 Extended Report: Entrepreneurship and Entrepreneurial Employees Across the Globe*, London, GERA 2012, 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 case of factor-oriented economies, the state should support the development of institutions, infrastructure, macroeconomic stability and provide the efficient health care system 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 creating educational system to educate the workforce to successfully adopt technologies. In innovation-driven economies, the key role of the country is to provide and commercialise knowledge.

2.2. Total early-stage Entrepreneurial Activity (TEA)

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

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, but share of people establishing and running business in early stage among the adult population. In this context, it is a forward indicator since it enables to forecast intensity of business activity in the society.

2.3. 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).

2.3.1. APS

Adult population survey is conducted on a sample of at least 2,000 people in every country involved in the project, 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, 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 (Chapter 3).

2.3.2. 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 all countries participating in GEM project. 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 (Chapter 4).

3. Results of the adult population survey – APS

The surveys conducted as part of GEM, in particular the adult population survey, enable to compare the profiles of examined countries in three dimensions: Entrepreneurial Attitudes and Perceptions, (Figure 2: Potential entrepreneurs and intentions), Entrepreneurial Activity (Figure 2: TEA and established enterprises) 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 attitude. 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. In this part of the survey, the analysis of discontinuance of business activity is also carried out. Entrepreneurial Aspirations are related to the intentions of entrepreneurs in several categories: growth, job creation, market expansion, innovations and internationalisation. In most comparisons, the Polish results were compared to those of other European countries involved in the survey and of the USA.

3.1. Entrepreneurial Attitudes and Perceptions

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. Therefore, apart from individual disparities, also the differences between the countries in this area can be analysed. Despite the fact that entrepreneurial attitudes and perceptions are not the only determinants of entrepreneur’s success, it is regarded that 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.

As far as Entrepreneurial Attitudes and Perceptions are concerned, the most important categories covered by the study include (Table 2):

- 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 (Table 3):

- aiming at equalising the standard of living in the society,
- entrepreneurship as a desirable career choice,
- high-status successful entrepreneurship,
- media attention for entrepreneurship.

The table below presents a comparison of Entrepreneurial intentions, Perceived opportunities, Perceived capabilities and Fear of failure in particular countries (Table 2).

Table 2. Entrepreneurial attitudes in the European countries involved in the survey and in the USA (%)

Country	Entrepreneurial intentions	Perceived opportunities	Perceived capabilities	Fear of failure
Factor-driven economies	48.9	63.3	70.5	27.8
Efficiency-driven economies	29	41.5	52.4	36.6
Innovation-driven economies	12.7	32.1	38.3	44.5
Austria	11.6	49.2	49.6	43.5
Belgium	10.7	33.3	37.1	45.7
Bosnia and Herzegovina	24.9	19.6	49.1	39.1
Croatia	23.6	17.2	44.1	46.3

cont. Table 2

Country	Entrepreneurial intentions	Perceived opportunities	Perceived capabilities	Fear of failure
Denmark	8.4	44.4	31	42.1
Estonia	20.1	45.2	43.2	44.3
Finland	9.4	55.3	34.3	39.3
France	18.9	37.5	35.7	46.7
Germany	8.9	36.2	37.1	49
Greece	10.5	13	50	72.4
Hungary	15.3	11	39.8	45.9
Italy	11.8	19.8	30	56.6
Ireland	8	25.6	45.2	41.2
Latvia	26.9	33.1	43.6	38.1
Lithuania	19.4	30	39.8	45.6
Macedonia	29.1	30.8	55.1	44.9
Netherlands	10.1	34.4	42.3	39.2
Norway	6.7	64.4	34.4	35.6
Poland	24.2	20.4	53.9	58.7
Portugal	16.2	16.2	46.8	52.5
Romania	30.8	36.7	38.3	45.1
Russia	3.8	20.1	23.5	42.8
Slovakia	15.6	17.8	49.7	48
Slovenia	14.7	19.6	51.3	41.5
Spain	12.1	13.9	50.4	51.6
Sweden	11.7	66.5	37	38.9
Switzerland	8.3	35.7	37.3	32.2
Turkey	18.8	39.9	49.4	34.5
UK	11.5	32.8	47.1	40.9
USA	16.5	43.5	55.9	37.8

Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

Entrepreneurial intentions are measured as a percentage of population of people aged 18-64 who plan to establish a business within the next three years. Entrepreneurial intentions clearly decrease along with the economic development – there are fewer people willing to start a business in developed countries. The average for factor-driven economies amounts to 49%, in case of efficiency-driven economies it is 29% and in case of innovation-driven economies it is as low as 13%. Poland with 24% is slightly below the average for its group of countries, however this result gives Poland the fifth place among the European countries involved in the survey. The leader is Romania (30%). The lowest results are recorded in Russia (3%).

Perceived opportunities are measured in GEM as a percentage of people who believe that conditions in their environment are good to start up a business within the next 6 months. Like entrepreneurial intentions, also this indicator decreases along with the economic development and amounts to, on average, 63%, 42% and 32% respectively, for the factor-, efficiency- and innovation-driven economies. In Poland, this indicator is at a fairly low level – 20%, which gives us the 20th place among the European countries surveyed. The strong leaders are Sweden (67%) and Norway (64%). The lowest results are obtained by Hungary (11%) and Greece (13%).

Another element of the entrepreneurial process is self-verification of own capabilities and knowledge. As in previous cases, self-evaluation of knowledge and capabilities drops as the economic development rises, on average, it amounts to 71%, 52% and 38%, for the factor-, efficiency- and innovation-driven economies. Poles assess themselves in this respect fairly high – 54% declared that their knowledge and capabilities were at the level sufficient to run a business, which gives us the third place among the countries analysed, behind the USA (56%) and Macedonia (55%). The Russians assess their knowledge at the lowest level (24%).

Fear of failure is an important factor that limits the level of entrepreneurship at the national level. Even when people notice an opportunity for starting up their business and they have the willingness to do it, some of them give up as a result of fear of failure. The more developed the given country is, the higher fear of failure is, reaching average values at the level of, respectively, 28%, 37% and 45% for the factor-, efficiency- and innovation-driven economies. In Poland, fear of failure remains at the extremely high level. The only country where more people would give up business start-up due to fear of failure is Greece (72%), but due to the difficult financial situation of this country it is an exceptional case. It is worth noting that fear of failure is strongly correlated with the level of national culture, which is uncertainty avoidance, understood as “degree of risk felt by members of a particular culture

in the face of new, unknown or uncertain situations. This feeling is expressed, *inter alia*, by stress and the need for predictability, which may be satisfied by all kinds of law, rules and customs³. Most of the countries, where the rate of fear of failure reaches a high level, are the countries avoiding uncertainty such as Greece, Portugal, Poland or Spain. The lowest level of fear of failure among the analysed countries is in Switzerland (32%).

The table below presents the results for cultural variables: aiming at equalising the standard of living, 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 3. Entrepreneurial perception in the European countries involved in the survey and in the USA (%)

Country	Aiming at equalising the standard of living	Entrepreneurship as desirable career choice	High-status successful entrepreneurship	Media attention for entrepreneurship
Factor-driven economies	59.3	75.8	80.1	67.8
Efficiency-driven economies	66	69.8	68.9	60
Innovation-driven economies	64.7	55.2	70.3	56.1
Austria	NDA	46.4	75.8	NDA
Belgium	53.8	62.3	57.4	53.8
Bosnia and Herzegovina	91	80.9	72.3	39.4
Croatia	76.5	64.2	41.7	39.7
Denmark	NDA	NDA	NDA	NDA
Estonia	55.8	54.8	62.5	41.5
Finland	65.9	45.1	83.4	68.4
France	54.1	64.5	76.8	41.1
Germany	62.6	48.9	76.4	49
Greece	63.3	64.4	68.3	33.1
Hungary	67.6	41.5	74	29.3
Italy	70.1	66.7	69.7	51.3
Ireland	76.6	45.4	81.4	61.5
Latvia	51.2	59.7	53.3	53.3
Lithuania	64.3	63.1	52.9	37.3
Macedonia	71.9	69.6	66.7	64.1
Netherlands	60.1	79.3	65.2	58.3
Norway	73.9	50.4	79.5	59.3
Poland	68.9	67.9	57.1	56.3
Portugal	NDA	NDA	NDA	NDA
Romania	68.6	71.2	73.6	55.2
Russia	56.9	59.8	63.1	44.7
Slovakia	73.4	50.3	74.4	59.4
Slovenia	82.9	52.7	71.1	51.1
Spain	71.9	63.6	63.7	47.3
Sweden	NDA	NDA	NDA	NDA
Switzerland	58.3	44.2	63.5	57.4
Turkey	77.1	67.1	76.1	57.5
UK	NDA	49.8	76.7	47
USA	NDA	NDA	NDA	NDA

Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* 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 or below this average. In terms of perception of entrepreneurship as a desirable career choice, with the result of 68% Poland occupies the fifth place among the surveyed European countries and the USA. The leader is the Netherlands (79%) while the lowest

³ Hofstede G., *Kultura i organizacje*, Polskie Wydawnictwo Ekonomiczne, Warsaw 2000, pp. 180-181.

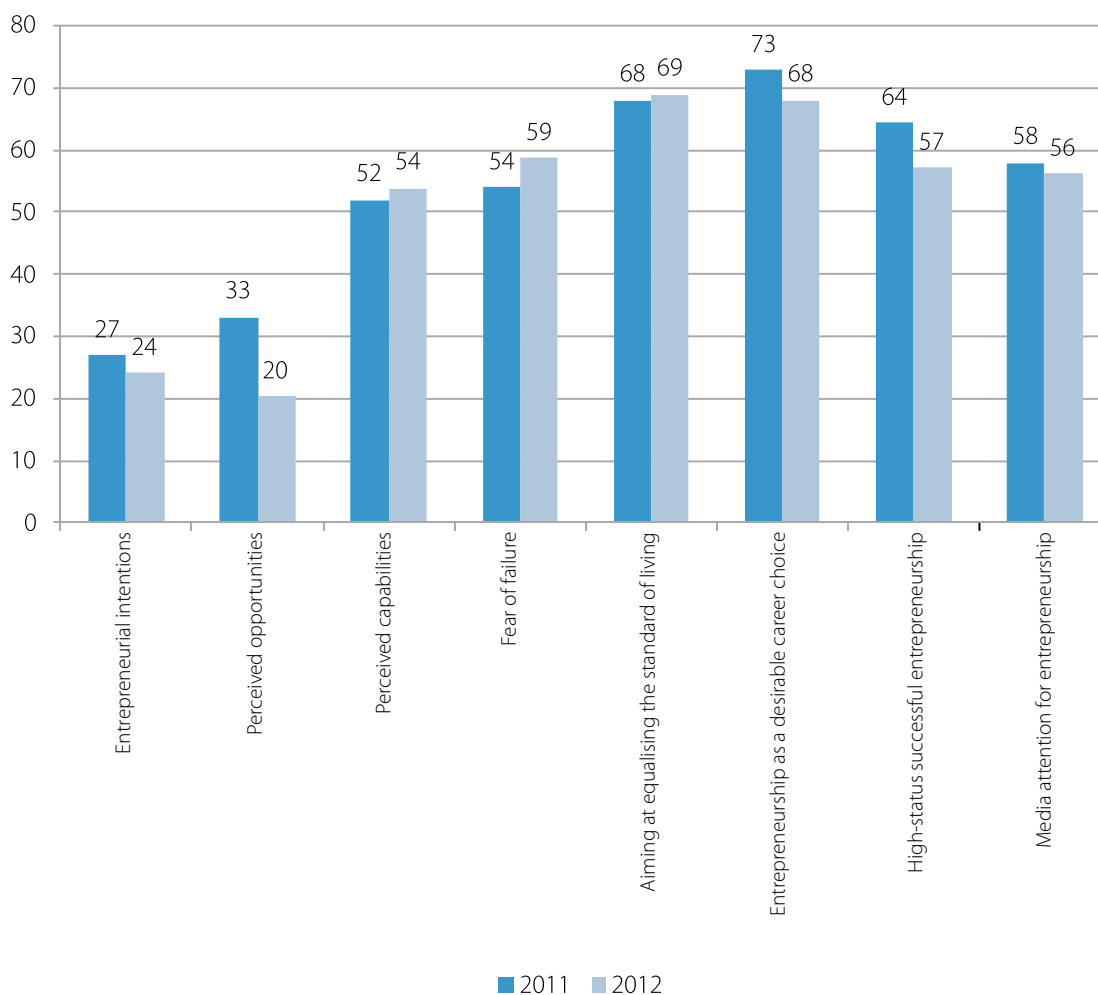
result was recorded in Hungary (42%). 56% of Poles confirm the positive image of entrepreneurs in the media, which gives us the ninth place among the countries analysed. The best image of entrepreneurs in the media was recorded in Finland (68%), and the worst in Hungary (29%).

The result of Poland in terms of attributing high social status to entrepreneurs is much lower than the average for the group of the efficiency-driven economies (69% and 57%, respectively). The result of 57% gives Poland the last but four place among the European countries surveyed and the USA. The highest status was recorded in Finland (83%) and Ireland (81%) and the lowest in Croatia (42%).

As in case of other variables, the culture of entrepreneurship is stronger in less developed countries; in developed economies the interest in entrepreneurship as the chosen professional career is lower and the status of entrepreneurship and media attention for entrepreneurship decrease. Still the status of entrepreneurship is the lowest in the group of the efficiency-driven economies.

In terms of the above-described variables relating to entrepreneurial culture, perception and attitudes, changes in thinking and behaviour of Poles changed to some extent between 2011 and 2012 (Diagram 1). Given only a two-year analysis period, we cannot talk about the strong trends, but in case of certain factors changes are significant. The biggest changes between 2011 and 2012 was observed in case of perceived opportunities, fear of failure, entrepreneurship as a desirable career choice and the status of entrepreneurship. Perceived opportunities decreased among the Poles most – in 2011 one-third of us could notice opportunities around them to start up a business, in 2012 it is only every fifth person. Fear of failure has increased by almost 5 p.p.. Entrepreneurship as a desirable career choice decreased by the same value and a percentage of Poles attributing high status to entrepreneurs decreased by 7 p.p. These changes also involve a decline in entrepreneurial intentions and while it has decreased only by less than 3 p.p., such results may be a forward signal of a decrease in the level of entrepreneurship in the nearest future.

Diagram 1. Entrepreneurial attitudes and perceptions in Poland (%)



Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2011 and 2012 data.

3.2. Entrepreneurial Attitudes and Perception among women and men

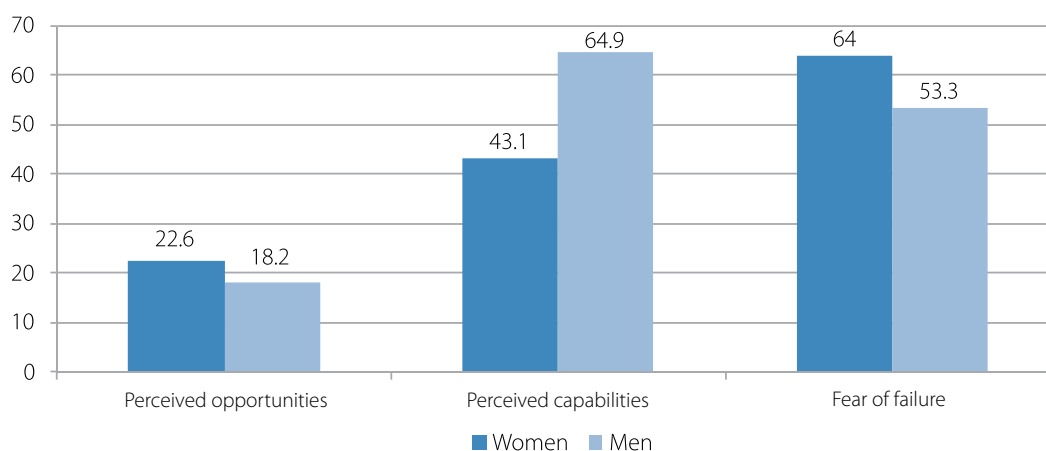
Entrepreneurial attitudes vary according to gender (Table 4, Diagram 2). This applies both to perceived opportunities, perceived capabilities and fear of failure.

Table 4. Entrepreneurial attitudes of women and men in the European countries involved in the survey and in the USA (%)

Country	Perceived opportunities – men	Perceived opportunities – women	Perceived capabilities – men	Perceived capabilities – women	Fear of failure – men	Fear of failure – women
Austria	53.1	45.2	57.7	41.6	38.1	49.0
Belgium	37.3	28.8	45.8	28.4	42.6	48.8
Bosnia and Herzegovina	21.8	17.3	58.5	39.6	35.5	42.8
Croatia	20.0	14.3	52.9	35.3	40.9	51.5
Denmark	46.8	41.9	40.1	21.9	38.4	45.9
Estonia	50.7	40.1	52.1	34.9	37.3	50.7
Finland	54.3	56.5	40.3	28.2	31.8	47.0
France	39.2	35.8	42.3	29.3	45.3	48.1
Germany	39.3	33.0	44.9	29.3	44.7	53.4
Greece	14.6	11.3	55.7	44.3	69.6	75.2
Hungary	10.9	11.0	50.2	29.8	43.5	48.1
Italy	22.1	17.4	35.2	24.8	54.8	58.5
Ireland	27.7	23.3	54.4	35.7	36.9	45.6
Latvia	31.7	34.4	49.8	37.7	30.7	45.1
Lithuania	31.0	29.1	50.2	30.4	39.6	51.2
Macedonia	32.3	29.2	64.2	45.7	44.2	45.6
Netherlands	38.1	30.3	53.7	30.9	35.6	42.7
Norway	70.8	57.2	45.3	23.1	34.3	36.9
Poland	18.2	22.6	64.9	43.1	53.3	64.0
Portugal	18.4	14.0	53.6	40.2	47.7	57.1
Romania	42.2	31.1	48.2	28.6	40.8	49.2
Russia	21.5	18.7	27.0	20.3	39.2	46.1
Slovakia	20.1	15.8	61.2	38.3	39.7	56.2
Slovenia	22.8	16.3	61.0	41.3	37.1	46.1
Spain	15.8	11.9	56.4	44.2	48.1	55.1
Sweden	69.3	63.2	46.9	26.5	33.3	44.7
Switzerland	35.6	35.8	45.7	28.8	23.9	40.6
Turkey	43.7	35.5	61.5	36.9	30.8	38.2
UK	37.2	28.3	56.9	37.3	37.9	44.0
USA	46.5	40.3	64.9	46.9	35.3	40.3

Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

Diagram 2. Entrepreneurial attitudes among women and men in Poland (%)



Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

Among the European countries involved in the survey and the USA, Poland is a country where there is the greatest difference in favour of women in terms of perceived opportunities. Among men the rate is 18% and among women – 23%. Also in Latvia, Hungary, Finland and Switzerland more women perceive opportunities. In most countries, however, men more often perceive opportunities to start up a business. The biggest differences in favour of men was observed in countries where in general many people perceive opportunities for starting business activity – in Norway, Romania and Estonia.

The situation in Poland in terms of perceived capabilities is quite different. The difference in favour of men in Poland is one of the highest in Europe (22 p.p.). Among men 65% of respondents positively assess their knowledge and capabilities, among women – only 43%. Even greater disproportions in this regard were noted in Turkey, Slovakia, the Netherlands and Norway, the lowest – in Russia, but we must remember that in case of this country the level of perceived capabilities is low both among men and women.

In addition to the fact that in Poland fear of failure is at a high level, also the difference between the level of this phenomenon among women and men is significant. Among women, fear of failure is experienced by 64% of respondents, among men – by 53%. If we take a look at women in Europe and the United States, only Greek women are more afraid of failure in comparison to Polish women, among men – Italians and Greeks. In all the countries analysed, women are more afraid of failure than men. The biggest differences were observed in Switzerland, Slovakia and Finland, the smallest in Macedonia, Norway and France. Among the non-European countries, there are cases where men feel greater fear of failure. The biggest difference in favour of women occurs in Pakistan, where 21% of women feel fear of failure when compared to 34% of men.

3.3. Level of entrepreneurship

According to the GEM model, the decision to start up a business is the result of entrepreneurial attitudes and perceptions. The table below shows the data describing the percentage of adults in various stages of business activity, i.e. those who start up, run and also discontinue a business (Table 5).

Table 5. Level of entrepreneurship in the European countries involved in the survey and in the USA⁴(%)

Country	Nascent	New	TEA	Established	Discontinuation
Factor-driven economies	11.9	12.7	23.7	11.4	13.2
Efficiency-driven economies	7.8	5.6	13.1	7.8	4.5
Innovation-driven economies	4.2	3	7.1	6.7	2.7
Austria	6.6	3.4	9.6	7.6	3.6
Belgium	3.3	2	5.2	5.1	2.4
Bosnia and Herzegovina	4.5	3.4	7.8	6	7.2
Croatia	6.4	1.9	8.3	3.1	4.2
Denmark	3.1	2.4	5.4	3.5	1.3
Estonia	9.5	5.1	14.3	7.2	4
Finland	3.5	2.7	6	8	2
France	3.7	1.5	5.2	3.2	2
Germany	3.5	2.2	5.3	5	1.9
Greece	3.8	2.8	6.5	12.3	4.4
Hungary	5.8	3.6	9.2	8.1	3.8
Italy	2.5	1.9	4.3	3.3	2.4
Ireland	3.9	2.3	6.2	8.3	1.7
Latvia	8.7	4.8	13.4	7.9	3.4
Lithuania	3.2	3.6	6.7	8.2	2.2
Macedonia	3.7	3.3	7	6.7	3.9
Netherlands	4.1	6.3	10.3	9.5	2.2
Norway	3.7	3.2	6.8	5.8	1.5
Poland	4.8	4.6	9.4	5.8	3.9
Portugal	4.3	3.6	7.7	6.2	3
Romania	5.5	3.8	9.2	3.9	3.8
Russia	2.7	1.8	4.3	2.1	1
Slovakia	6.7	3.9	10.2	6.4	4.7
Slovenia	3	2.5	5.4	5.8	1.6
Spain	3.4	2.5	5.7	8.7	2.1

⁴ Definitions of individual categories of entrepreneurs are provided on page 9.

cont. Table 5

Country	Nascent	New	TEA	Established	Discontinuation
Sweden	4.6	1.9	6.4	5.3	1.9
Switzerland	2.9	3	5.9	8.4	2
Turkey	7.3	5.4	12.2	8.7	5.2
UK	5.3	3.7	9	6.2	1.7
USA	8.9	4.1	12.8	8.6	4.5

Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

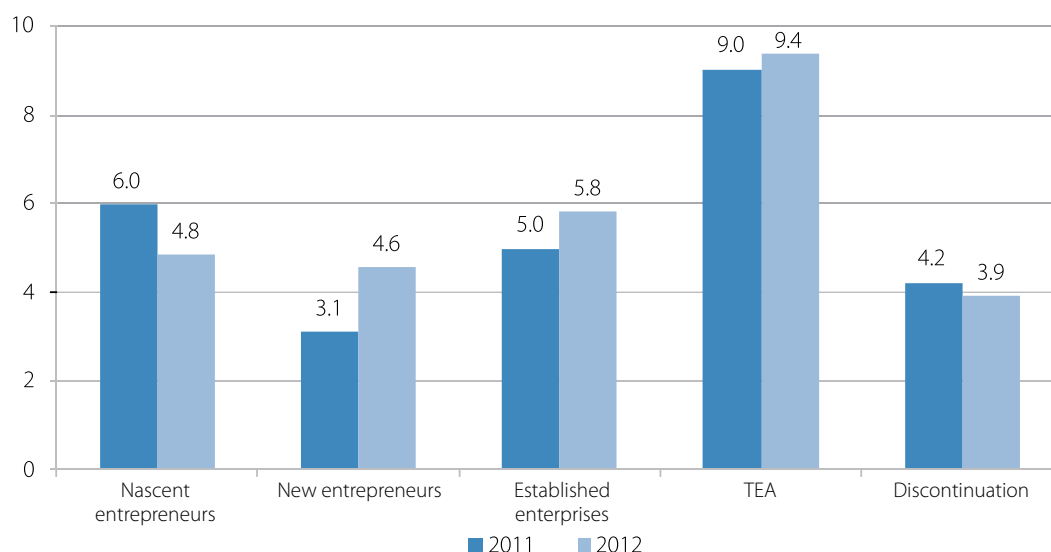
In terms of the main GEM index – TEA (cf. 2.2.), Poland reaches a value significantly below the average for the efficiency-driven economies (9.4% and 13.1%, respectively). With this result, Poland ranks eighth among the countries analysed. The highest value of the TEA index has been recorded in Estonia (14.3%), the lowest in Italy and Russia (4.3%).

In terms of the number of established enterprises, Poland – with a percentage of 5.8% – is ranked nineteenth among the European countries involved in the survey and the USA. The highest percentage of established enterprises was recorded in Greece (12%) and the lowest in Russia (2.1%). As in case of the TEA index, also for established enterprises the result decreases as the economic development rises, although the rate of decrease is slower, reaching the averages of 11.4%, 7.8% and 6.7% of established entrepreneurs among the adult population in the given country respectively to the factor-, efficiency- and innovation-driven economies.

The index of discontinuation of business in Poland is at a medium level when compared to other efficiency-driven economies – 3.9% to 4.5%. It should be stressed here that in case of 1.5% of respondents, the business was continued despite the respondent's leaving (most probably by a partner or a person to whom the business was sold), in case of 2.4% of respondents the business was not continued. Such a percentage of business discontinuation gives Poland the eighth place among the countries analysed. The lowest percentage was recorded in Russia (1%), but one should keep in mind that in case of this country both TEA and a percentage of established enterprises are at a low level. Most people discontinued their business in Bosnia and Herzegovina (7.2%). The number of entrepreneurs who discontinued their business decreases as the economic development increases, achieving the lowest average for the innovation-driven economies.

Over the years 2011-2012 depending on the phase of development of business, changes took place in different directions in Poland (Diagram 3). A percentage of nascent entrepreneurs dropped from 6% to 4.8%, while a percentage of new enterprises increased from 3.1% to 4.6%, so did the percentage of established enterprises (from 5% to 5.8%) and TEA (from 9% to 9.4%). A percentage of nascent entrepreneurs of 4.8% may, in the next year, allow for assuring the number of new enterprises at a level similar to that in 2012. We need to take into account that enterprises during this period are most likely to fail. Also, a fairly high percentage of new enterprises will allow to maintain the measure of established enterprises at a similar level. In this respect, the decrease in discontinuation of business by enterprises (from 4.2% to 3.9%), despite the current economic slowdown in Europe, is also optimistic. However, in connection with a decline of the indicator measuring entrepreneurial attitudes, we may expect a decrease in the level of nascent entrepreneurship, which, in a perspective of 2-3 years may have a negative impact on other indicators of entrepreneurship.

Diagram 3. Level of entrepreneurship in Poland in the years 2011 and 2012 (%)



Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2011 and 2012* data.

3.4. Entrepreneurship among women and men

There are considerable differences between countries with regard to entrepreneurship among women and men. It is worth analysing how the European countries differ in this respect (Table 6).

Table 6. Level of entrepreneurship of men and women in the European countries involved in the survey and in the USA (%)

Country	TEA men	TEA women	Established enterprises men	Established enterprises women
Austria	11.0	8.1	9.3	5.9
Belgium	7.7	2.6	6.7	3.5
Bosnia and Herzegovina	10.4	5.1	7.7	4.3
Croatia	11.8	4.9	3.7	2.5
Denmark	7.6	3.1	4.8	2.1
Estonia	19.1	9.7	10.6	4.2
Finland	7.8	4.1	11.7	4.3
France	6.4	4.0	4.3	2.2
Germany	7.2	3.5	5.9	4.0
Greece	8.6	4.4	17.7	6.8
Hungary	12.8	5.8	12.0	4.3
Italy	5.7	2.9	5.0	1.6
Ireland	8.3	4.0	11.8	4.7
Latvia	18.9	8.2	10.2	5.8
Lithuania	9.4	4.2	12.4	4.4
Macedonia	9.4	4.5	9.2	4.2
Netherlands	13.9	6.7	13.0	5.9
Norway	9.8	3.6	7.7	3.8
Poland	12.6	6.2	8.5	3.2
Portugal	9.3	6.2	8.8	3.7
Romania	13.2	5.3	6.0	1.9
Russia	5.4	3.4	2.2	2.0
Slovakia	13.7	6.7	9.2	3.6
Slovenia	8.1	2.6	8.5	2.9
Spain	7.4	4.0	11.1	6.4
Sweden	8.0	4.8	7.3	3.1
Switzerland	6.4	5.5	9.8	7.1
Turkey	17.5	6.9	14.6	2.7
UK	11.6	6.3	8.8	3.5
USA	15.2	10.5	10.5	6.7

Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

The biggest difference between early-stage entrepreneurship among men and women occurs in Europe, in Latvia and Turkey. In the first case, TEA among men amounts to 18.9%, and among women – 8.2%, in the second – 17.5% and 8.2% respectively. At the other extreme, there is Switzerland, where the gender gap is only one p.p. (6.4%-5.5%). Poland is a country with a relatively high gap of 6.4 p.p. Early-stage entrepreneurship among men amounts to 12.6%, among women – 6.2%. A similar situation occurs in case of women and men who run established enterprises. The gender gap in Poland is, in this case, 5.3 p.p., entrepreneurship among women is at a level of 3.2% and among men – 8.5%. The largest gap was observed in Turkey (12 p.p.) and Greece (11 p.p.), the smallest in Russia (0.2 p.p.), however it should be bore in mind that generally the level of entrepreneurship in this country is very low.

The summary of results of GEM 2011 and 2012 allows to grasp changes in the level of entrepreneurship among women and men (Diagram 4).

Diagram 4. Level of entrepreneurship among women and men in Poland in the years 2011 and 2012 (%)



Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2011 and 2012 data.

Although in Poland we may talk about reducing the “gender gap” in early-stage entrepreneurship, the gap in case of owners of established enterprises increased. In the period of 2011-2012, TEA among men dropped in Poland from 13.1% to 12.6% and among women increased from 5.1% to 6.2%. Therefore, we can say that we owe the overall increase of TEA in Poland to women who made up for a decrease in entrepreneurship among men. Thus, the gap between women and men in terms of early-stage entrepreneurship TEA decreased by 1.6 p.p. (from 8.0% to 6.4%).

A percentage of owners of established enterprises among men increased from 7.1% to 8.5%, while among women only from 2.9% to 3.2%, which made the gap broaden from 4.2 to 5.2 p.p. This is determined by still a significant gap in TEA. Many more men, who, after 3.5 years of running a business proceed from TEA to established enterprises cause enlarging the gap in this second category. We should expect that this trend will persist also in the nearest future, because despite the decrease the gap in TEA is still large.

3.5. Motivations to start a business activity

As already mentioned, the dichotomous division into opportunity-driven entrepreneurship and necessity-driven entrepreneurship, which functioned in GEM until 2010, has been replaced by the more developed model taking into account mixed and transient motivations, however, it is worth analysing extreme motivations – aiming at using an opportunity linked with aiming at improving the standard of living through income or independence growth, and necessity-driven entrepreneurship, started in the face of the inability to find desired employment (Table 7). The first type of motivation includes people who expressly declare that the motivation to start a business is a will to use perceived opportunities as well as they state that they are motivated by greater independence and personal income growth. The second category includes those who state that they establish a company because better alternatives for employment are not available to them. The table shows a percentage of people included into TEA, who start up a business due to specific motivations.

Table 7. Level of opportunity- and necessity-driven entrepreneurship in the European countries and in the USA (%)⁵

Country	Opportunity related to improving the standard of living (% TEA)	Necessity (% TEA)
Austria	38.2	10.8
Belgium	61.6	17.9
Bosnia and Herzegovina	20.1	58.3
Croatia	35.7	34.2
Denmark	70.7	8.2
Estonia	49.1	18.2

⁵ No mixed motivation was included in the table.

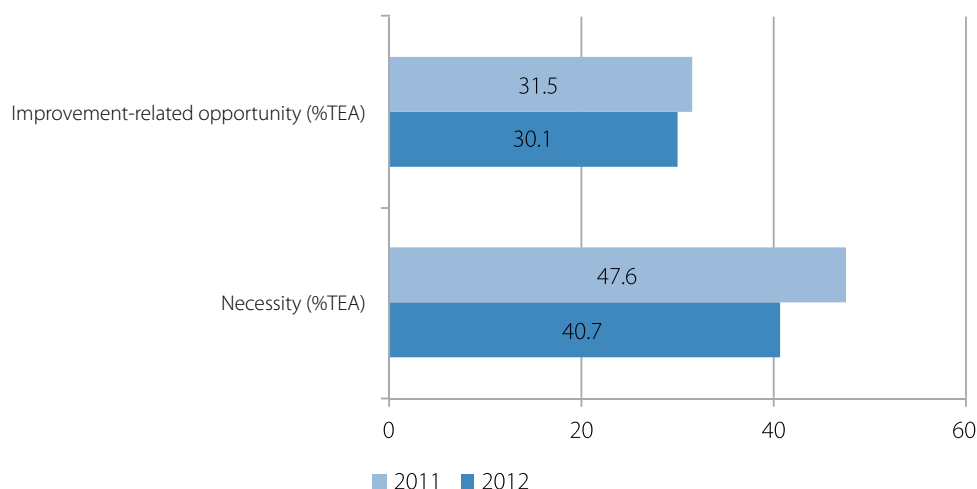
cont. Table 7

Country	Opportunity related to improving the standard of living (% TEA)	Necessity (% TEA)
Finland	59.9	17.1
France	58.9	18.1
Germany	50.7	21.7
Greece	32.1	29.9
Hungary	35.3	31.1
Italy	22.3	15.7
Ireland	40.5	28.1
Latvia	46.0	25.3
Lithuania	51.5	24.6
Macedonia	28.7	52.0
Netherlands	66.4	8.4
Norway	69.6	7.4
Poland	30.1	40.7
Portugal	53.1	17.9
Romania	37.7	24.2
Russia	31.4	36.4
Slovakia	42.9	35.6
Slovenia	64.0	7.4
Spain	32.5	25.6
Sweden	48.6	6.8
Switzerland	57.5	18.1
Turkey	54.6	30.9
UK	42.6	18.3
USA	59.5	21.4

Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

Poland is one of the countries with the more unfavourable structure of entrepreneurship in terms of motivation. 41% undertakings within the framework of the TEA are necessity-driven, only 39% are opportunity-driven. Apart from Poland, opportunity is dominated by necessity only in Bosnia and Herzegovina (20% – 58%), Macedonia (29% – 52%) and Russia (31% – 36%). This may significantly limit the growth potential of undertakings made that way. The leaders in positive motivation of entrepreneurship are Danes (71% – 8%) and Norwegians (70% – 7%). The lowest share of necessity-driven entrepreneurship is in Sweden (7%), but also a level of opportunity-driven entrepreneurship is lower there (49%).

Diagram 5. Level of opportunity- and necessity-driven entrepreneurship in Poland in the years 2011-2012 (%)



Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2011 and 2012 data.

The changes which took place between 2011 and 2012 in terms of motivation of entrepreneurship in Poland are only partially positive (Diagram 5). The share of necessity-driven entrepreneurial activity in TEA decreased (from 48% to 41%). Unfortunately, the share of opportunity-driven entrepreneurship also decreased, although insignificantly (from 32% to 30%) and the structure

of motivation stays unfavourable. In the future, this may result in weaker translation of TEA into the number of established enterprises, as well as inhibit creation of jobs and added value by enterprises being started up.

3.6. Motivations of women and men

There are also differences in motivation between men and women starting up a business (Table 8). The table shows data for men and women aged 18-64 years who start up a business (i.e., they were included in the TEA index) by those who are opportunity- or necessity-driven. In contrast to the previously presented results, the table shows a percentage of adult women or men who are in TEA and start up their business due to specific motivations.

Table 8. Motivations of women and men in the European countries and in the USA (%)

Country	Men – opportunity	Women – opportunity	Men – necessity	Women – necessity
Austria	9.2	6.4	0.9	1.2
Belgium	5.7	2.3	1.5	0.4
Bosnia and Herzegovina	4.4	1.8	6.0	3.1
Croatia	7.8	3.0	3.9	1.8
Denmark	6.9	2.7	0.6	0.3
Estonia	15.2	7.8	3.5	1.8
Finland	6.0	2.8	1.2	0.9
France	5.2	3.2	1.0	0.9
Germany	5.5	2.8	1.5	0.8
Greece	6.5	2.6	2.2	1.7
Hungary	9.0	3.3	3.6	2.2
Italy	3.8	2.4	1.2	0.1
Ireland	5.9	2.8	2.4	1.1
Latvia	13.8	5.8	4.6	2.2
Lithuania	6.6	3.2	2.6	0.8
Macedonia	4.8	1.6	4.4	2.8
Netherlands	11.8	5.5	1.3	0.4
Norway	9.1	2.9	0.6	0.4
Poland	6.1	3.9	5.5	2.1
Portugal	7.1	4.2	1.8	1.0
Romania	9.3	4.6	3.8	0.7
Russia	3.3	2.2	2.0	1.2
Slovakia	8.7	4.2	4.9	2.4
Slovenia	7.3	2.3	0.6	0.2
Spain	5.5	2.7	1.7	1.2
Sweden	6.8	4.3	0.6	0.3
Switzerland	4.8	4.1	1.3	0.9
Turkey	11.9	4.4	5.3	2.3
UK	9.6	4.7	1.8	1.5
USA	11.6	7.8	3.3	2.2

Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

Both differences in the general level of early-stage entrepreneurship and the general level of opportunity- and necessity-driven entrepreneurship have already been described. An interesting thing is a comparison of the opportunity-driven entrepreneurship to necessity-driven entrepreneurship ratio for women and men. In Europe, the biggest difference in motivations of men and women is observed in Norway. Opportunity-driven entrepreneurship is started there by 2.9% of women and 9.1% of men, necessity-driven entrepreneurship by 0.4% of women and 0.6% of men, which means that for men the opportunity-driven entrepreneurship to necessity-driven entrepreneurship ratio is 2.2 times higher than for women. However, it should be stressed that necessity-driven entrepreneurship is a rare phenomenon in Norway, which may somewhat distort the results of research.

The situation in Poland is different from that in Norway and Greece. In Poland, opportunity-driven entrepreneurship is started by 3.9% of women and 6.1% of men, while necessity-driven entrepreneurship by 2.1% of women and 5.5% of men. This means that, in comparison with men, women relatively rarely start a necessity-driven activity. In Poland, a similar percentage of women and men decide to start their own enterprise due to perceived opportunities. A necessity-driven activity is started by much more men. A result of this phenomenon is the higher overall TEA index for men.

3.7. Economy sectors of starting up a business

GEM identifies four categories of economy sectors: extraction, production, business-to-business (B2B) services and business-to-customer (B2C) services. The European countries significantly differ in terms of the scale of entrepreneurship in specific sectors (Table 9).

Table 9. Early-stage entrepreneurship (TEA) by individual economy sectors in the European countries and in the USA (%)

Country	Extraction	Production	B2B services	B2C services
Austria	1.6	11.4	40.1	46.8
Belgium	3.0	26.2	22.6	48.2
Bosnia and Herzegovina	22.4	33.1	6.4	38.1
Croatia	13.1	18.0	26.7	42.2
Denmark	3.3	20.1	34.3	42.3
Estonia	6.3	29.1	26.5	38.1
Finland	15.7	19.5	27.9	36.9
France	5.3	17.2	33.4	44.1
Germany	0.8	14.8	30.5	54.0
Greece	3.5	19.8	24.5	52.2
Hungary	12.2	26.2	23.4	38.2
Italy	7.7	24.5	24.9	42.8
Ireland	5.1	19.4	34.8	40.7
Latvia	10.9	35.7	16.9	36.6
Lithuania	9.3	26.3	28.8	35.6
Macedonia	9.5	25.3	11.7	53.6
Netherlands	3.7	25.4	28.0	42.9
Norway	9.0	24.1	33.1	33.8
Poland	6.7	41.3	18.1	33.9
Portugal	5.1	26.2	23.8	44.9
Romania	17.7	21.2	17.3	43.9
Russia	8.2	34.5	8.9	48.4
Slovakia	3.8	25.3	32.4	38.5
Slovenia	3.8	28.3	41.8	26.1
Spain	3.8	18.4	25.7	52.2
Sweden	9.5	14.1	38.2	38.1
Switzerland	4.5	15.8	33.6	46.1
Turkey	5.5	28.4	16.3	49.8
UK	2.4	23.0	33.0	41.6
USA	3.6	21.9	33.2	41.3

Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

With respect to a started up activity, Poland is the most production-oriented economy among the European countries. 41% of enterprises are started up or run at an early stage in production industries. The result of the next country – Latvia is lower by more than 5.5 p.p. The smallest number of production companies is in Austria (11%). The Polish indicator in this respect may be the result of, on one hand, the resistance of the economy to the crisis, however, on the other hand, it points to the unfavourable structure of businesses being started up⁶. We can, however, observe in this regard a downward trend in the share of enterprises operating in production industries (from 47% in 2011 to 41% in 2012), mainly for the benefit of extraction industries and B2C services (Diagram 6).

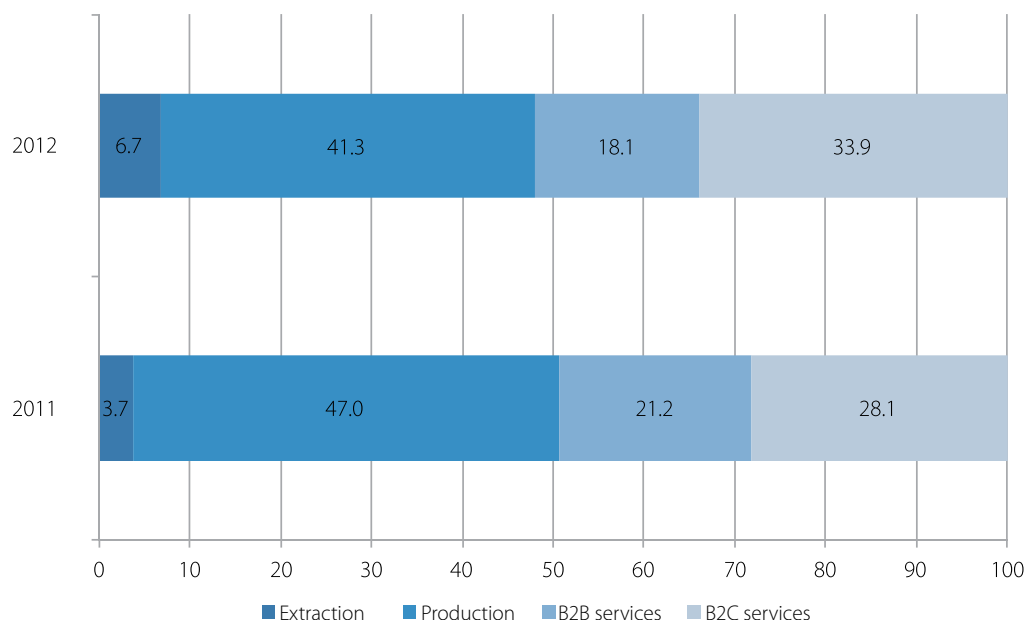
In terms of the share of entrepreneurs starting up a business in the B2C service sector, Poland result is low – 34%. The lower share of this type of services occurs only in Norway (34%) and Slovenia (26%). The highest is in Germany (54%) and Macedonia (54%). In Poland, in the period 2011-2012, there has been, however, a significant increase in the share of enterprises starting up in this sector – from 28% to 34%.

The indicator proving the high quality level of the economic development is the share of B2B services in starting up a business. In Europe, most enterprises operating in this sector are in Slovenia (42%), but we should pay attention to the generally low level of the TEA index in this country at the level of 5.4%. The countries with the very high share of enterprises providing B2B services

⁶ It is generally considered that the economy should transform from production-oriented to service-oriented which entails innovation.

are also Austria (40%) and Sweden (38%). In Poland, this indicator is on a rather low level (18%), in comparison with the previous year there was also a drop by more than 3 p.p. The countries with the lowest share of entrepreneurs starting up a business in the B2B service sector are Bosnia and Herzegovina (6%) and Russia (9%).

Diagram 6. TEA by economy sectors, data for Poland (%)



Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2011 and 2012 data.

The share of entrepreneurs who start up and run their business up to 3.5 years (TEA) in the extraction sector is quite high in Poland and amounts to 7%. The leader in this field in Europe is Bosnia and Herzegovina (22%), the lowest share is observed in Germany (1%). The low level of relying on extraction occurs in the countries which are generally more developed and innovation-driven, the higher share in the less developed countries (Romania, Bosnia and Herzegovina, Croatia, Hungary, Latvia, Macedonia, Lithuania, Russia) and in the countries with significant natural resources (Finland, Sweden, Norway, Russia). Interestingly, the share of enterprises started up in extraction sectors in Poland increased significantly during the period 2011-2012 (from 4% to 7%) (Diagram 6). This may be associated with preparing investments in shale gas extraction.

3.8. Growth aspirations

In GEM, there are several variables relating to the growth aspirations of new enterprises. As a measure of growth, *inter alia*, declarations as to the creation of new jobs within the next 5 years are used (Table 10).

Table 10. Growth aspirations of new enterprises in Europe and in the USA (%)

Country	%TEA – at least 5 new jobs within 5 years	%TEA – at least 10 new jobs and employment growth by at least 50% within 5 years
Austria	13.0	7.6
Belgium	24.5	16.9
Bosnia and Herzegovina	33.4	19.4
Croatia	29.7	22.7
Denmark	31.8	17.7
Estonia	38.0	24.2
Finland	19.9	14.1
France	25.5	21.9
Germany	25.9	21.7
Greece	14.0	7.6
Hungary	33.5	22.6
Italy	17.0	6.5

cont. Table 10

Country	%TEA – at least 5 new jobs within 5 years	%TEA – at least 10 new jobs and employment growth by at least 50% within 5 years
Ireland	32.7	25.9
Latvia	52.8	40.1
Lithuania	50.0	35.1
Macedonia	32.4	18.6
Netherlands	18.3	8.7
Norway	17.0	8.9
Poland	29.8	15.6
Portugal	26.2	16.1
Romania	48.6	35.6
Russia	29.0	19.7
Slovakia	33.7	19.7
Slovenia	25.3	19.2
Spain	12.8	6.2
Sweden	16.6	9.7
Switzerland	14.9	8.6
Turkey	43.4	31.1
UK	30.6	17.4
USA	30.5	21.1

Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

The growth aspirations of Polish entrepreneurs are at a medium level – almost 30% of them declare the creation of at least 5 jobs. Also half of this group (16%) declare the creation of 10 jobs and employment growth by at least half within the next 5 years. New enterprises in Latvia, Lithuania and Romania have the highest growth potential. In case of Latvia, more than half of entrepreneurs at an early stage declare that they will create at least 5 jobs within five years, two out of five entrepreneurs declare that they will create in that time at least 10 new jobs and increase employment by more than 50%. The countries with the lowest growth aspirations of entrepreneurs are Spain, Austria, Greece and Switzerland. In case of Spain, only 6% of entrepreneurs declare that they will create at least 10 jobs.

Both growth variables are closely related, although the degree of this relation is different depending on the country. In the countries such as Germany or France, the difference between a percentage of entrepreneurs declaring the creation of 5 and 10 jobs is low. A sort of a gap is formed in this way – the majority of people starting up a business (approximately 75% in both cases) are going to create fewer than 5 jobs within the next 5 years, while approximately 22% of entrepreneurs are going to create at least 10 jobs during this period. In Poland, the situation is different – a percentage of persons intending to create at least five jobs is almost twice higher than that of persons intending to create at least 10 jobs. An even greater difference in this regard is found in Spain, Italy and the Netherlands. It indicates, firstly, a higher growth potential of German and French enterprises and, secondly, the existence of two separate types of start-ups enterprises – enterprises with a low growth potential, sometimes referred to as “lifestyle enterprises” and companies with a high growth potential that are entrepreneurial in the truest sense.

3.9. Growth aspirations of women and men

Men and women starting up a business also differ in the growth aspirations (Table 11).

Table 11. Growth aspirations of women and men in Poland

	Women	Men
Declared number of new jobs within 5 years (average)	5.5	8.3
Declared percentage employment growth within 5 years (average)	908%	1380%
Creation of any jobs (%)	83.3%	77.8%
More than 5 jobs within 5 years (%)	21.2%	34.1%
Growth by more than 10 persons and more than 50% (%)	11.0%	17.9%
Growth by more than 19 jobs within 5 years (%)	4.7%	13.4%

Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

In terms of the growth aspirations, several variables are available in GEM. Their analysis allows to get a full image of the entrepreneurs' aspirations in terms of the creation of jobs and business development. When it comes to the average of declared new jobs, women declare 5.5 while men – 8.3 jobs to be created within the next five years. Therefore, women expect that their enterprise will grow nine times, on average, men – almost fourteen times. This allows to draw a conclusion on the greater growth aspirations of men, however, a thorough analysis of other variables gives a deeper insight into the issue. It turns out that among men there are more entrepreneurs who do not declare any growth (among them, there are also those who declare the reduce the number of jobs or liquidation of the entire enterprise) – 22%, among women this percentage is 17. In case of another variables, it is men who declare the faster growth. It happens in case of creating at least 5 jobs (women 21%, men 34%), creating at least 10 jobs and growth by at least 50% (women 11%, men 18%), and creating 20 or more jobs (women 5%, men 13%).

In terms of the growth aspirations of women and men, we can thus draw a general conclusion that men have higher growth aspirations, but a higher percentage of women than men declare any growth. The more aggressive growth declarations are, the greater the difference between men and women in favour of men is.

3.10. Summary

Entrepreneurial attitudes of the Polish society are ambiguous. On one hand, we come off quite positively compared to other European countries in terms of our willingness to start up an enterprise in the nearest years, we also very well assess our knowledge on running an enterprise. On the other hand, the society lacks the ability to perceive business opportunities. What is more, a percentage of people who are able to notice them has decreased over the years 2011-2012 by about 13 p.p. Comparing to other European countries, the Polish society is characterised by a very high level of fear of failure. This negative result worsened over the years 2011-2012.

When compared to the rest of Europe, the Poles perceive entrepreneurs relatively well. They give a very low assessment only to the social status of entrepreneurs. It should also be noted that the perception of entrepreneurship in the years 2011-2012 deteriorated. To some extent, this may be related to the problems regarding the market of parabanks, widely reported in the media, which occurred more or less at the time of carrying out the survey.

The level of entrepreneurship in Poland varies depending on the stage of the firm growth. Early-stage entrepreneurship in comparison with Europe is at a medium level. On the other hand, the number of established enterprises is rather low. It is also worth noting that in the years 2011-2012, a percentage of both groups increased. We come off rather negatively in terms of a percentage of entrepreneurs discontinuing a business.

In Poland, we deal with a very high percentage of people who decide to start up an enterprise out of necessity. What is more, this situation deteriorated over the period 2011-2012, which, to a great extent, may be certainly attributed to the worsening of the economic situation. The fact that the majority of enterprises have been established out of necessity results in a lower level of growth-related ambitions and hence may inhibit the creation of jobs and added value by enterprises.

As for the sectors, in which new enterprises are started up, Poland is a very specific country. We are characterised by the fact that it is production which is the dominant sector, rather than services as it is observed in other countries.

Moreover, Polish new entrepreneurs can not be named over ambitious when it comes to the growth of their enterprises. They are rather at the end of the ranking of the European countries, especially when it comes to the more dynamic employment growth.

When analysing the differences between men and women starting up and running a business, we may observe some differences:

- Poland is one of few European countries where women are more likely to perceive opportunities to start up a business than men,
- women in Poland assess their knowledge and skills in setting up and running a business far worse than men,
- fear of failure is a factor which hinders entrepreneurship to a much greater extent among women than among men,
- gender gap with regard to setting up new enterprises in Poland is very large, but slowly decreasing,
- gender gap among owners of established enterprises is also significant (and increasing),
- women in Poland start up an enterprise out of necessity less frequently than men,
- starting up a business with a view of business opportunity among men and women is on a more similar level in Poland,
- men have higher average growth aspirations,
- women's growth aspirations are more "flattened" – more women than men declare the creation of any jobs,
- men's growth aspirations are more "aggressive" – more men than women declare the very fast growth.

From the above comparisons, a picture emerges that suggests a significant potential for female entrepreneurship, which for some reason is not implemented. Women perceive business opportunities, however, they are significantly constrained by low self-evaluation of competence with regard to entrepreneurship and fear of failure. This results in a still significant gap in starting up a business between women and men.

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

4.1. Introduction – about the study and technical remarks

This chapter presents the expert assessment of the determinants for the emergence and development of entrepreneurship in Poland. The assessment was carried out with the use of the qualitative survey (national experts survey – NES). Altogether 36 experts from Poland participated in this survey. They represent the following fields: finance, government policies, governmental programmes, education and trainings, R&D transfer, service infrastructure, market openness, physical infrastructure, social and cultural norms.

The survey was carried out using an online questionnaire. The task of each expert was to assess the statements relating to 19 areas⁷.

Each area covered 5–9 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 statements⁸. The higher the value of the average, the better assessment of a given aspect. 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.

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, understood in particular as the number of new entities, in innovation-driven economies is on a lower level than in other groups.

In view of the multitude of areas covered by the NES survey, it was decided to group them into five blocks representing the more extensive categories of determinants for the development of entrepreneurship, i.e.:

- I. **start-up opportunities:** perception of the possibility to set up a business, market openness – dynamics and burdens (obstacles to entry and functioning on the market); entrepreneurship education – primary and secondary level and the level of colleges and universities and vocational training; skills and knowledge necessary for starting up business activity;
- II. **market and entrepreneurship policy:** government policy – priorities and support for entrepreneurship as well as burdens related to taxes and administrative regulations; government (public) entrepreneurship support programmes; commercial, service as well as physical infrastructure of business environment; access to finance;
- III. **innovation:** interest in innovation on the part of entrepreneurs and consumers; R&D transfer; intellectual property rights;
- IV. **growth potential:** supporting women entrepreneurship; supporting high-growth enterprises; youth (14-20 years) and young people's (21-34 years) entrepreneurship;
- V. **social and cultural norms:** value systems and social norms, social image of the entrepreneur.

A detailed description of individual areas of the NES survey has been presented in the Global Entrepreneurship Monitor – Poland 2011 report.

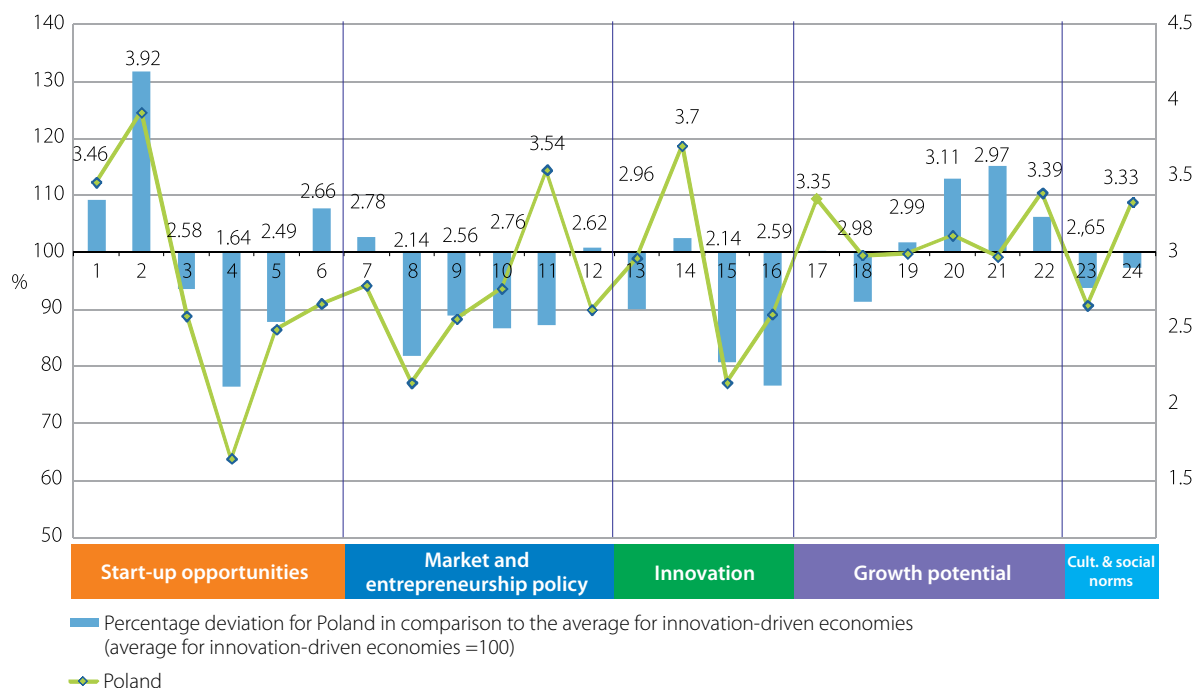
⁷ Access to finance, government policy towards entrepreneurship, public entrepreneurship support programmes, primary and secondary education, higher education and professional training, research, development and technology transfer, business commercial environment, stability of the market situation and legal obstacles to entry into the market, physical infrastructure, value systems and social norms, perception of the possibility to set up a business, skills and knowledge necessary for starting up business activity, social image of the entrepreneur, intellectual property right, supporting entrepreneurship of women, supporting businesses with high growth potential, innovation, immigration and entrepreneurship, business relationships, youth (14-20 years) and young people's (21-34 years) entrepreneurship.

⁸ Authors of the study are aware of the consequences of applying the average for the Likert scale; however, such solution was recognised the optimum for comparison between so many countries in so many areas at a time.

4.2. Current status

According to the experts involved in the NES survey, in 2012 the conditions for the creation and development of enterprises in Poland were not too favourable.

Diagram 7. Entrepreneurship development conditions: Poland vs. innovation-driven economies



Start-up opportunities: 1 – Perception of the possibility to set up a business, 2 – Market openness – dynamics, 3 – Market openness – obstacles to entry and functioning, 4 – Primary and secondary education, 5 – Education and training – vocational schools, colleges and universities, 6 – Skills/knowledge necessary for starting up business. **Market and entrepreneurship policy:** 7 – Government policy – priorities and support, 8 – Government policy – regulations, 9 – Government programmes, 10 – Commercial and service infrastructure, 11 – Physical infrastructure, 12 – Access to financing. **Innovation:** 13 – Interest in innovation – entrepreneurs, 14 – Interest in innovation – consumers, 15 – Research and development, transfer of knowledge, 16 – Intellectual property right. **Growth potential:** 17 – Support for female entrepreneurship, 18 – Support for high growth enterprises, 19 – Youth entrepreneurship – access to education and firm growth opportunities, 20 – Youth entrepreneurship – necessity, 21 – Young people’s entrepreneurship - financing, 22 – Young people’s entrepreneurship – national obstacles. **Cultural & social norms:** 23 – Social and cultural norms, 24 – Social image of the entrepreneur

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2012*.

4.2.1. Start-up opportunities

What opportunities for starting up a business were provided by the market in 2012? The experts’ assessment in this area is a little better than average (3.6) and slightly above (by 9%) the average for the innovation-driven economies. The experts agreed that in the market there are still a lot of good opportunities for starting up an enterprise (3.83). Undoubtedly, the Polish market is one of markets which develops dynamically and thus changes both in terms of goods and services for consumers as well as those for B2B (3.92 – the highest mark among all the areas analysed). Compared with the average for the innovation-driven economies, our market dynamics was assessed significantly better (by 32%). On the other hand, we came off worse (by ca. 7%) in comparison with this average when it comes to easiness to enter the market. Here, the factors such as, *inter alia*, the amount of costs of market entry, the lack of being unfairly blocked by established firms, enforcement of the anti-trust legislation are taken into consideration (the total assessment in this area amounted to 2.58).

Therefore, taking into account the opportunities still offered by the market and also a certain difficulty of the functioning in it, the assessment of preparation of future entrepreneurs looks disturbing. Teaching of entrepreneurship at primary and secondary schools has been assessed at 1.64 and this is the worst result among all the areas analysed. This means that these establishments do not encourage creativity, self-sufficiency and personal initiative (the assessment in this category is even lower – 1.57 and also the worst among all European countries involved in the GEM study), there is also no transfer of knowledge on the functioning of the economy, no proper attention is paid to the issue of entrepreneurship and setting up enterprises. Also, in comparison with the average for the innovation-driven economies, this result is lower by almost 25%. The assessment of teaching of entrepreneurship at the level of colleges and universities and vocational training was slightly better (2.49), whereby this is the result below the average for the innovation-driven economies – by ca. 12%.

Against this background, the result of 2.66 (by 7.8% better than the average for the innovation-driven economies) as regards the assessment of knowledge and ability to set up a firm by average Pole looks quite satisfactory, though in reality it is not like that. The experts do not agree with the statements that a lot of people in our country know how to set up and run an enterprise, have experience in this field, know how to take advantage of emerging opportunities.

4.2.2. Market and entrepreneurship policy

In this block, we have put together the government policy for entrepreneurship and its instruments as well as services – in the form of access to external financing, commercial and service infrastructure, as well as physical infrastructure. Most of these factors have been assessed below 3. Only physical infrastructure – understood as good access of new and growing enterprises to roads, media, communication, affordable telecommunications services, a short period of time in which it is possible to receive such access – was assessed at 3.54, which had been determined by a relatively high result (4.17) when it comes to the time of receiving access to telecommunications services (defined as 1 week). Commercial and service infrastructure, in which they assessed the availability and ability to bear costs of employing subcontractors, suppliers and consultants, easiness of acquiring good professional lawyers and accountants as well as banking services for start-up entrepreneurs received a total assessment of 2.76 – here, the best assessment was given to easiness of access to banking services (3.31), though still it is not a relatively good result.

The experts assessed quite low (between 2.56 and 2.78) both the government policy itself and its instruments. According to the experts, the government policy is not much conducive to new enterprises, these entities are not a priority for the policy at the central and regional level. They also did not agree with the statement that the amount of taxes did not constitute a burden for new and growing enterprises and also that regulations concerning taxes and other administrative matters are applied in a predictable and consistent way. They also noticed a difficulty on the side of new and growing enterprises in dealing with administrative regulations and requirements (in this latter aspect, the lowest assessment was given – 1.91). When it comes to government programmes, the assessment covered the following issues: the possibility of obtaining support through contact with a single agency (the lowest assessment in this category – 1.78), the effectiveness of support from science parks and business incubators (3.11), the existence of public programmes for enterprises (2.97), competence and effectiveness of the public administration employees (2.49), matching programmes to the individual needs of the entrepreneur (2.47) and the effectiveness of programmes addressed to entrepreneurs (2.51).

In most of the analysed entrepreneurship development conditions in this block (apart from access to financing and government policy – priorities and support), we came off worse than the innovation-driven economies by ca. 8% to 13%.

Once again, let us take a look at financing – the category, in which the existence of six forms of financing in our country was analysed: equity funding (also high risk), debt financing, public financing, from private individuals (other than founders) and in a form of initial public offerings (IPOs). In this case, all partial assessments oscillated around 2.6, apart from financing in the form of support from public funds (2.92) and private funds (2.21). The total assessment of access to financing for enterprises amounted to 2.62 and was almost identical with the average result for the innovation-driven economies.

The above results are not optimistic. The current entrepreneurship policy as well as administrative regulations and requirements, in the experts' opinion still do not support the development of entrepreneurship sufficiently (perhaps this assessment is affected by the depletion of budgets within most instruments financed from public funds for entrepreneurs). In turn, access to financing and to commercial services (accounting, legal or others) are among the fundamental conditions supporting the current activity of the enterprise and thus the necessary conditions allowing for entrepreneurship development. The low assessment in this area indicates a higher risk of the entrepreneur, who has been compelled to rely on their personal knowledge and resources, which, in the experts' opinion, are also not sufficient.

4.2.3. Innovation

In the next block – innovation – three main areas were put together: interest in innovation among entrepreneurs and consumers, research and development and transfer of knowledge and intellectual property rights. Even a first look at the diagram (Diagram 7) shows that innovation is particularly important to consumers (3.7 – the second, behind the dynamics of market openness, best assessment of all determinants and the only which has a positive value – although insignificant – in relation to the average of the innovation-driven economies in this block). Consumers like to try out new products (3.72), value innovation (3.81), are open to buying products and services from new companies (3.51). The results are in line with the average for the innovation-driven economies.

Entrepreneurs show less interest in innovation (a total assessment of 2.96, below the average for the innovation-driven economies – by 10%). According to the experts involved in the survey, entrepreneurs are not willing to experiment with new technolo-

gies and new ways of activity (2.53, this is the fourth last result among 28 European countries surveyed, less than the average for the innovation-driven economies by ca. 22%). Also, the result worse than this average (by 12%) concerns the issue of valuing innovation by our entrepreneurs (3.17, as for this criterion we occupy the 9th place among 28 European countries). When it comes to the willingness of entrepreneurs to use services of new suppliers, we were assessed at 3.15, the result by ca. 6% better than the average for the innovation-driven economies.

Now, let us take a look at the criterion of research and development, transfer of knowledge (the total assessment of only 2.14, almost by 20% lower than the average for the innovation-driven economies), which is worth of interest due to the inclusion of a number of important topics therein. The first is the transfer of knowledge between colleges and universities and research centres and the business. In this category, we received a low assessment – 1.83, this is the worst result among 28 European countries analysed, as well as by 30% lower than the average for the innovation-driven economies. The second is the equality of access for new and growing enterprises vs. large, established enterprises to new technologies, science and knowledge – assessed even lower – at 1.61 – it is also the worst result among 28 European countries (more than 32% below the average for the innovation-driven economies). A lot, although slightly less than in the previously described cases, as 22% , separates our country from the average for the innovation-driven economies when it comes to whether new and growing enterprises can afford to purchase new technologies (the assessment of 1.83, also the worst among the European countries analysed). Another issue is efficient support for developing world-class new technology-based ventures in at least one area by the science and technology base. In this respect, the assessment amounted to 2.28 and was by 28% lower than the average for the innovation-driven economies⁹. The last issue was good support available for engineers and scientists to have their ideas commercialised through new and growing firms (2.26, and by ca. 21% less than the average for the innovation-driven economies¹⁰).

The last area in this block is the issues related to intellectual property rights, such as the comprehensive and efficient legislation, rare cases of illegal sales of “pirated” software, CD’s, etc., making the society believe that inventors’ rights for their inventions should be respected (only in this last aspect, the assessment was a bit higher than the others and amounted to 3.51). The total assessment amounted to 2.59 and was by ca. 23% lower than the average for the innovation-driven economies.

Is the absence of incentives for creativity and personal initiative when you are 6 years old or slightly more of importance for the attitude of an adult, who becomes an entrepreneur? In the light of the above negative results regarding interest in innovation on the part of entrepreneurs and the unsatisfactory flow of knowledge between the worlds of science and business as well as worse access to this knowledge for growing firms, this question becomes a rhetorical question.

4.2.4. Growth potential

In the NES study, three groups were distinguished: women, high growth firms and young entrepreneurs (14-34 years). The determinants specific for the development of these groups were analysed.

Women

The conditions for the development of female entrepreneurship were assessed at 3.35, which was consistent with the results for the innovation-driven economies. In this block, five issues were analysed in detail. The first concerned whether or not the institutional and social care system is sufficient for women to be able to continue work even after starting a family – the assessment in this category is very low (2.31), also lower than the average of the innovation-driven economies (by 23%). Another factor assessed was the attitude of the Polish society towards setting up businesses by women – here the experts had a slightly better opinion, assessing it at 3.46 (by 2.5% less than the average for the innovation-driven economies). Similar assessment (3.23, although higher by more than 10% than the average for the innovation-driven economies) was given to the issue of women being offered incentives to become entrepreneur. The last two issues relate to equal opportunities between women and men in starting up a business and equality in terms of the ability to set up a firm. And as far as the assessment of equal opportunities (3.25) was the same as the average for the innovation-driven economies, the assessment of equality in terms of the ability amounted to 4.61 and exceeded this average by more than 14%.

High growth firms

The determinants for starting up and growing high growth enterprises were assessed as low (2.98) – as the only within this block – below the average for the innovation-driven economies (by 8.7%). The determinants of the development of this group consisted of: existence of support initiatives for this group, awareness of the importance of high-growth firms in public administration, respectively high competence of persons working in entrepreneurship support initiatives to support high growth companies as well as taking into account the potential of the enterprise to rapid growth as a selection criterion when choosing recipients of entrepreneurship support and priority approach to support these enterprises by entrepreneurship policy. The assessment in those categories were average – between 2.59 in terms of personnel competence and 3.34 in the area of the priority approach to that

⁹ This gave us the sixth place in the ranking of the European countries involved in the survey.

¹⁰ Seventh place in the ranking of the European countries involved in the survey.

group of firms in entrepreneurship policy. Also, in the first four areas they were lower than the average for the innovation-driven economies – between 10 and 13%, only in respect of the priority approach to that group of firms in entrepreneurship policy the result for Poland was almost equal to the value of that average.

This high assessment of the priority approach to high growth firms might be the result of somehow wrong association of this group of enterprises with innovation-driven enterprises that could benefit from the support under the financial perspective 2007-2013 which is coming to an end.

Entrepreneurship of the young (14-34 years)

A special subject in the GEM survey in 2012 was entrepreneurship of the young, i.e. of persons aged from 14 to 34. This group is divided into two: youth (14-20 years) and young people (21-34 years). In each of these subgroups, eight statements had been assessed, which then were grouped into four summary assessments – two in each age group.

When it comes to the **youth**, it was checked if people aged 14-20 years have easy access to education, entrepreneurship training, opportunities for growing micro-enterprises and if most of them are forced to engage in entrepreneurship. Both assessments oscillated around 3 (Diagram 8), both also were higher than the average for the innovation-driven economies – respectively by 2 and 13%.

The first summary category (access to education, entrepreneurship training and opportunities for growing micro-enterprises) covers three statements. The first is good access to primary and secondary education – here, the experts agreed with that (4.17), which only apparently gives reasons for satisfaction. As indicated above, the quality of this education – understood as the development of appropriate entrepreneurial attitudes and providing knowledge about the economy – was assessed as the worst among all categories. Much worse opinion (below 3), the experts expressed in relation to other two statements – the existence of many opportunities to grow micro-enterprises for youth and training and support for this group under public programmes (these results were close to the average for the innovation-driven economies).

The second category – engaging in entrepreneurship out of necessity – referred to five statements. In the GEM experts' opinion, the youth rather do not undertake entrepreneurial activity out of necessity (2.67) or to satisfy the family's expectations regarding contribution to the family budget (2.66), it is also not the case that the youth do not have a choice other than finding a job (2.83). Much greater agreement (respectively 3.78 and 3.92) between experts was related to the statement that the youth with some business experience would become entrepreneurs rather than employees and that those who become self-employed learn to develop it by their own experience and relationships. The results of most of those categories were slightly above the average for the innovation-driven economies (from 2.5 to 11%). Only in case of the statement that the youth with certain business experience would have own enterprise rather than become employed, the assessment for Poland was higher than the average for the innovation-driven economies by 45.5%. Undoubtedly, this is an important result, showing that the creation of instruments allowing to gain business experience will be likely to translate into a higher level of entrepreneurship in our country. Given the lack of an adequate basis at the stage of primary education, this component becomes crucial to ensure not only an adequate number but also the quality of operating enterprises.

A slightly better assessment for the determinants of development of entrepreneurship of the young was given to the statements relating **to young people** – at the age of 21-34 years. Here, on one hand, they assessed the statements on access to external sources of financing and support (total assessment of 2.97), while on the other hand – national determinants considered as an obstacle to entrepreneurship development in this group of persons (3.39).

Let us start with the national determinants. According to the experts involved in the NES study, young people think that the opportunities to live and work abroad are more attractive than in Poland (4.12). This means in fact, that the conditions of living/working in our country are considered to be worse than in other countries¹¹, which may negatively affect the decisions of young people to start up their own business. On the other hand, factors such as conflict situations do not constitute a serious obstacle when setting up and growing a firm (2.81), also restrictions affecting young people in starting up a business are not much greater than those experienced by adults (3.11). A better assessment, of 3.88, was given to the fact that young people receive assistance from their families, close relatives or friends at the stage of setting up their own business. Certainly, this is to a large extent the effect of values such as family and friends, but partially it also results from the absence of a full range of alternatives, as described below.

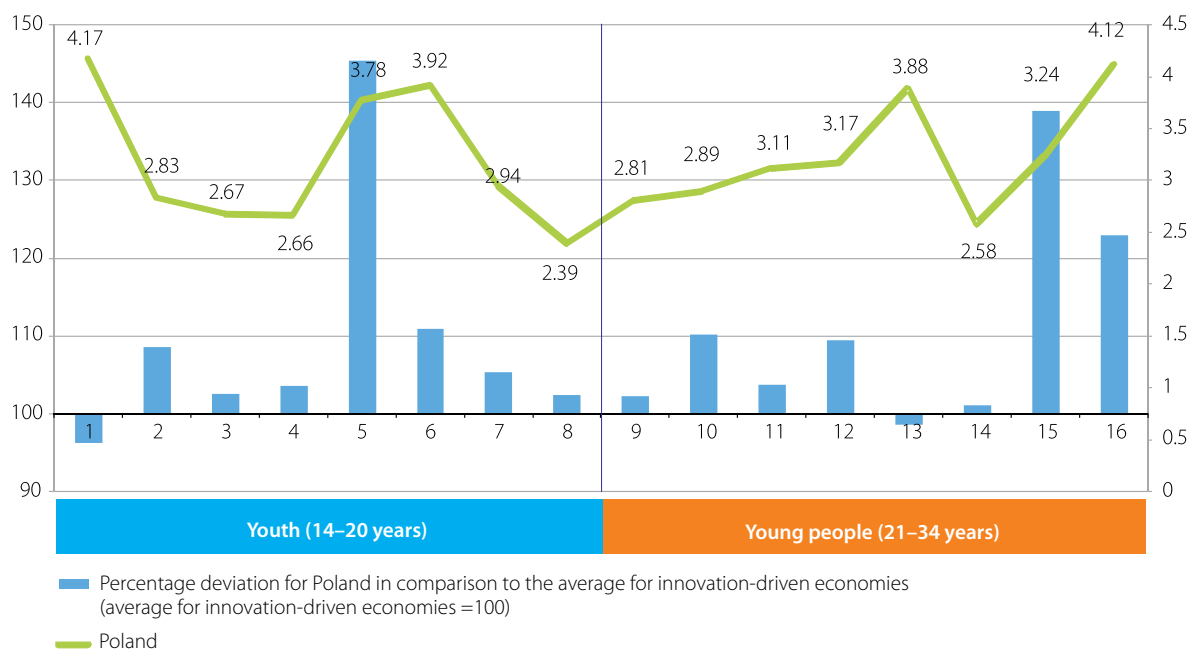
The assessment of support instruments for young people showed that the financial sector (banks, informal investors, business angels, etc.) comes off as the worst – 2.58. The better assessment is given to: system of incubators and the opportunity to use microloans. Do young people really engage in entrepreneurial activities and running a firm? The experts' assessment of this criterion was ambiguous and amounted to 2.89.

¹¹ This statement is based on the reverse scale, i.e. the higher the value is, the worse assessment was given to the entrepreneurship development conditions.

Compared with the average for the innovation-driven economies, entrepreneurship development determinants for young people are pretty decent. In 15 of 16 assessed statements, we exceed this value – the most when it comes to the path of the inflow into the pool of entrepreneurs by own experiences (more than 45%) and availability of microloans (almost 40%).

Entrepreneurship development determinants for young people in Poland are better than those prevailing in the innovation-driven economies. When it comes to female entrepreneurship, here particularly adverse conditions apply to institutional and social care (in this respect, some actions were taken in 2011, by proposing changes in the care of children under 3 years). Better conditions are required by the development of high growth enterprises.

Diagram 8. Young people's entrepreneurship development conditions: Poland vs innovation-driven economies



Youth entrepreneurship (age 14-18): **1** – Youth has good access to primary and secondary education; **2** – Most youth have no choice other than finding a job; **3** – The youth take business activity out of necessity; **4** – Families expect that the youth will contribute to family budget; **5** – It is more likely that the youth involved in business will become self-employed rather than find employment as an employee; **6** – Youth becoming self-employed learn to grow business mainly through personal experience and relationships; **7** – There are a lot of opportunities to grow “micro-enterprises” for the youth; **8** – Government programmes effectively train and support young entrepreneurs. **Young people's entrepreneurship (age 21-34):** **9** – Conflict situations constitute a serious obstacle for young people when starting up and growing a business; **10** – Young people to a large extent take actions related to entrepreneurship and running a business; **11** – Young people must deal with more restrictions when undertaking and running a business than adults; **12** – System of business incubators provides proper support for young people; **13** – Most young people who became entrepreneurs, when setting up a business received help from family, close relatives or friends; **14** – Financial sector (banks, informal investors, business angels) provides financing for business initiatives of young people; **15** – Young people may use microloans when starting up and running a business; **16** – Young people believe that the opportunities of living/working abroad are more attractive than in the country¹².

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2012*.

4.2.5. Culture and society

The last of the analysed blocks of the entrepreneurship development determinants concerns the image of the entrepreneur in society and social and cultural norms. The experts agreed that the image of the entrepreneur in society is average (assessment of 3.33, slightly lower than the average for the innovation-driven economies). Among the statements that form this category, it is worth mentioning the one regarding the universality of opinion, that becoming an entrepreneur is a desirable career choice (the result for Poland of 3.37 is by more than 14% better than the average for the innovation-driven economies).

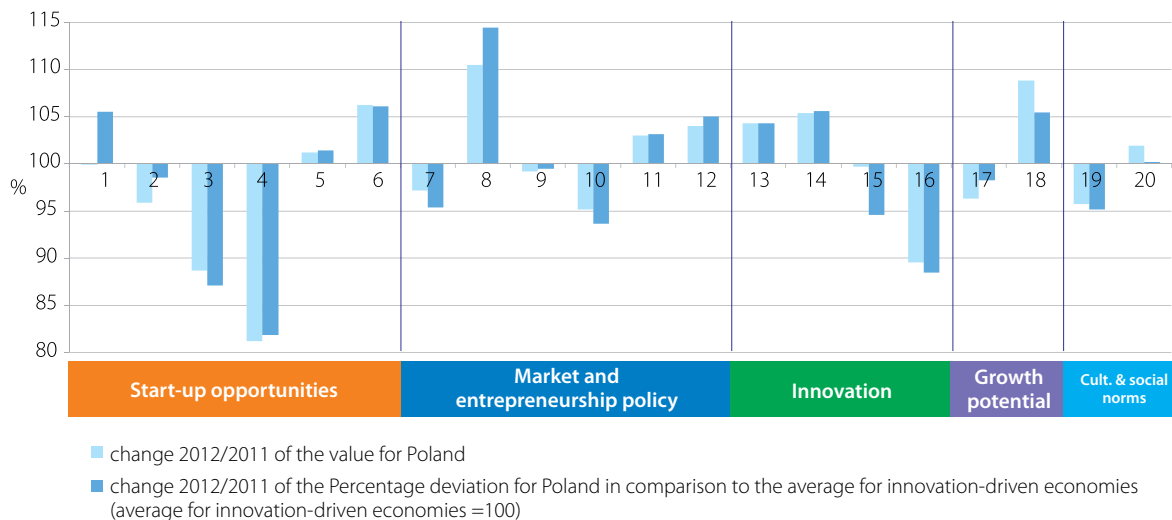
The assessment of cultural and social norms as supporting individual success achieved by own efforts, with an emphasis on self-sufficiency, autonomy and personal initiative, encouraging entrepreneurial risk-taking, encouraging creativity and innovativeness as well as emphasising personal responsibility in managing own life – was very poor (2.65, but still only less than 7% below the average for the innovation-driven economies). Individual factors were given a similarly negative assessment – between 2.47 and 2.81. All of them except for that regarding encouraging entrepreneurial risk-taking were below the average for the innovation-driven economies – the worst (by 11.5%) assessment was given with regard to cultural and social norms as a factor conducive to creativity and innovativeness.

¹² This statement is based on the reverse scale, i.e. the higher the value is, the worse assessment was given to the entrepreneurship development conditions.

4.3. Changes on the previous year

A simple balance of changes in the assessment of the entrepreneurship determinants carried out in 2012, compared with the previous year gives a result equal to zero, as the number of categories assessed better is the same as those assessed worse in 2012 when compared to 2011 (10 to 10). A situation of individual blocks is similar, in which declines in some categories seem to be balanced by increases in other categories – only in the block describing start-up opportunities, the situation looks worse while in the block – market and entrepreneurship policy – the situation improved.

Diagram 9. Entrepreneurship development determinants in Poland (in 2012 and change on 2011) – results of the NES study



Start-up opportunities: 1 – Perception of the possibility to set up a business, 2 – Market openness – dynamics, 3 – Market openness – obstacles to entry and functioning, 4 – Primary and secondary education, 5 – Education and training – vocational schools, colleges and universities, 6 – Skills/knowledge necessary for starting up business. **Market and entrepreneurship policy:** 7 – Government policy – priorities and support, 8 – Government policy – regulations, 9 – Government programmes, 10 – Commercial and service infrastructure, 11 – Physical infrastructure, 12 – Access to financing. **Innovation:** 13 – Interest in innovation – entrepreneurs, 14 – Interest in innovation – customers, 15 – Research and development, transfer of knowledge, 16 – Intellectual property right. **Growth potential:** 17 – Support for female entrepreneurship, 18 – Support for high growth firms. **Cultural and social norms:** 19 – Social and cultural norms, 20 – Social image of the entrepreneur.

Source: own elaboration based on results of the study *Global Entrepreneurship Monitor – National Experts Survey 2012*.

Now, let us take a look at the individual categories. The biggest positive change in comparison with the result of 2011 regarded government policies in terms of taxes and administrative regulations (increase by 10%). Another (by 9%) – support for high growth enterprises. The following categories in which the assessment increased were interest in innovation (both on the part of entrepreneurs and consumers) and access to financing. The change in the indicator on the entrepreneurial attitudes and improved access to financing is particularly optimistic. In these changes undoubtedly we may see the effects of implementing government programmes, such as the National Reform Programme or the increasing orientation of available support to highly developed innovative projects. Increasing access to financing is also a result of loosening the loan policy in relation to enterprises by the banking sector. Also, the assessment of the skills and knowledge necessary for starting up business activity improved – by 6%.

In the same categories as the above (plus perceived opportunities), improvement in the disparity between us and the innovation-driven economies was recorded. The biggest positive change involved – like in case of change of the assessment for Poland – government policy in terms of taxes and administrative regulations (14%). Other changes oscillated around a few percent.

In the remaining (ten) categories, there were declines when it comes to the result for Poland and the disparity between us and the innovation-driven economies. The biggest negative change regarded primary and secondary education with respect to entrepreneurship (by ca. 18%), another (by ca. 10-12%): obstacles to entry and functioning in the market and safety regarding intellectual property rights. A decline of assessments for Poland with the increased disparity between us and the innovation-driven economies was also visible in case of access to commercial and service infrastructure, the issue of transfer of knowledge (R&D) and of technology (particularly with regard to the innovation-driven economies – by ca. 5%), government policy with regard to entrepreneurship or supporting entrepreneurship of women.

4.4. Summary

The image of the entrepreneurship development conditions in Poland, created by the experts, certainly is not perfect.

Let us look at it through the prism of a person who wants to start being independent and become one of almost 1,7 million entrepreneurs already present in our market. Leave aside the issues related to the evolution of pro-entrepreneurial attitude at the first stages of education (very low assessment of the experts), as they are of no importance for people intending to start up a business now or soon. According to the experts, our character has insufficient knowledge and skills to set up a business, although when compared to its counterpart from the innovation-driven economies, this knowledge and skills are valued higher, what is more – their value increased when compared to the previous year. When entering the market, which still creates a lot of good opportunities to set up a business, the entrepreneur must be aware of its high volatility. Support he or she may expect is, above all, the possibility of obtaining quick, affordable access to physical infrastructure (roads, telecommunications services, other media) and, although to a significantly less extent, to commercial and service infrastructure, i.e. business partners, legal and accounting services as well as banking services.

Our entrepreneur should know that in the market there is great interest in innovation on the part of consumers. It could therefore consider to choose such activity or such projects, thanks to which it would reach the higher than above growth, also as regards the increase in the number of employees – as, according to the experts, support for high growth firms has become a priority in the entrepreneurship policy. Other aspects of this policy and its programmes have been assessed quite low by the experts, although the area associated with regulations (including tax regulations) was assessed much better in 2012 when comparing to the previous year.

Regardless of gender, our entrepreneur has equal opportunities and abilities to become an entrepreneur (only in case of female entrepreneurs, an obstacle is the insufficiently developed institutional and social care system). There is also a possibility that the entrepreneur described here belongs to the age group between 14 and 34 years. Then, he or she may expect support from business incubators or microloan system to set up a business.

Unfortunately, our entrepreneur may also expect some difficulties as insufficiently well-functioning intellectual property law, or worse, compared to large enterprises, access to knowledge and not a very good transfer of knowledge from the world of science to business. Some difficulties are waiting the entrepreneur right at the stage of entering the market, especially in the form of unlawful barriers created by established enterprises.

The entrepreneur who became a part of this image, starts being slowly supported by the attitude of society, which, although is not too optimistic, but still is better than in the previous year. The problem are still cultural and social norms which still lack a value of activities supporting entrepreneurship development, such as encouraging creativity and innovativeness, risk-taking, personal initiative or personal responsibility in managing own life.

Definitely, we can say that this image is not finite. Particularly, a lot is to be done in the field of primary and secondary education with respect to entrepreneurship, abolition of restrictions on the creation and growth of enterprises arising from regulations or administrative decisions and creation of conditions for the development of commercial and service infrastructure that would support the development of new enterprises. It is also important to take actions that will encourage entrepreneurs to engage in innovative activities, also in cooperation with the area of science. An incentive would also be the development of mechanisms, which would provide the better protection of intellectual property rights.

5. Business relations

5.1. Introduction – why cooperation is essential, forms of cooperation

“Cooperation – it’s worth it!” is this year’s motto of Polish Agency for Enterprise Development. And although it seems to sound quite trivial, in fact it hides in it complex concepts and dependencies which are not always unambiguous. It also seems that everyone knows and confirms that it is worth to cooperate, but as shown by the data, which will be presented in this chapter, this knowledge translates into practice to a varying degree. Below, we will present the determinants of the Polish entrepreneurs’ attitude to cooperation as well as the analysis of data in this regard, obtained within the framework of the GEM project.

We shall return to the question of why cooperation is worth it, and especially if it is worth it for entrepreneurs. First of all, thanks to cooperation and participation in various networks, entrepreneurs gain wider access to information. A lot of information is transmitted verbally and provided only to persons regarded as trusted. Cooperation also allows for the sharing of available resources, for example, family or friends may share their resources in a form of cash with a young entrepreneur and support his budding business. Another example may be the joint use of machinery or office space by several firms.

Of course, cooperation may take more and less formalised form. There are, for example, organisations bringing together entrepreneurs and providing them with networking services, e.g. in a form of clusters. And although an organisation itself, which verifies the credentials of potential candidates for members as well as a schedule and programme of meetings are strongly formalised, relationships of its members, who enter into casual talks and by the way share each other’s experiences or information about potential orders are not. The types of networks will be discussed below.

Therefore, the issue of cooperation is very wide. For the purposes of this chapter, it was decided to look at it from two points of view: from the point of view of social capital as well as of network i.e. networking. The analysis of data collected as part of the GEM survey was preceded by a short theoretical introduction. The chapter ends with a summary and conclusions on the analyses carried out.

The GEM data come from two sources. The first is the adult population survey (APS), and the other is national experts survey (NES). To both of these surveys from the 2012 edition, modules dedicated to the issue of business relationships were attached.

In this chapter, just as in case of a description of general data collected as part of the APS survey, two categories of entrepreneurs are described. The first category includes **established entrepreneurs**, whose enterprise has been present in the market for at least 3.5 years. The other category corresponds to TEA (Total Early-stage Entrepreneurial Activity) described in the APS data analysis (Chapter 3). This group includes entrepreneurs, running firms for up to 3.5 years and nascent entrepreneurs (cf. definition on p. 9). For the purposes of this chapter, to make the analysis easier to receive, the group covered by the TEA index is called **start-ups**.

5.2. Theoretical background

Social capital

The concept of social capital is characterised by the multitude of definitions and the difficulty to measure this phenomenon¹³. This chapter does not contain an exhaustive review of literature but only attempts to illustrate the multi-dimensionality of social capital and also briefly explains what it in fact is.

The term became popular in the 1980’s through the sociologist J. Coleman and political scientist R. Putnam. Coleman¹⁴ distinguished three forms of social capital:

¹³ Although there is research trying to measure social capital, e.g. *Diagnoza Społeczna* or *European Social Survey*.

¹⁴ J. S. Coleman, *Social Capital in the Creation of Human Capital*, AJS vol. 94, University of Chicago 1988.

a. Obligations and expectations

B has an *obligation* towards A and A *expects* that B will meet it. The trust guarantees that the obligation will be paid. If someone holds a lot of obligations, this also involves a large amount of power, because, by enforcing these obligations they may achieve their goals definitely easier. This means that, assuming that there is a mutual trust in society, the entrepreneur may actively manage his social capital by gathering/getting rid of obligations.

b. Information channels

The information is very important, especially in business, because it provides a basis for action. However, the acquisition of information is expensive. One person is not able to collect all available information, there is always some kind of selectivity (e.g. some are interested in the stock market situation, others deal with new trends in fashion or political changes). The exchange of information between people allows to save time and money.

c. Social norms

An effective norm creates a strong form of social capital, for example, an effective norm penalising crimes allows to walk freely in the street while an effective norm ordering to pay financial obligations on time, e.g. under penalty of debt enforcement enables free trade.

Norms may also put an excessive restriction on e.g. innovativeness. Norms not only reduce deviations from norms that are harmful to others but also those that are likely to bring benefits. An example might be a case of stem cell research. A norm prohibiting their use (resulting from ethical considerations and intended to protect life) also restricts the possibility of creating new innovative solutions e.g. in the field of medicine.

R. Putnam, mentioned hereinabove, understood social capital as a cultural phenomenon, which includes the civic attitude of the general public, social norms supporting joint actions as well as interpersonal trust and trust of citizens in public institutions¹⁵. Therefore, in Putnam's definition a public institution appears as an important factor shaping high quality social capital. He also proved a great economic importance of social capital.

Changes to the shape and development of social capital at a definitely faster rate than before may significantly contribute to accelerating the economic development. Social capital can affect the development in different ways.

Firstly, it has a huge impact on the activity of enterprises. For entrepreneurs, social capital:

- „facilitates networking, negotiations,
- reduces social costs,
- reduces the duration of the investment process (reduces the probability of appealing against subsequent decisions of administrative authorities),
- reduces corruption,
- increases the reliability of customers,
- is conducive to long-term investment and diffusion of knowledge,
- prevents abuse of the common good
- and increases inter-group solidarity.”¹⁶

Thanks to this, the functioning of firms becomes cheaper and more efficient.

Secondly, low innovation in Poland is a consequence of the shortcomings of social capital and its deficit is becoming the more and more serious obstacle to the development. “A key determinant of the process of dissemination, adoption and implementation of social innovations are such attributes of social institutions that allow to introduce changes.”¹⁷

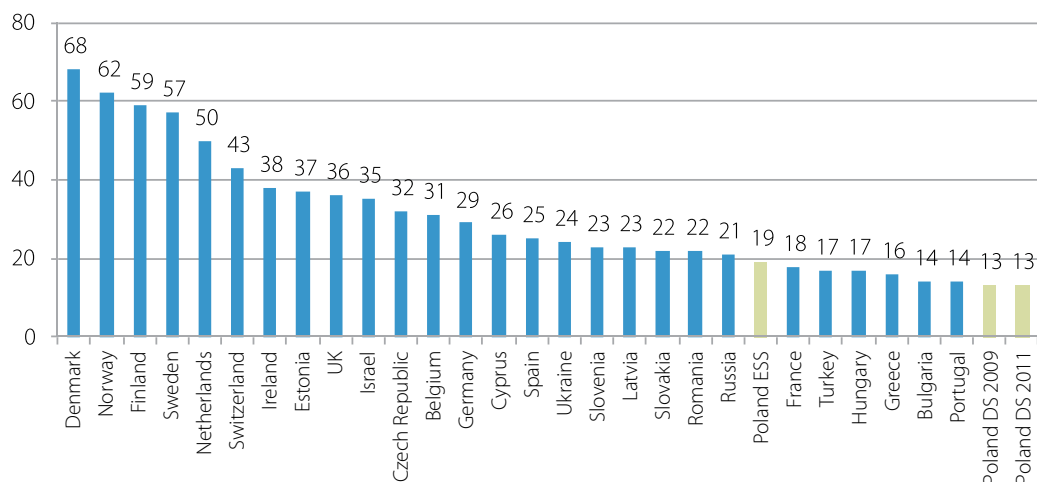
In terms of general trust, Poland occupies one of the last places in Europe. In our country, only 19% of people trust other people and the same percentage believe that most people are trying to be helpful (for comparison in Denmark, which is the European leader in terms of social trust, these percentages are, respectively, 68% and 49%) (Diagram 10). This situation has not changed significantly over the last few years. In 1993, 9% of people in Poland trusted other people, in 2003 it was 10.5%, and in 2011 – 13.4%. Therefore, we may see that the development of social capital in Poland progresses very slowly. At this rate, we will catch up with the leaders not even in decades but in centuries.

¹⁵ Czapiński J., Panek T. (ed.) (2011), *Diagnoza społeczna 2011*. www.diagnoza.com [downloaded on 09.05.2013], Warsaw, Rada Monitoringu Społecznego.

¹⁶ A. Giza-Poleszczuk, *Społeczna strategia Warszawy*.

¹⁷ A. Giza-Poleszczuk, R. Włoch, *Innowacje a społeczeństwo*, in: „Świt innowacyjnego społeczeństwa”, ed. by P. Zadura-Lichota, PARP, Warsaw 2013.

Diagram 10. Percentage of people aged 16+ trusting other people



Data source: for all countries, including Poland ESS – *European Social Survey 2008* (response rate of 7-10 on the scale: 0 – “you cannot be too careful”, 10 – “most people can be trusted”), for Poland DS – *Diagnoza Społeczna 2009-2011* (response rate “most people can be trusted” on the scale: most people can be trusted, you cannot be too careful, difficult to tell).

Source: Czapiński J., Panek T. (ed.) (2011), *Diagnoza społeczna 2011*. www.diagnoza.com [downloaded on 09.05.2013], Warsaw, Rada Monitoringu Społecznego.

Cooperation in society is largely a resultant of various forms of social capital, in particular the trust level, flow of information. In 2010, PARP carried out a survey of microenterprises¹⁸. On its basis, we know that about half of the microenterprises does not cooperate. On the other hand, every fourth firm cooperates with other entrepreneurs. Entities undertaking cooperation are focused on co-operation rather than on competition. Therefore, the smallest firms notice that thanks to cooperation they have an opportunity to improve its competitive position. However, it should be stressed that to little extent they cooperate with other entities, e.g. from the sphere of science and public institutions providing support to entrepreneurs.

Network theories

We can also analyse cooperation of businesses from the perspective of the network theory. Theorists and practitioners of management agree that networks play an important role in setting up and running a business. There are two approaches determining how the effective network should look.

Networks can be divided into two categories: homogeneous and heterogeneous¹⁹. The factor characterising this typology is the strength of relationships between network participants, which is a combination of the amount of time spent together, emotional intensity, intimacy and reciprocity²⁰. Thus, relationships may be divided into **close**, which are characterised by high intensity (in terms of time and emotions) and intimacy and **weak**, which are characterised by lower intensity and intimacy. The strength of relationships affects the nature and value of the information provided within the network.

Heterogeneous networks are those where differences between members of the network are considerable. What mainly counts in such networks are weak ties, which are regarded as more efficient than close relationships. This provides optimal access to the valuable market information. Such networks consist of various people often representing different attitudes, values, professions, experiences, skills, etc.²¹.

The homogeneity focuses on dense networks, where important resources are: emotional support, sensitive market information, access to financial resources²². Trust and mutual commitment increase the probability that the entrepreneur will receive necessary emotional support. Entrepreneurs embedded in dense networks, putting their trust in each other, are more eager to increase the collective strength of action. In terms of retaining or acquiring resources, a dense network has a relative advantage over loose relationships²³.

Knowing these two types of network, it is worth considering how entrepreneurs can optimise their network. And here we also deal with two approaches. In the first approach, a network owned by the entrepreneur is a legacy of the past. It is created and maintained by all vital functions. Thus, such a network cannot be managed. According to the second approach, a network is

¹⁸ P. Raźniewski, *Strategia niszy rynkowej, jako specyficzny element potencjału rozwojowego mikroprzedsiębiorstw*, PARP 2010.

¹⁹ S.L. Nielsen, K. Kleyver, M. R. Evald, T. Bager, *Entrepreneurship in theory and practice*, Edward Elgar, 2012, pp. 139-144.

²⁰ M.S. Granovetter (1973), *The strength of weak ties*, *American Journal of Sociology*, 78, 1360-1380.

²¹ S.L. Nielsen, op.cit., p. 140

²² J.S. Coleman, op.cit.; W.D. Bygrave, M. Hay, P.D. Reynolds, *Executive forum: A study of informal investing in 29 nations composing the Global Entrepreneurship Monitor*, 2003, *Venture Capital*, 5, 101-116.

²³ S.L. Nielsen, op.cit., p. 144

only a management tool, it is possible to control the position within the network and relationships with other members of the network²⁴.

In conclusion, both social capital and networks constitute an important explanation of why business cooperation is important for their functioning in the market. According to these theories, the main advantages of cooperation are: better access to information and new ideas, emotional and financial support, making daily activities easier (e.g. with regard to contacts with customers) thanks to the functioning of effective norms and trust.

In the further part of the chapter, we will present the results of the analyses carried out using data collected as part of the GEM project. Then, they will be confronted with theoretical grounds presented hereinabove.

5.3. APS data

In the year 2012, a new topic was introduced into the GEM research – business relations, whose objective is to explore cooperation with other entities, both in a situation of starting up a business and running a firm²⁵. The questions included in the APS survey on business relationships focus on several aspects of cooperation:

1. production of goods and services in cooperation with other entities,
2. joint supply and purchases,
3. cooperation with regard to sale of products and services to existing clients, acquiring new customers and creating new products and services for existing and new customers,
4. cooperation with regard to improving the efficiency.

5.3.1. Business relations – international comparison

An international comparison will show the Polish situation when compared to other countries. It was assumed that the benchmark are the European countries participating in the GEM project and three groups of countries according to the division adopted in GEM: factor-, efficiency- and innovation-driven economies.

Comparisons between the countries in terms of business relations were made in three categories:

- cooperation between established enterprises and other entities with regard to production, supply and sale – i.e. with regard to the current activity (Table 12);
- cooperation of established enterprises in acquiring new customers, creating new products and services for existing and new clients and improving the efficiency – innovative activities (Table 13)²⁶;
- cooperation between entrepreneurs included in TEA – nascent entrepreneurs and new firms (Table 14).

Cooperation of established enterprises with regard to the current activity

Table 12. Business relations – current activity: comparison with the selected countries (% of entrepreneurs)

Country	Cooperation with regard to production	Cooperation with regard to purchases	Cooperation with regard to sale to existing customers
Factor-driven economies	20.8	29	21.8
Efficiency-driven economies	38.3	44.1	32.7
Innovation-driven economies	50.4	41.2	39.1
Austria	57.7	37.7	45.8
Belgium	36.7	37.6	6.5
Bosnia and Herzegovina	33.3	39.2	28.7
Croatia	64.8	37.9	62.6
Denmark	50.1	31.9	26.8
Estonia	74.9	56.5	55
Finland	69	51.2	44.3
France	50.8	57	30.8

²⁴ Ibidem.

²⁵ The 2012 GEM gives the ability to compare the business relations in 66 countries. Among the countries participating in the project data on the business relations are not available in the case of the United States, while Russia is missing data for some variables.

²⁶ These four categories are a part of an overall definition of innovation saying that every change/novelty at the level of an enterprise may be treated as innovation. Acquiring new customers may involve marketing innovations, creating new customers – product innovations, and improving the efficiency may involve process or product innovations.

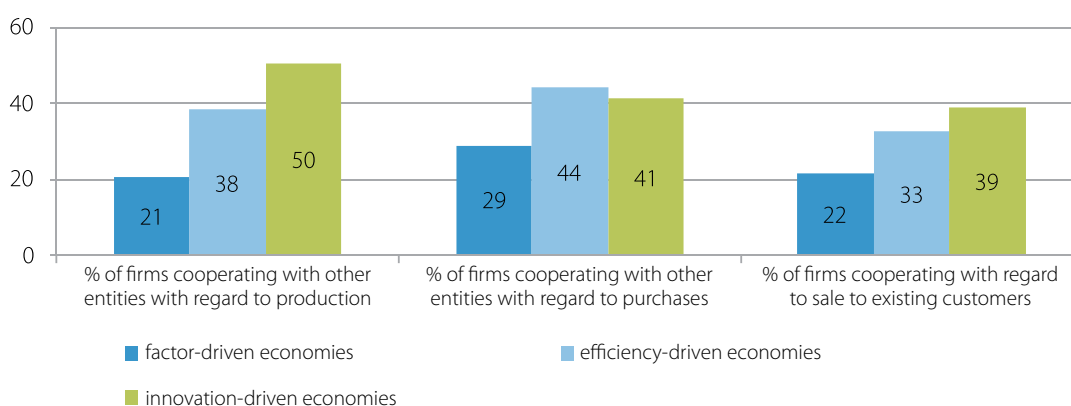
cont. Table 12

Country	Cooperation with regard to production	Cooperation with regard to purchases	Cooperation with regard to sale to existing customers
Germany	52.7	33	43.8
Greece	44.7	74.9	41
Hungary	64	46	39
Italy	53.2	39.8	45.9
Ireland	43.7	35.1	46.7
Latvia	71.8	59.1	53
Lithuania	53.6	40.9	40.8
Macedonia	44.7	50.6	51.3
Netherlands	50.1	25.1	33.4
Norway	54	22.1	48.7
Poland	63.7	65.7	52.7
Portugal	45.5	36.6	30.4
Romania	54	67.7	41
Russia	50.5	36.4	21.1
Slovakia	69.5	66.5	47.5
Slovenia	57.5	49	46.1
Spain	37.2	67.5	24.3
Sweden	61.2	30.9	49.7
Switzerland	55.2	34.4	39.2
Turkey	45.7	37.2	36.6
UK	28.9	19.3	25.1

Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

The tendency of established enterprises to cooperate increases along with the economic development. This relationship, however, is of varying intensity depending on the type of cooperation. In case of cooperation with regard to production, the average for the factor-driven economies is 21%, for the efficiency-driven economies – 38% and for the innovation-driven economies – 50%. So, the growth is constant and significant. The situation is slightly different in case of cooperation with regard to purchases, where the highest average is for the efficiency-driven economies (44%), and the lowest in case of the factor-driven economies (29%). In case of cooperation with regard to sale to existing customers, a percentage of cooperating enterprises increases along with the economic development (respectively, 22%, 33% and 39%)(Diagram 11).

Diagram 11. Business relations – current activity: comparison with the selected countries (% of entrepreneurs)



Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

A possible explanation for an increase in cooperation along with an increase in the economic development is a greater availability of suitable business partners in the more developed economies as well as a higher level of social capital. In the factor-driven economies, firstly, there is often no need to cooperate due to a simple profile of activity, secondly, there may be problems with finding appropriate entities for cooperation. In the more developed countries, the business activity is often more complex technologically, hence a need to cooperate, while on the other hand there is a greater availability of business partners with appropriate resources and experience.

In the field of cooperation with regard to the current activity, Polish entrepreneurs achieve one of the highest results among the analysed countries. Almost 64% of established enterprises established cooperation with regard to production. Higher percentages have been recorded only in Estonia (75%), Latvia (72%), Slovakia (70%) and Croatia (65%). For comparison, in the innovation-driven economies, on average, 50% of firms were involved in such cooperation. The lowest results were recorded in the UK (29%) (Table 12).

In case of cooperation of established enterprises with regard to purchases, Poland came off even better. Almost two-thirds of firms establish such cooperation. Better results were achieved only by Greece (75%), Romania (68%), Spain (68%) and Slovakia (67%). In this category, the innovation-driven economies, on average, came off worse than Poland (41%). The lowest results were recorded again in the UK (19%) (Table 12).

Cooperation with regard to sale to existing customers is less popular than other types of cooperation among Polish established enterprises. Such cooperation was established by nearly 53% of established enterprises, which gives us the second place among the European countries analysed (behind Croatia – 63%) (Table 12).

Cooperation of established enterprises with regard to the innovation activity

Table 13. Business relations – innovation activity: comparison with the selected countries (% of entrepreneurs)

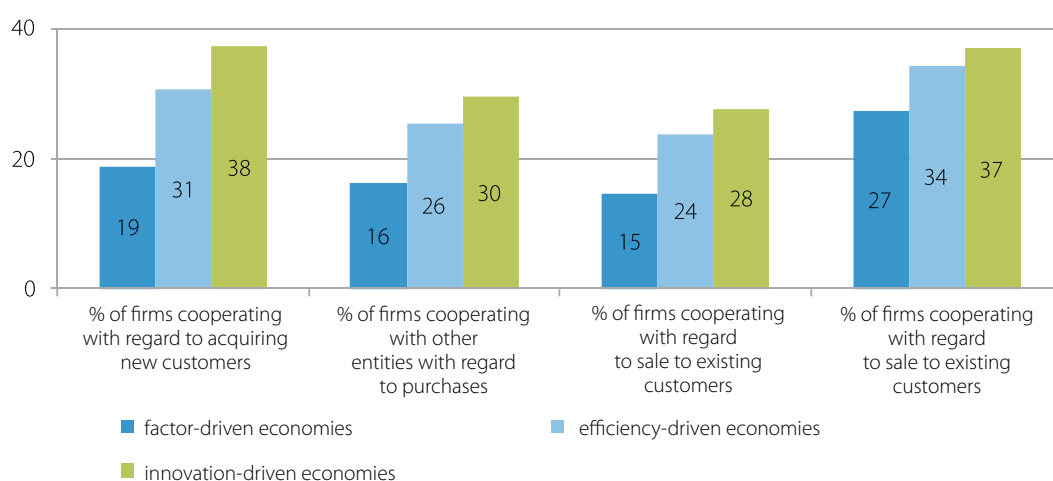
Country	Cooperation with regard to acquiring new customers	Cooperation with regard to creating new products/ services for existing customers	Cooperation with regard to creating new products/ services for new customers	Cooperation with regard to improving the efficiency
Factor-driven economies	18.9	16.3	14.6	27.3
Efficiency-driven economies	30.7	25.6	23.9	34.4
Innovation-driven economies	37.5	29.5	27.7	37.1
Austria	40.1	38.4	33.9	39.8
Belgium	12.8	11.4	5.3	19.7
Bosnia and Herzegovina	35	23.8	13.5	53.7
Croatia	51.3	39.5	36.8	59.8
Denmark	35.2	24	18.3	27.2
Estonia	60.2	42	40.8	48.2
Finland	38.3	27.2	22.8	57.6
France	22.1	14.6	16.7	43.4
Germany	40.6	34.4	35.7	29.6
Greece	36.9	33.3	29.4	38
Hungary	39	31.4	28.8	41.3
Italy	52.6	33.9	37.7	53.3
Ireland	43	27.8	29.7	46.1
Latvia	46.7	34.1	30.7	55.8
Lithuania	31.8	27.3	24.7	39.5
Macedonia	40.8	36.4	26	52.5
Netherlands	32.3	30.7	26.7	32.5
Norway	48.7	28.3	21.6	35.7
Poland	42.6	27.6	27.3	61.6
Portugal	28.3	25.5	22.6	32.7
Romania	35.1	23.4	26.5	48.8
Russia	33	NDA	NDA	NDA
Slovakia	40.9	37	26.8	52.7
Slovenia	41.4	41.7	40.3	28.6
Spain	23.7	14.1	13.9	25.2
Sweden	47	31.5	40.9	27.7
Switzerland	33.6	28	25.8	38.7
Turkey	28.6	35.1	34.8	30.7
UK	32.3	21.4	18.1	29.5

Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

Cooperation with regard to the innovation activity among established enterprises is generally lower than in case of cooperation with regard to the current activity. This is in line with the view that the creation of new products and services is a factor that creates a significant value for an enterprise and is a major area of competition between firms. In addition, the innovation activity is conducted by a part of enterprises only, therefore, such cooperation could be established by a smaller percentage of them.

In case of cooperation of established enterprises related to innovation activities, such as improving the efficiency, sale of products and services to new customers, creating new products and services for existing and new customers – there is a strong correlation between the level of cooperation and the level of the economic development (Diagram 12). In case of cooperation with regard to acquiring new customers, the factor-driven economies have a result at the level of 19% of established enterprises that establish such cooperation, in the efficiency- and innovation-driven economies, the results are respectively 31% and 38%. Cooperation with regard to creating new products/services for existing customers in all three groups is less popular (respectively 16%, 26% and 30%). Even less popular is cooperation with regard to creating new products/services for new customers (respectively 15%, 24% and 28%). On the other hand, cooperation with regard to improving the efficiency looks better (results are 27%, 34% and 37%, respectively).

Diagram 12. Comparison of countries in terms of business relations (established enterprises – cooperation with regard to sale and development of products and services) (%)



Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

In case of the innovation activity, the level of cooperation of established enterprises in Poland does not look so positive, especially on the background of other states. In terms of cooperation with regard to acquiring new customers, about 43% of established enterprises in Poland are active, which gives us the 8th place among the European countries surveyed. However, this result is by 4 p.p. higher than the average for the innovation-driven economies. The leaders are: Estonia (60%), Italy (53%) and Croatia (51%).

Only less than 28% of established enterprises in Poland establish cooperation with regard to creating new products/services for existing customers, which gives us only the 18th place among the countries analysed and this result is by 2 p.p. lower than the average for the innovation-driven economies. The leaders in this area are Estonia and Slovenia again (ca. 42%).

Another analysed area of cooperation with respect to innovation regards creating new products/ services for new customers. In this field, we have occupied the 13th place with a result of 27%, which is more or less at the level of the average for the innovation-driven economies. The leaders in this field are again Estonia and Slovenia as well as Sweden (ca. 41%).

Cooperation of firms with regard to improving the efficiency looks different. 62% of Polish established enterprises establish cooperation in this area, which gives us a leading position among the European countries surveyed and the result by 25 p.p. higher than the average for the innovation-driven economies.

In all four areas related to innovation activities, the lowest results were achieved by Belgium.

However, it is worth noting that in Poland only 28% of firms are involved in the innovation activity²⁷, and the leader is Germany with the result of 79%. However, there is no significant correlation between the number of innovative companies in the given country and the level of cooperation as described above.

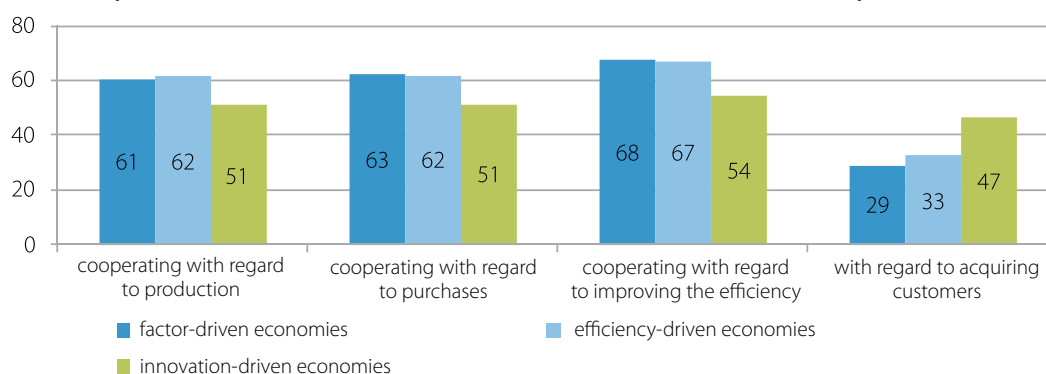
²⁷ Nieć M., *Działalność innowacyjna przedsiębiorstw w Polsce na tle krajów Europy*, in: „Świt innowacyjnego społeczeństwa”, ed. by P. Zadura-Lichota, PARP, Warsaw 2013, p. 117.

Table 14. Comparison of countries in terms of business relations (nascent and new entrepreneurs)

Country	Cooperation of start-ups with regard to production	Cooperation of start-ups with regard to purchases	Cooperation of start-ups with regard to improving the efficiency	Cooperation of start-ups with regard to acquiring customers
Factor-driven economies	60.5	62.5	67.8	29.1
Efficiency-driven economies	61.5	61.8	67.3	32.5
Innovation-driven economies	51	51.2	54.4	46.8
Austria	52.4	56.3	58.3	51
Belgium	54.9	58.1	59.6	26.5
Bosnia and Herzegovina	65	63.9	74.7	36.2
Croatia	76.6	79.9	81.8	70.5
Denmark	60.3	60.1	58.3	42.1
Estonia	65.3	68.6	71.1	72.2
Finland	43.3	43.7	43.1	77.5
France	59.9	54.5	56.4	43.4
Germany	52.2	51.9	54.6	58.5
Greece	35.7	29	35	42.2
Hungary	50.4	56.8	58.5	49.8
Italy	56.6	49.9	58.1	41.1
Ireland	33.7	36.1	40.9	44.8
Latvia	60.6	54.7	65.9	39.6
Lithuania	39.3	42.3	43.1	33.9
Macedonia	50.4	50	48.5	36.6
Netherlands	53.3	42.1	57.1	45.5
Norway	47.9	59.2	45.8	45.3
Poland	57.2	62.5	64	45.5
Portugal	59.3	53.4	65.4	50.2
Romania	69.7	70.1	75.8	51.1
Russia	64.3	67.1	100	26.1
Slovakia	58.1	59.5	65.2	54.1
Slovenia	50.4	49	62.5	40.8
Spain	39.8	36.9	44.2	41.1
Sweden	48.2	56.8	62.3	57.8
Switzerland	38.6	37.4	43.7	45.9
Turkey	60.4	56.5	64.7	40.3
UK	67	70.6	68.6	39.1

Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

The average level of cooperation of new enterprises in case of the factor- and efficiency-driven economies is very similar. Differences for various types of cooperation are ca. 1 percentage point. An exception is cooperation with regard to acquiring customers where the difference was ca. 4 p.p. Except for the last category, the level of cooperation of start-ups declines in case of the innovation-driven economies by ca. 10-14 p.p. (Diagram 13).

Diagram 13. Comparison of countries in terms of business relations (nascent and new entrepreneurs) (%)

Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

Cooperation of start-ups in Poland is at the similar level as in case of established enterprises. With regard to production, 57% of new firms cooperate (63% of established enterprises). However, this is only the 13th result among the countries analysed, but also better than the average for the innovation-driven economies by 6 p.p. (in case of established enterprises, the difference was ca. 13 p.p.). The leaders are: Croatia (77%), Estonia (65%) and Bosnia and Herzegovina (65%).

About 63% of Polish start-ups (66% of established enterprises) cooperate with regard to purchases. This gives us the seventh place among the countries analysed and the result by 11 p.p. higher than the average for the innovation-driven economies (for established enterprises, the difference was nearly 25 p.p.). The leaders are Croatia (80%), Romania (70%) and Great Britain (%).

With regard to improving the efficiency, 64% of start-ups (62% of established enterprises) cooperate in Poland, which gives us the eleventh place among the countries analysed. This is the result by ca. 10 p.p. higher than the average for the innovation-driven economies (25 p.p. for established enterprises). The leaders are Croatia (82%), Bosnia and Herzegovina (75%) and Estonia (71%)²⁸.

With regard to acquiring customers, 46% of start-ups cooperate in Poland. This is the 12th result among the countries analysed and by ca. 1 p.p. lower than the average for the innovation-driven economies. The leaders are Finland (78%), Estonia (72%) and Croatia (71%).

The lowest results in the first three categories were achieved by: Greece and Ireland, and with regard to acquiring customers – Belgium and Russia.

5.3.2. Correlations between business relations and other variables at the national level

Interesting results are given by investigating a correlation between variables related to business relations and other variables in the GEM model. For this purpose, we use a correlation analysis (Table 15). However, we must take into account its limitations. The Pearson correlation analysis was carried out on the available data set, the number of the countries analysed is 66 and in some cases 65 (not all data are available for Russia). In addition, due to the universality of the correlations, only those that are significant at the level of $p < 0.01$ were taken into consideration.

Table 15. Table of correlations between variables regarding business relations and selected variables of the GEM model

		Cooperation of established enterprises – % firms cooperating with other entities with regard to:							Cooperation of start-ups – % firms cooperating with other entities with regard to:			
		production	purchases	sale to existing customers	acquiring new customers	creating new products/ services for existing customers	creating new products/ services for new customers	improving the efficiency	production	purchases	improving the efficiency	acquiring customers
Level of entre- preneurship	% of those involved in start-up	-.565**	-.248*	-.328**	-.315**	-.308*	-.271*	-.184	.399**	.421**	.420**	-.338**
	% of those having estab- lished enterprises	-.560**	-.505**	-.368**	-.418**	-.404**	-.384**	-.277*	-.237	-.191	-.168	-.377**
Export orientation	% of TEA strongly export- oriented	-.010	-.083	.171	.211	.119	.177	.226	.398**	.403**	.444**	.140
	% of established enter- prises strongly export- oriented	.238	-.028	.398**	.378**	.254*	.229	.422**	-.186	-.170	-.089	.267*
De- velop- ment	TEA – declaration to create more than 19 jobs within 5 years	-.123	.003	-.017	-.016	.008	.033	.026	.436**	.390**	.377**	.093
Use of new technologies	% of TEA active in techn- ology sectors	.617**	.285*	.472**	.502**	.416**	.451**	.304*	-.212	-.237	-.256*	.537**
	% of established enter- prises active in technol- ogy sectors	.524**	.132	.428**	.441**	.347**	.401**	.191	-.175	-.127	-.221	.531**

* – correlation is significant at the level of 0,05

** – correlation is significant at the level of 0,01

Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

²⁸ Russia achieved a result of 100%, but this value is surprising and may be related to a low number of firms in this category.

Level of entrepreneurship in the country

We will start the analysis from looking at correlations between business relations and the level of involvement in starting up a business. In countries where more people decide to set up a new business, both start-ups and established enterprises cooperate more often. It can therefore be concluded that setting up new firms may be a kind of catalyst for cooperation in the economy. However, the definite statement of such a phenomenon would require further research and analysis. We can expect the same correlation in case of established enterprises, however, it is the other way round – in the countries where the higher percentage of citizens are owners of established enterprises, their tendency to cooperate in almost all its forms is lower.

Export orientation

Interesting correlations take place between a percentage of firms (both those belonging to TEA and established enterprises) with strong export orientation (declaring that more than 50% of customers come from outside the country) and the tendency to cooperate. In case of start-ups, export orientation is strongly related to cooperation with regard to production, purchases and improving the efficiency. Also, a higher percentage of exporters among established enterprises is related to higher cooperation of these enterprises with regard to sale to existing and new customers and with regard to improving the efficiency.

Expected growth

Cooperation of start-ups is strongly related to the declaration to create jobs in these enterprises – in the countries where a larger number of entrepreneurs declare that they will create at least 20 jobs within 5 years, also a larger number of start-ups are willing to cooperate. Therefore, entrepreneurs who have the ambition to grow quickly, are also aware that this is not possible without cooperation.

Use of new technologies

In the countries where a larger number of established enterprises operate in technology industries, these enterprises are also more willing to cooperate. This correlation does not take place, however, in case of start-ups, except for cooperation with regard to acquiring customers.

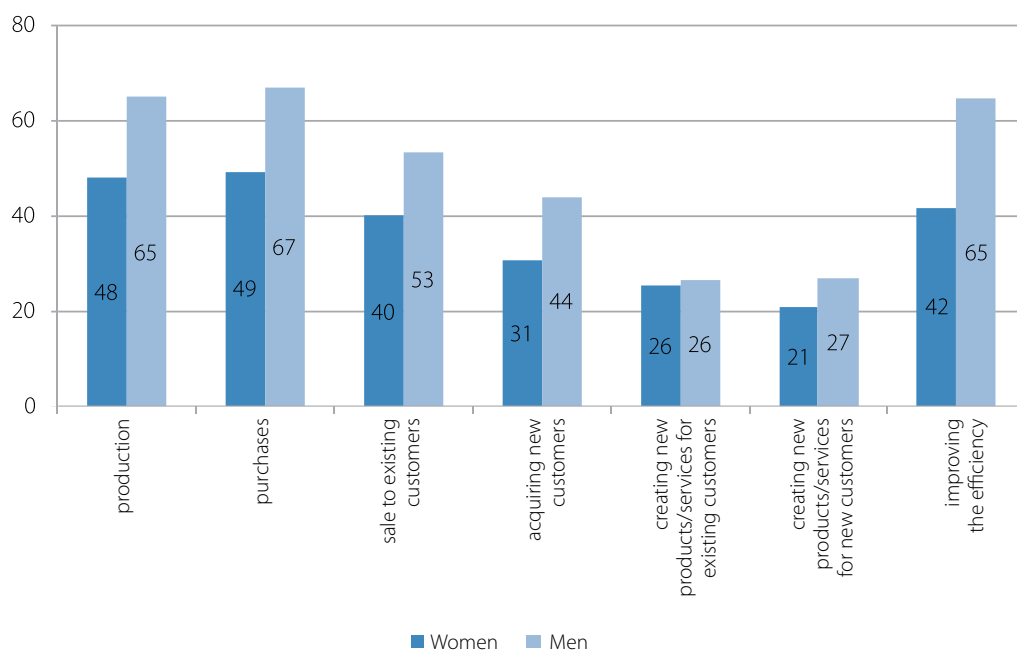
5.3.3. Business relations of established enterprises in Poland

It is also worth to analyse profiles of business relationships of established enterprises depending on various characteristics of owners and businesses, such as gender, age, export orientation, innovation, use of new technologies, sector of activity etc.

Gender

The first analysed criterion is gender. In the analysed group of owners of established enterprises, there were 45 women and 114 men, which, taking the weights into account, results in 28% of women and 72% of men.

Diagram 14. Correlation between cooperation of established enterprises and owner's gender – % of firms cooperating with other entities with regard to:



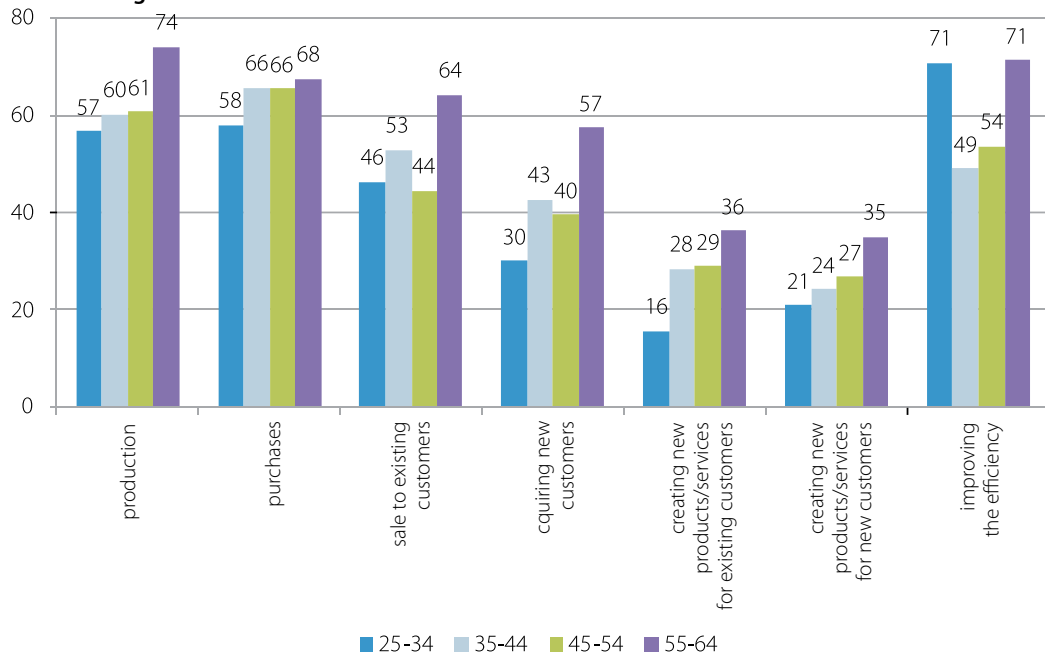
Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

The analysis shows that men as owners of established enterprises are more willing to cooperate with other entities than women. The difference in favour of men is, in most cases, from 7 to 18 p.p., with the exception of cooperation with regard to creating products or services for existing customers, where there are no significant differences between women and men cooperation and cooperation with other entities with regard to improving the efficiency, where the difference in cooperation is as high as 23 p.p. (Diagram 14).

Age

With regard to age ranges in the analysed group of owner-managers of established enterprises, there were 7 people aged 18-24 years, 31 people aged 25-34 years, 55 people aged 35-44 years, 37 people aged 45-54 years and 29 people aged 55-64 years, which, taking the weights into account, results in 5%, 26%, 32%, 21% and 16%. Due to the small size of the lowest age group, it was removed from further analysis (Diagram 15).

Diagram 15. Correlation between cooperation of established enterprises and owner's age – % of firms cooperating with other entities with regard to:



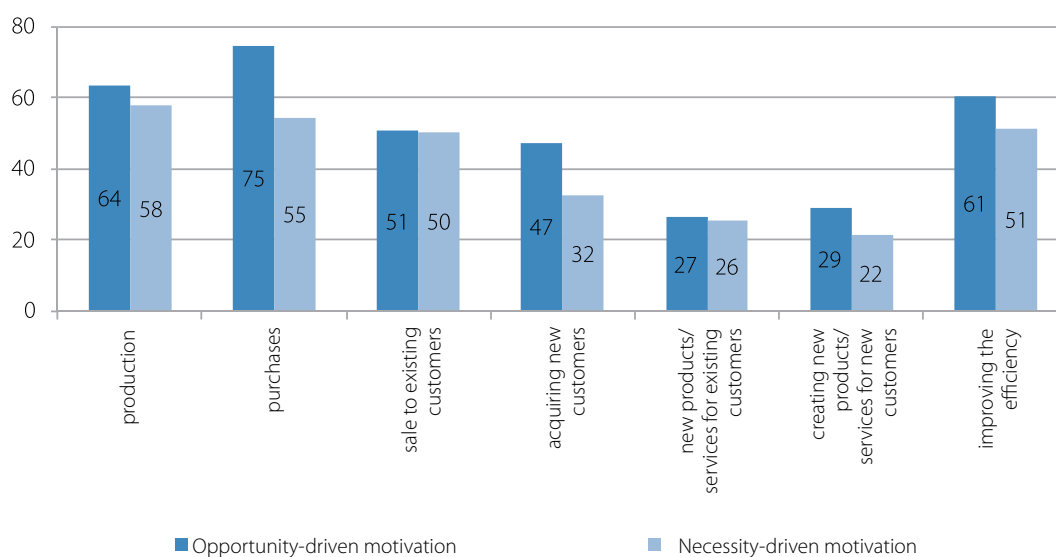
Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

The tendency to cooperate grows along with the age of the owner-manager. However, for most forms of cooperation we can observe an interesting correlation – the level of cooperation increases when moving from the age group 25-34 to the group of 35-44. Then when moving to the next group it becomes stable or even decreases (for example in case of cooperation with regard to sale and acquiring of customers), then it increases again when moving to the oldest age group. A separate case is cooperation with regard to improving the efficiency, where the highest level was recorded for the youngest and oldest groups (ca. 71% each), and lower for the middle age groups (49% and 54%).

Owner's motivations

Among the surveyed owners of established enterprises, 60 (37%, taking the weights into account) set up their businesses on the basis of purely opportunity-driven motivation, while 72 (49%) do it out of necessity (Diagram 16).

Diagram 16. Correlation between cooperation of established enterprises and motivation to set up a business – % of firms cooperating with other entities with regard to:



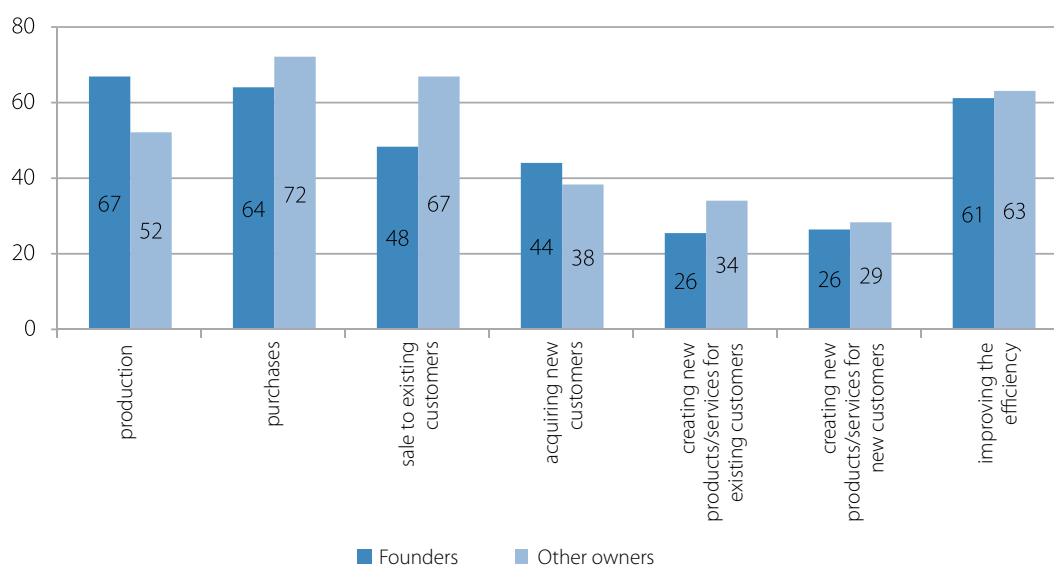
Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

In most cases, there are differences in intensity of cooperation between opportunity-driven enterprises and necessity-driven enterprises. The former are more likely to cooperate with other entities, in particular with regard to joint purchases (75%-55%) and acquiring new customers (47%-32%). In other cases, differences are smaller or absent (cooperation with regard to sale to existing customers of both existing and new products and services) (Diagram 16).

Composition of the Management Board

In the group of owners-managers of established enterprises, there is a group of people, who were not founders of those enterprises and became owners at a later stage. There are 36 such people (22%, taking the weights into account), while there are 114 founders (73%) (Diagram 17).

Diagram 17. Correlation between cooperation of established enterprises and share in setting up a business – % of firms cooperating with other entities with regard to:



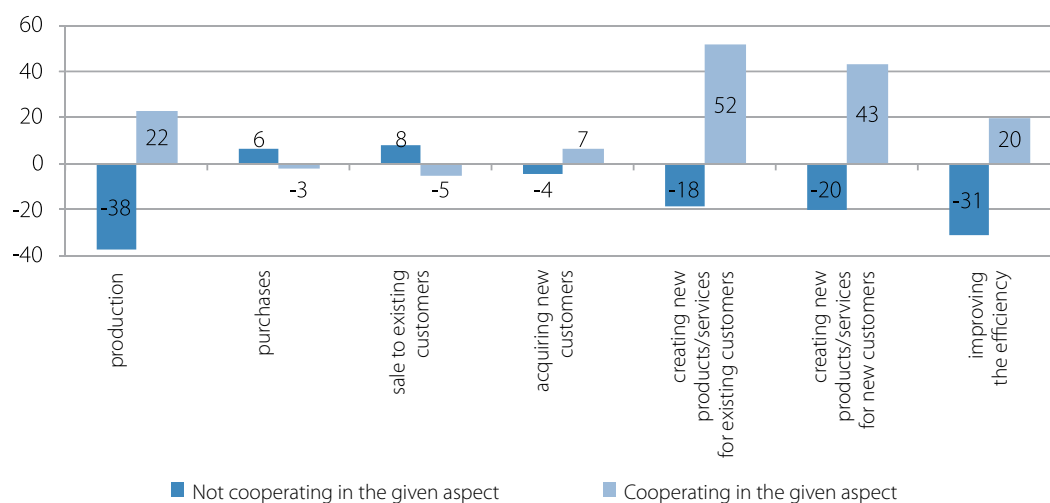
Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

Founders of enterprises only in two cases are more willing to cooperate with others. This refers in particular to cooperation with regard to production and, to a lesser extent, to acquiring new customers. In other cases, there is a reverse relationship – people who became owners of the enterprise at a later stage of its activity are more willing to cooperate. This applies especially to cooperation with regard to purchases, sale and creating new products and services for existing customers.

Expected growth

In GEM, a measure of the enterprise's growth expectations is the declaration of creating new jobs within the nearest 5 years, therefore, it is possible to analyse the correlation between the declared growth and cooperation with other entities (Diagram 18).

Diagram 18. Average expectations as for the growth in the number of jobs of firms cooperating and not cooperating with other entities – % of enterprises



Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

The entrepreneur's growth expectations are significantly related with cooperation with other entities. In most cases, owners of firms that cooperate with others expect that they would create far more jobs than those who do not engage themselves in cooperation. This is particularly evident when we take cooperation with regard to innovation activity. For example, firms cooperating with regard to improving their efficiency expect that the number of jobs will increase by 20% on average, while firms that do not establish this cooperation declare that the number of jobs would decrease by 31%, on average. Similarly large differences take place in case of cooperation with regard to creating new products or services for new and potential customers as well as of cooperation with other entities with regard to production. These results should be analysed with one reservation. Owners of some firms at the moment of the analysis assumed that in 5 years their enterprise would not exist, i.e. would not employ employees (so they declared a decrease at the level of 100%), which to some extent affects the overall result. These firms rarely establish cooperation with other enterprises (Diagram 18).

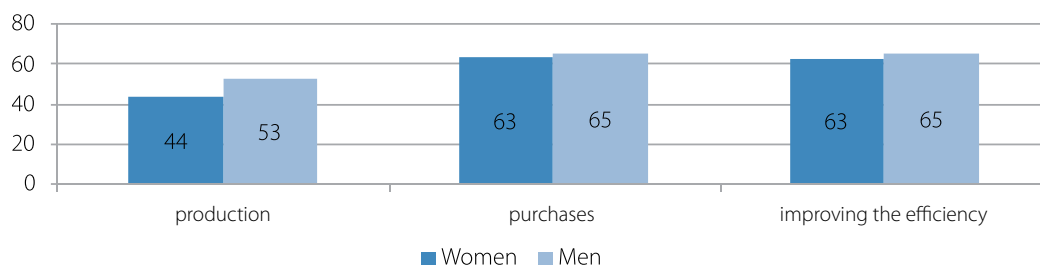
5.3.4. Business relations of start-ups in Poland

Due to the small sizes of particular groups, it was decided that nascent entrepreneurs and new firms would be analysed jointly. Three forms of cooperation were taken into consideration: cooperation with regard to production, cooperation with regard to purchases and cooperation with regard to improving the efficiency.

Gender

In the analysed group, there were 59 women and 114 men (34% and 67%, taking the weights into account).

Diagram 19. Correlation between cooperation of start-ups and owner's gender – % of start-ups cooperating with regard to:



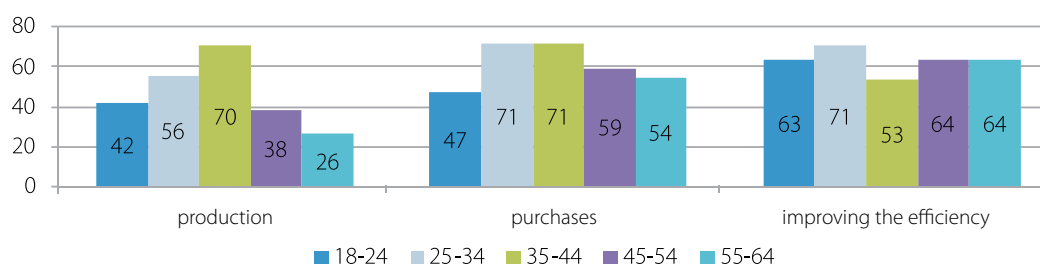
Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

In all cases, men are more willing to cooperate with other entities. This difference is greatest in case of cooperation with regard to production, for other forms of cooperation it is insignificant (Diagram 19).

Age

In the analysed group, there were 26 people aged 18-24 years (11%, taking the weights into account), 67 people aged 25-34 years (41%), 33 people aged 35-44 years (19%), 27 people aged 45-54 years (15%) and 20 people aged 55-64 (14%).

Diagram 20. Correlation between cooperation of start-ups and owner's age – % of start-ups cooperating with regard to:



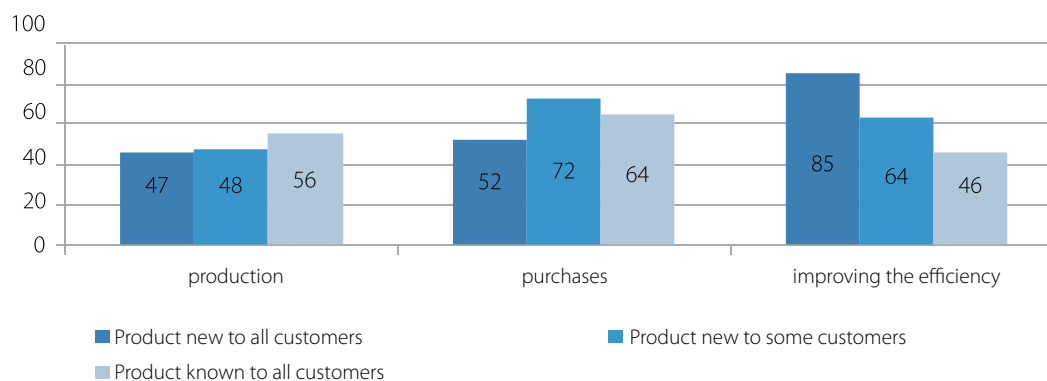
Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

In case of cooperation with regard to production, the level of cooperation rises with age, reaching the maximum in the age group 35-44, and then it decreases. The situation is similar in case of cooperation with regard to purchases, although the maximum is achieved in the previous age group. In case of cooperation with regard to improving the efficiency, entrepreneurs aged 25-34 years are most willing to cooperate, then the tendency to cooperate decreases and increases again in the age group 45-54 years (Diagram 20).

Innovation

Among the entrepreneurs, 41 declared that their product was or would be new to all customers (27%, taking the weights into account), 77 declared that the product would be new to some customers (45%), and 55 admitted that the product would not be new (28%).

Diagram 21. Correlation between cooperation of start-ups and innovation of the business concept – % of start-ups cooperating with regard to:



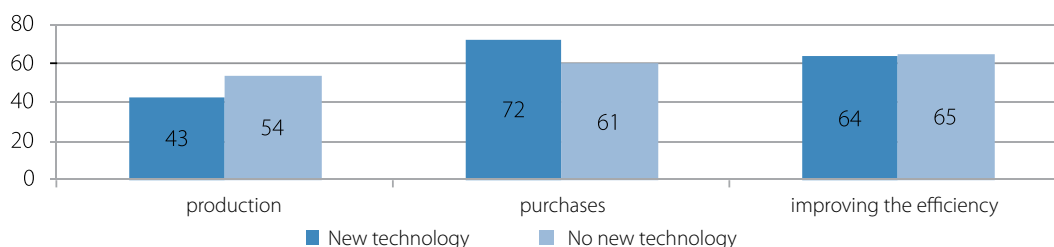
Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

Depending on the type of cooperation, we may observe different correlations between product innovation and level of cooperation. In case of cooperation with regard to production, the level of cooperation increases as innovation drops. Cooperation with regard to purchases is at the highest level among enterprises with an average level of innovation. In case of cooperation with regard to improving the efficiency, the level of cooperation increases along with innovation (Diagram 21).

Use of new technologies

Nine entrepreneurs believe that technologies they use are not older than one year (5% after taking the weights into account), 43 declare that technologies are older than one year, but they are not older than 5 years (28%), 121 entrepreneurs do not use new technologies (68%). Due to the size, the analysis covered first two aggregated categories and category three.

Diagram 22. Correlation between cooperation of start-ups and use of new technologies – % of start-ups cooperating with regard to:



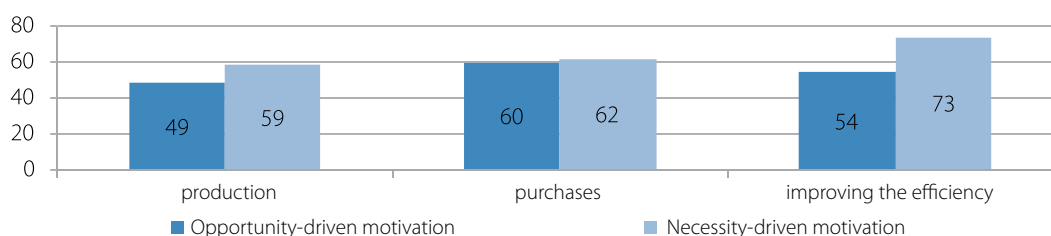
Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

Firms using new technologies are less likely to cooperate with regard to production, but more often with regard to purchases. In case of cooperation with regard to improving the efficiency, there is no significant difference between these two groups (Diagram 22).

Motivation

The use of opportunity is the motivation for 64 entrepreneurs in the sample analysed (35%, taking the weights into account), 74 people (41%) started up their business out of necessity.

Diagram 23. Correlation between cooperation of start-ups and motivation to set up a business – % of start-ups cooperating with regard to:



Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

Correlations between the motivation to set up a business and the level of cooperation in case of new entrepreneurs are reverse than in case of established enterprises. Those entrepreneurs who set up a business out of necessity are more likely to cooperate. This includes cooperation with regard to production and improving the efficiency (Diagram 23).

5.4. Business networks

In GEM, business networks mean using opinions of various groups of people during setting up and running a business. In the survey, the following categories were distinguished: spouse or partner, parents, other family members or relatives, friends, current colleagues, current boss, people from another country, people who have come from abroad, people who start up a business, people who have extensive business experience, researchers or inventors, potential investors, banks, lawyers, accountants, public institutions providing advice for entrepreneurs, firms with which the entrepreneur cooperates, firms with which the entrepreneur competes, suppliers and customers.

5.4.1. Level of cooperation in networks

The activity of entrepreneurs within networks was investigated divided nascent entrepreneurs²⁹, owners of new enterprises³⁰ and owners of established enterprises³¹, as a percentage of people using an opinion of a particular person or institution (Table 17).

Table 17. Cooperation within networks of nascent entrepreneurs, new entrepreneurs and owners of established enterprises (%)

Category	nascent entrepreneurs	new entrepreneurs	established enterprises
Spouse or partner	40.1	48.4	38.5
Parents	14.7	17.2	11.6
Other family members or relatives	41	28.6	15.8
Friends	55.3	40	30.1
Current colleagues	32.5	30.3	31.1
Current boss	17.8	18	6.8
Person from another country	13.6	5.7	14.6
Person who came from abroad	15.6	21.5	8.4
Person who starts up a business	34.5	17.1	7.6
Person who has extensive business experience	54	50.1	29.6
Researcher or inventor	11.2	2.9	4
Potential investor	23.9	15.9	16.4
Bank	5.7	29.2	8.8
Lawyer	15.6	13	17.2
Accountant	28.2	63.8	28.3
Public institution providing advice for entrepreneurs	20.3	16.1	13.1
Firm with which the entrepreneur cooperates	42.8	38.7	39.3
Firm with which the entrepreneur competes	8.3	4.7	9.4
Supplier	35.4	25	24.4
Customer	48.7	30.7	29.9

Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

Depending on a person whose opinion is used by the entrepreneur, there are various correlations between cooperation and the phase of the entrepreneur's activities. In some cases, cooperation is limited as the business grows. This includes taking advice of other family members or relatives, friends, people who start up a business, people who have extensive business experience, institutions providing advice for entrepreneurs. The only case where the level of cooperation increases as the undertaking grows are lawyers. There are, however, groups of people with whom entrepreneurs cooperate most willingly in the phase after the 3rd and before the 42nd month of the business. These include spouses or partners, parents, people who have come from abroad. In case of cooperation with accountants, the phenomenon is stronger – in the phase of a new firm, twice as many entrepreneurs work with them than in the phase of incubation or being established. It is even stronger in case of banks, where an increase in cooperation in the middle phase is more than three times.

An interesting correlation occurs in case of using opinions of the current boss. They are used by 18% of nascent entrepreneurs, 18% of new entrepreneurs and 7% of owners of established enterprises. This may indicate a double activity of entrepreneurs to some stage – they work as employees and also develop a business. When it reaches a certain stage, they leave their work as employees.

Cooperation with certain groups of people almost does not change as the business grows. These include: current colleagues (although this category might be differently understood by entrepreneurs in the incubation phase, new and established entrepreneurs) and cooperators. There are also cases in which cooperation reaches its greatest intensity in the first phase of the activity, and then decreases and becomes stable. Such a situation takes place in case of cooperation with suppliers, customers and potential investors.

²⁹ Persons who have not set up a business yet but intend so and persons who have already set up a business and are in the initial phase, up to 3 months from setting up.

³⁰ Operating from 3 months to 3.5 years.

³¹ Operating for more than 3.5 years.

5.4.2. Correlation between cooperation and aspirations of entrepreneurs

The data obtained in GEM allow to carry out an analysis of correlations between the level of cooperation within the network and aspirations of the business' growth. This analysis was carried out for entrepreneurs in the incubation phase (i.e. nascent entrepreneurs), it is, in fact, the most numerous and the most homogeneous group among three groups of entrepreneurs. For the purposes of the analysis, two meta-variables were developed: cooperation with the closer network and cooperation with the further network. The **closer network** includes: spouse or partner, parents, other family members or relatives, friends, current colleagues and current boss. The **further network** includes: people from another country, people who have come from abroad, people who start up a business, people who have extensive business experience, researchers or inventors, potential investors, banks, lawyers, accountants, public institutions providing advice for entrepreneurs, firms with which the entrepreneur cooperates, firms with which the entrepreneur competes, suppliers and customers.

An analysis of correlations between cooperation within the closer and further network and age, gender, export aspirations, growth aspirations and motivations to set up a business was carried out (Table 18)³².

Table 18. Correlations between cooperation within networks and selected variables

	Cooperation within closer network	Cooperation within further network (in brackets – the standardised value from 1 to 6)
Average	2.01	3.58 (1.53)
Women (average)	2.42	3.89 (1.67)
Men (average)	1.83	3.43 (1.47)
Cooperation within closer network (correlation)	1	0.405**
Cooperation within further network (correlation)	0.405**	1
Growth aspirations (correlation)	-0.007	0.05
Export aspirations (correlation)	-0.084	0.263**
Age (correlation)	-0.016	0.208*
Opportunity-driven entrepreneurship (average)	1.8	4.04 (1.7)
Necessity-driven entrepreneurship (average)	2.33	3.63 (1.5)

* – correlation is significant at the level of 0,05

** – correlation is significant at the level of 0,01

Source: own elaboration on the basis of *Global Entrepreneurship Monitor* 2012 data.

In case of cooperation within the closer network, on average, entrepreneurs take advice of two groups of people, in case of further networks – advice of 3.58 persons (1.53 – standardised value), i.e. nascent entrepreneurs are more likely to take advice of representatives of the closer network. There is a group of nascent entrepreneurs who declare that they do not use opinions of anyone. In case of the closer network, there are 13.3% of such nascent entrepreneurs, in case of the further network – 15% of respondents. Women take advice of other people more often than men, in both cases, the difference amounts to about 0.6. What is more, both women and men are more likely to cooperate within the closer network.

Cooperation within the closer and further network is interrelated – persons who take advice of close persons also take advice of other persons. Cooperation within networks is not related to growth aspirations, in case of the further network there is a relation to export aspirations – entrepreneurs who more often take advice of other people from the further network also declare to export a larger part of products or services. It can be assumed that the international activity requires access to more diverse information and the further network also includes foreigners, people who have come from abroad and institutions providing advice to entrepreneurs.

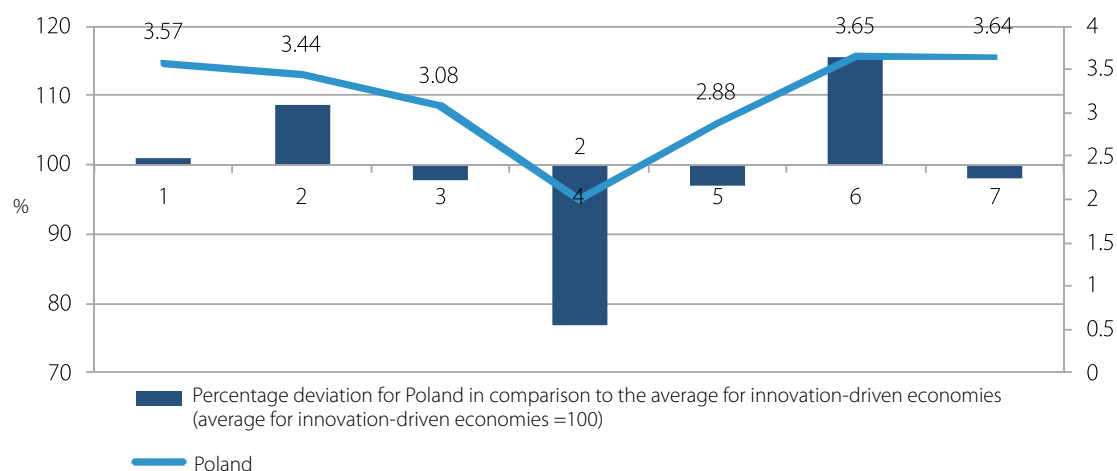
There is a correlation between the motivation to set up a business and cooperation within networks. Both opportunity-driven and necessity-driven nascent entrepreneurs more often take advice of the members of the closer network. However, it is worth noting that in case of motivation out of necessity, the difference in favour of the closer network is definitely greater.

5.5. NES data

The experts involved in the survey were asked to assess business cooperation in two areas: public institutions' activity and entrepreneurs' attitude to cooperation.

³²Variables were calculated by summing the affirmative answers to the questions about using opinions of individual groups. Therefore, the variable regarding cooperation within the closer network takes values from 0 to 6, the variable regarding cooperation within the further network takes values from 0 to 14. In addition, the value of the variable of cooperation within the further network is provided in a standardised form, so as to take values from 0 to 6.

Diagram 24. Experts' opinions on business cooperation



- 1 Public institutions often organise trade fairs and events, during which entrepreneurs can meet and establish contacts.
- 2 The government has a policy for promoting and supporting collaboration among businesses
- 3 The local public authorities promote and support collaboration among businesses
- 4 The educational system teaches that businesses ought to collaborate
- 5 Training courses for entrepreneurs include training in collaboration
- 6 Business owners believe that informal agreements are more effective than contracts between businesses
- 7 Business owners believe they gain advantages through collaboration

Source: own elaboration on the basis of *Global Entrepreneurship Monitor 2012* data.

Activities of public institutions

The efforts and activities of public institutions aimed at strengthening cooperation in the world of business in general have been assessed as average, at the level of 3. This result is by 12% lower than the average in the innovation-driven economies. However, when we look at individual questions (statements 1-5 in Diagram 24), we may see that the result lower than the average for the innovation-driven economies was determined mainly by one area: education (statement 4). In the experts' opinion, the education teaches cooperation between entrepreneurs to a very low degree. In this area, we have achieved the result by ca. 22% lower than in the innovation-driven economies.

In comparison to the innovation-driven economies, a particularly good assessment was given to the government policy with regard to promotion and support of cooperation between entrepreneurs (statement 2) – by ca. 9% above the average for the innovation-driven economies. The experts agreed to the highest extent with the statement that public institutions often organise fairs and events, during which entrepreneurs can meet and establish contacts (statement 1 – assessment of 3.57). It was the result close to the average for the innovation-driven economies. A pretty average assessment was given to the extent to which training for entrepreneurs teach cooperation (statement 5 – assessment of 2.88) and promotion of cooperation by local authorities (statement 3 – assessment of 3.08). In both cases, these results are slightly below the average for the innovation-driven economies.

Entrepreneurs' attitude to cooperation

The second area in which the experts were asked what they thought about entrepreneurs' opinions on the advantages of informal agreements and cooperation with other firms (statements 6-7). In this area, we came off by almost 6% better than the average for the innovation-driven economies. In case of both statements (the first refers to the belief of owners of firms that informal agreements are more efficient than agreements concluded between firms – statement 6, the second refers to the belief of entrepreneurs in benefits from cooperation – statement 7), the experts agreed with them to a high extent (3.65 and 3.64, respectively). A particularly high assessment, in comparison to the innovation-driven economies, was given to the statement on the belief in informal agreements (by ca. 15%).

5.6. Summary and conclusions

In comparison to other European countries involved in the survey, Poland generally came off surprisingly positive. We achieved particularly good results in case of cooperation of established enterprises in the current activity, cooperation of these enterprises in the innovation activity came off worse. Polish start-ups cooperate at the level close to that of established enterprises, i.e. quite often. However, start-ups in the European countries surveyed do it more frequently than established enterprises, on average. Therefore, we can claim that in Poland firms cooperate regardless of the development phase. A factor that much stronger differentiates the level of cooperation in Poland is the type of activity covered by cooperation: firms cooperate in the innovation activity far more seldom than their European counterparts.

Despite these differences, this high level of cooperation looks surprising especially when we compare it to the such a low level of trust in the country. On one hand, trust in Poland is one of the lowest levels among the countries involved in the European Social Survey. And, on the other hand, our level of cooperation is at the level of the innovation-driven economies (and usually above the average for that group), and not at the level of the group into which we were included – efficiency-driven economies.

Here, some questions and hypotheses arise. First of all, is the level of general trust higher among entrepreneurs in Poland than among the general public? The results of the *Diagnoza społeczna* study show that private entrepreneurs, right after students and pupils, are characterised by the highest level of trust. 16.4% of entrepreneurs believe that most people can be trusted. In total, this percentage in society amounts to 13.4%³³. Therefore, the answer to the above question is affirmative: Yes, entrepreneurs are more likely to trust others. However, is this difference big enough to justify such good results of cooperation of Polish entrepreneurs? With the result of 16%, Polish entrepreneurs are at the end of the ranking for Europe.

Secondly, we may put forward a hypothesis that such a high level of cooperation proves the higher level of economic development compared to the average for the efficiency-driven economies. Innovation in Poland may have positive but different dimensions than those measured by official statistics e.g. non-technology, social innovation. The verification of this hypothesis, however, is complicated and definitely goes beyond the scope of this report.

Finally, it is worth considering not only whether firms start cooperating but also what the scope and intensity of this cooperation is. This subject was raised in the GEM survey by introducing, for every scope of cooperation, details on its intensity: intense or not much intense. Unfortunately, in this case, it was not possible to make international comparisons. Basing on the data for Poland it appears that in case of both established enterprises and start-ups in most areas intense cooperation was established by more than half of companies (50-60%). In other cases, cooperation was less intense. It seems that such results are quite positive, but could be assessed fully only in comparison to other countries.

The analysis of correlations between business relationships and other variables characterising entrepreneurs proves that the will to cooperate is higher in those countries where many firms are established. Secondly, both – among start-ups and established enterprises – those entities which are involved in export are more willing to cooperate. This correlation, however, does not cover all types of cooperation. It indicates the search for partners in the process of export and internationalisation and this cooperation may cover joint production, know-how in international business, acquiring customers in foreign markets or export process optimisation.

Besides, start-ups with the ambition to grow are more willing to cooperate, while established enterprises are more willing to cooperate when operating in technology sectors.

When we look at the profile of those who cooperate in Poland, among established enterprises those who more often confirm such activity are men, people of nearly-retirement age, those who were opportunity-driven when setting up a business, owners not being founders and high growth firms.

Similarly, in the group of start-ups more willing to cooperate are men but also persons aged 30-40 and necessity-driven when setting up a business. In issues of innovation and new technologies, there are no clear cooperation leaders. It is worth noting that in case of cooperation with regard to production and purchases, its level decreases as innovativeness increases. Cooperation in Poland, and implicitly also social capital do not always go hand-in-hand with high innovativeness. Therefore, on this basis we can put forward a hypothesis that low innovativeness of Polish enterprises partly results from a reluctance to cooperate in the field of the innovative activity.

Attention is also drawn by the fact that in most cases – among established enterprises and start-ups – dominates a different profile of an entrepreneur who is more willing to cooperate. This underlines the change experienced by firms and their owners in the course of development. As far as the issue of age differences can be explained to some extent by convergence with the

³³ Output tables of *Diagnoza Społeczna* [2009], www.diagnoza.com [downloaded on: 24.05.2013]. There are no generally available more up-to-date data than those of 2009. However, changes with regard to general trust are not significant year by year.

age of a firm, the change in motivation for setting up a business is worth thinking over. Owners of new firms established out of necessity may be more motivated, perhaps even desperate, to survive in the market, and cooperation turns out to be necessary to achieve this. As time goes by, and the situation of these firms becomes stable, they do not need to fight for survival so much and their willingness to cooperate decreases. In this scenario, we can therefore perceive cooperation as a necessary evil, rather than resulting from the need and perceived benefits. And this is related to the poor quality of social capital.

In case of cooperation within the networks, entrepreneurs in the incubation phase (i.e. nascent entrepreneurs), most willingly take advice of friends, people who have extensive business experience and customers. New entrepreneurs (between the 3rd and 42nd month of activity) most willingly take advice of accountants, people with business experience and spouses or partners. Owners of established enterprises use these opinions to the lowest degree. Most willingly they take into account advice of co-operators and spouses or partners. In addition, nascent entrepreneurs definitely more often take advice of the members of the closer network rather than further one. The greater difference in favour of the closer network is in case of women than men and in case of necessity-driven motivation, not opportunity-driven motivation.

Summing up the results of the NES survey, the experts assessed highly both activities of public institutions with regard to promotion of cooperation and belief of entrepreneurs in benefits from cooperation. However, it is worth stressing the negative assessment of the impact of education on cooperation and much greater belief of Polish entrepreneurs in informal agreements than in the innovation-driven economies.

So what kind of image emerges from the GEM data? Firstly, Polish entrepreneurs cooperate in a surprisingly large scope. However, we may put forward a hypothesis that they regard cooperation as a necessary evil. They realise that they are not able to survive without it but once they achieve the more stable situation in the market, they reduce the intensity of cooperation.

Secondly, cooperation goes hand in hand with the rapid growth ambition, export activity and application of new technologies. Therefore, such a company profile confirms the greater business sophistication of owners.

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