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In This Issue

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Introduction

Teemu Rantanen & Maciej Pietrzykowski

The current trend in globalization is characterized by both broader global interconnection and deeper localization. To shape the effective development strategy it is crucial to integrate these two trends together with putting an emphasis on entrepreneurship and the process of shaping entrepreneurial attitudes in the society. Entrepreneurship has become a significant factor in socio-economic development. Entrepreneurs create new jobs, introduce innovation onto the market, accelerate the pace of structural and institutional changes, and through increasing the importance of competition influence the productivity and consequently also the competitiveness of an economy. Small entrepreneurial companies take on new importance and value in a knowledge based economy. In next waves of *Corporate Downsizing* throughout Europe and North America, large corporations had to dislocate their production in low cost countries to maintain their competitiveness. This means that in new era regional - specific factors shape entrepreneurship which has a crucial impact on economic performance.

A theme of this special issue is Entrepreneurship in Regional Development. The purpose is to describe and analyze entrepreneurship in the regional context from different perspectives. In this publication, regional development is treated as a multidimensional phenomenon. Though competitiveness and economic growth are important; issues such as territorial cohesion, education and social services, also have a key role to play in regional development. The impact of entrepreneurship in a region can thus be seen as a complex issue.

A major basis for this publication is the theme year of the European Entrepreneurial Region in 2012. The central priorities of the year were to promote entrepreneurial activities and to encourage young people in entrepreneurship. The theme year emphasizes the meaning of business at a regional level. It also highlights the importance of examining the significance of entrepreneurship from a regional perspective.

One of the key premises is the need to collate points of view, which combine regional development, business and social science perspectives. The multidisciplinary approach has proved to be a rewarding starting point, when we analyze entrepreneurship and its significance. This special issue contains articles which are based on the perspectives of economics, social policy and social psychology. Aspects of the papers vary from entrepreneur education to innovation and welfare policy, from the analysis of a single area to extensive regional comparisons. The point of view of the publication is scientific, but an important objective of the articles is to also stimulate political and practical debate.

The first topic of the issue is related to regional comparison. Professor Aleksandra Gawel examines innovation as a factor in regional development in Poland. Her results show that expenditure on research and development activities has a significant influence on the level of regional development. The study of Professor Marina Dabić, Dr. Maja Bašić and Dr. Davor Vlajčić looks at entrepreneurship in Croatia. The review examines differences in the development of various Croatian regions.

The second topic is the entrepreneurial orientation of young people. Two articles examine Finnish students' entrepreneurship. Dr. Teemu Rantanen looks at entrepreneurial intention amongst young people in Uusimaa, and considers the development of entrepreneurship education. Dr. Vesa Taatila examines entrepreneurial orientation among University of Applied Sciences students, the factors which affect it, and

proposes some practical implications. Professors Barbara Jankowska and Maciej Pietrzykowski consider the pre-entrepreneurial attitudes of students in Poland. Their analysis is based on the international comparison of five countries, and shows areas for development in Polish entrepreneurial education.

The third topic of this issue is social entrepreneurship. Dr. Timo Toikko examines social enterprises within the triangle of the public, private and third sectors in Finnish society. Using a time series, he analyzes the production of social care services, and shows how the role of the various sectors has changed during recent decades.

All authors are well recognized specialist on their topics. The interdisciplinary approach contained in this book delivers an impressive set of insights for regional policy that will be of great value to both academics and policy makers dealing with regional economics, economic geography, international trade, as well as entrepreneurship and innovation policy.

Innovation as a factor in regional development: the evidence from Poland

Aleksandra Gawel

Abstract

Innovation is regarded as one of the factors which have an impact on economic development, and this approach is reflected in the Europe 2020 strategy, including the flagship Innovation Union initiative. European countries and regions levels of innovation might be one of the reasons explaining the disparities among them. In order to empirically verify the legitimacy of this relationship, the main objective of this study was to examine the impact of innovation on regional development. The study involved the Polish regions, a country characterised by a lower level of innovation than the European Union average. The research findings, conducted on the basis of panel data for the years 2002-2009, indicate that expenditure on Research and Development activity has a significant and favourable influence on the level of regional development. Economic growth is most strongly affected by R&D spending represented by the number of R&D employees.

Keywords

innovation, regional development, research and development spending

Introduction

Differences in the levels of economic development within the European Union persist despite the efforts made to support the convergence of less developed regions. These differences occur both when comparing countries and comparing regions in a country. There are many reasons for such differences; historic, economic, and cultural. However, the question is not only about the causes of this economic diversification but also about the mechanisms of the most effective convergence tools. Innovativeness is claimed to be one of the causes of diversification as well as one of the best means for further development.

The European Union's growth strategy, formulated in *Europe 2020*, assumes that the European Union will become a smart, sustainable and inclusive economy with high levels of employment, productivity and social cohesion. To reach these goals five objectives - on employment, innovation, education, social inclusion and climate/energy - have been set[1].

[1]http://ec.europa.eu/europe2020/index_en.htm, 24/10/2011

Smart growth means promoting *education* (encouraging people to learn, study and update their skills), *research/innovation* (creating new products/services that generate growth and jobs and help address social challenges) and the *digital society* (using information and communication technologies) in the EU[2].

A belief in the importance of innovation in development strategy is the basis for formulating one of the flagship initiatives, the *Innovation Union*, which is to boost smart growth in the EU.

Innovation is a multi-aspect and multi-dimensional phenomena, and a better understanding of innovation is still required; an understanding of both the driving forces behind the process of innovation and the influence of innovation on economic development. The above mentioned belief lay behind the research conducted in the present article, and the fundamental research question posed in this article is in what way innovation influences the economic development of a region. In order to answer this question innovation is analysed in respect of R&D expenditure. The study was conducted from a regional perspective: 16 Polish provinces were studied during the years 2002-2009.

This research adopted a regional perspective based on the Polish provinces because the extent of investment in innovative activity in Poland is very low, considerably lower than the EU average and the specific target defined in the *Europe 2020* strategy. *The Europe 2020* strategy specifies that by 2020 expenditure on R&D should reach 3% of GDP, whereas in Poland R&D expenditure in the years 2002-2008, on average, amounted to 0.42%. Even in the region with the highest R&D expenditure, the average level of R&D spending during the period studied was only 1.16%. This means that Poland is a country where the level of R&D expenditure is low and there is a significant discrepancy between the current level of R&D expenditure and the EU strategic target in this respect. Therefore one can expect an intensification of R&D activity in order to bring Poland nearer to fulfilling EU targets, which should also accelerate the economic development of the Polish regions.

Regional development – the theoretical background

In order to analyse the impact of innovation on regional development it is necessary to identify those factors which determine such development and evaluate innovation itself as a factor. There are three main streams of theories regarding economic growth and development: neoclassical theory, neo-Keynesian theory and endogenous development theory.

In the neoclassical approach, following the Robert Solow model (1956), it is assumed that the production function in an economy depends on two dependent variables, financial capital and labour, which determine economic growth through the rate of growth in savings and the numbers of citizens. An extension to the growth model adds another growth factor such as the effectiveness of labour which is most often allied with labour and treated as the input of effective work. In this situation the production of an economy is a function of the input of labour, effective work and financial capital (Romer 2000, 25). A later group of models, begun by Mankiw, Romer and Weil (1992), introduced another production factor: human capital treated as the skills, abilities and knowledge of employees. Consequently, in the neoclassical approach, production is treated as a function of three factors: financial capital, effective labour and human capital; with growth being the result of the growth in financial capital and human capital (Romer 2000, 151).

While the neoclassical approach concentrates on the supply side of the market, the neo-Keynesian approach is demand-oriented. The level of economic growth is determined by the level of market demand arising from both the public and private sectors.

[2]http://ec.europa.eu/europe2020/priorities/smart-growth/index_en.htm, 24/10/2011

Endogenous theory treats economic growth as a result of the input of capital (both financial and human capital) and the level of technical development. With these assumptions it is close to the neoclassical approach. The difference is that in neoclassical theory technical development is treated as an external factor while endogenous theory treats the level of technical development as a structural factor which can be formulated through the expenditure of companies and local authorities. More recently, the role of innovative companies and knowledge endowment has been built on the theoretical results from endogenous theory (Maggioni, Nosvelli & Uberti 2007).

Based on these ideas various regional models are being explored, such as new theories of development or new economic geographies.

Today, creating new regional theories is less important than solving practical issues. The literature on local and regional development is predominantly empirical and pragmatic, leading to the methodology and efficacy of economic development policy (Valler & Wood 2010) to generate a strategy for regional development. The main approaches in regional development analyses are (Moulaert & Mehmood, 2010):

- Regulation Theory,
- Network Theory,
- Cultural Political Economy.

A synthesis of these theories can be found in the critical-realist approach, which provides a critical and open perspective on the factors and dynamics of social reality. This approach combines theories with different priorities and casual foci which can communicate with each other and emphasises the different social phenomena and structures explaining regional development (Moulaert & Mehmood 2010).

The dominant perspective in regional development is 'New Regionalism', which started from the assertion that changes in the market system have created new challenges for regional development. 'Knowledge-intensive' innovation and flexibility have become the keys to regional development (Lovering 2001).

The 'New Regionalism' movement has produced a number of models of regional development, with Territorial Innovation Models (TIM) being its flagship. There are three families of TIM (Moulaert & Mehmood 2010):

- *Milieu Innovatuer* and the Industrial District model – the role of endogenous institutional potential in producing innovative dynamic firms, the role of cooperation and partnership within the innovation process,
- Systems of Innovation – transferring the institutional coordination principles found in sectoral and national innovation systems onto the regional level, an evolutionist interpretation of a regional learning economy within the regional space,
- New Industrial Spaces – 'spatial clusters of innovation', similar to Michael Porter's clusters of innovation.

Other models of TIM are: local production systems and learning regions (Moulaert & Sekia 2003).

To sum up it can be said that *Milieu Innovatuer* models stress local culture, tradition and trust which lead to knowledge exchange and collaboration; regional innovation systems emphasise local institutions and culture; industrial districts give greater priority to supplier and client relationships within specific sectors and labour markets; learning regions emphasises the capacities for achieving tacit and explicit knowledge; and regional clusters put the focus on regional competitive advantage, achieved through smart specialization.

A critical analysis of the theoretical concepts in Territorial Innovation Models led to the discovery that these models suffer from a conceptual ambiguity due to the lack of any acceptable definitions of the various dimensions of market-led innovation at the local and regional level (Moulaert & Sekia 2003).

According to Territorial Innovation Models the following factors determine regional development:

- *Milieu Innovateur* – an agent's capacity for innovation in a cooperative atmosphere,
- Industrial Districts – spatial solidarity and the flexibility of districts as an element of innovation,
- Systems of Innovation – the region as a system of innovation,
- New Industrial Spaces – interaction between social regulations and agglomerated production systems (Moulaert & Mehmood 2010)

- Local Production Systems – diffusion of industrialization; socio-economic development is an evolutionary process,
- Learning Regions – double dynamics: technical and techno-organizational dynamics, plus socio-economic and industrial dynamics (Moulaert & Sekia, 2003).

Innovation as a determinant of regional development – a theoretical approach

The importance of innovation in regional development is analysed although innovation is a widely understood phenomena. Innovation as a research field began to be explored with the works of Joseph Schumpeter (1934), who was the first one to highlight the importance of innovation for economic development. According to his approach innovation is treated as new combinations in the economy; including new combinations of goods, methods (production technology), markets, suppliers, organization and the source of company profits.

Innovation is understood as an interactive process which refers to the behaviour of enterprises in planning and implementing changes to their activities (Nauwelaers & Wintjes 2002). Innovation is understood as introducing new economic activities, including both the introduction of innovation into the marketplace as well as entering as a new imitative competitor (Koellinger 2008), or as the successful implementation of creative ideas. Innovativeness requires a departure from existing technologies and practices, and ventures beyond the current state of the art (Dess & Lumpkin 2005).

In the context of regional development through innovation it is important to analyse the sources of innovation. From a historical perspective, the first to be identified was science-push innovation, where the initiative for innovation comes from the scientific departments of companies. Next, demand-pull innovation was recognized, where the initiative for innovation comes from the marketing, sales or production departments of companies (Jovanovic & Rob 1987). In the joint model, innovation is treated as the result of external and internal communications within a company, and they are regarded as interactive, accumulative and cooperative phenomena. In the systems approach, innovation is the result of the interaction between external actors; such as the cultural, social and economic ties between such institutions as universities or public research agencies.

The idea of the triple helix of innovation assumes that innovation is the result of university-government-industry relations and collaboration (Etzkowitz & Dzisah 2008; Papagiannidis et al. 2009; Halilem 2010). The idea of knowledge-based development was the basis for the triple helix development model. After exogenous and endogenous development, knowledge-based development rooted in universities as institutions that generate human and intellectual capital is the ultimate source of development (Etzkowitz & Dzisah 2008). The triple helix model has been developed to study the knowledge infrastructure of networks in a regional innovation system (Younghwan et al. 2012).

The triple helix development model is based on the following influences (Dzisah & Etzkowitz 2008):

- The transition from an industrial society to a knowledge-based society,
- The transition from large scale physical technologies to more flexible, smaller, high technologies,
- The emergence of polyvalent knowledge, at the same time theoretical and practical, patentable and publishable,
- The rise of the entrepreneurial university model.

The Triple Helix model assumes a more prominent role for universities in innovation, plus collaborative relationships among the spheres of the helix, with innovation policy as an outcome of these interactions and the institutions of the spheres fulfilling both traditional functions as well as additional ones (Papagiannidis et al. 2009). To ensure positive effects within the triple helix, the circulation of people, ideas and innovation is necessary (Dzisah & Etzkowitz 2008).

The quadruple helix of innovation is an extension of the triple helix (Carayannis & Campbell 2009; 2010). It assumes that the economic structure depends on 4 helices (Afonso et al. 2010):

- Academia – provides innovative ecosystems (together with companies),
- Companies – provides innovation ecosystems (together with academia),
- Government – provides financial support and the regulatory system,
- Civil society – demands innovative goods and products.

Introducing society into the helix model of innovation is connected with the idea of user-driven innovation. Users, or customers, are widely recognized as an important source of creativity and knowledge in the development of new products in the innovation processes, and are involved in new product development (Buur & Matthews 2008; Fang 2008).

Although there is much research interest in this field, the relationship and the interaction between the different helices and economic growth is not obvious. The majority of research conclusions are tentative due to data weakness and a lack of theoretical models which could indicate the relationships between the four helices (Afonso et al. 2010).

A relatively new concept combining innovation and regional development is the Regional Innovation System (RIS) which comprises 5 key related concepts (Cooke 2001):

- Region – meso-level political unit set between the national and local levels,
- Innovation – commercialisation of new knowledge in respect of products, processes and organisation,
- Network – a set of reciprocal, reputational or customary trust and co-operation based linkages among regional actors,
- Learning – new levels and kinds of knowledge, skills and capabilities,
- Interaction – formal and informal meetings or communication focused on innovation.

One of the key elements of RIS is academic institutions because universities contribute to the performance of the innovation system by generating and diffusing knowledge. The intensity and quality of the research conducted by them positively affect the output of regional innovation (Fritsch & Scavtchev 2007).

The influence of innovation on regional development – research assumptions

A review of current knowledge regarding regional development and the role of innovation in development shows that a better understanding of innovation is still required; of both the driving forces behind the process of innovation and the influence of innovation on economic development. In order to determine how innovation influences the economic development of a region this research analysed innovation from the point of view of expenditure on Research and Development. Innovation in the present paper is defined as the creation of new knowledge in respect of products, processes and organisation but this research concentrates on innovation from an input perspective (i.e. expenditure on innovation creation). An output perspective (i.e. patents and new products) is not taken into consideration.

Two research hypotheses were formulated:

Hypothesis 1: *Expenditure on Research and Development has a favourable impact on the economic development of a region.*

Hypothesis 2: *The human capital employed in the Research and Development sector has a favourable impact on the economic development of a region.*

These hypotheses reflect the input side of innovation, not output. Expenditure on R&D and the human capital employed in this sector both indicate investment on innovation, not their results. The impact of expenditure on R&D and the human capital employed in this sector can result from several aspects. First, the basic assumption is that such expenditure as an input factor has an influence on the level of innovativeness in a region as an output. The relationship between expenditure on R&D and innovation is often the subject of scientific research, but the results are ambiguous. According to some results, R&D expenditure is a factor which is positively related to the innovativeness of companies (Acs & Audretsch 1988; Bhattacharya & Bloch 2004) and regions (Ponds, van Oort & Frenken 2007). At the same time, the results of other research show that R&D expenditure does not appear to be related to either product innovation or bringing new products to market, and is negatively

related to process innovation because of the possible competition for resources between R&D and process innovation (Simonen & McCann 2008).

Assuming that any expenditure on R&D and the human capital employed in a sector has a positive influence on innovation, this can have a direct impact on economic growth of the region. The direct influence manifests itself in new companies being created to introduce onto the market the innovations which are the result of R&D activity. It can therefore be assumed that the greater the scale of R&D activity, the greater the number of newly created companies. A greater scale of R&D activity has an effect on the improved growth perspectives of companies located in a given region which positively influences the level of profits, employment and investment. All these factors lead to a higher level of development in a region.

No matter the relationship between the expenditure on R&D and innovativeness, there are also other ways that such expenditure and the human capital employed in the R&D sector can influence regional development in an indirect way. Research and development activity can also indirectly influence regional development by contributing to the supply and demand effects in the product and labour markets. R&D activity generates demand for products which become production factors, and therefore creates a demand for intermediate and investment goods in the production factors market. This, in turn, generates a demand for workers and sub-contractors in the R&D sector, which brings about changes in employment and people's incomes. As a result, society's purchasing power increases and the demand for consumer goods grows, which fosters the development of a region.

The hypotheses formulated in this research were verified on the basis of empirical data from Poland. Poland is a Central-European country divided into 16 administrative regions. Despite over 20 years of systemic transformations and over 6 years of EU membership, the level of economic development for individual regions continues to be considerably diversified (see Table 1).

As the data presented in Table 1 indicate, during the years 2003-2009, on average, the difference in GDP between the most and the least wealthy province was more than twofold. With the national average GDP at a level of 25,266 PLN, the average level of annual GDP per capita in the Mazowieckie province was 43,474 PLN, whereas in the Lubelskie province it was only 18,939 PLN. Out of the 16 provinces, six had a level of GDP per capita higher than the national average, though in one case only fractionally so.

Table 1 Economic diversification of Polish provinces (average annual data for the period 2003-2009 in PLN)

Regions	GPD per capita	Value added per 1 employee
Dolnoslaskie	29 155	77 190
Kujawsko-pomorskie	24 122	64 195
Lubelskie	18 939	48 110
Lodzkie	25 360	60 817
Lubuskie	24 153	69 354
Malopolskie	23 693	59 702
Mazowieckie	43 474	90 693
Opolskie	22 695	66 837
Podkarpackie	19 031	49 297
Podlaskie	20 478	54 196
Pomorskie	26 935	73 293
Slaskie	29 780	75 924
Swietokrzyskie	21 316	52 437
Warminsko-mazurskie	20 827	63 427
Wielkopolskie	29 062	67 077
Zachodniopomorskie	25 244	72 341

Source: author's estimation based on Polish Central Statistical Office data.

A similar diversity can be observed when analysing the gross value added per 1 employee. Here the difference between those provinces which are the most and the least efficient in terms of productivity is a little less than twofold. In the Mazowieckie province, which in the years 2003-2009 was the most efficient in terms of productivity, the average annual value added per 1 employee amounted to 90,693 PLN; while in the Lubelskie province, where work productivity was the lowest, the gross value added per 1 employee was 48,110 PLN. The average value added per 1 employee in Poland in the period 2003-2009 was approximately 65,300 PLN, so the work productivity in 8 provinces was higher than average.

It is worth noting than in the case of 12 out of the 16 provinces, those provinces which have a higher than the national average level of GDP per capita also have a higher than national average gross value added per 1 employee, or both are lower. The remaining four regions do not follow this pattern. In three provinces (Lubuskie, Opolskie, Zachodniopomorskie) GDP per capita is lower than the national average while value added per 1 employee is higher than the national average. And in one province (Łódzkie), GDP per capita is higher than the national average whereas in respect of work productivity the region has a lower than national average level of gross value added per 1 employee.

The Polish provinces also vary considerably in respect of their level of innovation. One can observe significant differences between the regions when comparing expenditure on Research and Development, which indicates investment in innovation (see Table 2).

Table 2 R&D expenditure as a percentage of GDP (average for the years 2002-2009)

Region	R&D expenditure as a percentage of GDP
Dolnoslaskie	0.43
Kujawsko-pomorskie	0.30
Lubelskie	0.48
Lodzkie	0.55
Lubuskie	0.12
Małopolskie	0.93
Mazowieckie	1.16
Opolskie	0.16
Podkarpackie	0.35
Podlaskie	0.23
Pomorskie	0.49
Slaskie	0.37
Swietokrzyskie	0.15
Warminsko-mazurskie	0.24
Wielkopolskie	0.50
Zachodniopomorskie	0.21

Source: author's estimation based on Polish Central Statistical Office data.

When comparing the data in Table 2 it can be noticed that in the years 2002-2009 the average R&D expenditure in Poland amounted to 0.42% of GDP, with the median of these numbers being 0.36%. At the same time considerable differences can be observed between the regions in respect of this expenditure. The difference between the highest and the lowest levels of spending is nearly tenfold. While in the Mazowieckie province R&D spending on average amounted to 1.16% of GDP, in Lubuskie it was only 0.12%. Additionally, half of the provinces had a lower than national average level of R&D expenditure in relation to GDP, and in the other half this level exceeded the national average.

It has to be emphasised that in Poland, even in the region with the highest level of R&D expenditure in relation to GDP, the extent of investment in innovation is considerably lower than the level set in the *Europe 2020* strategy formulated by the European Union. The *Europe 2020* strategy assumes the realisation of five objectives on employment, innovation, education, social inclusion, and climate/energy. As regards innovation, the objective states that by 2020 EU countries should invest 3% of their GDP in Research and Development. Comparing this target with the situation in Poland, one can clearly see that Poland still has a long way to go before it can meet this objective. Even in the Mazowieckie province, where the level of investment in R&D is the highest, it is still less than half of the target figure set by the *Europe 2020* strategy.

One can expect that in the coming years the level of R&D expenditure in Poland should increase in order to bring Poland closer to meeting the Europe 2020 strategic targets. That is why from a research point of view it seems interesting to examine the relationship between innovative investment in R&D and regional development. Preliminary estimations show that there is a positive correlation between R&D expenditure as a percentage of GDP and GDP per capita, which equals 0.558; as well as between R&D expenditure as a percentage of GDP and value added per 1 employee, which equals 0.341.

In order to confirm the existence of the correlation between innovation and the level of regional development, and at the same time to verify the two research hypotheses formulated in this paper, an empirical study based on panel data was conducted. The estimated regression function parameters are the basis for providing answers to the research questions. The research adopted the perspective of Research and Development expenditure in order to analyse the demand mechanisms generated by R&D activity. R&D spending is analysed in respect of the expenditure on R&D in order to verify Research Hypothesis 1, and in respect of the number of employees in order to verify Research Hypothesis 2.

The following two variables, which in this study are dependent variables, were adopted as the measures of regional development:

- Gross Domestic Product per capita (GDPC),
- Added value per 1 employee (AVE).

The following independent variables, which measure innovation activity from the perspective of R&D expenditure, were adopted:

- Total research and development spending in mln PLN (TRDS),
- Research and development spending per capita (RDSC),
- Research and development spending per 1 employee in R&D sector (RDSE),
- Number of employees in R&D sector (ERD),
- Number of employees in R&D sector per 1000 economically active people (ERDC),
- Investment in industrial innovation (II).

It is assumed that innovation input has an influence on GDPC and AVE through direct and indirect effects. Direct effects are assumed to be connected with the impact of new knowledge, and new products as the output of innovation, on the economic situation and growth perspectives of regional companies, and through them to regional economies. Indirect effects are assumed to influence regional economies through the supply and demand aspects of the product and labour markets.

The impact of the TRDS, RDSC, RDSE and II variables on the adopted economic development measurements for regions is the basis for verifying the first research hypothesis, and the influence of the ERD and ERDC variables on regional development is the basis for verifying the second one.

As regards R&D expenditure, two perspectives were adopted: total spending in the economy (variables TRDS, RDSC, RDSE) and spending only in industry (II). Additionally, the total expenditure on R&D was represented in three aspects: total spending expressed in monetary units (TRSD), spending in relation to the population of a given region (RDSC), and spending in relation to the number of people employed in R&D (RDSE).

R&D expenditure in respect of human capital investment was also analysed in two aspects: the total number of employees in this sector (ERD), and the number of R&D employees per 1000 economically active people (ERDC).

The research adopted a regional perspective for determining the impact of innovation on economic development. Thus the geographical scope of the study covers 16 Polish provinces and includes data for the years 2002-2009 on an annual basis. A panel for the 16 Polish regions was created, each of 8 years. For all the variables, there were 128 observations.

In order to create linear relationships only, all dependent and independents variables were converted into natural logarithms, which made it possible to interpret the coefficients in terms of increasing rates. Based on the Shapiro-Wilk test, the null hypotheses for all variables of normal distribution have no basis for rejection.

In order to determine the relationships between innovation measured by R&D activity and regional development, regression function parameters were estimated. The initial two regression functions were established as follows:

1) $GDPC = a1 + a2\ R\&D + \varepsilon$
2) $AVE = b1 + b2\ R\&D + \varepsilon$

where:
GDPC – natural logarithm of Gross Domestic Product per Capita,
AVE – natural logarithm of Added value per 1 employee,
R&D – natural logarithm of research and development activity measures, subsequently TRDS, RDSC, RDSE, ERD, ERDC, II,
a1, a2, b1, b2 – parameters of equations,
ε- random

When estimating the regression function parameters, three methods of estimation were used simultaneously: the method of least squares, the method of panel estimation with fixed effects, and the method of panel estimation with random effects. All together 36 regression function estimates were done: from 2 initial function estimations, 6 independent variables and 3 estimation method errors.

The influence of innovation on regional development – research assumptions

Employing the adopted research methods made it possible to obtain the results presented in Table 3. A comparison of the results obtained through each of the above-mentioned methods then led to the adoption of the method which in each case rendered the best estimation of the parameters. The value of the significance coefficient p was adopted as the basis for accepting the best matched function parameters. It was decided that the p-value must have a significance level of at least 0.01 in order for a given independent variable to be considered significant for explaining the value of a dependent variable. The results obtained by means of this method then became the basis for answering the research questions.

As the data presented in Table 3 shows in respect of the majority of independent variables, their influence on regional development turned out to be statistically significant. One of the independent variables, the number of R&D employees per 1000 economically active people, was found not to be significant in relation to the values of the two dependent variables (GDP per capita and value added per 1 employee) by all three methods of estimating regression function parameters. Also, the total number of R&D employees is in most cases statistically insignificant. Out of the six estimated functions in which this value was an independent variable, the parameters for three of the functions turned out to be insignificant. The above findings mean that these two measures of R&D activity cannot be considered significant in relation to the economic development levels of regions. Thus the results of the empirical research do not confirm the second research hypothesis.

Table 3 Results of regression function estimates for the influence of innovation on regional development

Variables		The method of least squares				Panel regression with fixed-effects				Panel regression with random-effects			
Dependent variable	**Independent variable**	**Value of coefficient**	**Standard error**	**t-Student value**	**p-value**	**Value of coefficient**	**Standard error**	**t-Student value**	**p-value**	**Value of coefficient**	**Standard error**	**t-Student value**	**p-value**
GDPC	const	9,4050	0,0745	126,3000	0,0000	8,0218	0,1629	49,2400	0,0000	8,7850	0,1378	63,7700	0,0000
	TRDS	0,1353	0,1353	9,6200	0,0000	0,4045	0,0316	12,7800	0,0000	0,2560	0,0254	10,0700	0,0000
	const	9,1557	0,0915	100,1000	0,0000	8,3307	0,1381	60,3100	0,0000	8,6076	0,1291	66,6800	0,0000
	RDSC	0,2153	0,0205	10,5100	0,0000	0,4032	0,0314	12,8500	0,0000	0,3402	0,0279	12,1800	0,0000
	Const	8,7623	0,1265	69,2600	0,0000	8,8286	0,1097	80,4600	0,0000	8,8203	0,1132	77,9300	0,0000
	RDSE	0,3787	0,0355	10,6700	0,0000	0,3599	0,0309	11,6500	0,0000	0,3623	0,0299	12,1200	0,0000
	Const	8,8196	0,1624	54,3200	0,0000	9,6799	1,4787	6,5460	0,0000	8,8447	0,2879	30,7300	0,0000
	ERD	0,1606	0,0202	7,9450	0,0000	0,0527	0,1854	0,2844	0,7766	0,1575	0,0358	4,3940	0,0000
	Const	10,0868	0,0567	178,0000	0,0000	9,9559	0,1925	51,7300	0,0000	10,0537	0,1144	87,9100	0,0000
	ERDC	0,0120	0,0456	0,2635	0,7926	0,1278	0,1696	0,7538	0,4526	0,0414	0,0894	0,4626	0,6444
	Const	7,5227	0,2795	26,9200	0,0000	7,4340	0,6149	12,0900	0,0000	7,4894	0,4154	18,0300	0,0000
	II	0,1908	0,0207	9,2330	0,0000	0,1973	0,0455	4,3320	0,0000	0,1932	0,0307	6,2980	0,0000
AVE	Const	10,6559	0,0715	149,0000	0,0000	9,3963	0,1305	72,0000	0,0000	9,9038	0,1265	78,2800	0,0000
	TRDS	0,0793	0,0135	5,8680	0,0000	0,3244	0,0253	12,8000	0,0000	0,2256	0,0229	9,8370	0,0000
	const	10,4822	0,0887	118,2000	0,0000	9,6439	0,1106	87,1700	0,0000	9,8315	0,1131	86,9400	0,0000
	RDSC	0,1324	0,0198	6,6720	0,0000	0,3234	0,0251	12,8600	0,0000	0,2807	0,0239	11,7500	0,0000
	const	10,1536	0,1181	85,9800	0,0000	10,0464	0,0882	113,9000	0,0000	10,0553	0,0949	105,9000	0,0000
	RDSE	0,2574	0,0331	7,7740	0,0000	0,2878	0,0248	11,5800	0,0000	0,2852	0,0243	11,7400	0,0000
	const	10,3279	0,1498	68,9600	0,0000	10,6009	1,1848	8,9470	0,0000	10,3446	0,3128	33,0800	0,0000
	ERD	0,0922	0,0187	4,9440	0,0000	0,0580	0,1486	0,3903	0,6971	0,0901	0,0389	2,3150	0,0222
	const	11,0765	0,0466	237,6000	0,0000	10,9548	0,1543	70,9900	0,0000	11,0434	0,0949	116,4000	0,0000
	ERDC	-0,0117	0,0375	-0,3123	0,7553	0,0959	0,1360	0,7050	0,4823	0,0175	0,0739	0,2370	0,8130
	const	9,5194	0,2628	36,2300	0,0000	9,0672	0,4979	18,2100	0,0000	9,2764	0,3899	23,7900	0,0000
	II	0,1141	0,0194	5,8720	0,0000	0,1476	0,0369	4,0020	0,0001	0,1322	0,0288	4,5960	0,0000

Source: author's estimation based on Polish Central Statistical Office data

The remaining independent variables describe Research and Development activity in terms of the money spent on it. It transpires that in each of the adopted approaches R&D expenditure turns out to have a statistically significant and positive influence on regional economic development. Changes in total research and development spending, research and development spending per capita, research and development spending per 1 employee in the R&D sector, and investment in industrial innovation have a favourable impact on changes in Gross Domestic Product per capita and Value added per 1 employee. Thus the findings of the study provide empirical support for the first research hypothesis, which assumed a positive influence of R&D expenditure on the level of a region's economic development.

When examining the absolute value of the regression function coefficients, the factor which has the strongest impact seems to be R&D spending per 1 R&D employee. This may indicate that striking an appropriate balance between financial and human capital expenditure is one of the key factors which affect the impact of innovation policy on regional development. Besides, making financial capital available to employees seems to significantly contribute to the influence that innovation has on the development of regions.

Additionally, the influence that investment in industrial innovation has on regional development is lower than the influence of total R&D expenditure. This may suggest that confining innovative activities only to companies is insufficient for stimulating economic growth, and that the state and its institutions have an essential role to play in this respect.

The results of the study give support to the claim that expenditure on R&D has direct and indirect impacts on regional development. Expenditure on R&D can influence regional development through improving the situation of regional companies in terms their heightened growth perspectives, level of profits, employment and investment. Indirect impacts result from the contribution R&D expenditure has on the supply and demand effects in the product and labour markets.

From the point of view of designing a regional policy, the findings of this research bear out the strategic objectives formulated in the Europe 2020 strategy. An increase in R&D expenditure is likely to be conducive to an increase in the level of regional economic growth. However, the existence of such a relationship has been confirmed for countries and regions whose level of economic development is lower than the average EU level. As a next research step it could be useful to compare the impact of R&D expenditure on regions with high and low levels of economic development. A study aimed at determining the existence and intensity of such a relationship would make it possible to ascertain whether R&D expenditure has a greater influence on those regions where the level of economic development is lower than average than on those with a higher level, thus contributing to the convergence of economies. However, if it turned out that the impact of R&D expenditure on better developed regions is the same or greater than on less economically developed regions, it would imply that R&D expenditure is a factor which increases the economic diversification of regions, thus deepening economic divergence.

The main limitations of the research presented derive from two issues. Firstly, the results were obtained for regions of only one country where the level of R&D activity is low compared to the European Union Average. It would be worth conducting further research comparing regions from different countries which were at different stages of economic development. It would answer the question about the universality of the research results. Secondly, the research was conducted just from the innovation input point of view. Further research could focus on the innovation output point of view, to investigate not only the investment in innovation but also the effects of this investment.

Final remarks

Innovativeness is considered to be a factor which fosters economic growth. This conviction is reflected both in economic growth models and in the policy of the European Union formulated in the *Europe 2020* strategy. Therefore, undertaking research into the existence and intensity of this relationship seems justified both from a theoretical and practical point of view. The research questions posed in this study considered the influence of innovation on the economic development of regions. Two research hypotheses were formulated, which assumed a positive influence for R&D

expenditure and a positive influence of human capital in the R&D sector on regional economic development.

In order to verify the research hypotheses a study about the influence of R&D spending on regional development was conducted. The study examined 16 Polish provinces in the years 2002-2009 by means of the panel method. Poland was chosen as an example because the extent of investment in innovation in this country is very low, considerably lower than the European Union average and far below the strategic target in this respect formulated in *the Europe 2020* strategy.

This study adopted two dependent variables which indicated the level of economic development, GDP per capita and Value Added per 1 employee, as well as six independent variables describing Research and Development spending in respect of expenditure (total research and development spending, research and development spending per capita, research and development spending per 1 employee in the R&D sector, investment in industrial innovation) and in respect of the involvement of human capital in Research and Development (number of employees in the R&D sector, number of R&D employees per 1000 economically active people).

The results of these estimations show that the level of human capital involvement in R&D activity does not have a statistically significant influence on the level of regional development. Thus the second research hypothesis was not confirmed. However, R&D expenditure does have a significantly positive influence on the economic development of a region. This means that an increase in R&D spending is likely to promote the economic development of regions. These findings confirm the correctness of the first research hypothesis.

Finally, R&D expenditure denominated in terms of the number of employees in this sector as having the strongest influence on economic development. This may imply that a correct proportion of human and financial capital is one of the key factors with regard to the effectiveness of the impact of innovation policy on regional development.

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How entrepreneurial are Croatian counties

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Abstract

A harmonious and sustainable regional development is in the heart of sustainable growth supported by job creation, competitiveness and improved quality of life. Since small and medium-sized enterprises represent more than 98% of European businesses, they are crucial drivers of economic and technological enhancement. The European Commission's support to the SMEs' internationalisation is based on innovation and job creation aided by various funding opportunities in the form of structural funds and diverse financial instruments. This chapter illustrates the state of entrepreneurship with respect to the regional categories in the Republic of Croatia recognising a decentralised and diversified approach to entrepreneurial activity necessary to accommodate the specificities of transitional country's changes with respect to the accession into the European Union. Using a descriptive analysis to portray entrepreneurial characteristics of Croatian counties and NUTS II regions with respect to their matching exporting and importing activities, this chapter describes an entrepreneurial climate as an important feature promoting regional development.

Key Words

entrepreneurship, regional development, NUTS II regions, European Union

Introduction

The heart of entrepreneurship is when an individual is behaving in an innovative way (O'Farrell 1986), while being capable of seizing opportunities provided within given contextual uncertainties (Cassia & Colombelli 2006). Its importance is evident within economic and social field. Since it is viewed as more than a pure economic process, it extends to the arena of a social environment comprehending a variety of social and cultural conditions (Florida 2002). Entrepreneurial drive, which strives to establish winning strategic positions, is important for organisations of all types and sizes. As all organisations must deal with strategic and structural changes which adhere to growth opportunities within a specific environment, business success is reliant upon the efficient usage of its resources, competencies and capabilities. Hence, entrepreneurship is viewed through its occupational and behavioural role as well as its social and economic function (Wennekers et al. 2005).

As the holistic process of entrepreneurship adheres to the functions of pragmatism and idealism, entrepreneurs challenge cultural traditions and stability of their countries (Morrison 2000). This notion is especially meaningful in transitional societies due to their

change from planned to market economies. Herein, the focus on customers and other stakeholders starts to gain increasing and vital importance. As dynamic environment can lead to advantageous and effective strategic positions arising from the seizure of entrepreneurial opportunities, the emphasis is put on organisation's continuous improvement in times of discontinuous change (Thompson 1999). Thus, entrepreneurial entry can be used to transform and revitalise transitional industries thereby enhancing their competitiveness resulting from positive productivity effects (Andersson, Braunerhjelm & Thulin 2012).

Regional policy which is often called a cohesion policy of the European Union can be viewed as a type of an investment policy, which supports primary sustainable development, job creation, competitiveness, economic growth and improved quality of life. The goal of the regional policy is territorial cohesion which should encourage the harmonious and sustainable development of all territories by building on the existing territorial characteristics and resources. Using the set of regional policies, the European Union tried to express its solidarity with the less developed countries and regions and place financial funds in the areas and sectors of the greatest need. Importance of multinational companies is unquestionable. However, in reality small and medium-sized enterprises (SMEs) are crucial drivers from economic and technological point of view, representing more than 98% of European businesses. Until this point, there existed only ambiguous evidence on this notion which lately started to prove its benefits in the form of strong relationship between new firm formation and, both, economic growth and net employment change (Van Stel & Storey 2004; Fritsch & Mueller 2004). A significance of firm formation was stressed by the European Union, which is why it secures and empowers SMEs for global opportunities providing support of different forms. SMEs generate two-thirds of private sector employment and accounted for about 85% of new job creation over the past five years which could be attributable to the European Commission's support to further innovation and job creation fostered by SMEs. The European Union support comes in different forms, and probably the most important ones consist of funding opportunities. Funding opportunities include: grants, loans and, in some cases, guarantees. The support is available either directly or through programmes managed at national or regional level. The main European programmes available to SMEs are, thematic funding opportunities, structural funds, and financial instruments made to support the internationalisation of SMEs (European Commission 2012).

This chapter analyses the state of entrepreneurship with respect to the former notions. In order to accentuate the function of entrepreneurship in the national and regional context, this chapter firstly seeks to identify entrepreneurship's role in the regional and national development. It then progresses to describe the European Union's regional policy as Croatia's possible institutional framework of entrepreneurial opportunities' enhancement. It continues to illustrate the state of entrepreneurship with respect to the regional categories in the Republic of Croatia. Lastly, the concluding remarks are given in order to demonstrate that the entrepreneurial activity of Croatia needs decentralised and diversified approach in order to accommodate the specificities of transitional country's changes with respect to the accession into the European Union.

Entrepreneurship as a tool for regional development

Entrepreneurship is important for economic development and serves as the engine of economic growth. Schumpeter's concept of entrepreneurship has been opposed by authors which exclamate its stringent role for the markets of developing countries (Yu 1998). By taking into account the economic growth of the Hong Kong's enterprises, Yu (1998) furthers the concept of adaptive entrepreneurship. Adaptive entrepreneurship is portrayed as a strategic goal of organisations within transitional economies because its advancement of the arbitrage activities takes the form of speculation, risk taking, adaptive innovation, imitation and planning and management efforts and progresses to identify profit opportunities and exploit narrow profit margins. Entrepreneurship is described by Morrison (2000) in the light of

cultural phenomena whereby the non-cultural and contextual factors play a significant role in the entrepreneurial behaviour and, consequently, entrepreneurial action. She demonstrates that the entrepreneurial culture is attuned to the needs of the changing market economy and receptive to the alterations in demands, innovations, products, opportunities and technologies, which incorporate a highly personalised aspect of entrepreneurial activity.

A context is rather important for the role of entrepreneurship in the economic field. Since it shapes the structure of a strategy and performance of a firm, it influences national and regional capabilities through the (i) formation and transmission of social capital with its boundaries and (ii) regional knowledge spillovers which tend to be localised within geographic proximity due to small-firm networks, clusters and linkages in the organisational structures (Karlsson & Dahlberg 2003). Although contextual and cultural environment pose challenges to identification of appropriate entrepreneurial strategy, the appearance of institutions which facilitate entrepreneurial initiatives could lead to altering contextual directions and, consequently, environments that could foster entrepreneurial behaviour. If entrepreneurship is one of the pillars to local and regional development aided by enterprises creation, the similar effects must occur with the growing firm, which create jobs, increases productivity and raises incomes. Entrepreneurship must then be seen within the enterprise start-up context, as well as their growth process. Their growth may be the source of even more entrepreneurial opportunities created by positive spillovers that form spin-offs and which can contribute for the region development (Durante 2004).

Gomez-Haro et al. (2011) assert to a normative and cognitive dimension of institutional environment that could influence particular organisation's entrepreneurial orientation and, additionally, to a regulatory dimension on the direction and type of a corporate entrepreneurial activity. The regulatory dimension hereby refers to "laws and policies that support new business activity and reduce management efforts towards entrepreneurship". In their opinion entrepreneurship, its environment and institutions form an integral factor determining the competitive capacity of a country. The term corporate entrepreneurship is used to describe creation of new business units or renewal within the organisation which is in line with Sharma and Chrisman's definition (1999). Nonetheless, Gomez-Haro et al. (2011) do not neglect the role of education for the entrepreneurial process. Their study explains that the low level of entrepreneurship in Spain are attributed to: (1) entrepreneurship not being socially prestigious as in other developed countries, (2) ignorance relating to entrepreneurship and management and (3) regulation in some industries which prevents innovative behaviour (Capellares et al. 2008; Valdaliso-Gago 2005). Similar limitations to entrepreneurial behaviour could be attributed to the Croatian economy originating from the similar socio-economic environmental attributes evident in: a high unemployment rate, a high portion of youth unemployment, recession, and regulation preventing innovative behaviour, a negative perception of entrepreneurs as profit seeking rather than economy enhancing and developing individuals. Hence, the necessity of accentuated roles of small firms with a high degree of flexibility and speed attributable to their small overheads, machinery and personnel costs and the opportunity cost of shifting to other sectors. These firms could use the strategy of seeking opportunities created by high profit margins, exploit it, make profits and then leave the market to be developed by bigger firms. Moreover, a region could boost its economic value by supporting its creative and technologically dynamic, high-value added firms. A set of interrelated types of creativity increases such as technological (innovation), economic (entrepreneurship), artistic and cultural creativities could be used to increase the economic growth whose efficiency is tied to regional or national boundaries (Florida 2002). Regional or national boundaries are the locus of economic activity through their socio-economic, cultural and institutional environment that can either promote or inhibit entrepreneurial behaviour. Hence, a territory has an active role in an economic development process through a setting of local productive systems, productive linkages and interactions which could result in external economies and collective efficiency (Garofoli 2002).

With respect to the regional development Mawson's paper (2010) furthers the opinion on the role of institutions. He accentuates the awareness of the necessary policy choices for development of a social enterprise. Valuation of the network structure in the emerging post-Fordist era is set upon the role of social enterprise as a facilitator of re-entry of socially excluded into employment and empowering deprived communities. A social enterprise is hereby challenged by the role of reinvestment in the business or community rather than by profit delivery. Although the criticism is given to social enterprises' low quality and a modest job creation (Amin et al. 2002), the their increase could benefit local organisational capacity and leadership which is often challenged in deprived communities. Thus, the importance of the role of: (1) a proactive organisation which can change competitive conditions instead of adapting to current ones and which is able to seize market opportunities and adapt in a quick and creative manners to new market conditions; and (2) a leading organisation within an industry which has the power to transform industry's institutional context (Gomez-Haro et al. 2011).

Since the notion of economic development is accompanied by the process of structural change, the accumulation of physical and human capital and shifts in the sector composition of economic activity are regarded as the transformations' core components, with the related changes including: urbanisation, demographic transition and the rise in the level of education and distribution of income (Wennekers et al. 2005). Some theories link agglomeration or co-location activities as those that are beneficial for regional development and the others accentuate the role of human capital theory which rests on a highly educated and productive people measured by the level of education (Florida 2002). By forming the "creative capital" theory, Florida (2002) argues that places with talented people grow faster than others. His findings are supported by measures such as thickness of the labour market, diversity and the quality of place. The theory states that technology, talent and tolerance enhance innovation and economic growth and in order for a region to grow, it must incorporate all of the three aspects and establish a multi-dimensional creative community. There exist several levels of transition which include a factor-driven stage, an investment driven change and a technology generated economy. Hence, the importance of tailoring the appropriate policy tool for the regional development of Croatia's economy. In order to identify environmental and contextual factors framing entrepreneurial and regional development, policymakers must gain a full understanding of their factors and characteristics. The illustration of entrepreneurial indicators shall be portrayed within this notion and in order to clarify the state of entrepreneurial development and its respective regional imbalances in the Republic of Croatia. This illustration could serve as a reference point for policymakers, while its added value within the international European Union context should demonstrate Croatia's position within the European Union and its preference or indifference to certain policy choices. The next part shall describe the role of the European Union's policies in raising the level of entrepreneurship with the aim of demonstrating possible tools to be used in conjunction with the country's structural patterns depicted in the subsequent sections.

European Union's framework for regional development

European Union is pursuing a strong accent on a regional policy parallel with the growth and enlargement of the European Union. Disparities between European countries were evident since 1950's when the European Coal and Steel Community began to economically and politically unite European countries in order to secure a lasting peace. Since these disparities might have resulted with regional instabilities and in order to ensure sustainable growth and development of regions, leaders decided to pursue the regional convergence policies. Ever since the Treaty of Rome (1957) one of the main tasks of the Community has been to promote a "harmonious development of economic activities". In the years following the Treaty of Rome the accent put on the regional policy has not been lost. On the contrary, with the first enlargement rose the idea of Regional Development Fond. In 1975 the first European Regional Development Fund was created. Further enlargement of the European Union resulted with transformation of Structural Funds into a cohesion policy, which concentrated

on the most backward regions, multi-annual programming, strategic orientation to investments and involvement of regional and local partners. The 1986 Single Act had an additional objective of "the internal market" which was to be completed by 1993 and included an abolition of obstacles for the free circulation of goods, people, services and capital. In 1993 the Maastricht Treaty introduced three novelties: the Cohesion Fund, the Committee of the Regions, the principle of subsidiary, while the "Lisbon Strategy" (2000) shifted the EU's priorities towards growth, jobs and innovation. The priorities of cohesion policy were altered to reflect this prioritisation. Over the past sixty years the common goal of all these Treaties and Acts was to equalise the existing disparities.

These financial funds serve as an instrument of financial solidarity and a powerful force for economic integration which intention is to minimise regional differences and close the gap between less and more developed regions (Assembly of European Regions, 2010). Regional policy spending is channelled using three financial instruments called Structural Funds. These include: (1) the European Regional Development Fund (ERDF), (2) the European Social Fund (ESF) and (3) the Cohesion Fund. Their objective is to instigate convergence, regional competitiveness, employment and finally European territorial cooperation. Convergence hereby refers to the allocation of over 80% of the cohesion policy budget to the regions where GDP per capita is lower than 75% of the European Union average to be used for boosting of economic growth, transport and various infrastructural projects. A total of 100 regions (170 million people) receive funding under the Convergence objective. The most of the converging regions joined the European Union after 2004 and are to be found in the Central and Eastern Europe. Additionally, they include Greece, Portugal, Spain and southern Italy. Regional Competitiveness and Employment fund includes about 16% of the budget used among 170 regions which do not qualify for support under the Convergence objective and which are used to co-finance innovation and entrepreneurship, environment protection, transport linkage improvement, workforce adaptation and human resources investment. European Territorial Cooperation uses the remaining 2.5% of the cohesion fund's budget in order to promote cooperation among regions in different member states by means of joint projects and exchanges of experience.

Proclamating OECD's statement (2003) saying that "As means of generating jobs and raising incomes, increasing rates of enterprise creation is an almost universal concern among local authorities. Along with efforts to attract investment, stimulating entrepreneurship is one of the two pillars of most local and regional development strategies" (OECD 2003), a significant part of the EU budget is directed toward various types of organisations such as companies, public bodies, universities and NGOs, situated mainly in its member states. This financial aid packages are structured in five categories: Pre-Accession Assistance, External Assistance, Regional Assistance, Natural Resources and Community Programmes. For the purpose of this chapter, the most important of the named five structures is the Regional Assistance fund. More than a third of the budget of the European Union is devoted to the regional development and economic and social cohesion through a series of European funds. Instruments of the European Union's cohesion policy are European Regional Development Fund (ERDF), European Social Fund (ESF) and the Cohesion Fund. Although Croatia is still not a member of the European Union, it is eligible to receive financial support for the required reforms. Since it became the European Union candidate country, Croatia was allowed to access financial aid mostly in the form of Pre-accession Assistance. Funds such as CARDS, PHARE, ISPA, SAPARD, and, nowadays, IPA were used before that period.

European economists analysed local and regional development processes (MacKinnon et al. 2002) and differentiated the innovative milieu required for this new knowledge-driven economy from industrial districts. The innovative milieu was characterised by collective learning, cooperation and the transfer of knowledge which could result in an innovative synergy rather than a simple interaction (Capello 1999). SMEs are a critical component within these contexts. Their small size enables them to be flexible and adaptive, to innovatively diversify and to reduce production costs (Raymond & Blili 2001). Many

governments are recognising the critical role SMEs have for their regions and are implementing strategies to facilitate SME development.

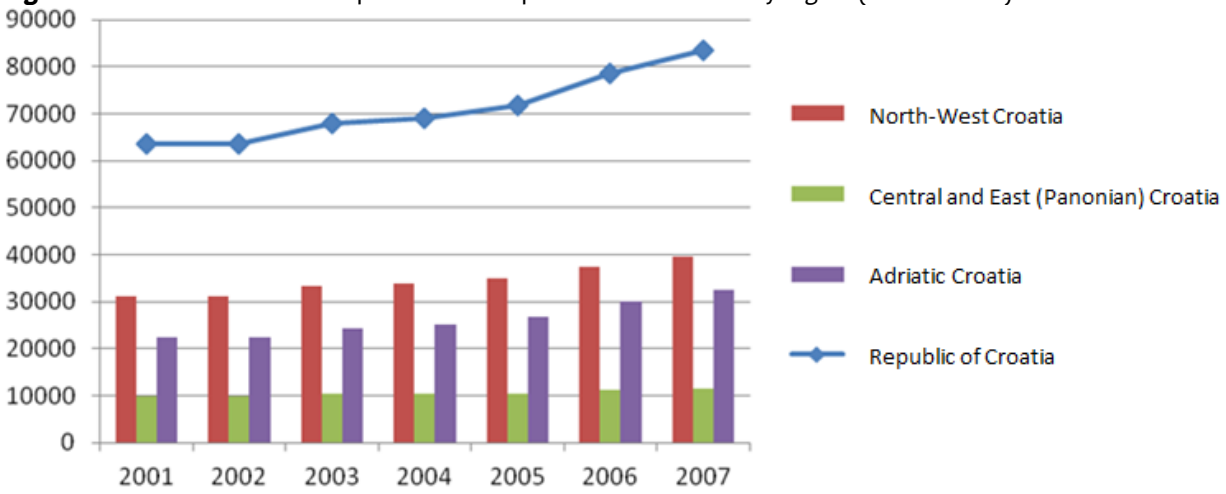
Moreover, decentralisation is part of a historical heritage of the European Union. Its urban network is relatively dense with only a few very large cities. Only 7% of the population lives in cities of more than 5 million inhabitants compared with 25% of the population in the USA. Besides, only five European Union cities appear among the 100 largest cities in the world. It could be stated that this kind of settlement pattern increases the quality of life in the European Union (European Commission 2008). However, regional policy receives its true meaning when observing the pattern of economic activity, which is far more uneven than the settlement pattern. There are economic gains from the concentration of economic activity, such as increasing returns from agglomeration and clustering of particular activities in specific locations, including a wide availability of health care services and relatively easy access to higher education institutions and training facilities. On the other hand, there are diseconomies coming from congestion, while a number of inner city areas face acute problems of urban decay and social exclusion. The next section portrays the regional development in Croatia with respect to the entrepreneurship indicators. It shows if decentralisation as a regional policy is followed upon within this transitional country and whether there exist room for entrepreneurship enhancement with respect to the given notions of regional development and entrepreneurship within the European Union.

Regional development of Croatia according to the NUTS II regions

The data obtained from the Financial Agency for the period 2001 to 2007 were used for the purpose of this analysis and classified in accordance with the classification of the NUTS II regions. There are three NUTS II regions in the Republic of Croatia accounting between 800 000 and 3 million inhabitants: the Adriatic Croatia, the Central and East (Pannonian) Croatia and the North-West Croatia. It is necessary to state that all indicators are derived from companies' headquarters, i.e. from all tax payers in the Republic of Croatia, according to their number, size, exports and imports with respect to NUTS II classification as a prerequisite of successful usage of the European Union's institutional framework. The analysis includes the number of enterprises, their size and the number of employed in the Republic of Croatia within privatised and non-privatised companies. Some companies operate in the area beyond the boundaries of their headquarters and their main activity. The criteria for classification of businesses by size were changed in 2006 in accordance with the Accounting Act of 2005. These changes caused some changes favourable for the portion of small businesses in the total number of entrepreneurs. The number of some groups was changed in order to increase the number of SMEs and reduce the number of big companies. Information on small business growth, employment growth and financial results are collected by the Agency using their financial statements and for the purpose of analysis of the period 2001 – 2007.

In the period from 2001 - 2007 the number of enterprises in Croatia had increased from 63 561 in 2001 to 83 532 in 2007, which corresponds to an increase of 31.42%. During this same period the number of employed (Figure 1) had also increased from 735 912 in 2001 to 921 951 in 2007 year, which corresponds to an increase of 25.28%. If the analysis illustrates the number of enterprises by region, a positive trend is evident in all three Croatian regions. Adriatic Croatia had experienced the most dynamic growth if observing the number of enterprises (the rise of 22 488 enterprises in 2001 to 32 465 in 2007 which corresponds to an increase of 44.37%) which is followed by the dynamic growth in the number of employed in these companies (the rise of 29.28%) in the same period. Central and East (Pannonian) Croatia had also recorded a positive trend in the number of enterprises. However, its growth tends to be more static; ranging from 9 958 enterprises in 2001 up to 11 517 enterprises in 2007 which illustrates an increase of 15.66% in the given period. North-West Croatia had portrayed a growth in the number of enterprises throughout the observed period with the largest number of enterprises located precisely in this region (39 550 entrepreneurs in 2007).

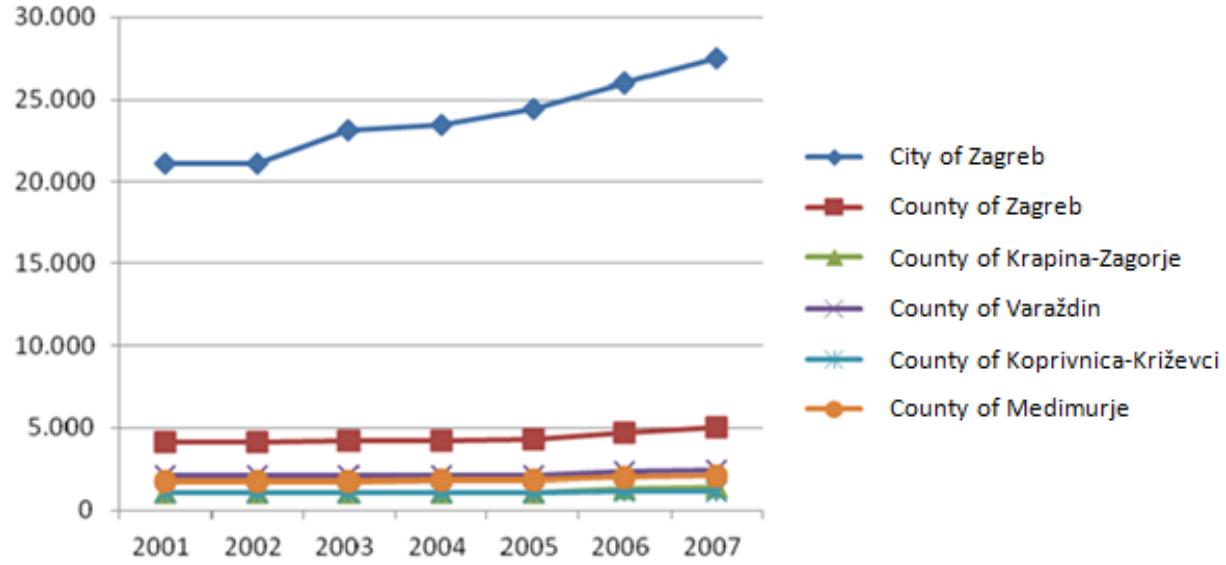
Figure 1 Number of enterprises in the Republic of Croatia and by region (2001 - 2007)



Source: FINA, Authors calculation

Figure 2 shows the existence of the trend in the number of enterprises and employed by county in the period 2001-2007 in the North-West Croatia. The City of Zagreb shows the largest number of enterprises compared to all other counties where an increase in the number of enterprises is approximately 30% for the period. The County of Zagreb also illustrates the above average number of enterprises. Namely, in 2007 it had recorded 4 970 enterprises, while the remaining four counties' number of enterprises ranged from 1 000 to 2 500. The county of Koprivnica-Križevci had registered the smallest increase in the number of enterprises, amounting to 12.39%. Moreover, if the number of employed is taken into account, the difference between the City of Zagreb and all of the remaining counties of the region is even more proclaimed.

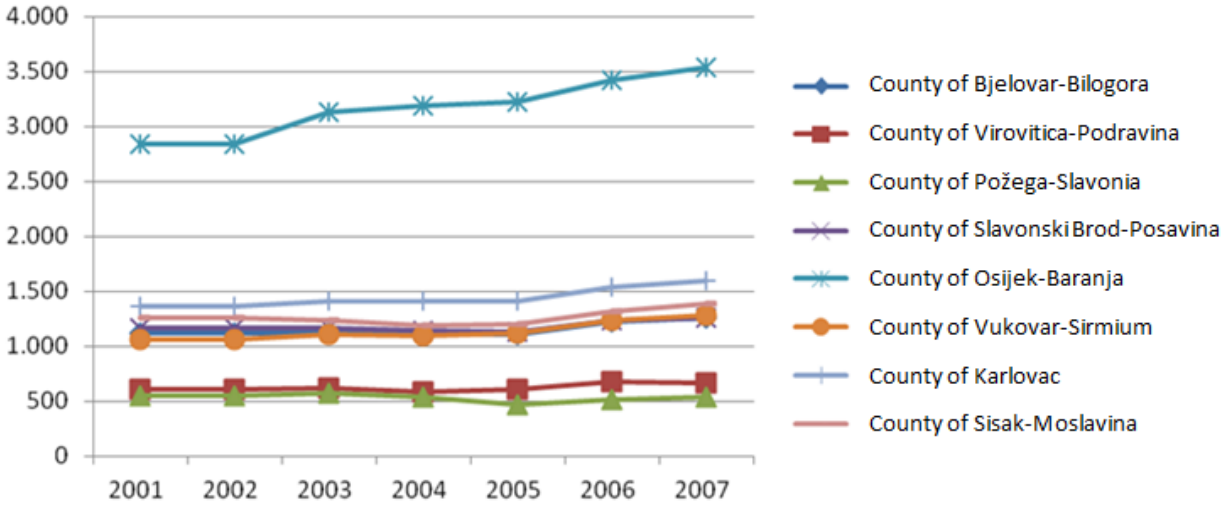
Figure 2 Number of enterprises in the North-West Croatia (2001- 2007)



Source: FINA, Authors calculation

Figure 3 illustrates the trends in the number of enterprises in the period of 2001-2007 in the Central and East (Pannonian) Croatia. The County of Osijek-Baranja has the highest number of enterprises with the recorded growth from 2 839 enterprises in 2001 to 3535 in 2007. Other counties had also undergone a positive trend in the number of enterprises but their increase appears not to be highly significant. The smallest number of enterprises in this region is situated in the County of Požega-Slavonia which is the only county in Croatia that had recorded a negative rate in the number of enterprises. There is a 1% fall in the number of enterprises in the period 2001-2007. The biggest change in index for the period 2007-2001 is recorded for the County of Osijek-Baranja (124.52); i.e. the increase in the number of enterprises of 24.52%.

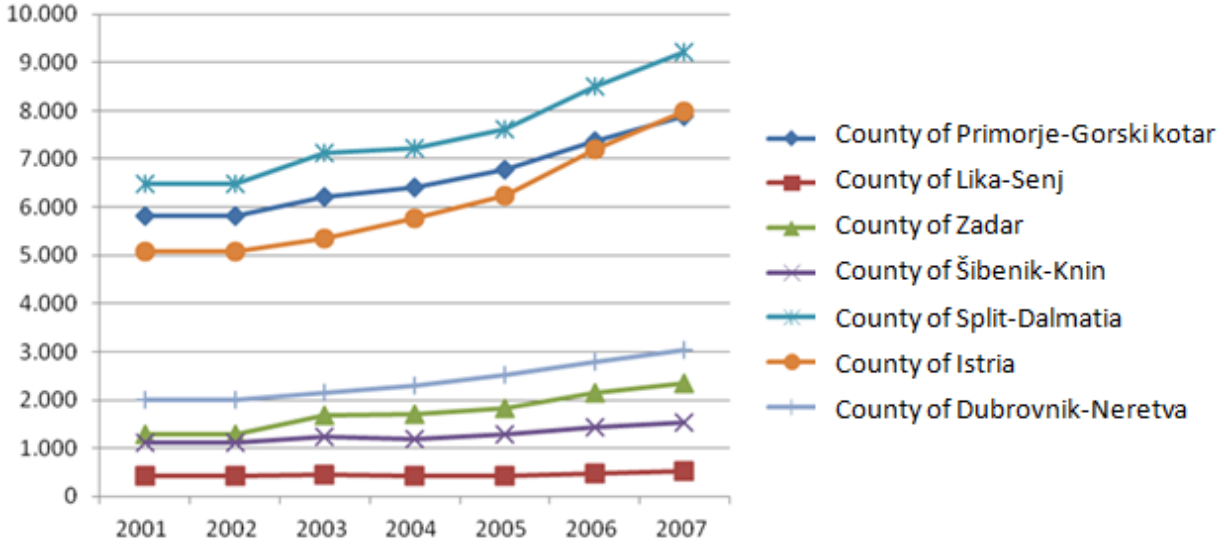
Figure 3 Number of enterprises in the Central and East (Pannonian) Croatia (2001 to 2007)



Source: FINA, Authors calculation

Figure 4 shows the trends in the number for enterprises of the Adriatic Croatia in the period 2001-2007. The region was subject to a dynamic growth in the number of enterprises. The highest number of enterprises was shown in the County of Split-Dalmatia and it experienced a constant growth during the observed period. Besides the County of Split-Dalmatia, the County of Primorje-Gorski kotar and the County of Istria had also shown a positive growth trends in this NUTS II region. At the same time, the County of Dubrovnik-Neretva, the County of Šibenik-Knin, the County of Zadar had suffered a significant reduction in the number of enterprises while the County of Lika-Senj stagnated in that period (2001-2007). The data on stagnation of the County of Lika-Senj could be explained by their small population; i.e. it is the least populated county in Croatia. It is valuable to emphasise that the County of Zadar had the most dynamic rate of growth regarding the number of enterprises corresponding to the 82.42% of the Croatian level.

Figure 4 Number of enterprises in the Adriatic Croatia (2001 to 2007)



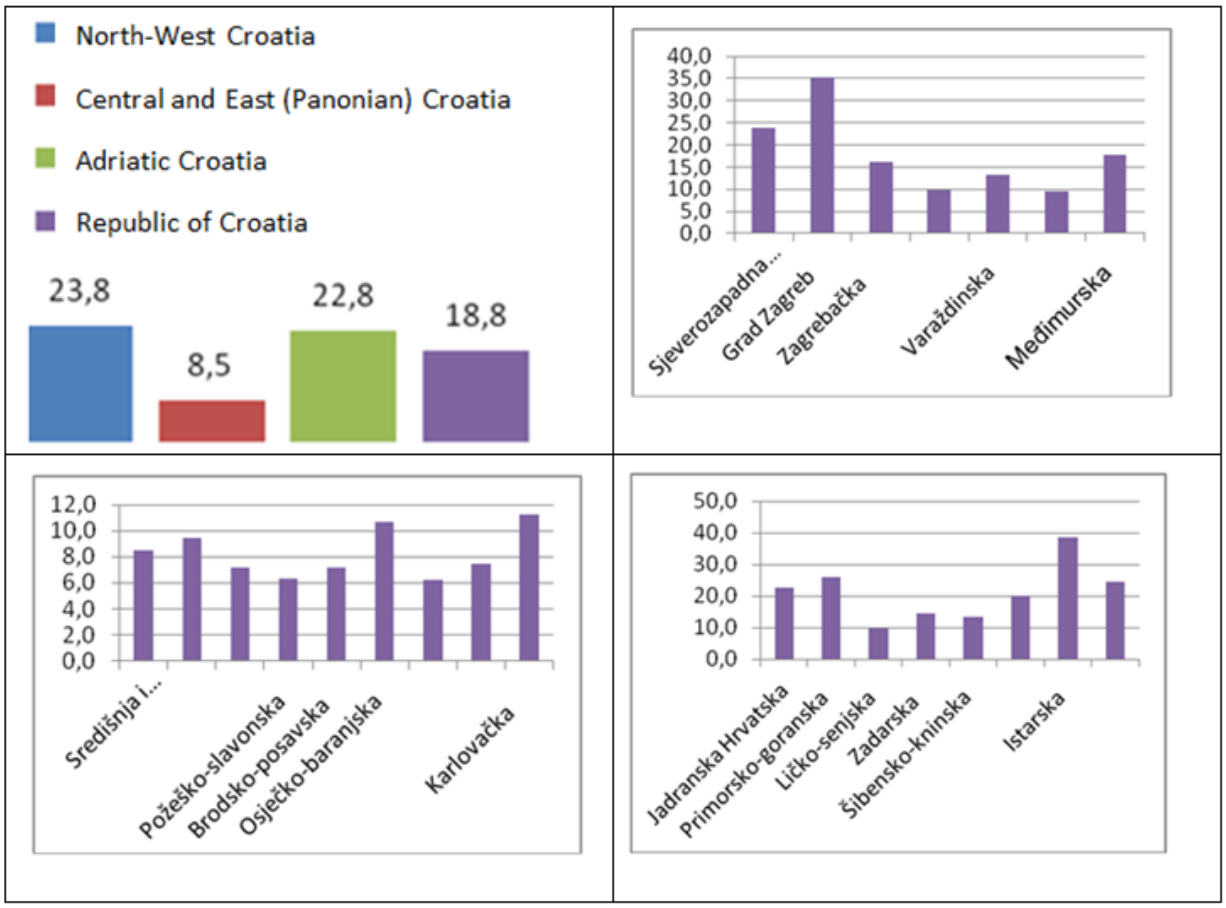
Source: FINA, Authors calculation

Figure 5 illustrates the number of enterprises per thousand inhabitants by region in the Republic of Croatia. North-West Croatia had 23.8 enterprises per 1 000 inhabitants in 2007. which is more than the average of the Republic of Croatia (18.8 enterprises per 1 000 inhabitants). The Adriatic Croatia had 22.8 enterprises per 1 000 inhabitants while the Central and Eastern (Pannonian) Croatia have 8.5 enterprises per 1 000 inhabitants.

When asserting to specific counties in the North-West Croatia, the City Zagreb had 35.3 enterprises per 1 000 inhabitants, the County of Zagreb 16 enterprises per 1 000 inhabitants, and the County of Međimurje 17.8 per 1 000 inhabitants. The smallest number of enterprises per 1 000 inhabitants was evident in the County of Koprivnica-Križevci and the County of Krapina-Zagorje which had 9.5 enterprises per 1 000 inhabitants.

Central and Eastern (Pannonian) Croatia had between 6.3 to 11.2 enterprises per 1 000 inhabitants. The largest number of enterprises, namely 11.2, was listed in the County of Karlovac, followed by the County of Osijek-Baranja with 10.7 enterprises per 1 000 inhabitants. The County of Vukovar-Sirmium and the County of Požega-Slavonia had the least enterprises per 1 000 inhabitants, i.e. 6.3.

Figure 5 Number of enterprises per thousand (population) by region and in the Republic of Croatia

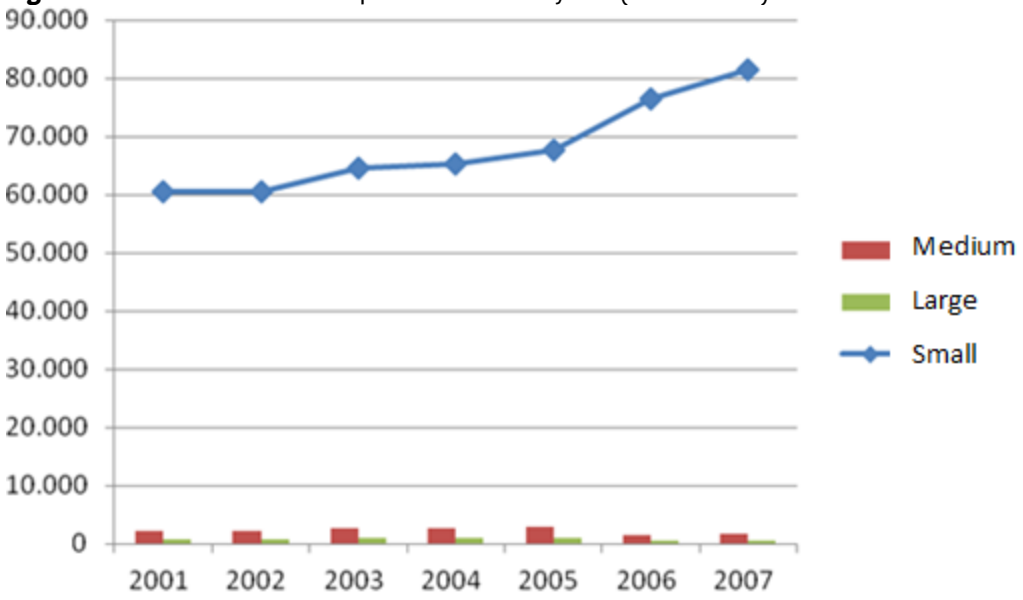


Source: FINA, Authors calculation

In the Adriatic Croatia, the County of Istria had the greatest number of enterprises per 1 000 inhabitants, specifically 38.7 enterprises per 1 000 inhabitants, recording the highest number in the Republic of Croatia. It is followed by the County of Primorje-Gorski kotar with 25.8 and the County of Dubrovnik-Neretva with 24.7 enterprises per 1 000 inhabitants, which record slightly aboveaverage number of enterprises per 1 000 inhabitants in the North-West Croatia (9.7). The least enterprises per 1 000 inhabitants was documented in the County of Lika-Senj.

Figure 6 shows the number of enterprises in Croatia by size (small, medium and large enterprises) for the period 2001-2007. It can be seen that the highest portion belongs to small enterprises, namely 81 467 out of 83 532 enterprises in Croatia in 2007. This trend is typical for the entire period of 2001-2007. A reduction in the number of enterprises is evident for the medium-sized and large enterprises where a decrease in the number of large enterprises ranged from 720 in 2001 to 475 in 2007. There are no major differences in the counties regarding the distribution of enterprises by size; hence, the lack of the analysis and illustration herein.

Figure 6 Number of enterprises in Croatia by size (2001- 2007)



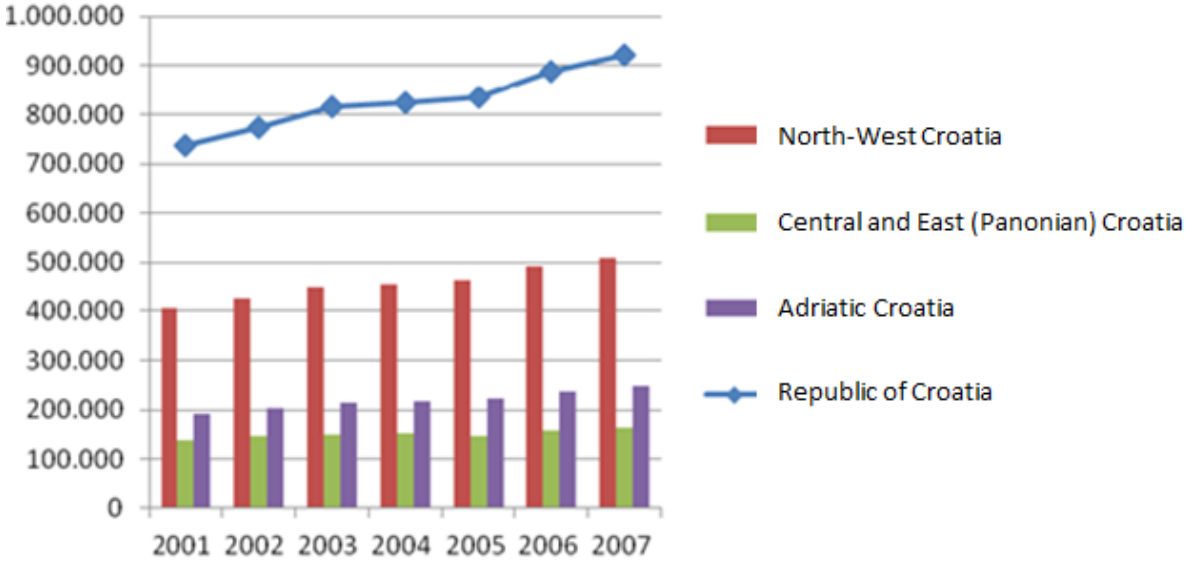
Source: FINA, Authors calculation

Number of employed in enterprises by counties and regions

Figure 7 shows the change in the number of employed in entrepreneurship for the period 2001-2007. A trend of a rapid increase in the number of employed can be seen. A positive trend is evident in all of the three regions stressing the number of employed in the North-West Croatia. This fact corresponds to a notion that almost half of the employed are situated in the City of Zagreb and the County of Zagreb.

Adriatic Croatia registers a dynamic growth in the number of employed (from 192 700 in 2001 to 249 115 in 2007). Stagnating, but slightly positive growth is registered in the Central and East (Pannonian) Croatia where the number of employed increased for 18.08% (from 138 204 employed in 2001 to 163 185 in 2007).

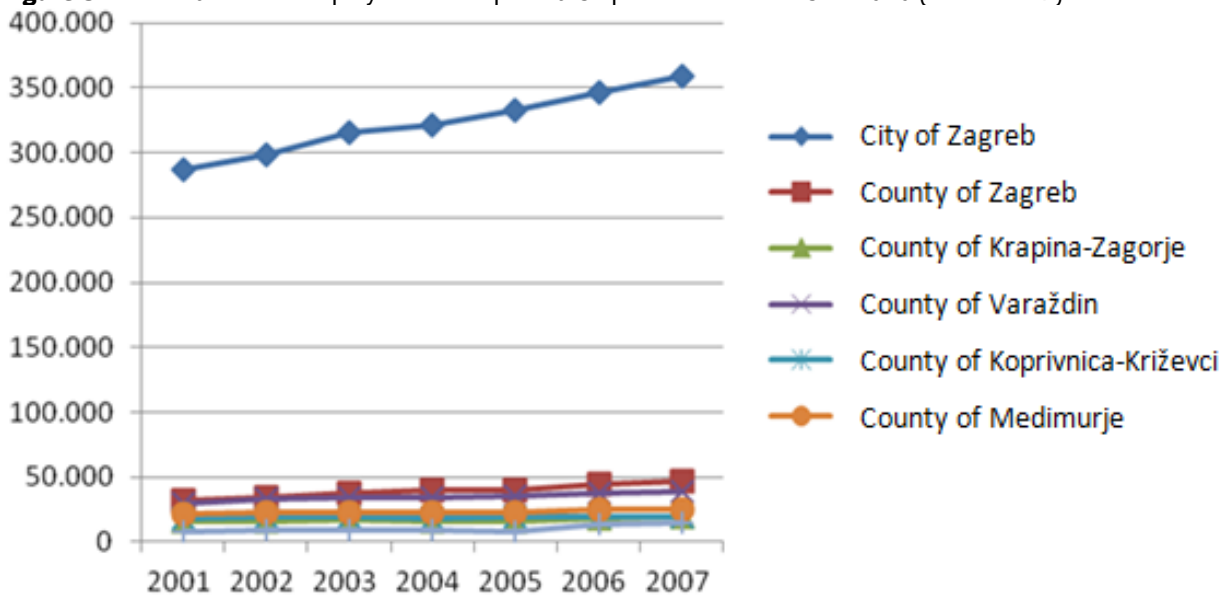
Figure 7 Number of employed in entrepreneurship by region in the Republic of Croatia (2001- 2007)



Source: FINA, Authors calculation

Figure 8 portrays the number of employed by counties in the North-West Croatia. In 2007 the City of Zagreb employed 359 080 people, the County of Krapina-Zagorje had the smallest number of employed (19 127), while the County of Koprivnica-Križevci registered the smallest increase in the number of employed in the given period (10.74%). Number of employed in entrepreneurship in the remaining 5 counties (individually) did not exceed 50,000 employees.

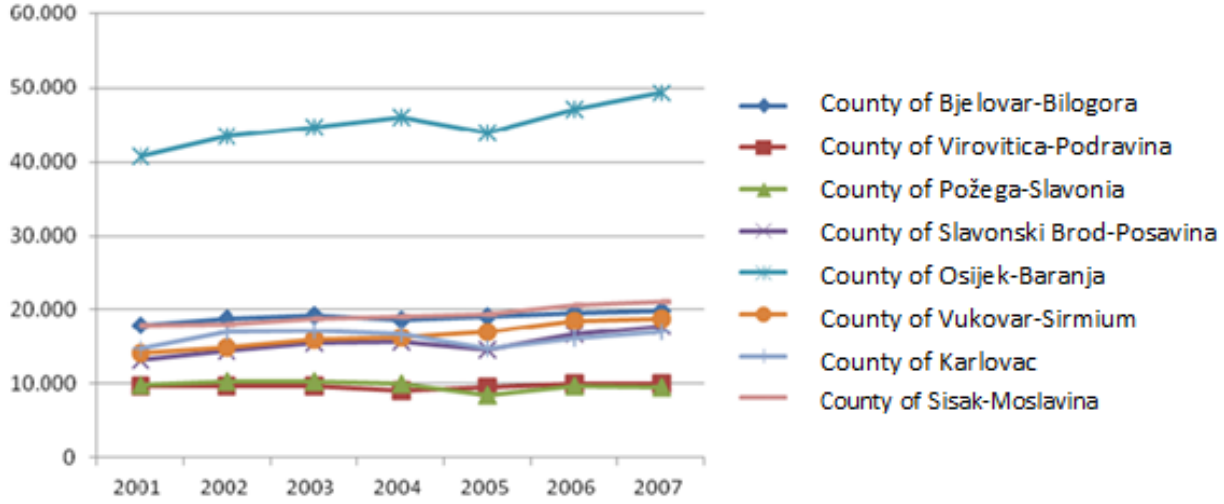
Figure 8: Number of employed in entrepreneurship in the North-West Croatia (2001-2007)



Source: FINA, Authors calculation

Number of employed in the Central and East (Pannonian) Croatia had also registered a positive trend (Figure 9). According to this factor the County of Osijek-Baranja had the highest number employed of the remaining counties in the region. It had experienced an increase in the number of employed from 40 724 in 2001 to 49 205 in 2007. The highest index of change in the number of employed was registered in the County of Slavonski Brod-Posavina, with an increase in the number of employed of 34.39%, while a downward trend in the number of employed is given in the County of Požega-Slavonia (93.42) corresponding to a fall of about -3%.

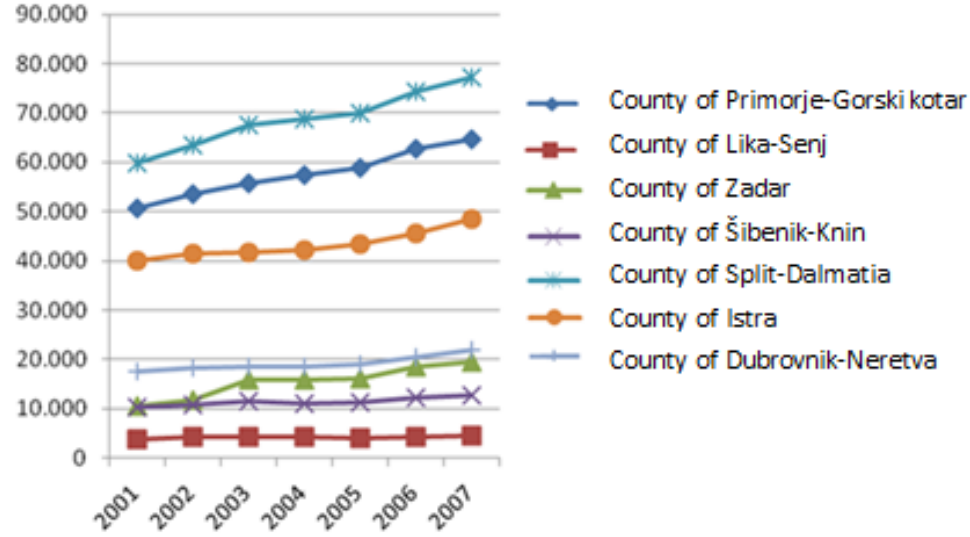
Figure 9 Number of employed in entrepreneurship in the Central and East (Pannonian) Croatia (2001-2007)



Source: FINA, Authors calculation

Figure 10 shows a trend in the number of employed in the Adriatic Croatia during the period 2001-2007. Once again a strong accent is put on the three counties: the County of Split-Dalmatia, the County of Primorje-Gorski kotar and the County of Istria. In these counties the number of employed ranged from 40 000-78 000. The County of Lika-Senj had registered a stagnation because the number of employed increased for only about 14%, while the number of employed in the County of Zadar increased for about 86.5%.

Figure 10 Number of employed in entrepreneurship in the Adriatic Croatia (2001 to 2007)



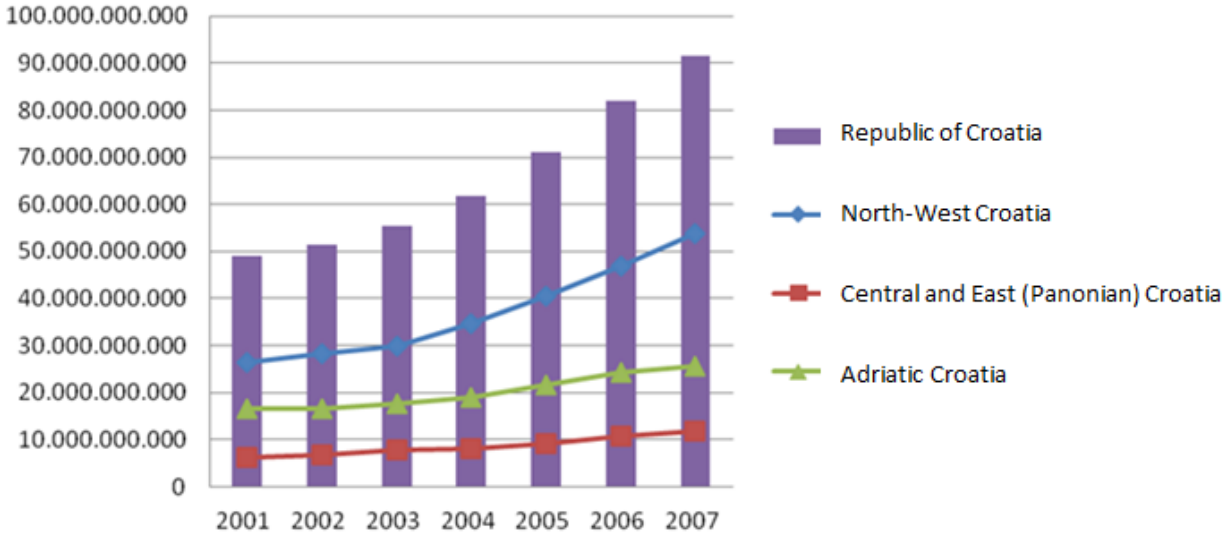
Source: FINA, Authors calculation

Export-import in entrepreneurial activities by NUTS II regions and corresponding counties

In this subsection it the import and export made by NUTS II regions and their belonging counties will be analysed with a stress on imports by exports coverage.

Figure 11 shows the export from the Republic of Croatia and NUTS II regions in the period 2001 to 2007. It is clear that export in the observed period increased at the national level as well as in all three regions. The export from North-West Croatia is the largest contributor to the growth of export for the country in general. On the other hand export from the Adriatic and Central and East (Pannonian) Croatia is rising more slowly, and at equal pace, in which the Central and East (Pannonian) Croatia lags considerably behind.

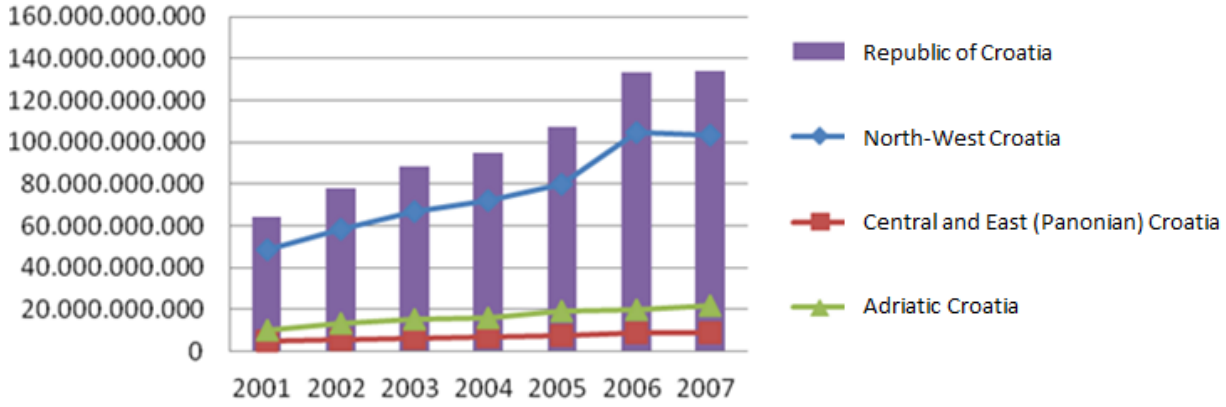
Figure 11 Export from the Republic of Croatia and NUTS II regions (2001 - 2007)



Source: FINA, Authors calculation

Figure 12 shows imports to the Republic of Croatia and NUTS II regions. It is evident that imports and exports at the national levels had experiences the rapid growth. However, after 2006 stagnation had occurred and a slight decline happened in 2007. The North-West Croatia contributes greatly to the rapid growth of imports at the national level, while the Adriatic and the Central and East (Pannonian) Croatia follow the same trend of slow growth, and are lagging far behind.

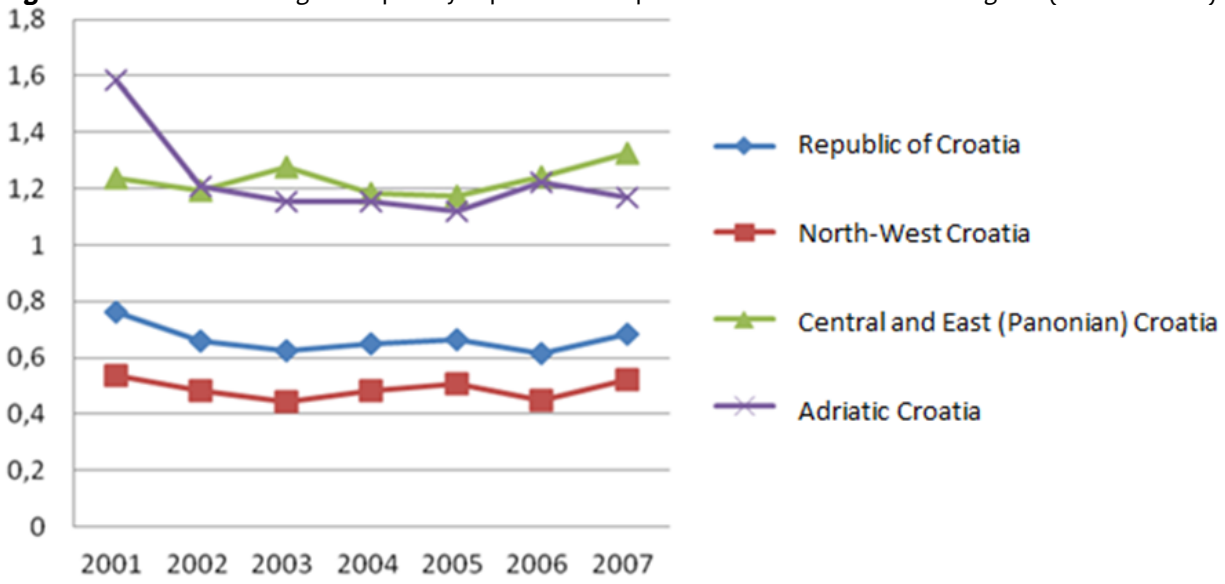
Figure 12 Imports into the Republic of Croatia and NUTS II regions (2001 -2007)



Source: FINA, Authors calculation

Figure 1.13 illustrates the coverage of imports by exports in the Republic of Croatia and in the NUTS II regions. It is clear that throughout the observed period more is imported than exported for the entire Republic of Croatia. Each year the differences between imports and exports had been more expressive. In 2006 the gap between imports and exports is the greatest because exports had been growing more slowly than imports and export-to-import ratio had decreased. However, in the observed period the North-West Croatia mainly contributes to the poor coverage of imports by exports at the national level, where exist considerably greater imports than exports. On the other hand, export-to-import ratio in the Adriatic and the Central and East (Pannonian) Croatia is at much higher level and ranges from 1.1 to 1.6. In other words, the Adriatic and Central and East (Pannonian) Croatia import less but still these small amounts of imports are fully covered by exports.

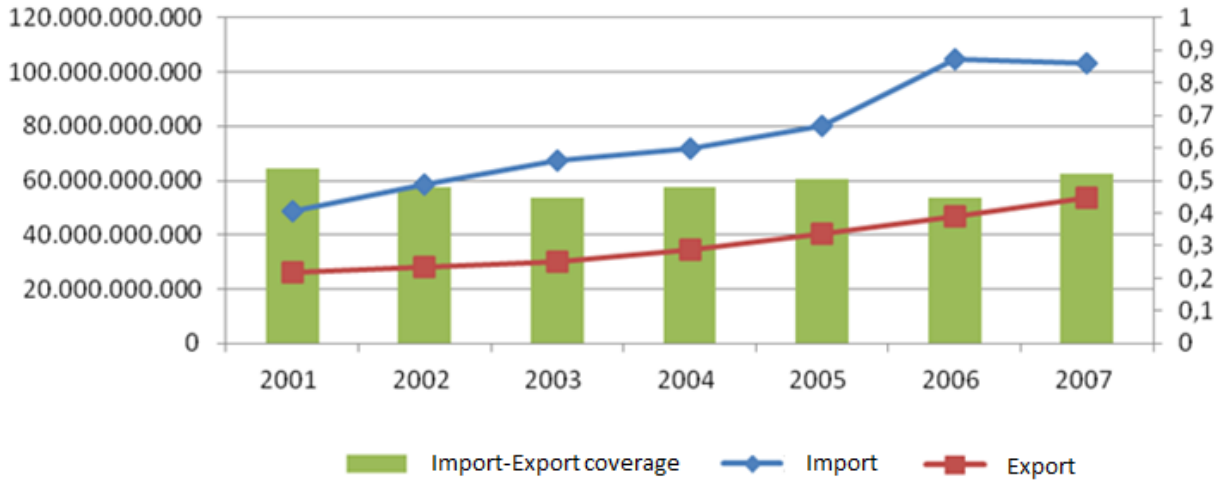
Figure 13 The coverage of import by export in the Republic of Croatia and NUTS II regions (2001 to 2007)



Source: FINA, Authors calculation

Figure 14 portrays the trend of imports and exports of entrepreneurs registered in the North-West Croatia for the period 2001 to 2007. The North-West Croatia excels by imports compared to the other two regions that are stable and with no dynamic oscillations in the growth of imports in the observed period (2001-2007). Regarding exports, the North-West Croatia is characterised by the dynamic trend of export growth, but exports are still at a much lower level compared to imports. On the Figure 1.16 the columns show the coverage of imports by exports with the benchmark for this indicator on the right hand side. It is evident that the export-import ratio for the entire observed period is less than 1 and ranges from 0.45 to 0.55. In other words, the North-West Croatia imports a great deal but at the same time exports half all of the imported amounts.

Figure 14 Import-to-export of entrepreneurs registered in the North-West Croatia (2001 to 2007)



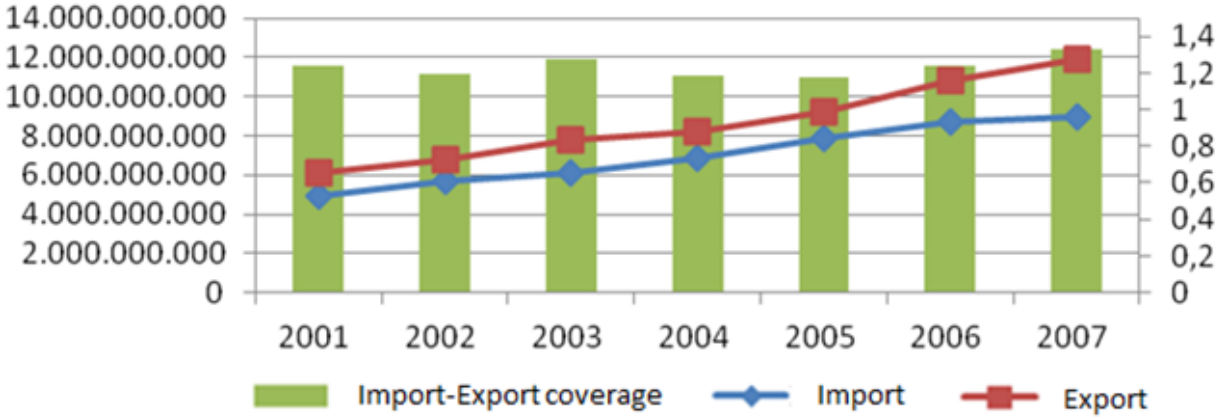
Source: FINA, Authors calculation

If we observe the level of import-to-export coverage for the individual counties of the North-West Croatia, it can be noticed that the poor coverage excels specifically in the City of Zagreb and the County of Zagreb. Until 2004 the other counties had also had the import-to-export coverage less than 1 but after 2004 it had oscillated around the approximate coverage of imports by exports.

Looking at the sizes of entrepreneurs (micro, small, medium and large) in the counties of the North-West Croatia, it is obvious that in one part of counties there are no differences (the City of Zagreb, the County of Zagreb, the County of Krapina-Zagorje). However, there are considerable differences in the coverage of import by export in other counties. A better coverage of imports by exports generate large, micro and medium entrepreneurs in the County of Koprivnica-Križevci, while in the County of Varaždin only large entrepreneurs generate better coverage of imports by exports, while in the County of Međimurje large and micro entrepreneurs jointly and equally participate in these activities.

The City of Zagreb recorded a deficit in a foreign trade in 2007. In 2007 the total Croatian exports were significantly higher than imports whereas the City of Zagreb had the single largest share in both exports and imports. Croatian Bureau of Statistics states that about 36% of the total Croatian merchandise export in 2007 and almost 58% of total import could be attributed to the City of Zagreb. This means that Zagreb's trade deficit accounted for 77.7% of the total Croatian trade deficit with foreign countries in 2007. The County of Zagreb registered a negative balance of foreign trade although exports increased significantly; hence, according to the indicators the deficit was based on high imports. In comparison to 2004, in 2007 the County of Krapina-Zagorje' imports were covered by exports with the remark that the minimum negative balance was attributed to the small and medium-sized entrepreneurs, although they had the largest increase in exports. The County of Krapina-Zagorje had also achieved a significant increase in exports amounting to 66.9% during the observed period. The main feature of the foreign exchange of the County of Međimurje is a significantly faster growth of exports than imports in 2007 which is especially pronounced in medium-sized enterprises. Among the three regions the Central and East (Pannonian) Croatia depicts the weakest results. Although enterprises in the Central and East Croatia are in absolute terms the smallest exporters, they are also the smallest importers (Figure 15). The coverage of imports by exports throughout the observed period is higher than 1.

Figure 15 Import-export coverage of the Central and East (Pannonian) Croatia (2001 - 2007)



Source: FINA, Authors calculation

From 2001 in the Central and East (Pannonian) Croatia, there is a steady increase in exports and imports. All counties except the County of Vukovar-Sirmium achieved a surplus in foreign trade.

Although almost all counties except the County of Bjelovar-Bilogora achieved full coverage of imports by exports throughout the observed period, the indicator decreased to a minimum value in 2005 but it slightly increased in 2007. In 2007 import to export coverage for all Croatian counties levelled and ranged between 1 and 2.

When looking at the coverage of imports by exports by the size of entrepreneurs in the Central and East (Pannonian) Croatia counties, it is evident that in all counties this indicator is different for different groups of enterprises. Medium-sized enterprises had the highest ratio of the coverage of imports by exports in the County of Bjelovar-Bilogora, the County of Virovitica-Podravina and the County of Slavonski Brod-Posavina. On the other hand, large enterprises had the highest ratio in the County of Požega-Slavonia, the County of Osijek-Baranja, the County of Vukovar-Sirmium and the County of Sisak-Moslavina.

The County of Virovitica-Podravina exhibited a continuous surplus in foreign trade. A remarkable trend in exports was achieved by medium and large enterprises although in the observed period all categories of enterprises had greater exports than imports. The County of Virovitica-Podravina is the greatest exporter after the County of Varaždin. The results would certainly have been better if primarily poor traffic, especially road connections to other parts of the Croatia, were resolved. In 2007 the total income of enterprises in the County of Virovitica-Podravina was 8.2% higher than in the previous year while the simultaneous increase in the total expenditure was 8.8% higher which resulted in the realisation of the positive difference between total revenue and total expenditure in the County of Virovitica-Podravina in the amount of about 17.8 million EUR (in 2006 difference amounted approximately 19.4 million EUR).

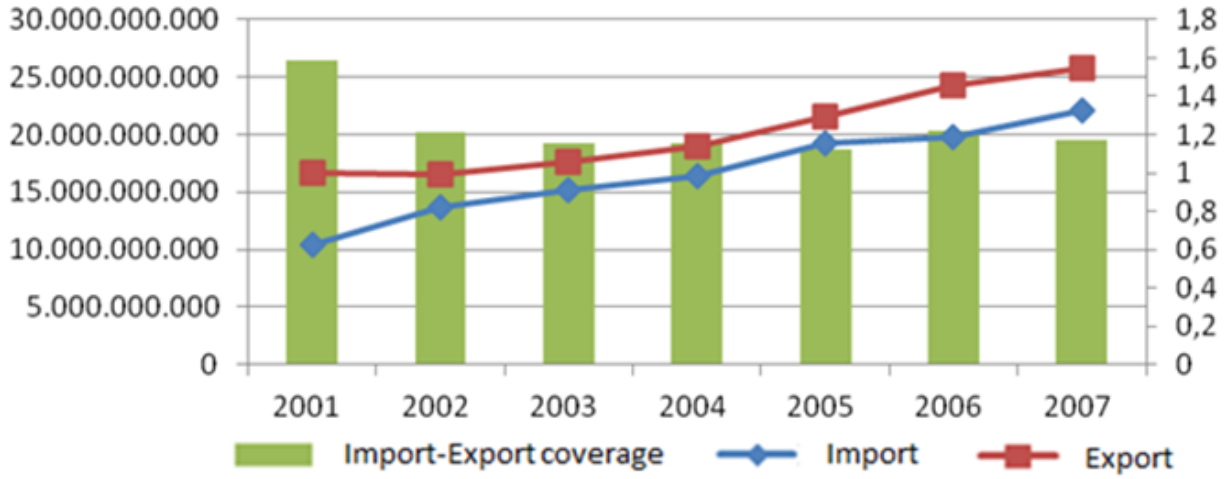
At the same time the economy of the County of Požega-Slavonia had achieved growth of exports in relation to imports thereby achieving a foreign trade surplus and a sharp increase in the activity of large and medium-sized enterprises. Only small enterprises had greater exports than imports in the observed period. Business activity in the County of Slavonski Brod-Posavina is characterised by increased export activity of medium and large enterprises which attributed to the economic characteristics of the export activities of the entire county. Micro and small enterprises had achieved higher exports than imports in the same period.

In 2007 the foreign trade surplus was achieved in the County of Osijek-Baranja. Among the counties which ended 2007 with a surplus, the highest value was obtained by the County of Sisak-Moslavina. Due to the coordinated interdepartmental legislative activity undertaken by the County of Sisak-Moslavina established a state institution guaranteeing a quick and efficient resolution of administrative issues for the realisation of investment projects and starting of new production and services to

domestic and foreign investors in a precisely specified time (called 'a one stop shop'). The smallest foreign trade surplus in 2007 was achieved in the County of Bjelovar-Bilogora.

Throughout the observed period the Adriatic Croatia registered an increase in exports which were accompanied by imports (Figure 16). It is interesting to note that the Adriatic Croatia covered imports by exports in the whole observed period (Figure 16). Some differences between the Central and the Adriatic Croatia are important when looking at exports. The Adriatic Croatia had exported much more than the Central and East (Pannonian) Croatia although their curves of import are at similar level.

Figure 16 Import-export coverage of the Adriatic Croatia (2001 - 2007)



Source: FINA, Authors calculation

All counties in the Adriatic Croatia except the County of Šibenik-Knin and the County of Split-Dalmatia accomplished coverage of imports by exports. In the Adriatic Croatia both imports and exports had increased yearly. It is important to note that the County of Split-Dalmatia realised a significant exporting activity in 2007 in comparison with 2003 and especially with the reference to the medium-sized enterprises. A noteworthy coverage of imports by exports in the Adriatic Croatia was a result of a very strong tourist activity (especially in the County of Dubrovnik-Neretva). Nonetheless, in some counties the export- import ratio was approximately equal to 1 (the County of Primorje-Gorski kotar, the County of Šibenik-Knin, the County of Istria, the County of Split-Dalmatia).

At the national level investment climate in Croatia is increasing and there is growing number of entrepreneurs who start a business because of good opportunity and not of necessity. The total number of entrepreneurs has increased significantly in the observed period while the structure of enterprises by size was significantly altered in favour of micro-enterprises, increasing their participation in the total number of enterprises. This change was caused by two reasons: (1) increasing number of enterprises and (2) the change of criteria for classification of enterprises by size. There is also a significant increase in the number of employed in the observed enterprises. Throughout the entire period there more has been imported than exported in Croatia, which is accompanied by the yearly increasing differences.

At the regional level all regions registered an increase in the number of enterprises as well as the number of employed in these enterprises. According to the number of enterprises and the number of employed the North-West Croatia ranks first, the Adriatic Croatia follows, and the Central and East (Pannonian) Croatia ranks last. However, if the analysis includes the number of enterprises per km2, the North-West Croatia drastically stands out because of the high population density. Nevertheless given the number of entrepreneurs per 1 000 inhabitants, the North-West Croatia and Adriatic Croatia accomplish similar results by the indicator at the national level and the Central and East

(Pannonian) Croatia still considerably lags behind.

Given the view of all the counties the lowest number of enterprises was located in the County of Lika-Senj and the largest number in the City of Zagreb. These data are not surprising when the number of enterprises is compared with the population density. The City of Zagreb has the highest number of enterprises per km2, 42.92 enterprises per km2. In comparison, there are 0.10 enterprises per km2 in the County of Lika-Senj.

The smallest increase in the number of employed was recorded in the County of Virovitica-Podravina with an increase of about 3.5%. The County of Požega-Slavonia is the only county that registered a decline in the number of employed for about 3%. On the other hand, the majority of employed were located in the City of Zagreb with an increase of about 25%. The largest increase in the number of employed was registeren in the County of Zadar and it amounted approximately 86.54%.

In the observed period the differences between imports and exports were the largest in the North-West Croatia which has a tendency of further growth of exports and a slowdown of imports. In the Central and East (Pannonian) Croatia imports and exports had almost aligned during the whole observed period. In the Adriatic Croatia both imports and exports had grown from year to year with the greatest exports-imports ratio expressed in this region.

Hence, the most important indicators are:

- The number of entrepreneurs in 2007: (1) The North-West Croatia (39 550), (2) the Adriatic Croatia (32 465) and (3) the Central and East (Panonian) Croatia (11 517).
- Number of enterprises per km2: (1) The North-West Croatia (4.6), (2) the Adriatic Croatia (1.3), (3) the Central and East (Panonian) Croatia (0.5).
- Number of enterprises per 1,000 inhabitants: (1) The North-West Croatia (23.8), (2) the Adriatic Croatia (22.8) and (3) the Central and East (Panonian) Croatia (8.5).
- Number of employed in 2007: (1) The North-West Croatia (509 651), (2) the Adriatic Croatia (249 115) and (3) the Central and East (Panonian) Croatia (163 185).
- The coverage of imports by exports in 2007: (1) the Central and East (Panonian) Croatia (1.33), (2) the Adriatic Croatia (1.17) and (3) the North-West Croatia (0.68).

There are evident regional discrepancies in the regional development classified according to the NUTS II regional policy of the European Union. The illustrated picture portrays the data for the period up to 2007 neglecting the effect of the economic recession which followed in the period after 2008. Although these facts could be viewed as a chapter's drawback and limitation, it is the opinion of authors that this is the point from which Croatian policy needs to follow its regional development plans. Since this could prove to be a difficult work for the government, the support of governmental policies which focus on entrepreneurial strengths, lowering the structural barriers and inciting the usage of the European Union funds could prove to be a step forward for Croatian regional entrepreneurial development.

Discussion

Global developments and local changes can be studies using the notion of TimeSpace, a concept primarily formulated by Wallerstein (Terlouw 2009). According to Terlouw's opinion (2009) globalisation is neither a recent phenomena nor the end phase of the increasing spatial interrelatedness. Globalisation does not homogenise space because new patterns of regional differentiation occur periodically. Development of the EU regions could be explained with respect to Terlouw's understanding (2009). Hereby the transfer of national governments power to supra-national institutions and regional governments should be noted and taken into account (Amin & Tomaney 1995). Since peripheral regions possess tradition and some are underdeveloped, they could benefit from promotion of their entrepreneurial activity (Benneworth 2004). Various studies found the mirror-image J-shaped relationship between regional growth and development levels. This

relationship shows that the regional divergence factors dominate at the advanced levels of development. The analysis covering 249 NUTS II regions in the European Union illustrated this notion. Moreover, agglomeration economies, geography, economic integration and economic structure create an overall unfavourable economic environment for lagging regions (Petrakos et al., 2011). An example of 1999's Polish decentralisation is often given with the respect to institutional reform of weak regions which aspire to reap the advantages of the European Union membership (Blazyca, Heffner & Helinska-Hughes 2002). Several authors found that many lagging regions in the European Union experience growth due to high value of exports (Skuras et al. 2005), while minimising the effect of the industry structure on the spatial distribution of productivity (Ostbye & Westerlund 2011).

There are some limitations to this chapter. Firstly, the emphasis is put on the example of only one country, the Republic of Croatia. Taking into consideration how Croatia faces a specific cultural and socio-economic environment, there are reasonable doubts whether the same conclusion could be found in other European Union member states and candidate countries. Therefore, it might be useful to make a comparison of Croatia with respect to other European countries during their European Union accession process. Secondly, the analysis incorporated the data for the period 2000-2007 neglecting the causes and consequences of recession that influenced subsequent economic trends in the Republic of Croatia, the European Union and the rest of the world. Thirdly, since the scope of this work was to scan the state of entrepreneurship in the Republic of Croatia, this chapter provided only descriptive approach; thereby avoiding to make any kind of correlations or regression analysis. Moreover, the descriptive analysis did not include GDP per capita levels as the indicators of development. Saying this, the scope of the chapter was not to test and provide a complex statistical and mathematical model, but rather to familiarise the reader with the state of entrepreneurship in Croatia, thereby portraying its regional development. Although numerous authors examined the link between the level of entrepreneurship and economic development, Wennekers et al. (2005) point to the U-shaped relationship between the two and imply differing policy options. They state that as countries develop economically, new venture creation can decline before their ultimate revival at the higher levels of economic development. Reasons for the fall in the new venture creation can be found in the opportunity costs associated with the rise of the real wages relative to self-employment (Lucas 1978) and risk aversion distribution (Iyigun and Owen 1998). The reasons for the rise in new ventures can be found in the fall of the manufacturing sector which leads to the rise in service sector venture opportunities, which increases consumer demand evident in new market niches (Jackson 1984).

Policy options following the U-shaped relationship for developing countries include lower pressures on the start-up promotion and more on the development of management qualities, economies of scale, foreign direct investment, growth of young firms, education promotion, intellectual property rights protection, stable macroeconomic conditions and easing the access to capital markets (Wennekers et al. 2005). European Union fosters a regional policy based on decentralisation backed up by financial and structural funds. These funds should serve to aid European Union member states and accession countries to achieve balanced economic development. Some European Union member states accomplished regional development which was facilitated by the rise in their entrepreneurial climates. NUTS II classification proved to be a useful tool for the named comparisons. Nonetheless, the European Union's enlargement might be continuing with the candidate countries such as Iceland, Serbia, Montenegro, The Former Yugoslav Republic of Macedonia and Turkey. The European Union's regional policy has the political and economic effect on these countries due to their common cultural and economic heritage. Additionally, as these countries' enterprises satisfy particular requirements, they have the right to access the European Union funds and enhance their respective entrepreneurial climates. The success of these enhancements shall be seen in regional developments. Thus, the focus of the regional policy facing Croatia within the European Union framework should be put on a reduction of the negative externalities of agglomeration effects

and ensuring that benefits occur for all organisations equally ranging from highly specialised and productive economies to the transitional economies such as Croatia.

Conclusion

The Republic of Croatia notes continuing increase in the number of enterprises in the observed period. This increase is the result of the regional rise in the number of enterprises in the Adriatic and North-West (Central) Croatia. Parting from the legacy of the independence war during the period 1991-1995, there is an increased importance of tourism for Adriatic Croatia. Hence, more enterprises in the region. Favourable economic trends and climate resulted with the same trend in the North-West Croatia. In the period between 2000-2007 the number of enterprises stagnated in the Pannonian Croatia which was probably the result of a centralised approach and a low accent on the regional policy as well as a decreasing importance of agriculture which resulted from agriculture's lack of competitiveness. The same trend is observed in the number of persons employed in enterprises according to the given regions.

The company size is following the international trend where the highest portion of companies tends to be small and medium-sized. The number of small enterprises grows in times of expansion while these economic trends could attribute to the rise in investment in small enterprises. Moreover, the European policy initiatives incited and created the environment of economic climate favourable for entrepreneurship and regional development. Conversely, big companies in Croatia were not able to adjust to a necessary rise in competitiveness and thus, their decrease.

Croatian exporting activities are mainly growing which is the result of its integration processes concerning the European Union's accession. The growth is observed mainly in the North-West Croatia which is consistent with the number of enterprises in the region. The Adriatic Croatia's rise in the number of enterprises did not result in the proportional increase of their exports' value which might be the consequence of the enterprises structure in the observed region. There were greater exporting activities in the observed period followed by the negative import-export coverage which could be a signal of negative exchange rates' movements and the lack of overall competitiveness.

This chapter brings several notions to the attention. A descriptive analysis portrayed entrepreneurial characteristics of Croatian counties and NUTS II regions with respect to their matching exporting and importing activities. This depiction could serve as a reference point and benchmark for future research and regional policy designs. An entrepreneurial climate is an important feature promoting regional development. With respect to the accession to the European Union, Croatia must seize the opportunities offered by its regional policy. Hence, the importance of the European Union's regional policy for member states and accession countries. The member states' role should be to instigate and form appropriate regional policies that should be beneficial for the European Union as the whole. In this way, they promote balanced growth and convergence of the diverging European countries. On the other hand, this chapter could be beneficial for the candidate countries which should learn from experiences of member states. Candidate countries gain an insight into economic and regional development of Croatian regions. If they do not neglect the environmental and cultural factors, it could serve their economic and regional policies' development. Hence member states and candidate countries could enhance its economic performance evident in the rise of their export values. Developed member states should foster the policy of R&D investment, self-employment incentives, stimulate entrepreneurship education and promote commercialisation of research. Finally, these policies may have the desired effect in the long run through capacity building of a gradual evolution of culture and institutions (Wennekers et al. 2005). Thus, success stories of local development are based on the production of specific knowledge and resources and on the collective learning (Garofoli 2002). The creation of dynamic competitive advantages is, then, a crucial factor for a sustainable local development

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Students' attitudes towards entrepreneurship in the Uusimaa region in Finland

Teemu Rantanen

Abstract

The significance of entrepreneurship concerning the viability of Finnish regions has been highlighted in many recent statements from different sources. The discourse on the Finnish regional development has particularly emphasized novel, creative, innovative and growth-oriented business activities. This article examines the Uusimaa youths' entrepreneurial willingness, as well as their attitudes towards the entire concept of entrepreneurship. The challenges of promoting entrepreneurship in the Uusimaa region are also discussed. The research data (N=873) was collected in the form of an electronic questionnaire sent to Uusimaa schools. According to the research results, Young people's entrepreneurship image seems to be relatively positive. However, there is not a particularly strong entrepreneurial willingness to be found among the Uusimaa young people[1]

Key Words

entrepreneurial intention, entrepreneurial attitudes, theory of planned behavior

Introduction

Uusimaa is geographically a small area located in Southern Finland (3% of Finland's land surface) but contains a markedly large part of the Finnish population and economic activities. There are over one million people living in the Helsinki Metropolitan Area only, and the number of residents in the Uusimaa region is more than 1, 5 million. This is nearly 30% of the whole population of Finland. (Statistics Finland.) From the viewpoint of the business turnover and gross domestic product, Uusimaa's relative economic value is even greater. Occasionally the region is called the "engine of growth" for the entire Finnish society.

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Uusimaa's industrial structure is service-dominated. However, the region houses a large part of major industrial corporations. Seeking ways to improve the region's competitiveness is focused particularly in international innovation activities but also in fruitful combination of education, welfare services and growth-oriented business activities. Along with competence, internationality and user-oriented innovation activities, the competitiveness strategy of the Helsinki Metropolitan Area (2009) also underscores the development and renewal of public procurement procedures and the importance of people's quality of life.

Entrepreneurship is considered a core factor in regard to the competitiveness of the society, national economy and regional development. At the same time, the significance of entrepreneurship is highlighted as a means of employment on the individual level. However, the international Global entrepreneurship monitor (GEM) Research (Stenholm etc. 2011) depicts a slightly two-sided image of the Finnish business climate: according to the research, the external framework for entrepreneurship is at the least on the same level as in competing nations and the share of established entrepreneurs is high among the Nordic countries. On the other hand, the actual intent among the adult population (planning to become an entrepreneur during the next three years) is the lowest in the Nordic countries. Similarly, the growth-orientation of entrepreneurs and new strongly innovative business activity in Finland is scarce.

Interest towards enterprising has continuously increased during the entire 2000's. Yet, if being able to choose, the majority of Finns would still work as employees rather than entrepreneurs. In this regard, also Finnish entrepreneurship willingness is below the European average. (Flash Eurobarometer 2009.)

This article is part of the "Enhancing Young Entrepreneurship in the Finnish Uusimaa Region EER 2012" Project.[2] The primary interest of the research is to find out how attractive option do young people find entrepreneurship for themselves. Moreover, the article analyzes the social psychological factors which influence young people's entrepreneurial willingness. The research is targeted at high school and vocational education students in the Uusimaa region.

Young People's Entrepreneurship Intentions and Attitudes towards Entrepreneurship as a Research Target

The key concept of this article is the entrepreneurial intention; in other words, young people's intention to work as an entrepreneur in the future. This is examined from attitude theoretical point of departure. The significance of entrepreneurial attitude research is twofold: on the one hand, the question is of social scientific research which produces knowledge about the society and its prevailing phenomena. On the other hand, there is also a practical interest connected to the research: it provides an opportunity to utilize the acquired information in developing entrepreneurship education and other activities targeted at promoting entrepreneurship. In strategic statements, the set objective is to encourage young people for entrepreneurship (see e.g. OPM 2004), which in practice has meant enhancing their entrepreneurial orientation and motivation, as well as improving young people's contextual knowledge and competence for entrepreneurial readiness.

[2]The EU Committee of the Regions has designated Helsinki-Uusimaa as the European Entrepreneurial Region (EER) 2012 together with the regions of Trana, Slovakia and Catalonia, Spain. During this year of entrepreneurship, it was sought to increase interest in entrepreneurship, promote entrepreneurial activities, cultivate entrepreneurial competence, as well as to enhance international recognition of the Uusimaa Region's entrepreneurial and innovative activities. In Uusimaa, the theme of the Entrepreneurial Year 2012 was chosen to be advancing entrepreneurial activities of young people. The aim of the ESR Project "Enhancing Young Entrepreneurship in the Finnish Uusimaa Region EER 2012" was to increase young people's interest in entrepreneurial activities. At the same time, it was endeavored to intensify cooperation between the educational sector and working life, as well as to create an operational model for interaction between students of creative fields in Uusimaa and the region's innovative activities. During the theme year, the project also organized versatile events and activities promoting entrepreneurship for both entrepreneurs and decision-makers, as well as for young people.

Internationally, research concerning entrepreneurship education has been active already since the 1980's (see e.g. Kuratko 2005). In the discourse on Finnish entrepreneurship education, the typical starting point has been the traditional division to external and internal entrepreneurship. Entrepreneurship education has often focused specifically on external entrepreneurship; that is, the readiness to establish and manage an enterprise (Ikonen 2006). Metacompetency and its learning have also been emphasized instead of knowledge and skills that rapidly become obsolete (Koiranen & Ruohotie 2011, 102). Similarly, for instance, new pedagogic models are sought for learning risk-taking capability (Kyrö 2006). Among other things, attention is also paid to teachers' competence in entrepreneurship education (Ylinen 2011), as well as how well entrepreneurship education suits school's world of meanings (Korhonen, Komulainen & Räty 2010, 69).

According to Finnish research projects, influencing entrepreneurial willingness is a challenging task from educational perspective. According to Kaarina Laisi and Inkeri Liimatainen (2004), vocational education has only a marginal impact on young people's entrepreneurial intention. For its part, Jussi Pihkala's (2008) research points out that entrepreneurial intention remains relatively steady throughout the duration of education. Entrepreneurship education increases general knowledge about entrepreneurship but simultaneously creates doubt in students' minds about their own entrepreneurial potential.

There are still statements given which analyze discourses on entrepreneurial education (e.g. Remes 2003) and question its points of departure. On the background of the critical statements, there is a notion of a new kind of neoliberal management where individual freedom of choice is underscored (Rose & Miller 1992).This kind of management emphasizes an entrepreneur-like individual and the role of the citizens as consumers. Hence, entrepreneurship education gets its political justification from the concept of active citizenship that connotes both personal financial initiative and proficiency (Keskitalo-Foley, Komulainen & Naskali 2010, 21-22).

Even though the rationale of this research draws partly on entrepreneurial education, the actual research target is secondary education student attitudes towards entrepreneurship. The students' entrepreneurial attitudes and orientation have been copiously researched both in Finland and other Western countries. Research has been conducted also in other cultures (e.g. Wang & Wong 2004; Shariff & Saud 2009) as well as from the perspective of comparative cultural research (Veciana, Aponte & Urbano 2005; Lee etc. 2006). Research projects have mostly been based on questionnaire data but various qualitative approaches have also been used.

'Attitude' as a concept is multidimensional and difficult to construe. Typically, attitude is understood as a value judgment of a given target (Eagly & Chaiken 1993). Entrepreneurial attitudes - as well as any other attitudes - can be divided into three dimensions: knowledge and conceptions (cognitive dimension), value judgment concerning entrepreneurship (affective dimension) and entrepreneurial intention (conative dimension) (Kyrö etc. 2008). 'Attitude' is often understood as a very persistent personal feature or behavioral tendency. On the other hand, attitude can also be perceived as a stronger social and contextual concept (Vesala & Rantanen 2007). In practice, people's entrepreneurial attitudes are constructed in an intense interaction with the immediate environment, as well as societal circumstances and attitudes.

Attitudes explaining entrepreneurial intentions have been studied from different viewpoints. A commonly heard concept is entrepreneurial orientation, which refers to a typical mindset that furthers success as an entrepreneur. The background of the concept is the tradition of dispositional research which seeks to explain entrepreneurship through personal characteristics. Such personal qualities considered relatively permanent as performance motivation (McCleland) and locus of control (that is, an individual's relatively stable tendency to appraise whether their own success depends on themselves or external factors) (Rotter 1966) have been important starting points. However, recent entrepreneurship research has examined more specific aspects. In different research

approaches, features connected to entrepreneurial orientation have varied (Rauch etc. 2009). Traditionally, entrepreneurial orientation has been associated with risk taking willingness, innovativeness and proactivity (Covin & Slevin 1991). G.T.Lumpkin and Gregory G, Dess (1996) have further complemented the list of qualities with aggressive competitiveness and independence. The relationship between entrepreneurial orientation and the financial success of an enterprise has been pointed out in several research papers; however, according to Nadin (2007), for instance, in some cases the relationship between financial success and innovativity, proactivity and risk taking can even be a negative thing.

In this research, however, attitudes towards entrepreneurship are expressly the focus of interest. Still, there is a certain challenge included in this starting point: a positive attitude towards entrepreneurship is no guarantee to become an entrepreneur. In fact, several social psychological studies have shown that there is a quite poor correspondence between attitudes and behavior. General attitudes do not explain behavior in specific situations.

Attitude towards Entrepreneurial Activity: Theory of Planned Behavior

Within attitude theory, new kinds of more exact models have been developed for the relationship between attitudes and external behavior. Particularly Icek Ajzen's theory of planned behavior has proven to be highly useful. According to the theory, behavioral intention is impacted by three components: attitude towards behavior, subjective norm, and perceived behavioral control (Ajzen 1991, 182). Therefore, in accordance with the theory, young people's entrepreneurial intention is influenced by their personal appreciation of entrepreneurship, its appreciation and expectations by their closest circle and, again, a young person's own perception of their capacity as an entrepreneur.

According to Ajzen (1992, 200) all reactions that are possible to be positioned on the positive-negative dimension can be interpreted as expressions of attitude. However, the starting point is the prerequisite that any activity taking place in a given context must be examined particularly from the specific attitudes targeted at this activity (Ajzen & Fishbein 2000, 16-17). These kinds of attitudes explain as well as indicate future behavior much more accurately than general attitudes.

A positive attitude towards one's own entrepreneurship does not, however, automatically lead to a determined entrepreneurial intent. Many studies concerning students' entrepreneurial attitudes have shown that the number of potential entrepreneurs is manifold in relation to those who are seriously committed to become entrepreneurs. For instance, in the data analyzed by Kari Paakkunainen (2007, 71), 69 % of young people considered setting up their own enterprise later in life, but only 2,6 % had serious plans to do so in the near future.

In addition to attitude, intention is essentially influenced by social environment. Subjective norm means a belief about how people in one's closest circle evaluate the acceptability of certain behavior. From the perspective of social norm, the context to which a young person connects their potential future entrepreneurial activity has an essential meaning, as well as whose value judgment they consider important. Depending on this, the general expectations of the parents, peer group, or professional field may gain more importance than others.

A perceived control of behavior is connected to how a young person appraises their own personal capacity to endure the different duties and responsibilities associated with entrepreneurial activities and setting up an enterprise. The concept is drawn from Albert Bandura's (1982) social learning theory and the related concept of perceived self-efficacy. An essential division regarding the concept is connected to the difference between behavior and outcome. Efficacy expectation concerns how well young people think they can cope with the duties and responsibilities of entrepreneurship, whereas outcome expectation is connected to how firmly they believe they can succeed as an entrepreneur. Hence, in addition to personal aptitude, the outcome expectation is affected by many external factors; particularly the

conception of prerequisites for entrepreneurship in the chosen field.

According to several studies, the theory of planned behavior has proven to be effective when explaining entrepreneurial intention and behavior (see e.g. Linan 2008; Linan & Chen 2009; Goether etc. 2012), as well as assessing entrepreneurship education programs (e.g. Fayolle etc. 2006), among other things. Moreover, the theory of planned behavior has been used as the basis for seeking ways to further develop new models that better explain entrepreneurial intention. In the Shapero-Krueger model, for example, perceived desirability and propensity of act have been identified as variables explaining intention (Krueger etc. 2000).

Challenges of promoting Finnish entrepreneurship can also be identified through the theory of planned behavior. According to Paula Kivelä's (2002) research, Finnish students strongly trusted that they would succeed as entrepreneurs but got little encouragement from their families: two thirds believed they could carry the risks and responsibilities of entrepreneurship. Similarly, two thirds believed they would succeed as entrepreneurs in case they set up their own enterprise. On the other hand, only 20 % of the parents estimated that their children had been encouraged to become entrepreneurs by the families.

However, there is a fundamental problem connected to the theory of planned behavior's conception of attitude: if all behavior is linked with its own attitude, the concept of attitude narrows down and hence its explanatory importance decreases. Indeed, this kind of attitude interpretation decidedly differs from the traditional attitude theory's concept of attitude. Some social psychologists have even suggested discarding the entire concept of attitude (e.g. Potter & Wetherell 1987). Next, the ajzenian concept of attitude is more distinctly replaced with the cognitive concept of attitude which leads to a more accurate analysis of the targets of attitudes.

Entrepreneurship Representations

The concept of attitude includes the point that an attitude always has a given target (Eagle & Chaiken 1993). For instance, the target of the attitude towards entrepreneurship may be one's own (possible) entrepreneurial activity or, perhaps, activities of large corporations. The attitude theory has traditionally made a distinction between the target and the topic of attitude. A certain topic (for instance entrepreneurship) may get different interpretations in a young person's mind. Indeed, instead of an external topic, attitudes are in fact always targeted towards an object interpreted in a certain way. Impressions and concepts of entrepreneurship, so called representations, have an impact also in a young person's attitudes.

Representations concerning entrepreneurship are partly individual but largely socially constructed as well. The concepts of collective and social representations (Moscovici) are used. These refer to such socially shared concepts and ways of thinking that enable comprehension of cultural phenomena and discussing them. The conceptual relationship between attitudes and social representations has raised some critical discussion (e.g. Potter 1996; Moliner & Tafani 1997). On the other hand, Annamari Silvana de Rosa (1993), for instance, has emphasized that these approaches are also connectible.

The formation, change or meaning of social representations are not taken a closer look at this point. Instead, it is essential that the Finnish entrepreneurship discourse has traditionally been dominated by certain partially contradictory entrepreneurship representations. From the perspective of value judgment of entrepreneurship, the question is traditionally linked with whether an entrepreneur is considered an 'ideal citizen' or 'exploiter' (e.g. Pitkänen & Vesala 1988, 79-80). During this millennium, the latter has been referred to as 'entrepreneurship criticism' (e.g. Nevanperä 2003, 143-144).

In addition to these, several Finnish researches have brought to the forefront a perception of entrepreneur as 'perseverant hard worker' (e.g. Kivelä 2002; Nevanperän 2003; Hyytiäinen & Pajarinen 2005; Home 2007). This kind of conception of entrepreneurs emphasizes not only the diligence but also the substantial work load of an entrepreneur. For instance, in a study concerning the entrepreneurial orientation of a retail store entrepreneur, the diligence-factor was loaded most strongly with the claim 'actually I like working hard' (Home 2007, 428). Further still, according to the research project of EVA (Finnish Business and Policy Forum), nine out of ten respondents evaluated that entrepreneurs must work extended hours and cannot afford to take vacations (Hyytiäinen & Pajarinen 2005, 156-157).

There is also a certain perceivable shift in conceptions of entrepreneurship. Traditionally, entrepreneurship has been analyzed from the perspective of individual framework: through such personal qualities as innovativeness, risk-taking willingness or perseverance. However, the significance of social skills and networking has been recently more emphasized. A relationistic image of entrepreneurship that highlights networking, close client relationships and interest group cooperation has been introduced. The concept of relationist entrepreneurship image (Vesala 1996) has drawn mostly from Julian Rotter's (1966) concept of locus of control and, in particular, Paul Wong's and Catherine Sproule's (1984) criticism. According to them, external and internal controls are not opposites of each other but should be treated as two dimensions. The relationistic image of entrepreneurship is a combination of internal and external control: an entrepreneur expects his success to depend both on himself and others.

Research Design

This research is targeted at upper secondary schools and vocational education institutes in the Uusimaa region. First, it is the entrepreneurial intentions of the Uusimaa students' that are examined:
How attractive do young people find the option of entrepreneurship? How big portion of young people intend to become entrepreneurs?

In regard with the competitiveness of Finland as a whole, Uusimaa is considered the core area. Hence, the research also asks whether young people in Uusimaa have more entrepreneurial enthusiasm than in other regions in Finland.

The second research target is students' entrepreneurship representations and expressly how strong is the correspondence between entrepreneurship representations and entrepreneurial intentions. Third, the research examines the subjective norm and perceived behavior following Ajzen's theory. The researched hypotheses are:

H1: Entrepreneurial intention depends on representations concerning entrepreneurship.
H2: Entrepreneurial intention depends on social norm and perceived control.

The results are analyzed also in regard with practice. Through the research, it is attempted to localize the social psychological challenges of entrepreneurial education and promoting entrepreneurship. The analysis is targeted in particular to those attitude theoretical factors which have the most obvious connection to entrepreneurial intention, and, according to the results, have shortcomings from the viewpoint of advancing entrepreneurship.

The research data was collected as an electronic questionnaire during class hours of Uusimaa students in January-February 2012. The respondents were students in their second class of secondary education and hence mainly 17-18 years of age. The sample was formed to be regionally comprehensive. The target organizations are six upper secondary schools and seven vocational institutions or their units in the Uusimaa region. The upper secondary schools include both general upper secondary schools and schools specialized in creative fields (media, performing arts and music). Among the vocational institutions, there are schools in the fields of culture, business economics, and social and health care, as well as in the field of technology and transport.

In composing the questionnaire, previous studies were utilized but their questions were not used as such. The questionnaire form consists of 72 questions which were composed mainly of Likert-

type scale items (1= Strongly disagree,… , 5= Strongly agree). The questions on the form are connected, for example, to the following themes:

- Respondent's background information
- Entrepreneurial intention
- Representations concerning entrepreneurship: "entrepreneur as an ideal citizen", critical entrepreneurship attitude, "persevering entrepreneur", relationistic image of entrepreneurship.
- Subjective norm, perceived behavioral control and outcome expectancy

Each studied quality was examined through 4-5 questions. Sum variables were constructed by using factor analysis (generalized least squares, varimax with Kaiser normalization) and means. The reliabilities (Cronbach´s alpha) were calculated. The normality of the distribution was examined using the Kolmogorov-Smirnov test. Spearman's correlation coefficient was used to calculate the correlation and the differences between means were examined using the t-test.

464 high school students and 409 students of vocational schools answered the questionnaire. Altogether, the representativeness of the survey turned out to be quite good. 71, 1% of the respondents come from the Helsinki Metropolitan Area (68, 4% in the population) and the rest from other areas of the Uusimaa region. The share of Swedish-speaking respondents is 6, 8% (8, 6% in the population). In this data, the share of vocational school students is 47, 2% which is close to the corresponding national proportion (45, 2%) but larger than in the big cities in the Helsinki Metropolitan Area. (See Helsingin kaupungin tilastokeskus 2009; Statistics Finland.) The response percentage in the data as a whole is 71, 0% (upper secondary schools: 79, 1%; vocational schools 63, 7%). The lower response rate among vocational school students was affected by both school absence and the students' work practice periods.

During the survey, no unexpected problems concerning the questionnaire form, its questions, or answering them came up. The form was pretested with 19 students. On the basis of the testing, only minor changes were made in writing out the survey and setting the research questions. Electronic data collection was well suited to the target group. The used measures also turned out to be mainly functional and the reliabilities were relatively good. However, there were some problems concerning the measures: the one reliability was under 0, 70. The statistical analysis is also limited by the fact that the distributions of the variables do not quite correspond with the normal distribution.

Students' Entrepreneurial Intentions

43, 8% of the respondents state that they are interested in issues connected to entrepreneurship. One third (32, 8%) comes from an entrepreneurial family (one of the parents or another family member is an entrepreneur) but only 2, 6% finds it probable that they will continue the family's entrepreneurial activities. In addition to this, the entrepreneurial intention was determined through four questions. The questions concern not only an actual intention to become an entrepreneur but also the approximated probability for it to happen, as well as how desirable option entrepreneurship is in comparison to working as an employee. Table 1 shows one question at a time the portions of respondents who 'strongly agree' or 'agree'.

Table 1 Questions concerning entrepreneurial intention

Question	N	agree %	mean	sd
55. If I could freely choose, I'd rather be an entrepreneur than an employee	873	34,0	2,95	1,25
59. My aim is to become an entrepreneur in the future	873	18,8	2,53	1,17
63. I am going to make a living as an entrepreneur	873	13,6	2,42	1,12
67. For me, entrepreneurship is a probable career choice	873	17,1	2,45	1,16

As the results show, there is quite a difference in entrepreneurial willingness depending on how the question is formed. It is particularly noteworthy that there would be willingness as such amongst the students if they could choose freely, whereas entrepreneurial intention appeared weaker when the question concerned an actual intent.

The variables that corresponded with these four questions were formed into sum variable entrepreneurial intention. Though a probability assessment does not tell about intentions in a conceptual sense, the variable corresponding with question 67 was included in the entrepreneurial intention because it strongly correlated with other variables connected to entrepreneurial intention. The reliability of the constructed variable was quite good (alpha=0.899) but the distribution is not quite normal.

In concern of both vocational school students (N=409) and upper secondary school students (N=464) the entrepreneurial intention is equal (t=0.572; p=.568). There are certain perceivable differences in the entrepreneurial intention depending on the field of study. The mean of entrepreneurial intention is 2.86 (sd=0,99; N=222) among students of creative fields and 2.49 (sd=1,03; N=651) among other fields. The difference between the two is significant (t=4,674; p=0,000).

It is interesting to compare the research results also with the results acquired in studies conducted in the Finnish adult population. In this research, 13, 6% of young people stated that they were going to become entrepreneurs. For instance, according to the 2010 GEM Research there are 25% potential entrepreneurs in Finland, but only 6% have an actual intent to become an entrepreneur during the next three years (Stenholm etc. 2011). In this research, 34, 0% of young people stated they would prefer being an entrepreneur than an employee and 38, 3% disagreed, whereas according to the Flash Eurobarometer (2009) research, 41% of Finns would rather be entrepreneurs than employees, and 54% would rather be an employee. A direct comparison between the percentages is not possible due to the different base groups and scales used by the researches. However it would seem that there is not a particularly strong entrepreneurial willingness to be found among the Uusimaa young people.

Next, the factors that influence entrepreneurial intention are analyzed. Representations concerning entrepreneurship are examined first, then the expectations of the social environment, as well as young people's self-trust in coping and succeeding as entrepreneurs.

Representations Concerning Entrepreneurship

In examining questions concerning entrepreneurship representations, the three factor model was settled on due to the fact that the variables that corresponded with questions concerning interest group cooperation and "perseverance" were highly correlated with each other. The model explains 43, 2% of the total variation of the variables (see Table 2).

Table 2 Questions concerning entrepreneurship representations. Factor analysis. Four greatest loading items for each factor.

	factor 1 (20,4 %)	factor 2 (12,2 %)	factor 3 (10,7 %)
27. Entrepreneurs are ideal citizens	.	,434	.
28. Succeeding as an entrepreneur requires perseverance	,636	.	.
29. An entrepreneur must get along with different kinds of people	,670	.	.
30. Many entrepreneurs are money-grabbing speculators	.	.	,632
31. Entrepreneurs are typically hard-working and responsible	.	,395	.
32. Succeeding as an entrepreneur requires stress tolerance	,710	.	.
33. An entrepreneur must be able to convince others	,647	.	.
34. Succeeding as an entrepreneur requires selfishness	.	.	,453
35. Entrepreneurs' work is valuable concerning the entire society	.	,758	.
36. An entrepreneurs' work is hard and laborious	.	.	.
37. Succeeding as an entrepreneur depends not only on oneself but also on other people	.	.	.
38. Entrepreneurs unscrupulously take advantage of other people	.	.	,845
39. Entrepreneurs play a key role in the success of the society	.	,676	.
40. An entrepreneur must often work too long hours and cannot take vacations	.	.	.
42. Small enterprises are a burden to the society	.	.	,404

First, the relationistic entrepreneurship image sum variable was formed of the four questions that loaded most highly on factor 1. It characteristically emphasizes both perseverance and stress tolerance, as well as interest group cooperation. Second, the variable "entrepreneur as an ideal citizen" was formed of the four questions that loaded most highly on factor 2. The questions concerned an entrepreneur's ethics of hard work, responsibility and exemplarity. On the other hand, the questions deal with the societal significance of an entrepreneur's work. The critical entrepreneurship attitude variable was constructed on the basis of the questions that concerned the selfishness and unscrupulousness of entrepreneurs. Additionally, one question which stressed small enterprise owners' societal meaning and clearly correlated with the others was included in the mean variable.

Table 3 shows the mean, standard deviations and correlations with entrepreneurial intention. A closer examination of the answers points out that young people have a relatively positive attitude towards entrepreneurship. The critical entrepreneurship attitude appears clearly as the weakest of the four. 68, 5% of the respondents evaluate that "Entrepreneurs are typically hard-working and responsible", while 4, 9% of the respondents disagree with the claim. Yet, on the other hand, critical entrepreneurship attitude is also manifested: for instance, 49, 3% agrees with the claim "Succeeding as an entrepreneur requires selfishness".

The respondents took a quite unanimous stand for the relationistic entrepreneurship image. 88, 2% of the respondents strongly agree or agree with the claim "Succeeding as an entrepreneur requires perseverance" and only 4, 0% disagrees. Correspondingly, 92, 2% agrees with the claim "An entrepreneur must get along with different kinds of people" and only 2, 5% disagree.

Table 3 Entrepreneurship representations and their correlation with entrepreneurial intention (n=872)

	items	Cronbach´s alpha	mean	sd	correlation with entrepreneurial intention	
					Spearman´s rho	sign (2-tailed)
Relationistic entrepreneurship image	4	,788	4,35	0,62	,023	,490
Entrepreneur as an ideal citizen	4	,740	3,60	0,65	,229	,000
Critical entrepreneurship attitude	4	,652	2,76	0,71	- ,040	,233

Analyzing the correlations shows that "entrepreneur as an ideal citizen" in hence the only representation which significantly correlates with the entrepreneurial intentio; however, even that correlation is not particularly strong. In other parts, the correlations are very weak. Thus, hypothesis 1 turned out to be only partially valid.

Kari Vesala (1996) has made a distinction between an individualistic entrepreneurship image that emphasizes the entrepreneur's internal control and a relationistic entrepreneurship image that emphasizes both one's own control and interest group relationships. In this data, these conceptions of entrepreneurship were not significantly different from each other because the traditional individualistic entrepreneurial image that emphasizes "perseverance" and, on the other hand, the emphasis on interest group relationships are seamlessly connected in the Uusimaa young people's way of thinking. To young people it is obvious that entrepreneurship requires both dedicated hard work and social skills.

Subjective Norm and Control

Next, perceived control and normative expectations concerning entrepreneurial intention are examined. The explanatory power of the two-factor model is 59, 4%. There the competence expectation and success expectation load on the same factor (see Table 4).

Table 4 Questions concerning subjective norm and perceived control. Factor analysis, 2 factors, loadings over 0.4. (Generalized Least Squares, Varimax with Kaiser Normalization).

	factor 1 (38,4 %)	**factor2 (21,1 %)**
56. My close environment encourages me towards entrepreneurship	.	,732
57. I trust I am capable of working as a small entrepreneur	,810	.
58. I believe I could succeed as an entrepreneur	,830	.
60. In my field (or my desired professional field) entrepreneurship is a valued career option	.	,448
61. I believe I could learn the skills required in entrepreneurship	,691	.
62.I believe I could make a living as an entrepreneur	,770	.
64. My parents encourage me towards entrepreneurship	.	,840
65. I trust I would be able to cope with the issues connected to setting up an enterprise	,756	.
66. Succeeding as an entrepreneur is not too challenging for me	,685	.
68. My friends would find it great if I became an entrepreneur	.	,547
69. I believe I would have the qualifications to work as the manager of a small enterprise	,703	.

First, a sum variable concerning subjective norm; that is, the desirability of becoming an entrepreneur in a respondent's close environment, was formed on the basis of factor analysis. The subjective norm was formed of four questions connected to the views of the peer group, parents and the study field in the close environment. A variable concerning control was also constructed. That includes questions concerning skills and competences required in working as an entrepreneur. The questions concerned in particular with a respondent's self-belief and trust in being able to cope with issues of setting up an enterprise, working as an entrepreneur, and managing an enterprise. Some questions concern one's self-belief in being able to make a living and succeeding as an entrepreneur.

Both subjective norm and perceived control correlated strongly with entrepreneurial intention (see Table 5). In this sense, the result fits well with Ajzen's theory. Altogether, entrepreneurial intention is thus strongly dependent on both the expectations of the environment and the perceived control. Hence, hypothesis 2 turned out to be valid.

Table 5 Subjective norm and perceived control, and their correlations with entrepreneurial intention (n=873)

	items	Cronbach´s alpha	mean	sd	correlation with entrepreneurial intention	
					Spearman´s rho	sign. (2-tailed)
Subjective norm	4	,781	2,77	0,86	,717	,000
Control	7	,924	3,28	0,91	,620	,000

It is an interesting perception that perceived control of behavior and perceived control of outcome were strongly factored on the same factor. On the background of this may be the fact that young people look at the field or entrepreneurship from the outside, where the framework factors are not necessarily visible. From this perspective, possessing the competencies necessary for entrepreneurial activities seem to be tightly connected to succeeding as an entrepreneur.

Norm and Control: Further Analysis

According to the results, subjective norm and perceived control correlated expressly strongly with entrepreneurial intention. "Entrepreneur as an ideal citizen" representation correlated significantly with entrepreneurial intention as well but the correlation was relatively small, and young people's conception about entrepreneurship was quite positive according to their answers. Hence it can be concluded that there are not any such problems connected to the entrepreneurial attitudes of young people in the Uusimaa region which would have particular significance from the perspective of promoting entrepreneurship.

Therefore, the attitude theoretical challenges of promoting entrepreneurship can be localized by analyzing expressly subjective norm and control. First, let us examine how young people experience that their close environment encourages them towards entrepreneurship. Table 6 shows itemized distribution of answers to questions connected to subjective norm.

Table 6 Questions connected to social norm

Question	N	Agree %	Mean	Sd
56. My close environment encourages me towards entrepreneurship	873	21,9	2,64	1,14
60. In my field (or my desired professional field) entrepreneurship is a valued career option	873	32,6	3,07	1,09
64. My parents encourage me towards entrepreneurship	873	17,5	2,51	1,16
68. My friends would find it great if I became an entrepreneur	873	18,8	2,85	1,01

One third of the young people assesses that entrepreneurship is an esteemed option in their desired professional field, whereas only one fifth assessed that their close environment encourages them towards entrepreneurship. Less than one fifth agrees with the claims "My parents encourage me towards entrepreneurship" and "My friends would find it great if I became an entrepreneur". Altogether, a young person is hence not encouraged towards entrepreneurship by the close environment particularly strongly. This is expressly significant because the normative expectations of the environment correlate strongly with entrepreneurial intention.

Table 7 Questions connected to perceived control

		N	agree %	mean	sd
Perceived behavioral control	57. I trust I am capable of working as a small entrepreneur	873	47,8	3,24	1,14
	61. I believe I could learn the skills required in entrepreneurship	873	67,9	3,75	0,98
	65. I trust I would be able to cope with the issues connected to setting up an enterprise	873	42,2	3,16	1,12
	69. I believe I would have the qualifications to work as the manager of a small enterprise	873	39,3	3,07	1,18
Control of outcomes	58. I believe I could succeed as an entrepreneur	873	48,0	3,28	1,13
	62. I believe I could make a living as an entrepreneur	873	55,1	3,50	1,07
	66.. Succeeding as an entrepreneur is not too challenging for me	873	28,2	2,97	1,03

Let us still examine how young people assess their competencies needed in entrepreneurship and their possibilities in succeeding as entrepreneurs (see Table 7).

According to the results, approximately half of the respondents have trust in their capability to work as a small entrepreneur. Two thirds of the respondents believe that they could learn the skills required to be an entrepreneur. About 40% estimated that they would have the capabilities to cope with issues connected to establishing a business and working as a manager of a small enterprise. Correspondingly, approximately half estimates that they could succeed as entrepreneurs and over half believes they could make a living as an entrepreneur. Only the question "succeeding as an entrepreneur is not too challenging for me" makes the respondents unsure (42, 7% answered "neither agree nor disagree"). All in all, with the questions connected to perceived control, the share of those who agree are markedly large in comparison to the questions concerning subjective norm.

Conclusions and Discussion

According to the research results, entrepreneurial willingness in Finland appears not to have changed much in relation to previous studies. These results correspond with many attitude surveys conducted among Finnish students. However, it would seem that the entrepreneurial willingness of Uusimaa's young people is of approximately the same magnitude as that of Finnish adults, and is lower than in many other Western countries.

The significance of entrepreneurship is multidimensional: Entrepreneurship is important for regional competitiveness, as well as from the perspective of an individual's employment. In addition, many local services depend on the business activities of entrepreneurs and especially small businesses. In any case, it must be remembered that mere entrepreneurial intention is not an adequate precondition to regional development, and neither is the paucity of entrepreneurial intention a hindrance. Other core factors in regard with the development of the Uusimaa region include a high-level competence, factors which relate to the quality of life, a comprehensive renewal strategy and international networking (competitiveness strategy 2009). As such, creative and growth-oriented entrepreneurial activities as well as innovative activity in particular, become emphasized.

The young people's image of entrepreneurship seems to be relatively positive. However, from the point of view of entrepreneurship education, the weak correlation between entrepreneurship representations and entrepreneurial intention provided an interesting perception. A critical attitude does not seem to be an impediment for entrepreneurship. Only the representation "entrepreneurs as ideal citizens" significantly correlated with entrepreneurial intention,

however, even this correlation was not particularly strong. According to the research results, it indeed seems that entrepreneurship education should not focus on the construction of associations or conceptions concerning entrepreneurship.

According to the research results, the young people's faith in having the coping skills and succeeding as an entrepreneur is relatively firm (see Kivelä 2002, 82). A partial background factor may be that certain entrepreneurial frameworks in Finland are at least on the same level as those in competing countries (see Stenholm et. al. 2011). On the other hand, there is much development to be done in encouraging the entrepreneurial readiness and self-trust required for succeeding as an entrepreneur, which sets challenges for the entrepreneurship education of schools and other actors. However, there are risks involved in entrepreneurship education as well: if education provides a realistic image of the requirements of entrepreneurial activities, it may on the contrary, lessen the student's belief in their own entrepreneurial capabilities (Cox, Mueller & Moss 2002).

In any case, from the perspective of entrepreneurial intention, the development of entrepreneurial capacity plays a key role. Firstly, according to planned behavioral theory; actual behavioral control not only has an effect on behavioral intention, but also a direct effect on behavior. Secondly, according to this study, there is a high correlation between perceived behavioral control and the control of outcomes. So, we can assume that young people have a very incomplete knowledge concerning success as an entrepreneurship and factors that influence it.

Moreover, building an encouraging atmosphere towards entrepreneurship has a crucial significance. Indeed, according to the research results, the core challenges are expressly connected to this: Young people experience that their close environment does not encourage them towards entrepreneurship (see Kivelä 2002, 72). Almost ten years ago, the Finnish Ministry of Education and Culture set the objective of developing a nationally and regionally positive entrepreneurial culture and attitudinal climate (OPM 2004, 7). This objective can still be considered acutely important. Nevertheless, the general conception of entrepreneurship as such is not a major issue, but more so, the attitudinal atmosphere within a young person's closest circle is the primary decisive factor. The key question is how we can positively contribute to this.

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The entrepreneurial orientation between groups of students

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Abstract

The paper explores what, if any, differences there are between groups of students in their entrepreneurial orientation (EO). The EO is measured by a survey in 17 academic programs and three different universities of applied sciences in Finland. The results are analyzed statistically, and they reveal that there are significant differences in entrepreneurial orientation based on gender, age, prior work experience and academic program. The reasons for the last differentiator are considered in detail and some practical implications are proposed.

Key Words

entrepreneurial orientation, regional development, higher education

Introduction

During the last decade, entrepreneurship has been seen as an important catalyst for societal and economic growth of regions, with measures being put in place by governments and policy-makers to encourage entrepreneurial activity (European Union 2003). One could argue that developing entrepreneurial activities has been injected into the very heart of regional development agendas. This is reflected in an ongoing increase in business and entrepreneurship-centered courses of study (Plaschka & Welsch 1990; Volkmann et al. 2009; Wilson et al. 2004) and initiatives to encourage and help entrepreneurs start up their own companies, such as business idea competitions, workshops and seminars and public funding for business start-ups (Wilson et al. 2004).

Such an amount of entrepreneurship-oriented activity at the level of higher education is expected to benefit the regional development via long-term societal growth, and place educational institutions in a central role as contributors to the economic wealth of society. The institutions are increasingly expected to find ways "…to let students know of the skills necessary to successfully start a business and help build their confidence in being able to perform those activities" (Engle et al. 2010, 51). Teaching for entrepreneurship is thus very much a practice of motivation and empowerment (Krueger et al. 2000).

In order to create an effective entrepreneurship-supportive learning environment, an educator needs to know the students' original disposition towards entrepreneurship. It is a totally different task to work with students who are already enthusiastic about entrepreneurship than teaching students for whom entrepreneurship in

particular and business in general are diabolic creations. To hasten the process, it would be beneficial to know if there are any more generalized rules one could take as a starting point in this respect. Are there, for example, some academic programs in which the students are, on average, more entrepreneurially oriented than in others? Are there major differences based on regions? Does the age, gender, or some other demographical variable play a major role in this respect?

It is noteworthy to mention here that general entrepreneurial orientation per se does not mean that a person would be likely to start a new enterprise. For example, a student may have a high level of entrepreneurial orientation but still considers that she wants to use it within existing organizations. However, in the opposite case of a person being entrepreneurially highly disoriented one could expect that her tendency to start new businesses is considerably lower than in the population in general. Thus, even though entrepreneurial orientation and activities related to starting an enterprise are not strongly correlated, we will use the concept of entrepreneurial orientation in this paper to reflect the student's general position towards Schumpeterian enterprising.

There is ample evidence that entrepreneurial activity and orientation does differ significantly between regions and cultures (Acs et al. 2004; Engle et al. 2010; Orford et al. 2003; Pruett et al. 2009; van Eeden et al. 2005). While the differences based on national cultures have been studied extensively, the publications with the emphasis on comparing entrepreneurial orientation between different regions of one homogenous culture are considerably rarer. Mazzarol et al. (1999) did not find a significant difference between people living in rural vs. urban regions in Australia. Franco et al. (2010) did find differences between student groups in eastern and western Germany, but their results could also be explained by the division of respondents on different academic disciplines. These studies can be understood so that within a relatively homogenous main culture, like Germany or Australia, the effect of regional sub-cultures does disappear, thus leading to the hypothesis:

H1: *There are no statistically significant differences between student groups studying in different regions in Finland.*

However, as Franco et al. (2010) noticed, there were differences in entrepreneurial orientation between groups representing different professional cultures. This also follows from the more general results, which show that there are significant differences in the value priorities of different vocational populations (Knafo & Sagiv 2001; Sagiv 2002). The differences between professional cultures are already evident in student population as students in different academic disciplines hold different value priorities (Myyry & Helkama 2001; Verkasalo et al. 1994). The field of study has a larger effect on the personal values than the national cultures (Verkasalo et al. 1994). For example, the business students are more achievement- and power-oriented than their counterparts in social sciences and humanities (Verkasalo et al. 1994), and technology students value tradition, conformity and security more than students of social sciences (Myyry & Helkama 2001).

The disciplinary differences are reflected in the entrepreneurial activities. For example, Tackey and Perryman (1999) found the highest self-employment rates in creative arts and design courses. Franco et al. (2010) found that in their sample of German and Portuguese university students, the business administration students had a significantly higher preference to become self-employed than students of other disciplines. Taatila and Down (in review) noticed that students in nursing, social science and IT – programs were significantly less interested in an entrepreneurial career than students in service management and business development. This leads us to the following hypothesis:

H2: *There are statistically significant differences in entrepreneurial orientation between student groups based on their field of study.*

The demographic variables also provide an interesting aspect to the question on entrepreneurial orientation. There is some evidence that gender has some effect on the entrepreneurial intention of university students, with women scoring lower results than men (Mazzarol et al. 1999; Shay & Terjesen 2005;

Wilson et al. 2004), though neither Pruett et al. (2009) nor Franco et al. (2010) found evidence of this in their research. Neither did the two latter studies find any affect based on the student status (year of studies) or age (with a very limited age scale) on entrepreneurial intent in their sample. This view is supported by the results of Mazzarol et al. (1999). They studied the effect of 16 different demographic variables and found that only gender, previous employment in governmental jobs and recent redundancy produced significant results – the two latter ones correlating negatively with the propensity to start a business. For example, age, education level, prior general job experience and rural vs. urban location did not produce significant differences. For this research, we have selected to study the following control variables: gender, age, year of studies, level of studies (bachelor/master), and prior work experience. From these variables the following hypotheses were constructed:

H3: *Gender has an effect on the entrepreneurial orientation with men scoring higher than women.*

H4: *Age does not affect entrepreneurial orientation.*

H5: *The year of studies does not have an effect on the entrepreneurial orientation.*

H6: *The level of studies does not have an effect on the entrepreneurial orientation.*

H7: *Prior work experience does not have an effect on the entrepreneurial orientation.*

Entrepreneurial orientation

Covin and Slevin (1989) have developed an approach to study the entrepreneurial orientation in small businesses. It is based on three earlier approaches on strategic management (Khandwalla 1977; Miller & Friesen 1982; Mintzberg, 1973). This theory proposes that a firm has a competitive orientation, which can be located on a continuum between conservative and entrepreneurial.

On one end of the scale, conservative firms are risk-averse, non-innovative and reactive, or adaptive to the needs of the markets (Mintzberg 1973). Entrepreneurial orientation, on the other hand, is related to the extent to which top managers are "inclined to take business-related risks", "favour change and innovation in order to obtain a competitive advantage for their firm" and "compete aggressively with other firms" (Covin & Slevin 1988, 218); i.e. entrepreneurial orientation requires 1) risk taking, 2) innovation, and 3) pro-activeness. The importance of these three dimensions has been stressed also in numerous other studies, for example risk taking in (Campbell 1992; McClelland 1961; Levesque et al. 2002; Praag & Cramer 2001; Segal et al. 2005), innovation in (Schumpeter 1926; Covin & Miles 1999; Jennings & Young 1990; Schollhammer 1982) and pro-activeness in (Knight 1997; Lumpkin & Dess 1996; Lumpkin & Dess 2001; Shapero 1982; Stevenson & Jarillo 1990).

Even though Covin and Slevin (1989) wrote their paper about attributes of a firm, their research was aimed at studying the behavior of individuals within a firm – owners, executives, top management. The competitive orientation of a firm was seen to be based mainly on their attitudes and actions, their personal entrepreneurial orientation. It is, as van Eeden et al. (2005, 26) noted, that "entrepreneurship is not just about establishing a new enterprise (entrepreneurial activity); it is also about the psychological make-up behind this endeavor". Thus the presented approach can also be taken into a starting point when studying the entrepreneurial orientation of individuals.

In addition to the three dimensions of entrepreneurial orientation proposed by Covin and Slevin (1989), there are also other similar personal psychological attributes of entrepreneurial behavior. Taatila and Down (in review) proposed adding two new attributes to the list: networking and confrontation tolerance. There is plenty of evidence (e.g. Davis 1969; Hautamäki 2003; Jenssen & Greve 2002; McAdam & McClelland 2002; Myint et al. 2005; Wright et al. 1998; Shane & Stuart 2002) that active networking can create considerable advantages to enterprises. Also, the need for confrontation tolerance in entrepreneurial activities has been revealed in several studies (e.g. Ataman 2002; Lumpkin & Dess 1996;

Shane 2000; Shane & Venkataraman 2000; Taatila & Down, in review).

Thus, our scale for measuring entrepreneurial orientation has five sub-dimensions: 1) risk taking, 2) innovation, 3) pro-activeness, 4) networking, and 5) confrontation tolerance. These sub-dimensions should, according to previous discussion, differ between entrepreneurs (or entrepreneurially working individuals) and non-entrepreneurs (or conservatively working individuals). There is evidence the approach produces statistically reliable and valid data (e.g. Gürbüz & Aykol 2009; Kreiser et al. 2002; Taatila & Down, in review; Söderholm 2010). Still, the usability of the method and the scale will be verified via constructing two reliability and validity hypotheses:

H8: *There is a statistically significant difference in total entrepreneurial orientation between students with and without entrepreneurial experience.*

H9: *There is a statistically significant difference for each sub-dimension of entrepreneurial orientation between students with and without entrepreneurial experience.*

If hypothesis H8 will be falsified, then the other results cannot be considered reliable, as the scale would not measure actual orientation towards entrepreneurship – i.e. the scale could not make any predictions on whether a person is or is not an entrepreneur. If hypothesis H9 will be falsified for any of the sub-dimensions, then that sub-dimension cannot be considered reliable for the same reason as H8.

Method

The study was conducted via an internet questionnaire which took about 10 minutes to complete. The students were invited either by their tutor teachers and or, in the case of graduating students, by the student information office, with which they have to interact in order to get their graduate diplomas. Participation in the study was voluntary and no remuneration was provided to the respondents.

The survey form was designed by Taatila and Down (in review) in an earlier research project. The main part of the survey consisted of questions related to the five sub-dimensions of entrepreneurial orientation as well as the respondent's overall desire toward an entrepreneurial career. The survey makes 23 statements on the five dimensions of entrepreneurial orientation, as well as two about the entrepreneurial desire. Respondents make similarity judgments by comparing the portrait to themselves and indicating how much like them the characterized person is on a six-point scale (0=not like me at all; 5=very much like me).

The respondents were from both Finnish and English programs. Thus, the questions were translated from English to Finnish in a double-back translation process, which is consistent with the guidelines regarding the equivalence in language translations in research projects (Brislin 1980). The accuracy of the translation was extremely important, as the results would be compared to the results of other similar surveys.

In addition to the questions about entrepreneurial orientation, a set of demographic variables was measured. These included age, gender, academic program, level of studies (bachelor/master), phase of studies (in academic years), nationality, university, institute within the university, work experience and entrepreneurial experience.

After collecting the data, the entrepreneurial orientation variables were formed by calculating the mean of all the items related to the sub-dimension in question (Taatila & Down, in review). The statistical analysis of the responses was conducted by using SPSS version 18. H8 and H9 were tested by an independent samples T-test between the respondents with entrepreneurial experience and the respondents lacking it. An independent samples T-test was also done to test H7, H6 and H3, based respectively on work experience, level of studies and gender.

H4 and H5 were tested by calculating the correlations between entrepreneurial orientation variables and age and year of studies respectively.

Ideally, H1 would have been tested with ANOVA, but finally it was tested by conducting two

independent samples T-tests. This was due to weaknesses in the available sample. As data was collected at three universities, two of them collected only samples within one field of study (business administration in SAMK, well-being in LAMK – well-being: nursing, social work, physiotherapy). Thus, it was decided to test H1 by making comparisons between regions within one field of study, i.e. by comparing the SAMK sample to the Laurea students in business administration and comparing LAMK students to Laurea students in well-being to avoid the effect created by differences in academic programs.

A one-way analysis of variance (ANOVA) was performed to investigate H2, the differences created by academic program in entrepreneurial orientation. Six dependent variables were used for both: total entrepreneurial orientation, entrepreneurial desire, innovativeness, risk taking, pro-activeness and confrontation.

To investigate whether the possible statistically significant differences found between the academic programs were actually created by some demographic variables, a two-way, between-groups ANOVA was also used. The dependent variables, the ones in which differences were found, and the independent variables were academic programs and the demographic variables that differed considerably between programs.

Results

The sample consisted of 768 students from three universities of applied sciences in Finland (Laurea University of Applied Sciences N = 663, Satakunta University of Applied Sciences N = 41, Lahti University of Applied Sciences N = 64). They answered the questionnaire between September 2010 and November 2011. The reason for Laurea UAS to be over-represented in the sample as well as for the long answer period is that the study was originally aimed at internal development work for that particular institution, and the participants joined the research later. The reader should note that due to this effect, the generalization of the results is not justifiable.

Of the respondents, 74.7% (n=574) were female and 25.3% (n=194) male. 77.5% (n=595) first year and 13.3% (n=102) 4th year students, 95.1% (n=730) Finnish and 97.7% (n=750) bachelor-level students. 8.6% (n=66) had previous entrepreneurial experience and 24.1% (n=185) had either no work experience or work experience of less than a year. The mean age was 25 years, and the standard deviation 7.4 years. Out of 19 academic programs, 9 had more than 2% share of the sample (n > 15). Eight of these programs had three or more students with entrepreneurial experience, and they will be looked into when addressing H2.1. and H2.2. The academic programs in question are presented in table 1.

In order to test the internal consistency of the variables, Cronbach's alpha was calculated for each one from the questions related to the variable (see Table 2). Alpha values varied between 0.61 (networking) to 0.83 (total entrepreneurial orientation).

Table 1 The academic programs with more than 15 respondents (> 2% share of responses) and number and share of entrepreneurs in each program, as well as the gender distribution.

Program	female	male	N	% of total	N of .	% of e.
Business Ventures	14	18	32	4,2	7	22
Hotel and Restaurant Management	60	13	73	9,5	2	3
Service Management	42	10	52	6,8	4	8
Information Technology	28	55	83	10.8	10	12
Security Management	7	10	17	2.2	0	0
Nursing	155	10	165	21.5	14	9
Physiotherapy	46	14	60	7.8	4	7
Social work	121	11	132	17.2	7	5
Business management	92	47	139	18.1	15	11

Table 2 Cronbach's alphas and the number of related items for each variable of the entrepreneurial orientation.

Variable	Alpha	N of items
Total EO	0.83	24
Entrepreneurial desire	0.78	2
Innovation	0.78	5
Pro-activeness	0.63	4
Risk taking	0.76	6
Networking	0.61	5
Confrontation	0.65	2

Ideally Cronbach's alpha values should be above 0.7 for the variables to be considered reliable (DeVellis 2003). The alphas for pro-activeness (0.63), networking (0.61) and confrontation (0.65) fall under this limit. However, the scales have only a few items, and in these cases, it is common to find quite low Cronbach values (Briggs & Cheek 1986). Thus, we will use the variables in the analysis but will keep in mind the potential problems related to their reliability.

The validity of the metrics was tested by hypotheses H8 and H9 – do the scales produce differences between students with and without entrepreneurial experience. Independent samples T-tests (results are provided in table 3) were conducted to compare total entrepreneurial orientation, entrepreneurial desire, innovation, pro-activeness, risk taking, networking and confrontation for students with and without entrepreneurial experience.

Table 3 The results of the independent samples T-tests in comparing the variables between students with entrepreneurial experience and students without entrepreneurial experience.

	Entrepreneurs (66)		Not entrepreneurs (702)						95% CI		
	Mean	SD	Mean	SD	t (766)	p (2-tailed)	Mean diff	Std. Error	Low	Upper	eta sqr
Total EO	3.17	0.60	2.69	0.60	-6.30	< 0.005	-0.48	0.08	-0.63	-0.33	0.05
Desire	3.30	1.27	2.30	1.25	6.25	< 0.005	-1.01	0.16	-1.32	-0.69	0.05
Innovation	3.60	0.98	3.10	0.91	-4,30	< 0.005	-0.51	0.12	-0.74	-0.27	0.02
Risk taking	2.89	0.83	2.27	0.81	-5,98	< 0.005	-0.62	0.10	-0.83	-0.42	0.04
Pro-activeness	3.10	0.93	2.58	0.85	-4,66	< 0.005	-0.51	0.11	-0.73	-0.30	0.03
Networking	3.06	0.99	2.92	0.97	-1,16	0.25	-0.14	0.12	-0.39	0.10	0.00
Confrontation	3.16	1.11	2.86	1.11	-2,07	0.04	-0.30	0.14	-0.58	-0.02	0.01

As can be seen from table 3, all other variables except networking produced a significant difference between two groups. The magnitudes in the differences in the means in the variables with statistical significant had effects between small and moderate (Cohen 1988), ranging from confrontation (0.01) to total entrepreneurial orientation and desire for entrepreneurship (0.05). Thus, we can verify H8. There is a statistically significant difference in total entrepreneurial orientation between students with and without entrepreneurial experience. We can also verify H9 for all other variables except networking. When this information is combined with the low Cronbach's alpha value, networking as a separate variable will be omitted from the further analysis.

An independent samples T-test was conducted to compare the effect of gender on the EO-variables. The results of the independent samples T-test are provided in table 4.

Table 4 The results of the independent samples T-tests in comparing the variables between female and male students.

	Female (574)		Male (194)						95% CI		
	Mean	**SD**	**Mean**	**SD**	**t (766)**	**p (2-tailed)**	**Mean diff**	**Std. Error**	**Low**	**Upper**	**eta sqr**
Total EO	2.72	0.60	2.76	0.63	-0.97	0.33	-0.05	0.05	-0.15	0.05	0.00
Desire	2.26	1.26	2.76	1.27	-4.84	< 0.005	-0.51	0.10	-0.71	-0.30	0.03
Innovation	3.20	0.92	2.98	0.94	2.75	0.01	0.21	0.08	0.06	0.36	0.01
Risk taking	2.26	0.82	2.50	0.82	-3.58	< 0.005	-0.24	0.07	-0.38	-0.11	0.02
Pro-activeness	2.58	0.87	2.77	0.85	-2.71	0.01	-0.20	0.07	-0.34	-0.05	0.01
Confrontation	2.88	1.12	2.91	1.08	-0.42	0.68	-0.04	0.09	-0.22	0.14	0.00

According to table 4, entrepreneurial desire, innovation, risk taking and pro-activeness produced statistically significant differences between men and women. The magnitudes in the differences in the means were relatively small, the highest being entrepreneurial desire (0.03). Thus, we can partially verify H3. The gender has an effect on the entrepreneurial orientation with men scoring higher than women, but only in their entrepreneurial desire, risk taking and pro-activeness. Innovation also produced a statistically significant difference, but in that variable, women scored higher than men, thus partly falsifying the hypothesis.

Another independent samples T-test was conducted to compare the effect of the level of studies (master/bachelor) on EO variables. The sample sizes were rather unequal with N(bachelor) = 750 and N(master) = 18. According to Levene's test, the equal variances could not be assumed for entrepreneurial desire and pro-activeness, but they could be assumed for the rest of the variables (Pallant 2010). The results of the independent samples T-test are provided in table 5.

Table 5 The results of the independent samples t-tests in comparing the variables between bachelor-level and master-level students. The equal variances are assumed for total entrepreneurial orientation, innovation, risk taking and confrontation. The equal variances cannot be assumed for entrepreneurial desire and pro-activeness

	Bachelor (750)		Maste (18)						95% CI		
	Mean	**SD**	**Mean**	**SD**	**t (766)**	**p (2-tailed)**	**Mean diff**	**Std. Error**	**Low**	**Upper**	**eta sqr**
Total EO	2.72	0.6	3.19	0.72	-3.30	< 0.005	-0.47	0.14	-0.75	-0.19	0.01
Desire	2.37	1.27	2.75	1.68	-0.94	0.36	-0.38	0.40	-1.22	0.47	0.00
Innovation	3.12	0.92	3.69	0.91	-2.57	0.01	-0.56	0.22	-1.00	-0.13	0.01
Risk taking	2.31	0.81	2.83	1.09	-2.68	0.01	-0.53	0.20	-0.91	-0.14	0.01
Pro-activeness	2.61	0.85	3.38	1.29	-2.57	0.02	-0.77	0.30	-1.40	-0.14	0.01
Confrontation	2.88	1.11	3.14	1.01	-0.97	0.33	-0.26	0.27	-0.78	0.26	0.00

As can be seen from table 5, total entrepreneurial orientation, innovation, risk taking and pro-activeness produced statistically significant differences between bachelor- and master-level students. The magnitudes in the differences in the means were small (0.01). Still, we can falsify H6. The level of studies does have an effect on the entrepreneurial orientation.

The effect of work experience on EO variables was also studied via an independent samples T-test. The equal variances could be assumed for the other variables except pro-activeness (Pallant 2010). The results of the independent samples T-test are provided in table 6.

Table 6 The results of the independent samples T-tests in comparing the variables between students with one or less years of work experience to students with longer work experience. The equal variances are assumed for all the other variables except pro-activeness.

	Work experience=< 1 year (485)		Work experience > 1 year (283)						95% CI		
	Mean	SD	Mean	SD	t (766)	p (2-tailed)	Mean diff	Std. Error	Low	Upper	eta sqr
Total EO	2.60	0.60	2.80	0.60	4.41	<0.005	0.20	0.04	0.11	0.29	0.02
Desire	2.20	1.26	2.49	1.28	3.02	<0.005	0.29	0.10	0.10	0.48	0.01
Innovation	2.95	0.91	3.24	0.92	4.27	<0.005	0.29	0.07	0.16	0.43	0.02
Risk taking	2.16	0.80	2.41	0.82	4.11	<0.005	0.25	0.06	0.13	0.37	0.02
Pro-activeness	2.41	0.79	2.74	0.89	5.31	<0.005	0.33	0.06	0.21	0.45	0.04
Confrontation	2.95	1.15	2.85	1.09	-1.25	0.21	-0.10	0.08	-0.27	0.06	0.00

The T-test produced statistically significant differences between groups in total entrepreneurial orientation, entrepreneurial desire, innovation, risk-taking and pro-activeness. The magnitudes in the differences in the means were rather small, the highest being pro-activeness (0.04). Thus, we can falsify H7. The prior work experience does have a positive effect on the entrepreneurial orientation.

The relationships of age and year of studies to EO variables were investigated using the Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. The results are presented in table 7.

Table 7 The correlations of age and year of studies to total entrepreneurial orientation, entrepreneurial desire, innovation, risk taking, pro-activeness and confrontation. N for each calculus was 768. The significant correlations are marked by an asterisk (*).

		Total EO	Desire	Innovation	Risk taking	Pro-activeness	Confrontation
Age	corr.	0.14*	0.03	0.25*	0.11*	0.25*	-0.04
	p (2-tail)	<0.005	0.37	<0.005	<0.005	<0.005	0.23
Year of studies	corr.	-0.03	-0.06	0.00	0.05	0.02	-0.10*
	p (2-tail)	0.42	0.09	0.91	0.19	0.53	<0.005

Regarding age, there was a statistically significant positive correlation with four variables: total entrepreneurial orientation ($r = 0.14$, $p < 0.005$), innovation ($r = 0.25$, $p < 0.005$), risk taking ($r = 0.11$, $p < 0.005$) and pro-activeness ($r = 0.25$, $p < 0.005$) with $n = 768$. All of the correlations were relatively weak (< 0.25). However, since there were several significant correlations present in the sample, it is possible to falsify H4 – age does have an effect on the entrepreneurial orientation, with older persons showing higher scores.

Regarding the year of studies, there was only a weak negative correlation on one of the variables, confrontation, $r=-0.10$, $n = 768$. $p < 0.005$. Thus, we can overall agree with H5. The year of studies does not have an effect on the entrepreneurial orientation.

H1 was tested by making two independent samples T-test. Firstly, by comparing business administration students in SAMK ($n = 41$) to business administration students in Laurea ($n = 98$) and, secondly, by comparing well-being students in LAMK ($n = 64$) to well-being students in Laurea ($n = 293$).

Neither comparison found any statistically significant differences for any of the EO variables. Thus, we can accept H1 for this sample. No statistically significant differences were found between student groups studying in different regions in Finland.

H2 was tested by a one-way, between-groups analysis of variance (ANOVA). The factors were the eight academic programs listed in table 1, and the dependent variables were the EO variables. The test of homogeneity of variances showed that the sample did not violate the assumptions except for innovation, which will be omitted from further discussion on this topic. There was a statistically significant difference at the $p < 0.05$ level between the factors in total entrepreneurial orientation ($F(8.744) = 4.17$; $p < 0.005$), entrepreneurial desire ($F(8.744) = 11.78$; $p < 0.005$) and risk taking ($F(8.744) = 3.38$; $p < 0.005$).

Post-hoc comparisons were made using the Tukey HSD test for the three variables that showed statistically significant results. Their results are presented in tables 8 (total entrepreneurial orientation), 9 (entrepreneurial desire) and 10 (risk taking).

Table 8 The statistically significant differences in total entrepreneurial orientation between students of different academic programs. The significant differences are marked with an asterisk (*).

	Business Ventures	**Information Technology**	**Nursing**	**Social work**
N	32	83	165	132
Mean	3.08	2.56	2.72	2.59
SD	0.66	0.68	0.55	0.59
Business Ventures	-	*	*	*
Information Technology	*	-		
Nursing	*		-	
Social work	*			-

Table 9 The statistically significant differences in entrepreneurial desire between students of different academic programs. The significant differences are marked with an asterisk (*).

	Business Ventures	Hotel and Restaurant Management	Service Management	Information Technology	Security Management	Nursing	Physiotherapy	Social work	Business Management
N	32	73	52	83	17	165	60	132	139
Mean	3.40	2.94	2.84	2.28	1.91	1.90	2.62	2.03	2.62
SD	1.29	1.12	1.25	1.21	1.32	1.18	1.25	1.23	1.21
Business Ventures	-			*	*	*		*	*
Hotel and Restaurant Management		-		*	*	*		*	
Service Management			-			*		*	
Information Technology	*	*		-					
Security Management	*	*			-				
Nursing	*	*	*			-	*		*
Physiotherapy						*	-	*	
Social work	*	*	*				*	-	*
Business management	*					*		*	-

Table 10 The statistically significant differences in risk taking between students of different academic programs. The significant differences are marked with an asterisk (*).

	Business Ventures	Social work	Business management
N	32	132	139
Mean	2.66	2.06	2.43
SD	1.03	0.87	0.75
Business Ventures	-	*	
Social work	*	-	*
Business management		*	-

The results verify H2. They present statistically significant differences in entrepreneurial orientation between student groups based on their field of study. However, while there are some differences in total entrepreneurial orientation and risk taking, the majority of difference lies in their entrepreneurial desire. The students in business ventures, hotel and restaurant management and service management scored significantly higher results than students in nursing, security management and social work. Thus, it is possible to conclude that while there are differences in entrepreneurial desire based on the academic programs, there are only trifle differences in the entrepreneurial traits.

One of the demographic variables, gender, differed greatly between academic programs as presented in table 1. In order to investigate whether the differences between groups in entrepreneurial desire and total entrepreneurial orientation were mainly created by academic program or differences in gender distribution, a two-way between-groups ANOVA was conducted. In investigating the entrepreneurial desire, the interaction effect between academic program and gender was not statistically

significant, F (10, 744) = 0.93, p = 0.51. There were statistically significant main effects both for gender F (10, 744) = 13.95, p < 0.005 and academic program F (10, 744) = 4.90, p < 0.005. The effect sizes, measured in partial eta squared were 0.02 (small) for gender and 0.07 (moderate) for academic program. In investigating the total entrepreneurial orientation, the interaction effect between academic program and gender was not statistically significant, F (10,744) = 1.34, p = 0.21. There was no statistically significant difference between genders, F (10, 744) = 2.07, p = 0.15. A statistically significant difference between academic programs F (10, 744) = 1.80, p = 0.04 was revealed. The effect size was rather small, 0.03.

Based on the two-way between-groups ANOVAs we can conclude that the academic program is the main part in creating differences between student groups. While gender does play a role in entrepreneurial desire, the psychological and social mechanism that selects relatively homogenous people to academic programs takes the center stage.

Discussion

The key question of the article was to determine if there were some group-based characteristics that would make some student groups more entrepreneurially oriented than other ones. The first subject was determining if there were any differences in entrepreneurial orientation based on geographical region in which the students were studying. The sample had students from three different regions in Finland: Helsinki metropolitan region, the city of Lahti in south-eastern Finland and the city of Huittinen in western-Finland. No statistically significant differences were found between students groups studying in these three regions. However, the selected sample was rather narrow both in Lahti and in Huittinen, thus decreasing the reliability of the results. All three regions are also located in southern parts of Finland, thus having relatively similar cultural backgrounds, which decreases the validity of the results. Still, the results are in line with the conclusions of Franco et al. (2010) and Mazzarol et al. (1999). It would seem that there are no major differences between regions within rather homogenous cultures.

When looking at the demographic effects, they had major effects on the entrepreneurial orientation. Against Franco et al. (2010) or Mazzarol et al. (1999) it was found that age did play a significant role in determining the entrepreneurial orientation of the respondents. This may or may not be partly explained by the sample. In Franco et al.'s case, the age distribution was very limited, and as Mazzarol et al. studied people in all walks of life, the sample of this study was collected amongst the students of universities of applied sciences. It is quite possible that the older students have selected additional education in order to pursue their personal goals more than the younger students, who are still looking for their walk of life. Thus, the older students would be more focused on entrepreneurial characteristics – they know that in order to advance in their professional path they need innovation, risk taking, pro-activeness and confrontation tolerance. However, when designing an entrepreneurial study program, one should note the age variation within the group.

Another effect on entrepreneurial orientation followed from the level of studies, with master-level students being more entrepreneurially oriented than their colleagues at bachelor-level. However, this can be partly explained by the age distribution of the students. Master-level students in universities of applied sciences must have a prior bachelor-degree and at least three years of work experience before they can apply for master programs. Thus, they are considerably older and more experienced than average bachelor-level students. It is possible that this effect can be explained to an extent as an extension of age.

Another area in which there was a disagreement with the findings of Mazzarol et al. (1999) is the effect of prior work experience. In their sample, the only work experience that had an effect on entrepreneurial tendencies was employment in government, which had a negative effect. According to the presented results, the prior work experience had a significant positive effect on the entrepreneurial orientation.

The gender question followed the findings of Mazzarol et al. (1999), Shay and Terjesen (2005) and Wilson et al. (2004) – it does have an effect on the entrepreneurial orientation. Interestingly,

the mentioned studies found that men were more entrepreneurial than women, but the presented sample agreed with this only on total entrepreneurial orientation, entrepreneurial desire, risk taking and pro-activeness. In innovation, women scored statistically significantly higher results than men. However, overall we can still agree that men consider themselves to be more entrepreneurial than women.

Overall, the sample presented a relatively traditional picture of an entrepreneurially oriented student. He is older than the average male with prior work experience, preferably studying in master-level. His entrepreneurial ambitions do not change considerably during the studies.

To continue the traditional view, the differences between the students on different academic programs seem to follow the findings of Tackey and Perryman (1999) and Franco et al. (2010): there are statistically significant differences in entrepreneurial orientation between student groups based on their field of study. The presented sample did not have students from creative arts and design courses, which Tackey and Perryman (1999) found to produce the largest shares of entrepreneurs. The students in business management were not found to be as distinctively entrepreneurial either as Franco et al. (2010) reported. However, this can be explained by a difference in categorization. The sample used in the presented research included a special entrepreneurial program, business ventures, as a separate-from-mainstream business management program. It is most likely that the entrepreneurial students have been pulled into this special program, thus starving some entrepreneurial drive from the business management program. This conclusion is supported by the results, according to which the students in business ventures scored the highest entrepreneurial orientation. Also, the students in hotel and restaurant management and service management scored significantly higher results than students in nursing, security management and social work.

However, the major part of the difference is based on the entrepreneurial desire, not the sub-variables of entrepreneurial orientation. The students in the programs scoring low on entrepreneurial desire are not considerably below their counterparts in innovation, pro-activeness or confrontation tolerance. Risk taking was the only sub-variable of entrepreneurial orientation in which there were significant differences, and even in that case, the differences were very few, with social work students being more risk averse than their colleagues in business ventures or business management.

The collected sample agreed with the findings of Franco et al. (2010) and Pruett et al. (2009) that the year of studies does not have a statistically significant effect on their entrepreneurial orientation. It seems that this quality does not differ considerably during the years in the university. The entrepreneurial students are entrepreneurial already when beginning their studies, and the non-entrepreneurial students do not change that much either. Thus, the reasons for the differences between academic programs must lay in some other mechanism than the pedagogic process. The collected sample does not allow us to make clear conclusions on the reasons for the presented phenomenon. However, it is possible to build several hypotheses that should be studied further in order to test whether they can be falsified.

Firstly, what is the effect of the admission tests? Could it be that in nursing and social work, for example, they do not favor potential students with entrepreneurial desire? It would be possible to extend the research to the applicants for each program, but would that be beneficial? It is quite possible that the research would only show that the applicants are also already very polarized in their entrepreneurial desire, which leads to the next hypothesis.

It is quite possible that the presented situation is due to selective mechanisms related to applying and being accepted to academic programs. For example, in order to enter a challenging program, like architecture or medicine – or in our sample nursing or social work -, an applicant should have chosen early on in life to study subjects relevant to that field. The future student has selected, for example, natural sciences over social sciences in high school. Then the applicant has to have considered the discipline interesting for her personally and show enough commitment and

competence to pass the hurdle of entrance examinations, competing with a score of similarly minded and oriented students. When studying, it could be expected that the students who do not find the discipline interesting enough will drop out easier than the ones that get immersed in the profession. Those who graduate have made numerous value-based selections in order to pass their chosen profession, making both the single professional and student populations rather narrow in the personal value priorities and thus creating strong disciplinary cultures as for example Knafo and Sagiv (2001) and Sagiv (2002) have unveiled.

There may also very well be even stronger background currents affecting the selective mechanism. It is possible that the personal nurture has some effects on the preferences the future students show in academic programs. The effect created on personal value priorities (Verkasalo et al. 1994) by parents, relatives, friends and our whole social environment is likely be huge. It is a totally different situation to grow up in a family of successful enterprisers than in a family of publicly (under)funded care-takers. The available resources, the exemplary patterns and measures of success etc. differ greatly, thus affecting the personal view of the life of the young individual, affecting the subjects she studies in high school and on the academic programs she applies to - or whether she will even apply to academics at all.

There is also some evidence that nature plays its role in entrepreneurial orientation. For example, White et al. (2006) has shown that there is a positive relationship between the testosterone levels and the interest towards new venture creation. More generally, Dabbs (1992) has verified that people in different occupations have different levels of testosterones. It is most unclear as to how large an effect this type of natural phenomenon has on entrepreneurial desire and how they interact with nurturing processes in order to produce such clear differences between student populations of different academic programs.

Whatever the selection mechanism is, the differences between academic programs do exist, while possible region-based differences were not observed. How, then, should the educators take the differences into account? At least it would sound plausible to accept that there may be some major differences in entrepreneurial desire. Using considerable time to motivate students already interested in entrepreneurship is a waste of time and can actually prove to be counter-effectual, while not finding ways to overcome the personal values inhibiting entrepreneurial interest in another group may prove to be even more disastrous. The teacher should understand whether entrepreneurship is favored of feared in the group and act accordingly. As a rule of thumb, the older, more experienced and more male dominant the group is, the more positive view they have on entrepreneurship. However, the biggest effect lays on the academic program, with nursing and social work programs having considerably low interest on an entrepreneurial career.

Simultaneously, the teacher should keep in mind that the difference lies mainly in the entrepreneurial desire, not the variables affecting entrepreneurial orientation. The student groups do not differ considerably in innovation, pro-activeness or confrontation tolerance, and only very little in the risk-taking propensity. Thus it is very possible to develop the entrepreneurial traits, while possibly camouflaging them under different titles, like "innovation" or "development" exercises. Introducing entrepreneurship as one means of taking effective use of innovation processes could, for example, be a good way of motivating entrepreneurship-negative students into that potential path.

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Pro-entrepreneurial attitudes of students in relation to their educational profile: Poland against the background of other countries

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Abstract

Entrepreneurship has become a significant and crucial factor in socio-economic development. Entrepreneurs create new jobs, introduce innovation onto the market, accelerate the pace of structural and institutional changes, and through increasing the importance of competition influence the productivity and consequently also the competitiveness of an economy. People's attitudes towards entrepreneurs, entrepreneurial activity and its social functions are the most decisive factors for students who start out on the entrepreneurial path. Schools and universities must prepare students for working in a dynamic and globally entrepreneurial environment. Hence students must acquire the ability to think about business on a global scale; they must learn to develop creativity, individualism and innovativeness. In this chapter researchers try to find out, whether students in Europe are still not eager to become entrepreneurs and prefer paid jobs in companies, as well as whether there are still differences in attitudes towards entrepreneurship between different countries. From the perspective of policy makers it is also important to find out, whether there are different expectations of potential entrepreneurs with regard to the tools used by higher education institutions to enhance entrepreneurial activities. According to the research results, the process of entrepreneurial education is not effective. The universities have to redouble their efforts towards enhancing entrepreneurial intentions and provide different tools adapted to national and regional circumstances so as to make the educational process for future entrepreneurs more efficient.

Key Words

entrepreneurship, entrepreneurs, higher education, entrepreneurial attitude

Introduction

Never before has entrepreneurship been as important as it is now. We live in a global world, without clear economic borders, in which the competitiveness of economies and nations has taken on a completely new dimension. Simultaneously, the world economic crisis has sharply exposed the weaknesses of various economic organisms. Entrepreneurship, therefore, has become a significant factor in socio-economic development. Entrepreneurs create new jobs (through starting new companies but also through increasing employment in existing ones), introduce innovation onto the market, accelerate the pace of structural and institutional changes, and through increasing the importance of competition influence the productivity and consequently also the competitiveness of an economy. Building economies and societies based on knowledge has highlighted the importance of creative and enterprising people: individualists who are willing and able to find better ways of running a business, thus increasing the standards of living of people and households (Sirec & Rebernik 2011, 126). This element has become particularly important at a time when economies are struggling in the post-crisis realities and are facing recession or economic slowdown. Those countries whose citizens exhibit stronger entrepreneurial attitudes are likely to tackle their economic problems and improve the situation in the job market much more quickly. Thus, teaching entrepreneurship and promoting entrepreneurial attitudes is absolutely imperative for the welfare of countries and nations. The positive influence of an entrepreneurial education as regards choosing entrepreneurship for a career as well as the possession of character features which are conducive to starting and running a business have been the subject of ample research (Summit Consulting 2009; Weber et al. 2009; European Commission 2008; Souitaris et al. 2007; Fayolle et al. 2006; Honig 2004; DeTienne & Chandler 2004; Fiet 2000). Those graduates who have completed entrepreneurial education courses tend to express a greater willingness to start a business, are better able to identify and assess business opportunities, more easily adapt to market changes, and tolerate greater risks. Yet, as the research findings published in Global Entrepreneurship Monitor Reports show, in most countries entrepreneurship is not taught properly (Martinez et al. 2010, 9). Over half of European students have no access to an entrepreneurial education. In respect of teaching entrepreneurship, Europe is ranked far behind the United States (European Commission, 2008, 31-32). This is why the European Commission, as far back as 2008, recommended that the following actions should be taken at the EU level:

- Using structural funds for implementing initiatives aimed at teaching entrepreneurship at university level;
- Incorporating the means and objectives into the Lisbon 2.0 programme and into the assessments of the National Reform Programmes of member countries;
- Initiating an EU programme involving internships for academics who are involved in entrepreneurial education as well as exchanging experiences
- Awarding an annual prize for the most 'entrepreneurial' institution.

The actions recommended at the local level included the following:

- Developing and implementing a policy aimed at including entrepreneurship in the mainstream of higher education and the development of resources;
- Guaranteeing the freedom of academic institutions as regards designing entrepreneurship courses and including them in their educational prospectus;
- Monitoring and evaluating progress in implementing entrepreneurial courses;
- Supervising the development of the whole system of education in respect of teaching entrepreneurship in view of the necessity of introducing issues connected with entrepreneurship at every level.

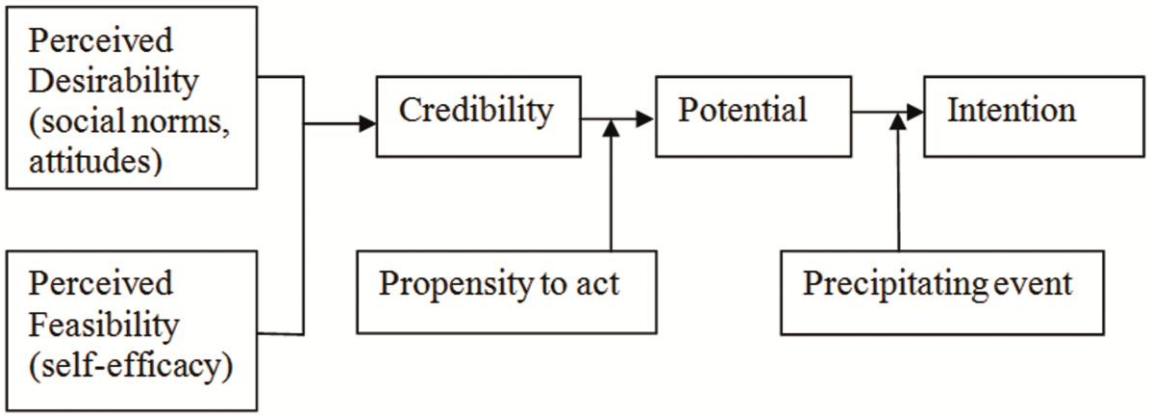
Europe certainly is not achieving its full entrepreneurial potential and there is room for ample initiatives in this respect at European, national and regional levels. Especially, there is room for introducing tools in higher education institutions to foster and enhance entrepreneurial activities and trigger entrepreneurial intentions. To establish this, which is the aim of the paper, we have to recognize whether there is still a lack of entrepreneurial intentions and whether attitudes

towards entrepreneurship differ across countries, which would imply using various tools adjusted to national circumstances. The research results presented in this paper refer to the international Tempus Joint Project 144713 "Fostering Entrepreneurship in Higher Education FoSentHe" granted to a consortium managed by Marina Dabić from the University of Zagreb, Faculty of Economics and Business for the period 2009-2012. The research was conducted in five countries: Croatia, France, Israel, Lithuania and Poland. The paper ends with conclusions and a set of recommendations directed to politicians and policy makers deciding on the composition of educational systems.

Theoretical background

There is general agreement that people's attitudes towards entrepreneurs, entrepreneurial activity and its social functions are the most decisive factors for students who start out on the entrepreneurial path. The theories that explain this attitude have made significant progress from the pioneering publication on this topic in 1982 (Shapero and Sokol 1982). In this early publication it was stated that the entrepreneurial spirit is shaped mostly through individual systems of values, thus reinforcement, admiration and respect in a given community for new enterprise creation, innovativeness and risk taking lead to an increase in the number of future entrepreneurs. Although the social connections and interrelations between social factors are much more complex now, we can treat this theory as a good starting point for considering attitudes towards entrepreneurship. In Ajzen's Theory of Planned Behaviour the influence of behavioural beliefs on certain attitudes is analysed. People form favourable attitudes towards behaviours believed to have desirable consequences and negative attitudes towards behaviours associated with undesirable consequences. As a general rule, the stronger the intention to engage in a behaviour, the more likely would be its performance (Ajzen 1991). Intention is additionally influenced by social norms and beliefs. Such a distinction is incorporated in Krueger and Brazeal's model, which overlaps the Shapero and Ajzen models as it emphasizes the constructs of both the perceived desirability and feasibility of a venture. This model is depicted in Figure 1.

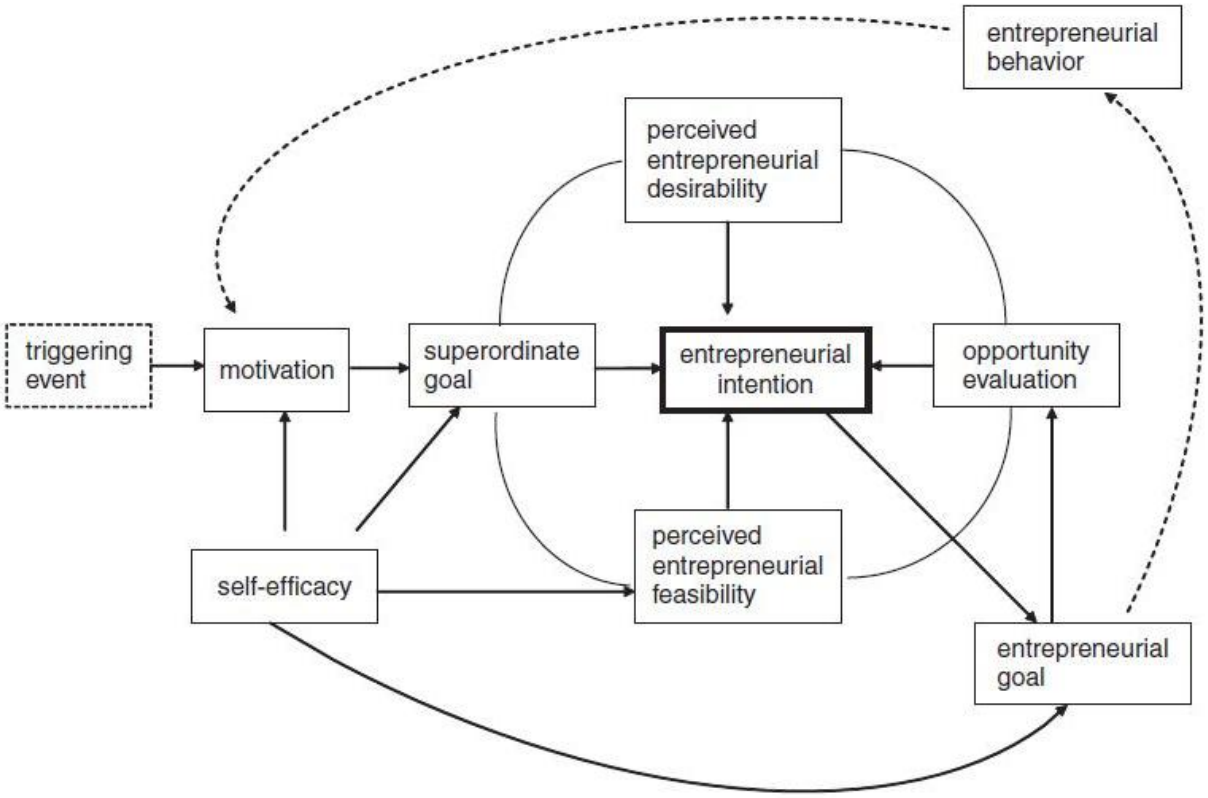
Figure 1 Entrepreneurial potential



Source: Krueger and Brazeal 1994, 95.

Credibility requires that certain behaviours be seen as both desirable and feasible (a combination of the Shapero and Ajzen models). These antecedents affect the intentions towards a behaviour or action, which can also be new venture creation. The model predicts that although the individual perceives new venture creation as desirable and feasible, and therefore credible, he/she does not have any intention to realize the behaviour because certain precipitating event may be lacking (Veciana, Aponte & Urbano 2005). Social norms do not always have a crucial impact on certain behaviour; however, though differences between countries can be noticed they seem to be more or less supportive towards entrepreneurial activity (Davidsson & Wiklund 1997). The Krueger and Brazeal model does not include any of the features of intentionality that are considered important for entrepreneurial intentions like motivation, goals, and opportunity. These elements are included in the context-specific entrepreneurial intentions mode described by Elfving (2008) that is presented in Figure 2.

Figure 2 Context-specific entrepreneurial intentions mode



Source: Carsrud A.L., Brännback M. 2009, 29

The whole structure of entrepreneurial intention, along with all the factors shaping it, deeply affects entrepreneurial behaviour, but the outcome is also governed by how entrepreneurial goals are set. The triggering event is very situational and can arise from very different antecedents; from a sudden decrease in quality of life such as the loss of a job, to an increase in internal motivation and ambition or even pride. In recent research an interdisciplinary approach has been preferred. One of the predominant analytical frameworks for this approach used to be Hofstede's (1980; 2001) psychological theory and dataset based on cultural value dimensions (Hayton, George & Zahra 2002). These dimensions differ between countries, along with the economic situation and the social-economic context of the entrepreneurial motivation. The following questions arise: whether we can respond with these same tools to different kinds of motivation in different countries; and how can we shape this motivation, evaluate opportunities and set commensurate goals. Finally, what can universities do to enhance the process of creating new ventures and adapt educational courses to

the needs of future entrepreneurs. In this paper three hypothesis are tested:

H1: *Students in Europe are still not eager to become entrepreneurs and prefer paid jobs in companies.*
H2: *There are still differences in attitudes towards entrepreneurship between different countries.*

H3: *There are different expectations regarding the tools used by higher education institutions to enhance entrepreneurial activities.*

If these hypotheses are true, universities have to redouble their efforts towards enhancing entrepreneurial intentions and provide different tools adapted to national (probably even regional) circumstances so as to make the educational process for future entrepreneurs more efficient.

Entrepreneurial education in Poland: the current state of knowledge.

In comparison to other countries Poland seems to be a nation of entrepreneurs. Its recent economic transformation created favourable conditions for the development of entrepreneurship, especially on a small scale, which manifests itself in the number of new businesses, but most prominently in the way of thinking. A growing sense of individuality is accompanied by a growing ambition and desire for success. By joining the European Union Poles have acquired a point of reference for wealth creation as well as personal and professional development. The attractiveness of the status of entrepreneur was evaluated, on average, at 28% in the EU-15 countries, whereas in Poland it was as high as 42% (European Commission 2007b, 42-44). It must be emphasised that the main transformation processes, i.e. liberalisation and privatisation, are not in themselves sufficient to generate constructive entrepreneurial forces in the various sectors of the economy. An essential prerequisite are certain additional institutional changes which can direct and propel market-oriented entrepreneurship towards improving the competitiveness of an economy and ensure its stable growth (Kolodko 2000). The spirit of entrepreneurship and its characteristic features such as motivation, creativity, initiative, striving for autonomy, tolerance of risk, a capacity for exploring, an ability to set targets, self-reliance and perseverance are formed during adolescence. Therefore entrepreneurial education ought to be introduced at an early stage of schooling (Węcławska & Zadura-Lichota 2010, 174). In 2003 Poland started to introduce an obligatory 'Fundamentals of entrepreneurship' course at secondary-school level (two hours a week in general and technical upper secondary schools and one hour a week in vocational schools).[1] A school inspection revealed that the 'Fundamentals of entrepreneurship' course as well as the 'Preparation for active participation in economic life' module taught at lower secondary school level had been incorporated into the curricula of different types of schools in accordance with the regulations, which puts Poland in the forefront of EU countries in respect of implementing entrepreneurial education at secondary-school level (European Commission, 2007, 1). Poland is highly appraised for its entrepreneurial education at secondary level, but a great deal still remains to be done at tertiary level. After 1990 there was a considerable increase in the level of interest in entrepreneurship, which resulted in opening numerous post-secondary schools offering an economic education (often with 'Entrepreneurship' in the name) as well as the possibility of choosing entrepreneurship as a specialisation. However, entrepreneurial education, even in business schools, is still fairly limited. The students are convinced that if they opt for business schools, which are often very prestigious and have high positions in the rankings, they will be well prepared for their future jobs. Later, however, it turns out that the abilities they acquired at school are of little use when it comes to their professional duties.

[1] The core curriculum for general secondary education (Dz. U. [Journal of Laws] 2002 No. 51, item 458, Regulation of the minister of National Education and Sport of 26 February 2002 on the core curriculum for pre-school and general education in particular types of schools with later amendments; Dz. U. [Journal of Laws] 2007 No. 157 item 1100 Regulation of the Minister of National Education of 23 August 2007 amending the regulation on the core curriculum for pre-school and general education in particular types of schools).

The curricula and the quality of the education are inadequate, one of the manifestations of this being that positions at an executive and managerial corporate level are not dominated by business school graduates (Deszczyński 2007, 84). Also, the majority of project leaders are graduates from technical universities although it would seem that specialists in organisation management who have graduated from economic schools would be better suited for such posts. It also ought to be mentioned that the curricula themselves are usually rated more highly than the level of proficiency among graduates. This seems to indicate that it is not very difficult to complete economics studies (Kurklinski & Maszybrocki 2008, 3-6). This may also indicate that schools of economics do not promote the spirit of entrepreneurship and do not educate young people on how to be entrepreneurs. There are numerous reasons why the knowledge acquired during a course of studies is not reflected in practical skills. The basic ones are the following:

1. Over the years universities have almost completely abandoned organising work experience programmes which could provide contact with actual business issues and make it possible for students' knowledge to be confronted by economic reality;[2]
2. A large proportion of academic teachers have no contact with economic practice and they teach students only about theoretical issues which have little connection with real business;
3. Academic teachers rarely use modern teaching methods such as case studies, virtual games or simulations; they opt for traditional methods which are inadequate in the modern world;
4. Universities concentrate on conveying theoretical 'academic' information rather than on practical preparation for work; as a result students are able to elaborate in detail on economic theories while at the same time often being unable to perform simple job-related activities.

Entrepreneurship as a separate subject is almost non-existent even in business schools. Universities can of course choose to teach the subject as an optional one but they rarely do. The Ministry of Science and Higher Education has prepared sets of standards for different university courses. A summary of the standards for economic sciences is presented in Table 1.

Table 1 Entrepreneurship in selected educational standards issued by the Ministry of Science and Higher Education

Specification	Obligatory in graduate profiles	Obligatory in the 1st cycle	Obligatory in the 2nd cycle
Administration	x	-	-
Economics	x	-	-
European studies	-	-	-
Finance and accounting	-	-	-
Land management	-	-	-
Information technology and econometrics	-	-	-
Logistics	-	-	-
International relations	-	-	-
Commodity science	x	-	-
Tourism and recreation	x	-	-
Management and production engineering	x	-	-
Management	x	-	x

Source: Own compilation based on the educational standards issued by the Ministry of Science and Higher Education,http://www.bip.nauka.gov.pl/bipmein/index.jsp?place=Lead07&news_cat_id=117&news_id=982&layout=1&page=text, version 10.11.2010.

[2]Work experience programmes are recommended in the standards issued by the Ministry of Science and Higher Education for all branches of economic sciences.

As Table 1 shows, entrepreneurship as a separate subject appears only in the second cycle of studies as the Management specialisation. The ability to start a business or create a new company is also very rare in the description of graduate profiles. For example, a graduate of an International Relations course, according to Ministry standards, should "[...] possess analytical and methodological skills which would enable them to work in positions which require conscious, rational and accurate assessments and opinions, and should have acquired the habits of personal responsibility and initiative. A graduate should be prepared for working in institutions and organisations connected with international trading; international institutions and organisations; government institutions connected with foreign and economic policy; research and expert centres involved in international relations; diplomacy and the mass media – the press, radio or television." There is no mention of being capable of starting and running a business in the international economic environment. Possessing the features characteristic of an entrepreneur is only rarely mentioned in the profiles of other specialisations (Olearnik 2007, 115-116). The situation looks even worse in non-business universities, whereas teaching entrepreneurship at Technical Universities (or Polytechnics) could significantly increase the rates of commercialising inventions, technology and knowledge transfer, as well as spin-off and spin-out company creation (European Commission 2006, 10). Naturally, entrepreneurial education should not only be restricted to knowledge related to starting a business, but should also include the knowledge and skills related to running a business, as well as entrepreneurial development, creativity, and innovation (Wach 2007, 123).

There are many barriers which make it difficult to teach entrepreneurship. The majority of them stem from the weakness of educational systems, and sometimes there is also the question of resources. The fundamental barriers include (European Commission 2008, 38-39) the following:

- Bureaucracy and organisational inertia of universities,
- Lack of cooperation between different departments/faculties,
- Lack of consensus about the role of entrepreneurship in higher education,
- Lack of commitment on the part of the majority of academic teachers,
- Lack of a desire to change the manner and methods of teaching accompanied by a lack of willingness to improve one's own qualifications,
- Lack of links with the business world among educators,
- Poor use of a broad range of modern pedagogical tools,
- Lack of incentives for academic teachers,
- Lack of established systems for evaluating programme results,
- Fragility of funding and resources.

Because of the above obstacles the role of universities as determinants of economic progress is underrated by entrepreneurs. The inertia is primarily manifested in the curricula. Introducing a new subject into the curriculum takes on average 2 years (at a public university), whereas it should only take a few weeks. Consultations with entrepreneurial circles are not usually held, which ought to be standard practice taking place at least every 3 years. This inertia is also noticeable in the way of thinking, reluctance to change and lack of commitment.

The list of obstacles presented above provides a reason to propose some changes in the area of promoting entrepreneurship education as a course taught not only at economic higher-education institutions.

The object and aims of the study

The object of this study is the attitude of students in different countries towards entrepreneurship and their perception of entrepreneurship as a possible career path. The purpose of the study was to ascertain how prevalent entrepreneurial activity is among students, and to specify how the educational process ought to change in order to promote engagement in entrepreneurial activity. The aim of the study's international scope was to identify

the possible similarities and differences in the opinions of students from different countries.

Research method and the methods of analysis on the data obtained

This study is a part of an international project, as indicated in the Introduction. Conducting the study was an integral part of the project and became the basis for a discussion about what changes ought to be implemented in the educational process in order to promote a positive attitude towards entrepreneurship among young people. As mentioned in the Introduction, the authors of the study adopted a narrow definition of entrepreneurship corresponding to running one's own business. The study was based on a questionnaire. This questionnaire consisted of 57 questions divided into several sections. The first section consisted of demographic questions about gender, age, marital status, and whether the respondent had or had not undertaken work. The respondents were also asked to specify their main fields of study. The first group of research related questions concerned the student's intentions. The answers were supposed to reveal if the respondents were planning to engage in paid employment on the basis of employment contracts or if they were likely to start their own business, as well as the reasons for their attitudes. The second part focused on the students' evaluation of those abilities which may predispose them to start their own businesses, and the third part concerned the expectations the respondents had in relation to their own firms. The aim of the fourth section was to determine any previous entrepreneurial experience among the students and members of their families. In section five the respondents were asked about the aspects of an entrepreneurial education that universities ought to provide. The idea was to identify the possible measures which could help the students to become successful entrepreneurs.

The questionnaire was originally written in English and then translated into Polish and other national languages. This original version was trialled with a sample of students in order to ensure that the meaning of the questions in English and Polish (and other national languages) were identical. After introducing some corrections the questionnaire was given to selected groups of students. The questionnaires were administered by the authors of the study, which meant that any possible problems with the interpretation of the questions could be immediately sorted out.

The students' opinions regarding entrepreneurship and the possible forms of fostering entrepreneurship have been formulated by means of descriptive statistical measures. In order to analyse the similarities and differences in the opinions of the students on an entrepreneurial education the Kruskal-Wallis one-way analysis of variance was used. This test does not assume a normal distribution and is useful when analysing differences between more than two independent groups of measurements expressed by means of an ordinal scale (Francuz & Mackiewicz 2006, 449).

Research sample

The research sample consisted of students from 5 countries: Croatia, France, Israel, Lithuania and Poland. The authors intended to include at least 300 students from each country in the study but in some countries the groups were considerably larger. The study used purposive sampling as the authors wanted to include students from different university courses and programmes.

Table 2 presents the structure of the research sample according to nationality. In total, 2,195 students participated in the study, the largest group representing Croatia. The students studied at five universities: the University of Zagreb (Croatia), University of Nice (France), The School of Business Administration (Israel), ISM University of Management and Economics (Lithuania) and the Poznań University of Economics (Poland).

Table 2 Nationality of respondents

Specification	Croatia	France	Israel	Lithuania	Poland	Total
Number	694	442	295	349	415	2195
Percentage	31.6%	20.1%	13.4%	15.9%	18.9%	100%

Source: own compilation based on the study.

The largest group were undergraduate students and the smallest doctoral students (Table 3). 85% of the whole sample were full-time students. The majority of the respondents were women – 60% – which can be explained by the fact that the study did not focus on technical courses. 68% of the students studied economic sciences and a significant proportion studied information technology. Out of all the respondents less than 2% indicated that they were running their own business on a full-time basis, and 4% on a part-time basis; with almost 62% declaring that they were not engaged in any work activity.

Table 3 Type of studies represented by respondents

Specification	Undergraduate 1st year	Undergraduate final year	Graduate 1st year	Graduate final year	Doctoral studies
Indications (%)	39.9%	28.7%	15.4%	11.7%	3.9%

Source: own compilation based on the study.

Entrepreneurial aspirations – Poland against the background of other countries

The students were asked to answer a question regarding their future career paths. They had to indicate if they intended to conduct their own business alone or with a partner; work for a family company; work for a small or new company; or look for a job with a big company or corporation. The findings of the research clearly show that the majority of students were not interested undertaking entrepreneurial activity (68%). Nor were they interested in starting a business with a partner (72%), working for a family firm (85%), or for a small company (66%). The dream employers for students are the big companies and corporations, explicitly indicated by 64% of respondents. It is obvious from the opinions expressed by the students that their occupational choices are determined by their quest for financial stability, which working for a large company is expected to provide – this reason was indicated by over half of the respondents. We can see that this attitude is rational bearing in mind the research results of Hamilton (2010) who found that in the United States, median entrepreneurial earnings after 10 years in business were 35% less than the commensurate salary in a paid occupation. Students declaring their willingness to start their own companies and to become entrepreneurs indicated as their reasons for doing so the independence that this career path gives (30%), and the possibility of organising their own work and schedule that this choice provides (25%). Both these issues are quite closely linked and confirmed by research (Blanchflower & Oswald 1998; Blanchflower 2000; Blanchflower, Oswald & Stutzer 2001; Hundley 2001), underpinning independence as the main reason for starting a new business. Apart from obtaining an overall picture of the students' perception of entrepreneurship as a career path, the study also made it possible to identify any similarities and differences in this respect between students from different countries. Table 4 presents the figures in percentages of the indications for particular choices offered in the questionnaire. It appears that the most favourable attitude towards starting a business is displayed by students from Poland (44%), followed by those from Lithuania. The least enthusiastic group are Croatians – only 17% declared that they would be ready to start their own business.

Table 4 Entrepreneurship as a career path – percentage of indications*

Specification	Croatia	France	Israel	Lithuania	Poland	Total
1. I intend to start my own business	17.4%	30.1%	25.8%	39.8%	44.4%	29.1%
2. I intend to start a business with a partner	18.9%	25.8%	21.7%	35.5%	24.5%	24.3%
3. I intend to work in a family business	9.2%	5.0%	8.5%	11.5%	16.5%	9.5%
4. I intend to work for a small company	28.8%	37.8%	24.1%	20.1%	44.8%	31.0%
5. I intend to work for a large company/ corporation	60.1%	70.6%	73.6%	54.2%	75.4%	65.7%

* Respondents could choose more than one answer

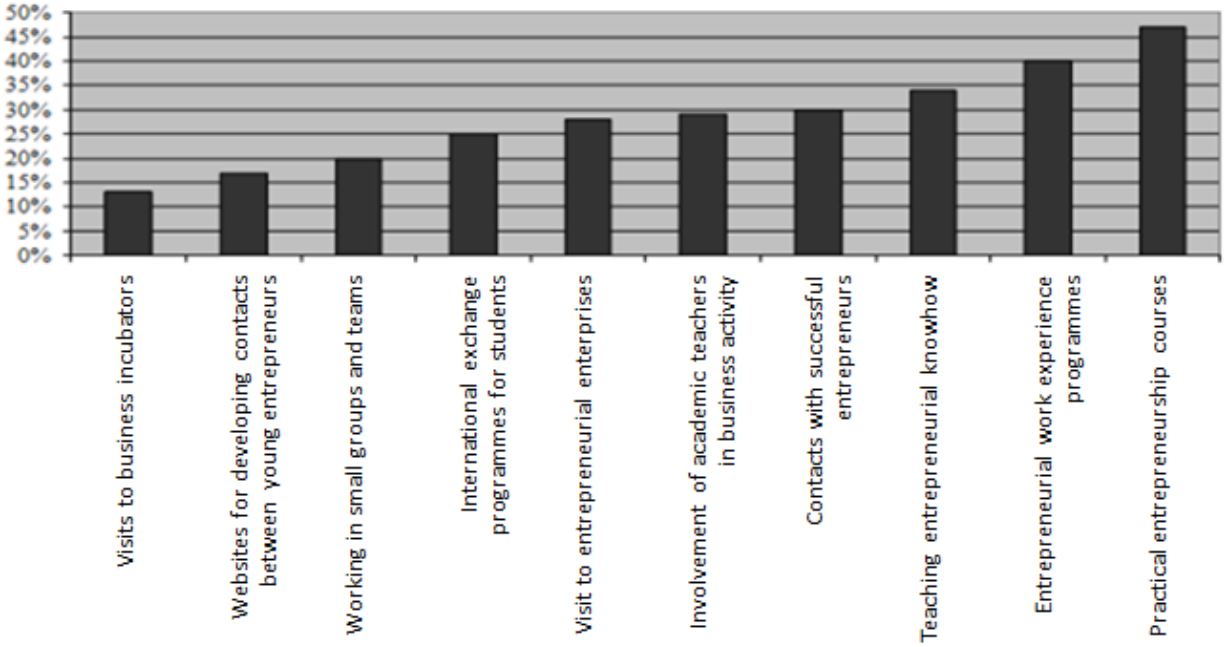
Source: Own compilation based on the questionnaire study.

The data shown in Table 4 also makes it possible to observe from which countries students have the most favourable attitudes to working for big corporations. It turns out that the leaders here are students from Poland and Israel. What makes the results for Poland particularly interesting is the fact that a relatively large proportion of students indicated that they intended to work for themselves by starting their own business, but at the same time the vast majority declared that working for a big corporation was the ideal choice for their career development. It has to be noted that the respondents were able to choose more than one answer. While at university students usually have some idea as to their future career though they still may consider different options. This is because they are aware that on the one hand they can plan and design their future professional lives on the basis of wishful thinking. They are also more over-confident than others (which goes hand in hand with the results of research conducted by Bernardo & Welch 1998; Arabsheibani, de Meza, Maloney & Pearson 2000; Cooper, Woo & Dunkelberg 1988). On the other hand, however, regardless of the personality traits of different people, it is obvious that young people's professional future is strongly determined by external circumstances. The general economic climate has a considerable bearing on decisions about starting one's own business. Having discovered the possible career paths of the students, the researchers posed a question about the forms of education which could promote entrepreneurship.

The opinions of Polish and foreign students on education.

The attitude of Polish students towards entrepreneurship as compared to the attitudes of students from other countries is characterised by their relatively greater enthusiasm as regards engaging in entrepreneurial activity (see Table 4). This attitude is accompanied by a noticeable need for acquiring professional knowledge and skills in the area of entrepreneurship. Nearly 22% of the respondents declared that special courses devoted to entrepreneurial education are very necessary; 47% stated that practical entrepreneurial courses ought to be offered; and 40% of the students thought that entrepreneurial work experience programmes ought to be organised. The students indicated that working in small groups and teams was a useful teaching method (20%), and that they would welcome courses during which they could acquire the relevant know-how relating to running a business enterprise (34%). Apart from the different methods of expanding entrepreneurial skills and knowledge, the respondents also stressed the need for creating and developing business incubators: almost one-third of the respondents saw the need for such actions. Additionally, the students would appreciate the emergence of websites which could become platforms for cooperation between young entrepreneurs (about 17%). The respondents also declared that it was particularly important to establish contacts with successful entrepreneurs (30%). In the students' opinion, the quality of education could be improved if teachers were involved in entrepreneurial activity (29%), and if courses included visits to companies (28%), and business incubators (13%).

Chart 1 Desired forms and methods for entrepreneurial education among Polish students



Exchange programmes for entrepreneurship students were also considered a step in the right direction (25% of indications).

The attitudes of the students who participated in the study varied quite significantly, which can be seen from the percentages of indications for the particular career options presented in Table 4. The greatest support for entrepreneurial courses can be observed among the students from Lithuania (just over 34% of respondents), followed by Israel (31%), (Table 5). Poland comes fourth in the ranking, beating only France. The sceptical attitudes of French students towards this type of education may be a result of the fact that France has had a significantly longer history of market economics and is considerably richer than the remaining countries. In the case of Polish students their attitude may mean they are not convinced that such an education will provide them with any practical information that will actually be useful when starting a business. The data obtained shows that on average about 25% of the students definitely see the need for the involvement of universities is an entrepreneurial education.

Table 5 The need for preparing special entrepreneurial programmes – percentages of indications

Specification	Croatia	France	Israel	Lithuania	Poland	Total
Such programmes are completely unnecessary (%)	1.4%	6.8%	2.4%	1.7%	1.2%	2.7%
Such programmes are very necessary (%)	25. 4%	19.0%	31.1%	34.1%	22.2%	25.6%

Source: Own compilation based on the study.

The question arises whether such programmes should be uniform within the studied group of countries, and if the opinions of the students regarding the usefulness of the various actions and methods for entrepreneurial education are identical, similar or different. In order to discover if there are statistically significant differences in this respect between the students from different countries a Kruskal-Wallis test was conducted. The aim of the test was to determine whether students from different countries who were definitely in favour of starting their own businesses had different opinions regarding the usefulness of the various methods and actions aimed at developing entrepreneurial knowledge and competences. It turns out that statistically significant differences occur in the respondents' opinions, with a significance level p=0.05, for 11 out of the 19 possible specific undertakings connected with entrepreneurial education programmes. In 11 instances the value of the Kruskal-Wallis test is higher than the critical chi-square values with k-1=5-1=4 degrees of freedom and a significance level of p=0.05, which equals 9.4877.

Table 6 Special programmes for entrepreneurial education – similarities and differences in the answers given by students from the countries studied

Specification		Critical value and significance level
1.	Including courses/classes devoted to entrepreneurship in university programmes within management, technical sciences, medicine etc.	H=7.054, p=0.133
2.	Developing work experience programmes in the area of entrepreneurship	**H=23.711, p=0.000**
3.	Creating business incubators in order to promote entrepreneurial activity among students	H=7.643, p=0.106
4.	Creating websites which could help establish a contact network for students who wanted to become entrepreneurs	**H=36.056, p=0.000**
5.	Creating websites devoted to entrepreneurial education, especially for students who wanted to become entrepreneurs	**H=42.685, p=0.000**
6.	Building a network of contacts with successful entrepreneurs during meetings organised specifically for this purpose	**H=13.788, p=0.008**
7.	Practical involvement of academic teachers/educators in entrepreneurial activity	**H=25.083, p=0.000**
8.	Organising regular visits to entrepreneurial enterprises	H=8.490, p=0.075
9.	Organising regular visits to business incubators	H=9.129, p=0.058
10.	Establishing a centre for entrepreneurial studies	**H=53.031, p=0.000**
11.	Building necessary and important social relationships	**H=20.571, p=0.000**
12.	Involvement in serious and profound scientific research into entrepreneurship at universities/faculties (including publications in high-ranking journals)	H=8.186, p=0.085
13.	Developing exchange programmes for students involved in entrepreneurship courses from different academic institutions, or from different cities or countries	H=7.497, p=0.112
14.	Involving senior-level administrators (directors/managers of entrepreneurial programmes, deans, advisory committee members etc.) in order to ensure high standards in the actions undertaken and meet students' needs	H=7.762, p=0.101
15.	Commitment to promoting innovation (e.g. through teaching programmes, projects etc.)	**H=22.103, p=0.000**
16.	Designing practical courses (subjects) which will present best entrepreneurial practice	**H=10.694, p=0.030**
17.	Working in small groups/teams (e.g. when preparing assignments during classes or at home etc.)	**H=29.186, p=0.000**
18.	Commitment to developing a network of contacts by university professors and other students	**H=56.098, p=0.000**
19.	Organising training sessions devoted to entrepreneurial know-how	**H=29.488, p=0.000**

Source: Own compilation based on the study.

The findings of the study indicate that the approach to programmes promoting pro-entrepreneurial attitudes among students from different countries ought to be geared to suit individual needs. In different countries programmes for which statistically significant differences have been discovered ought to be assigned different priorities. In the case of Poland, the highest marks were given to creating practical entrepreneurial courses (5.17), developing work experience programmes in the area of entrepreneurship (5.00), as well as organising training sessions devoted to entrepreneurial know-how (4.91). The answers given by Lithuanian students were similar, but among the top three essential programmes and actions they also included organising visits to entrepreneurial enterprises (4.73). Students from Israel highlighted the need for building a network of contacts with successful entrepreneurs (4.7). French students gave the highest mark to creating business incubators (4.74), and Croatian students strongly emphasised the importance of the involvement of academic teachers in entrepreneurial activity (5.26).

Table 7 Actions and programmes which support an entrepreneurial education

Specification	Average					
	CH	FR	IZ	LT	PL	Total
1. Including courses/classes devoted to entrepreneurship in university programmes within management, technical sciences, medicine etc.	4.62	4.11	4.35	4.44	4.30	4.39
2. Developing work experience programmes in the area of entrepreneurship	4.72	4.52	4.15	4.71	5.00	4.65
3. Creating business incubators in order to promote entrepreneurial activity among students	4.78	4.74	4.58	4.7	4.76	4.73
4. Creating websites which could help establish a contact network for students who wanted to become entrepreneurs	4.91	4.53	4.42	4.31	4.13	4.53
5. Creating websites devoted to entrepreneurial education, especially for students who wanted to become entrepreneurs	4.87	4.56	4.10	4.32	4.24	4.50
6. Building a network of contacts with successful entrepreneurs during meetings organised specifically for this purpose	4.87	4.36	4.70	4.60	4.83	4.70
7. Practical involvement of academic teachers/educators in entrepreneurial activity	5.26	4.36	4.51	4.56	4.66	4.75
8. Organising regular visits to entrepreneurial enterprises	4.87	4.23	4.36	4.73	4.60	4.60
9. Organising regular visits to business incubators	4.64	3.96	4.17	4.40	4.08	4.30
10. Establishing a centre for entrepreneurial studies	4.64	3.86	3.92	4.47	3.71	4.19
11. Building necessary and important social relationships	4.67	4.38	3.79	4.49	4.24	4.39
12. Involvement in serious and profound scientific research into entrepreneurship at universities/faculties (including publications in high-ranking journals)	4.18	3.69	4.03	4.12	3.89	4.00
13. Developing exchange programmes for students involved in entrepreneurship courses from different academic institutions, or from different cities or countries	4.64	4.30	3.99	4.66	4.55	4.47
14. Involving senior-level administrators (directors/managers of entrepreneurial programmes, deans, advisory committee members etc.) in order to ensure high standards in the actions undertaken and meet students' needs	4.61	4.33	4.34	4.47	4.44	4.46
15. Commitment to promoting innovation (e.g. through teaching programmes, projects etc.)	4.79	4.78	4.34	4.70	4.66	4.69
16. Designing practical courses (subjects) which will present best entrepreneurial practices	5.07	4.45	4.60	4.99	5.17	4.89
17. Working in small groups/teams (e.g. when preparing assignments during classes or at home etc.)	5.19	4.22	4.45	4.54	4.38	4.64
18. Commitment to developing a network of contacts by university professors and other students	5.09	4.44	4.31	4.57	4.08	4.58
19. Organising training sessions devoted to entrepreneurial know-how	5.11	4.11	4.45	4.93	4.91	4.75

Source: Own compilation based on the questionnaire study.

An assessment of the individual programmes intended to promote entrepreneurship indicates those desirable courses of actions which ought to be taken into account when planning the measures undertaken at the central and regional levels as part of a policy for promoting entrepreneurship. It has to be noted, however, that there is a long and difficult road between identifying the desired character and type of activities and designing an operational plan of implementing particular actions.

Conclusions and recommendations

This research has delivered both quantitative and qualitative results. Entrepreneurship is an important factor which influences economic growth and the competitiveness of economies around the world. However, despite the intense engagement of schools, universities and other public and private bodies in education on entrepreneurship, students in Croatia, France, Israel, Lithuania and Poland still prefer paid jobs over running their own companies. Although many research results emphasise personal traits as important factors affecting entrepreneurial intentions, external circumstances are also vital. Social-economic conditions, as well as historical heritage, can explain different attitudes towards new venture creation. Motivations, goals, and social norms, but also expectations towards education on entrepreneurship, differ across countries as well. Therefore universities have to adjust their educational courses to meet the special requirements of students coming from different cultures, following different social norms and having different personal goals. As the results from analyses conducted by European and world institutions indicate, entrepreneurial education at university level is inadequate. This is particularly noticeable in Poland because subjects dealing with entrepreneurship are conspicuously absent from specific educational standards. Traditional teaching concentrates on providing students with the necessary basic abilities which will increase their chances of finding good jobs. Universities, however, do not teach how to be an entrepreneur. Meanwhile, as the result of globalisation, lower transport costs and the elimination of economic and physical barriers between countries, the conditions for conducting economic activity and running business enterprises have changed significantly. It is no longer sufficient to prepare young people for a career in big corporations. Schools and universities must prepare students for working in a dynamic and globally entrepreneurial environment. Hence students must acquire the ability to think about business on a global scale; they must learn to develop creativity, individualism and innovativeness. The students themselves are even aware of this. As the findings of this study show, students expect a greater presence of entrepreneurial education programmes, with particular emphasis on the practical aspects of entrepreneurship. The economics courses currently on offer contain too much theoretical information, whereas entrepreneurial education ought to involve a significant proportion of practical knowledge and employ modern methods based on experience; such as simulations or business games in which students have to make conscious decisions related to real-life dilemmas connected with entrepreneurial activity. Thus it is essential not only to introduce entrepreneurship into teaching programmes, but also to restructure the whole educational system, both formal and informal. It is necessary to change the system of training instructors and teachers; the system of examinations; as well as the system of recognising, evaluating and rewarding educational initiatives. Even though particular approaches should be geared to the needs and requirements of different countries, the general recommendations of increasing the presence of entrepreneurial education courses in the educational system and improving the quality of existing courses apply to all countries.

A significant role in this respect can be played by politicians at every administrative level, as well as by educational and research institutions, non-governmental organisations and entrepreneurs (Volkmann et al. 2009, 5-16). The whole approach to teaching entrepreneurship needs to be completely overhauled. Cooperation between universities and companies must be considerably closer in order to introduce more practical content into programmes and courses. It is also necessary to more frequently consult with the business world on the content of programmes

and courses, and to try and raise the level of academic teachers' professional self-improvement. The outcomes of these endeavours will have an impact on the competitiveness of the European economy over the coming years. The conclusions of the Global Entrepreneurship Monitor report of 2010 also remain valid (GEM 2010, 10-11):

- Entrepreneurship does not directly impact an economy simply through the number of entrepreneurs; it is important to consider quality measures such as growth, innovation and internationalisation
- Economies must encourage people to undertake entrepreneurial activity when this is necessary, but they should also encourage those who have different employment options
- Entrepreneurship requires both dynamism and stability; dynamism manifests itself through the creation of new firms and the closures of unprofitable ones; stability is connected with the ability of providing new firms with the best chance to test their sustainability and reach their potential
- Entrepreneurship in a society has to go through different phases and assume various types, including the entrepreneurship of women and the entrepreneurship of under-represented age groups
- Initiatives aimed at promoting entrepreneurship ought to take into account the economic development of a given country; efforts must be directed at improving efficiency and creating institutional conditions for development,
- Entrepreneurial attitudes are not just for entrepreneurs; they must apply to a whole range of stakeholders who will be willing to support and cooperate with these dynamic efforts; profound and widespread social acceptance of entrepreneurship is essential.

This means that a systemic approach is necessary which would involve politicians at various levels, including European institutions. The situation of Poland is slightly different as it is yet to catch up with other European countries in terms of prosperity. Our success largely depends on the situation of small and medium enterprises, as well as on the creativity, innovativeness and dynamism of Polish entrepreneurs. For this reason it is crucial to do the utmost to equip these individuals with the appropriate tools that will facilitate the starting and running of successful businesses. Universities have important tasks and obligations to fulfil in this respect.

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Is there space for social enterprises in Finnish social care services?

Timo Toikko

Abstract

In current European discussions, it is assumed that social enterprises have the potential power to transform the delivery of public services. The discussion of social enterprises has also entered the field of Finnish social care services. This article pays attention to the various definitions and origins of social enterprises and asks what they mean in the Finnish context. It is highlighted that the development of a versatile market structure was set as an objective where third and private sectors complement the services of the public sector. Within this framework, it is also determinable that social enterprises are assumed to have the potential power to modernize the delivery of public sector services. Despite the positive aspects of the social enterprise initiative however, the idea of social entrepreneurship is confused, because the third and private sectors' providers deliver services in a manner similar to business entrepreneurs. It is argued that though there is space for social enterprises in Finnish social care services, it is difficult to find the good examples of social entrepreneurship.

Key Words

social enterprise, social entrepreneurship, social care services

Introduction

In this article, social enterprises are examined within the triangle of the public, private and third sectors. Public social services hold a central position in the Finnish welfare state. Individual municipalities are responsible for organizing their own welfare services. During the past several decades, however, the production and delivery of social services have seen a shift toward the so-called welfare mix model. The third and private sector organizations now provide more social care services.

While social services are examined here on a general level, they can be divided into two distinct areas: Residential Care (residential homes for children, young people, elderly and disabled people) and Outpatient Community Care (day care centers for children, disabled and elderly people, and home help and rehabilitation activities). The main task is to study changes in the service production during the last two decades, which have created space for new service providers. Attention will be focused on social enterprises and their involvement in delivering Finnish social services. Current discussions in the field assume that social enterprises have the potential power to transform the delivery of public sector services at

the regional level, but in light of the past, where social enterprises meet demand is uncertain.

What are social enterprises?

William Drayton (2002, 112) points out that social entrepreneurs' intention is not just to give people a fish or to teach people how to fish. According to Drayton, social entrepreneurs will not rest until they have revolutionized the fishing industry. In addition, Kevin Lynch and Julius Walls (2009, 40) emphasize that social enterprises can be seen as businesses whose purpose is to change the world for the common good. Paul Light (2006) sees that just social entrepreneurs are the core of social enterprises. In this perspective, "social entrepreneurship is an effort by an individual, group, network, organization, or alliance of organizations that seeks sustainable, large-scale change through pattern-breaking ideas in what government, nonprofits, and business do to address significant social problems" (Light 2006, 47).

Social enterprises are close to pure business; however, as Lynch and Walls (2009) observe, there are differences. Lynch and Walls exclude three forms of business from social enterprises: (i) a traditional business, which engages in commerce primarily to maximize returns for the owners; (ii) a socially responsible business, which seeks to maximize returns for the owners while minimizing the harmful side effects of that pursuit; and (iii) a traditional nonprofit organization, which seeks to achieve the common good but without a business method for doing so (Lynch & Walls 2009, 41).

Similarly, Light (2008) sees differences between business and social entrepreneurship. Business entrepreneurship focuses on profits while social entrepreneurship addresses social needs. Business entrepreneurship engages market forces while social entrepreneurship draws upon and builds community support. Business entrepreneurship involves financial risk while social entrepreneurship depends on organizational and personal credibility. Business entrepreneurship produces individual financial gain while social entrepreneurship generates collective public goods. Business and social entrepreneurship involve creativity, but business entrepreneurship uses creativity to enter new markets, while social entrepreneurship uses creativity to solve intractable problems (Light 2008, 89).

Simon Teasdale (2010) approaches social enterprises from an organizational perspective instead of a business perspective. According to Teasdale, social enterprises are the same as organizations trading for a social purpose. Many organizations such as associations and co-operatives share the common goal of reducing social exclusion. They may do this in various ways: by providing services more cheaply for disadvantaged groups, by using collective bargaining power to negotiate access to resources, by organizing themselves in a way that empowers individual members or perhaps by adopting traditional approaches that redistribute surplus wealth to disadvantaged groups through charitable practices and organizations.

Geographic differences

Social enterprises emerged in Europe and the United States in the early 1990s. Definitions attributed to the construct, however, vary geographically (Zhang & Miao 2011). In the US, the term social enterprise is usually used to refer to market-based approaches that address social issues. According to John Elkington and Pamela Hartigan (2007), social entrepreneurs try to find new products, services and approaches to social problems. The authors' main focus is creating social value, and in that spirit, they are willing to share their innovations and insights for others to replicate.

In Europe, social enterprise first appeared among third-sector organizations, following an impetus closely linked to the co-operative movement (Defourny & Nyssens 2009). The basis of social enterprises is also social associations, which is why business orientation is not as strong as in the US. Social enterprises may be defined as businesses or organizations whose surplus is primarily reinvested for social objectives (in the business or the community), rather than being driven by the need to maximize profit for shareholders and owners. This definition includes nonprofit enterprises (e.g., volunteer organizations that deliver public services), community enterprises (a bottom-up response to a defined local need), social businesses

(organizations trading wholly in the market to achieve social purpose) and community businesses (e.g., worker co-operatives) (Teasdale 2009; Teasdale 2010).

Janelle Kerlin (2009) has examined the ideas and content of social enterprises in different regions and countries. According to Kerlin, the general theme underlying the emergence of social enterprises is the absence of state social programs or funding, due to either the retreat or poor functioning of the state. The United States and Western, Eastern and Central Europe all experienced, to differing degrees, a withdrawal of state support in the 1980s and/or 1990s.

In the United States, scholars attribute the beginning of the contemporary social enterprise movement to government cuts in funding supporting nonprofits. In Western Europe, a faltering economy was also at the root of the emergence of contemporary social enterprises. The social enterprise movement was in part a response to the unemployment problem, as one of the main initiatives was integrating the unemployed, often through social co-operatives. Social enterprises also stepped in to provide services the welfare state was no longer directly responsible for. In Eastern and Central Europe, social enterprise was also spurred on by a withdrawal of the state though in this case the cause was the fall of socialist states. In addition, the transition to a market economy brought large increases in unemployment (Kerlin 2009, 185–186).

For the United States and Western Europe, both of which are strong in the market, the state and civil society, the social enterprise models employed reflect two of these three strengths. While both share the strength of civil society in social enterprise, the second strength for the United States is the market, while for Western Europe it is the state. This difference is likely explained by the long traditions of market reliance in the United States and state intervention in Western Europe. Though closely following Western Europe in use and type, Eastern and Central Europe vary in sources of support for social enterprises. The high levels of international aid that shore up this transitioning region are also the main source of support for a small but growing social enterprise movement there (Kerlin 2009, 194).

Conceptual dimensions

Defining social enterprises is difficult, but in this section, three conceptual definitions are discussed for a deeper understanding of social enterprises and their different dimensions. This section is based on conceptual analyses conducted by Simon Teasdale, Kevin Lynch and Julius Walls, and Paul Light.

Simon Teasdale (2009) presents two dimensions for defining social enterprises: the social-economic and the individualistic-collective. The first dimension asks, what is the relationship between economic motives and social aims? In addition, Kim Alter (2007) suggests there is a spectrum of social enterprises. Within this spectrum lie not only the for-profit world (whose aim is to create economic value) but also the nonprofit world (whose purpose is to create social value). In practice, this dichotomy is increasingly convergent through the application of methods that marry market mechanisms to affect social and economic value. This combined approach results in total value creation; however, the social-economic dimension is relevant for assessing the differences among social enterprises (Teasdale 2009).

The second (individualistic-collective) dimension asks, is the basis of social enterprises in individual entrepreneurs or in collective organizations? At least at the general level, the aim of collective organizations is broader than individual entrepreneurs' aim. However, William Drayton (2002) emphasizes that even individual social entrepreneurs aim to solve large-scale social and systemic problems. Shaker Zahra et al. (2009) describe three types of social entrepreneurs who fall within the dimension. Social bricoleurs focus on discovering and addressing a small-scale social need. Social constructionists introduce reforms and innovations to the broader system by filling the gaps in providing services to neglected societal groups. Social engineers seek to address systemic problems within existing social structures by introducing revolutionary change.

Kevin Lynch and Julius Walls (2009, 40) discuss the social enterprise landscape, which consists of two dimensions: the aim of social enterprises is motivated by revenue-generating or problem solving; and the main field of social enterprises is the social or business sector. The social enterprise landscape is divided into four parts by using those dimensions. The first part consists of nonprofit enterprises, which generate revenue through business enterprises to support their social missions. The second part consists of social enterprises, which operate profitable businesses but dedicate most or all of their profits to supporting a range of social-sector organizations. The third part consists of nonprofit enterprises, which are run in the social sector for solving social problems. This part includes organizations that provide training and jobs to people who would otherwise face barriers to employment. The fourth part consists of social enterprises that are established as for-profit businesses but whose natures are centered on their social mission (Lynch & Walls 2009, 42).

According to Paul Light (2008), the different ideas of social entrepreneurship consist of basic components. The first component involves entrepreneurs and can be found in every definition. However, some definitions give entrepreneurs greater prominence than others. The focus on entrepreneurs inevitably leads to a search for traits and characteristics that might separate these individuals from other people. For instance, entrepreneurs are described as being more creative in goal setting and problem setting than others. The second component of social entrepreneurship is based on ideas, and they are also found in all of the definitions. When comparing business and social entrepreneurship, the "value proposition" is the critical difference between the two. Unlike business entrepreneurs who focus on serving markets that can afford a new product or service, social entrepreneurs seek no profit for their investors or themselves.

Light (2008) points out that opportunities are the third component of social entrepreneurship, and they are at the center of most, but not all, definitions. Opportunities are sometimes taken as the Peter Pan phenomenon—that is, if you believe you can fly, you will fly. "Where others see problems, social entrepreneurs see opportunity." Opportunities also provide resources and the potential for collaboration, which leads to the idea that social entrepreneurs work around the obstacles embedded in an opportunity. The fourth component of social entrepreneurship is based on organizations although they are often an afterthought in the definitions. Many definitions focus on organizations and management as the adversaries of change.

Scholars still have plenty of work to do in defining social enterprises and social entrepreneurship. Although social enterprises involve a search for social value, there is sharp disagreement about the dimensions and components of social entrepreneurship.

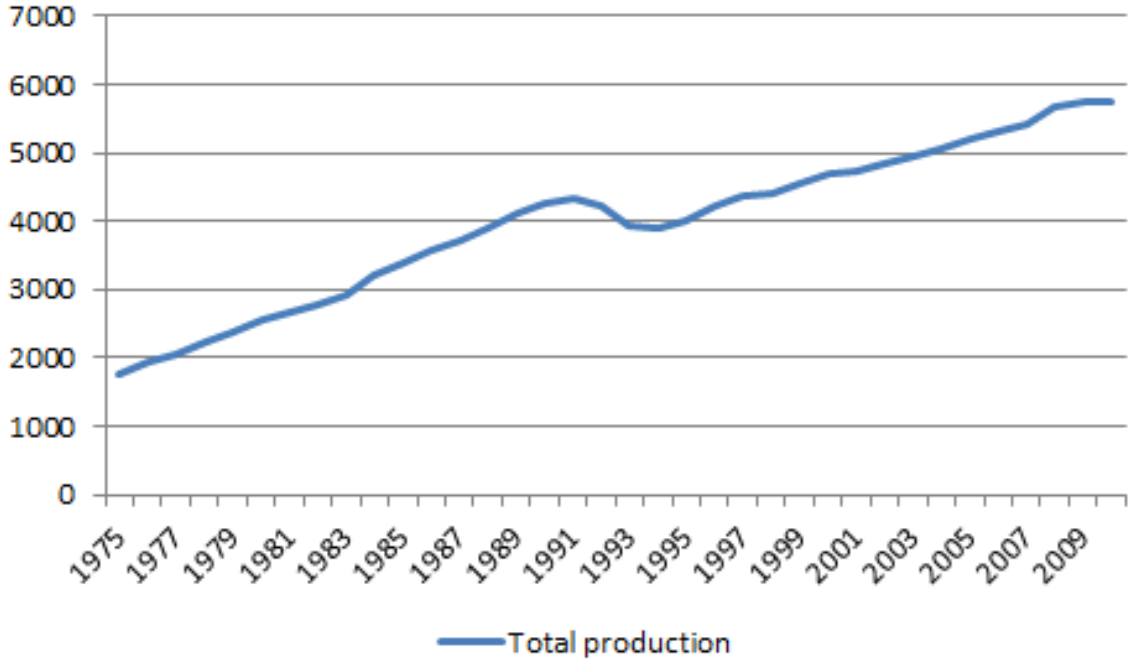
In the next sections, attention is focused on the third and private sectors' involvement in delivering Finnish social care services (see Toikko & Gawel 2012; Toikko 2012). The sectors' involvement is examined in the triangle of the public, private and third sectors. The public sector's aim to outsource services has created demand for non-profit associations and for-profit firms. During the last two decades, there have been three turning points in outsourcing social services.

The first turning point: To the era of cost control

Finland is a Nordic welfare state. The point of the Nordic model lies within universal social policy in which social security and benefits are largely statutory and apply to all citizens and permanent residents. This means that, traditionally, the state has played a major role in welfare.

The economic value of social service production has consistently grown since the beginning of the 1970s, excluding the recession in the beginning of the 1990s. In the 1980s, the state implemented reforms focused on decentralization. The state set a quality framework for social services, but local authorities were given the power to decide the best way to deliver services. However, local authorities did not use that opportunity until the beginning of the 1990s, when Finland faced a severe recession, which ended a long period of steady economic growth (Figure 1).

Figure 1 Total production in social care services (at reference year 2000 prices), million €.

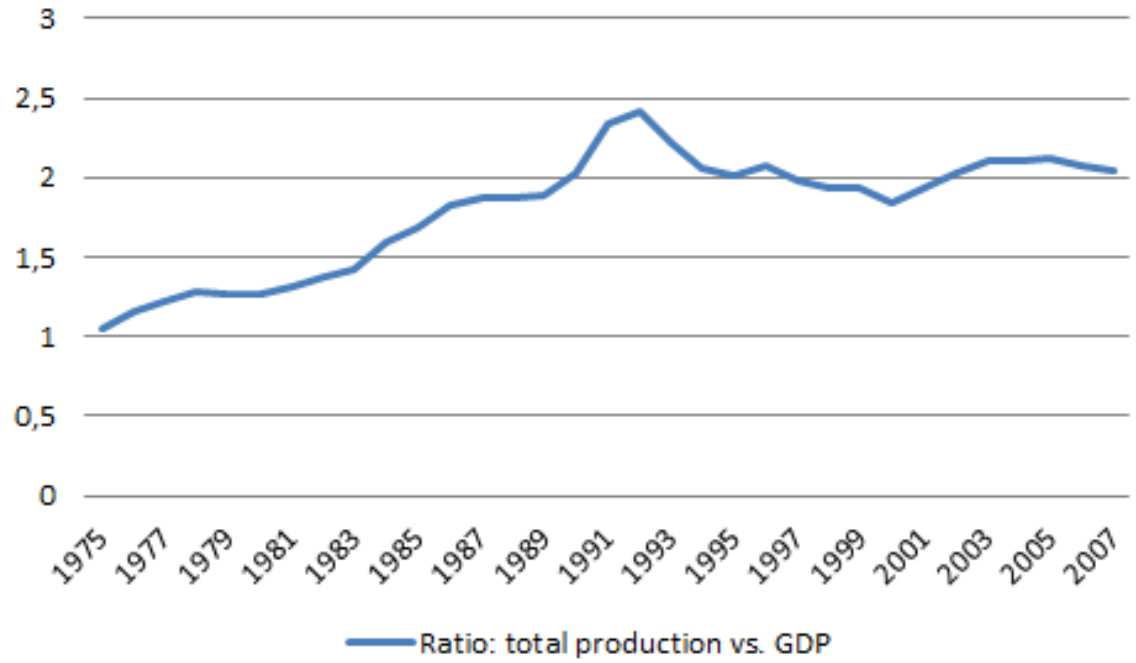


Source: Official Statistics of Finland (OSF): Annual national accounts (e-publication). ISSN=1798-0623. Helsinki: Statistics Finland (referred: 1.3.2012).

The traditional social policy was reviewed, and for the first time, people asked, does the public sector really have the resources to meet the full needs of citizens? At this stage, local authorities recognized that they were empowered to decide the best way to deliver services. The traditional welfare reform discourse turned toward the modernized welfare discourse and tried to find new and effective ways to deliver services. The recession during this period was a turning point in Finnish social politics (Toikko & Gawel 2012).

The development of the new era began with the reform of the State Funding Act in 1993, which strove to restrict costs. Based on a comparison of the economic value of providing social services and developing the gross domestic product, costs have stabilized (see Figure 2). The ratio of the value of social services and the gross domestic product was 1.05 in 1975, and then steadily grew to 2.41 in 1993. After 1993, as the new funding act was reinforced, the ratio remained under 2.2 until 2008. Since then, the new economic recession has again increased the relative share of social service costs.

Figure 2 Production-to-GDP ratio.



Source: Own calculation based on Official Statistics of Finland (OSF): Annual national accounts [e-publication]. ISSN=1798-0623. Helsinki: Statistics Finland [referred: 1.3.2012].

As Janelle Kerlin (2009) points out, the general theme underlying the emergence of the discourse on social enterprise is the absence of state social programs or funding, due to either the retreat or poor functioning of the state. In Finland, the faltering economy was at the root of the emergence of alternative social service production. In that meaning, the recession in the beginning of the 1990s meant a period of "creative destruction" as Joseph A. Schumpeter (2003 [1943]) might have remarked.

The second turning point: Outsourcing services to associations and small enterprises

The market situation of social care services can be conceptualized with the public, third and private sectors. In 1991, the public sector provided about 83 percent of the total social care services provided. The third sector accounted for about 14 percent and the private sector only 3 percent.

In the Nordic welfare state, the public sector primarily is responsible for arranging for and producing services. In practice, municipalities are the actor principally responsible in Finland. The state's primary task is to manage services by setting normative guidelines and providing information. The third sector is mostly based on services provided by nonprofit organizations that provide professional social care services without economic gain. The private sector provides profit-making professional services.

Finland became a member of the European Union in 1995. As part of that process, Finland revised its social care services and public administration and entered a new era called New Public Management (NPM). Essentially, NPM is the transfer of business and market principles and management techniques from the private sector to the public sector. The main aim of NPM is that providers compete for service contracts.

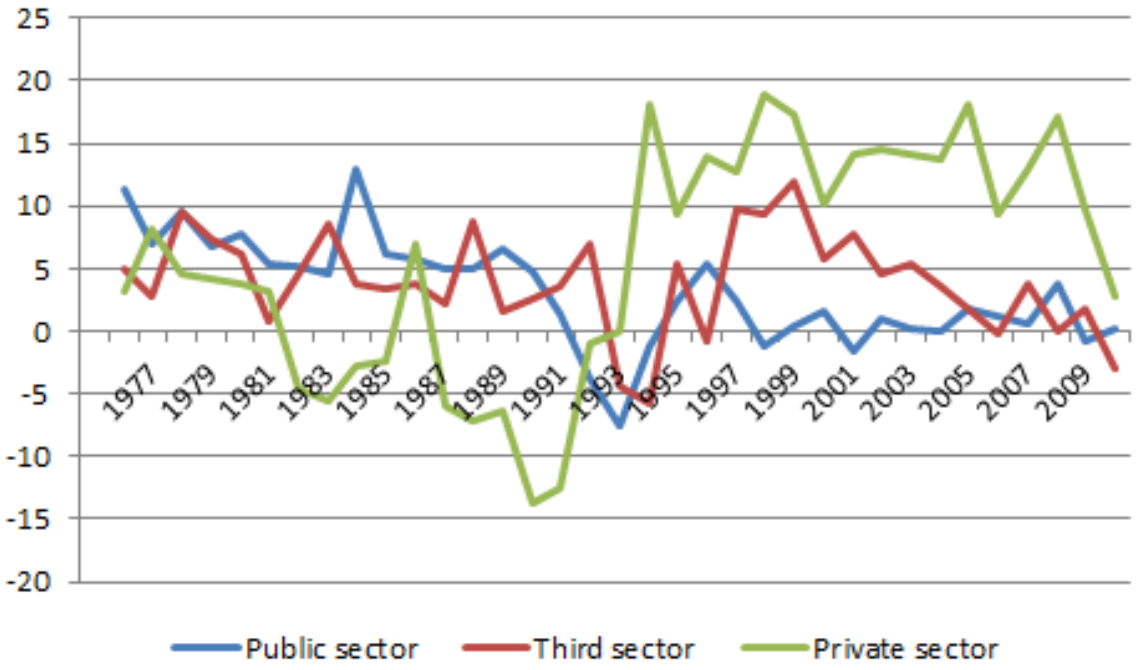
First, local authorities were motivated to co-operate with other potential service providers, and partnerships formed between local authorities and nonprofit associations. Municipalities did not have the resources for investments, so local authorities were eager to co-operate with associations financed by RAY. [1] Since the 1980s, RAY has financed associations' initiatives for social care services and investments. As a direct result of the recession,

there was a contrast between the relatively well-funded small associations and municipalities that had to decrease resources available for social care services and delay plans for investment. Thus, the associations became important service providers in social services and provided professional social care services for residential and outpatient community care.

Second, local authorities were motivated to set up contracts with outside enterprises, because it was a way to avoid stressful political debate on issues such as investment in new buildings (e.g. a group home for the elderly). Political stakeholders were not inclined to accept new investments or new staff members, but opted to accept new contracts. However, the investments and staff increases the stakeholders had tried to avoid were in fact included in the contracts, because the services were almost entirely publicly financed and hence paid for from the same purse. In the beginning, the private sector consisted of small enterprises (for example, group homes for the elderly) founded by social service practitioners. Thus, the employer's aim was to create a job for himself (and provide a needed service), rather than to make profit.

The change in producing services can be seen in Figure 3. Until 1992, on average, the growth of the private sector's production was less than the growth of the public sector but since 1993 has surpassed it. For example, the annual growth rate of the private sector has been 13.35 percent, on average, whereas the third sector has grown 3.60 percent and the public sector only 0.95 percent.

Figure 3 Changes in volume indices, %.



Source: Own calculation based on Official Statistics of Finland (OSF): Annual national accounts (e-publication). ISSN=1798-0623. Helsinki: Statistics Finland (referred: 1.3.2012).

This NPM period marks the second turning point in delivering social care services in Finland. Although the aim was to create a market for delivering social services, the result was not a pure market but a mechanism that allowed local authorities to set up contracts with different providers to deliver social services. In this activity, the small enterprises were viewed as parallel partners of the associations (Toikko & Gawel 2012).

[1]Finland's Slot Machine Association (RAY) raises funds through gaming operations to promote Finnish health and welfare.

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The third turning point: outsourcing services to for-profit companies in the early 2000s

Julian Le Grand (2009) argues that the so-called quasi-market model expanded rapidly, because the other models failed in this area. The quasi-market model was based on competition and allowed service providers to compete for contracts. In this setting, competition is a dominant theme of the early 2000s.

In the Finnish context, the quasi-market mechanism was also strengthened by the central government. In the name of competition, associations were denied the use of RAY grants for professional social services if the services produced profit. As RAY no longer provided investment grants for these associations, the thinking at the time was that all providers would be placed on a more equal basis for competition. Subsequently, the associations had to found for-profit companies. The main proportion of social services is still provided by the public sector, but the role of outsourced services has expanded. For example, the public sector provided 82 percent of all services in 1990, which had decreased to 70 percent in 2010.[2] At the same time, the third sector provided 16 percent and the private sector 14 percent (Toikko & Gawel 2012; c. Kettunen 2010).

Big for-profit companies have entered the social care services market. Managing these companies was based on business, not on social policy and welfare, and thus, their managers were economists by necessity. The companies won contracts from big municipalities and, to expand, began to buy up smaller enterprises. As a result, for-profit companies became the main partners of local authorities, and the associations and small enterprises were no longer able to meet the demands of the big municipalities. This formed a third turning point in Finnish social care service.

Thus, outsourcing of public social services to for-profit and non-profit organizations is the main trend in social services. For example, the number of private companies has increased more than fivefold in the last ten years, and the number of employees in private companies and net sales (volume) in the sector have increased more than tenfold during the same period (Toikko & Gawel 2012). By 2030, the demand for all social services is expected to have expanded by up to 30 percent (Kettunen 2010).

Discussion on social entrepreneurship

During the last few years, the Finnish government has actively created discussion about social entrepreneurship (e.g. Bland 2010; Laiho et al. 2011; Pöyhönen et al. 2011). The government has a created space for new enterprises in social care services. However, the discussion of social enterprises has emerged in a specific context. From a Finnish perspective, two contextual elements must be emphasized.

The first contextual element is based on the third and private sectors' relation to the public sector and its statutory social care services. The Nordic welfare state is founded on the state's strong key role. The public sector has enabled the construction of wide-ranging and universal, tax-funded social services. According to Carl Jensen (2008), universal social services constitute the core characteristic of the Nordic social welfare system and distinguish it from other types of welfare states. In the Finnish context, providers of social care services cannot provide services without a connection to the public sector. This situation has continued even since the three fundamental turning points, presented in the previous sections. The public sector still produces about 70 percent of all social services.

[2] Compare this with the United Kingdom, where less than 50% of social services are delivered by the public sector (Cunningham & James 2009).

The second contextual element is based on the form of social enterprises as profit and/or nonprofit organizations. Finnish social care services consist of a different type of organization. The public sector is still the main actor, but in addition, the third and private sectors have received space during the last two decades. The private sector clearly produces for-profit services, but for-profit social enterprises also give a part of their profit back to activities that create social value (cf. Teasdale 2010). The third sector produces nonprofit services, but a significant number of third-sector organizations deliver professional services, which are similar to the private sector's professional services. Both types are based on a similar contract with the public sector, but third-sector organizations do not produce profit. In addition, some third-sector organizations provide services that aim to fill gaps in the statutory-based services. This is based on innovative solutions, a feature of social entrepreneurship (cf. Lynch & Walls 2009).

Social enterprises are seen as an innovative instrument for creating social value, and they are assumed to have the potential power to modernize the delivery of public sector services. Despite the positive aspects of the social enterprise initiative, until now, it has been difficult to raise the topic in a social policy level discussion (e.g., Ridley-Duff 2008). The idea of social entrepreneurship is confused, because the third and private sectors' providers deliver services similar to business entrepreneurs (cf. Light 2008). Although social entrepreneurship is a promising form of new business, the government's task to push the initiative forward might be difficult for at least three reasons.

First, the third-sector associations have played an important role in developing and delivering social care services, but the tipping point occurred in the 1990s when the mixed welfare economy was emerging in Finland. At that time, associations had a key opportunity to create innovative solutions for delivering social care services, but the associations only partially used their opportunities. The associations were pushed to transform their services to be run by their own for-profit companies. This meant that economic (for-profit) aims were seen as more important than the associations' original social mission. In that meaning, the initiatives for social enterprises have been presented almost 15 years too late.

Second, recent welfare reforms have been characterized by New Public Management, including a purchaser-provider split in a quasi-market context. The reforms are based on market ideology, where for-profit enterprises are seen as the main actors. Although they have been broadly successful in raising the quantity and quality of the services available, this success has been achieved at a cost culminating in commissioning. Commissioning can be broadly described as the process of using public resources effectively to meet the needs of local citizens (Matosevic, Knapp & Le Grand 2008, 229). For-profit companies have taken the place of third-sector associations and small enterprises. Though the logic of commissioning is understood within the context of the market economy, the culture and practices of commissioning are based on economic values. It is difficult to see a place for social enterprises in the current climate.

Third, the function of social enterprises in providing social care services is unclear. In the recent discussion, the main focus of social enterprises collectively was not expressed (cf. Teasdale 2010). Is the focus on discovering and addressing small-scale social needs, or on introducing reforms and innovations to the broader system or even on seeking to address systemic problems within existing social structures by introducing revolutionary change?

Though the government has the unenviable task of pushing social enterprises to the fore, the social-political environment might change once again and create more space for this type of new social enterprise business (for-profit and nonprofit). Hans van Ewijk (2010) argues that the traditional social policy (based on a socio-economic approach) can no longer answer citizens' needs. The future is predicted as needing more local-based approaches for organizing social services and a new socio-cultural approach to social policy that emphasizes the role of local people and communities. Van Ewijk's view is similar to Peter Taylor-Gooby's (2009) approach to "new citizenship," which can be supported by the third

sector. In that climate, there may once again be a demand for social enterprises.

Conclusions

In the Nordic countries, the growth of social care service has traditionally been channeled through the public sector. The objective has been to create universal social services which support the well-being of the citizens. The shift to the new era took place in the beginning of the 1990's. The attention turned from the citizens' well-being to the sustainability of the public sector's foundation. The development of a versatile market structure was set as the objective where the third and the private sectors complement the services of the public sector. This has meant an emphasis on service contracts, outsourcing and economic efficiency.

The objective of restricting the growth of the public sector has been the main factor behind competitive economy. Altogether, the value of the social care service production has mainly followed the development of the gross national product. In this concern, the development of growth is haltered. However, the essential change has taken place in the market structure where the production of private service providers has grown significantly faster than the production of the public and third sectors. The growth of service production has first and foremost been channeled through the private sector.

In this framework, it is understandable that also social enterprises are assumed to have the potential power to modernize the delivery of public sector services. Despite the positive aspects of the social enterprise initiative, until now, the idea of social entrepreneurship is confused, because the third and private sectors' providers deliver services similar to business entrepreneurs (cf. Light 2008). There is space for social enterprises in Finnish social care services, but it is difficult to find good examples of social entrepreneurship.

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