# The Significance of Education Programmes for Dynamic Entrepreneurship in Maximizing Regional Competitiveness

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## 1 Introduction

There are a very few topics and issues that would make various stakeholders unanimously agree upon. Undoubtedly, one of them is that "we are living in knowledge-based societies" and some authors consider 'knowledge' as the main future driving force of the development of the society and economy (Krings, 2006). In terms of the topic of this paper, The Significance of Education Programs for Dynamic Entrepreneurship in Maximizing Regional Competitiveness, it raises a question: Could well-educated entrepreneurs and their teams, who drive innovations, spread entrepreneurial attitude and provide faster, knowledgeable responses to dynamic changes in the society and economy, influence the increase in competitiveness of their countries, regions and cities? Furthermore, the paper addresses the following growth issues:

- (a) What are the reasons behind relatively poor entrepreneurial results in Croatia?
- (b) What has been done in order to create enabling environment for expanding knowledge-based entrepreneurship?
- (c) Are there some gaps in offering adequate education programs for sustainable, growing entrepreneurs and dynamic entrepreneurship?

Although the main reported obstacles to competitiveness-enhancing efforts in achieving stable growth are financial indiscipline and increased unemployment, the attempts to raise the awareness of the importance of growing entrepreneurship is becoming more and more important. This paper will make an attempt to research one of the "soft issues" - the significance of the educational programs for growing SMEs (gazelles) in Croatia and their role in increase of regional competitiveness.

The increased attention given to Croatian growing businesses (gazelles) in the last six years, intrigued authors to explore (1) the linkages between two start-up approaches (out of opportunity and out of necessity) and growing businesses, (2) eventual discrepancy between the amount of support provided to start-up launching/development, in comparison to training support to growing ventures, and to define (3) recommendations on how to maximize regional competitiveness in entrepreneurship by creating education programs that would provide more support for growing businesses.

## 1.1 Definitions

The competitiveness is defined as the "ability of a firm or a nation to offer products and services that meet the quality standards of the local and world markets at prices that are competitive and provide adequate returns on the resources employed or consumed in producing them" (businessdirectory.com). According to the Global Competitiveness Report 2011-2012 (p.11), Croatian economy belongs to the group of so called efficiency driven economies in transition to more advanced stage (innovation driven economy), from 2-3. In this report, Croatia has been ranked as 76th (out of 142 countries), and scored global competitiveness index of 4,1 (out of 7).

Regional competitiveness is the ability of the region to ensure economic growth over time, including the ability to attract and retain productive capital and competent human resources, and to be innovative in a broad sense (Borozan, 2007; Borozan, 2008). It should be based on identifying and strengthening the unique combination of specific resources that region has.

Dynamic entrepreneurs are described as those who "manage and lead growth companies", and called "winning performers, gazelles, hidden champions, etc." (Twaalfhoven, 1993). While describing differences between the small or medium-sized company owners, the dynamic entrepreneurs were described as "growing, vision opportunistic, global, expanding, with external resources, professional team, in search for competition, risk taking and sharing, and rather oriented to success, then to survival (Twaalfhoven, 1993). Gazelle (company) is defined as follows: "A high-growth company that is increasing its revenues by at least 20% annually for four years or more, starting from a revenue base of at least \$1 million. This growth pace means that the company has effectively doubled its revenues over a four-year period. As gazelle companies are characterized by their rapid growth pace, rather than their absolute size, they can range in size from small companies to very large enterprises." David Birch's identification of gazelle companies followed from his 1979 report titled "The Job Generation Process," wherein he identified small companies as the biggest creators of new jobs in the economy. Birch estimated that gazelles accounted for only 4% of all U.S. companies, but accounted for 70% of all new jobs. Birch noted that the growth pace of gazelle companies far outpaced that of the Fortune 500 elephants and Main Street mice" (Investopedia).

Formal education is an activity that is performed in the institutional and publicly verified forms of education. The aim is to acquire professional knowledge, skills and abilities. It includes: primary education, secondary education, and tertiary or higher education. It is carried out in accordance with special regulations of relevant state institutions and agencies. Upon completion of this program participants will receive a public document which indicates the degree of completed education. Non-formal education includes organized learning processes aimed at training adults for work, various social activities and personal development. It is conducted in adult education institutions, companies, associations, unions, political parties, sports associations, and various other centres. It is carried out independently of the formal education system and does not lead to the issuance of public documents. Informal learning represents activities in which adults accept views, values, skills and knowledge from daily experience and other influences and resources from their environment. In contrast to the formal and informal education, it is not necessarily intentional (Adult Education Act, Article 3, Class: 602-01/06-01/01, Zagreb, February 2, 2007).

The Global Entrepreneurship Monitor (GEM) project is the world largest ongoing annual study of the entrepreneurial activities, aspiration and attitudes. It also researches the trends, and the assessment of policies introduced to support entrepreneurship in respective countries.

The project was launched in 1999 in 10 countries, by today the number of participating countries rose to around 85.

GEM report for 2011, estimates there are near 400 million entrepreneurs in 54 countries, in addition to new hires and job creation expectations in the coming years. It also shows that underdeveloped and developing countries have relatively high share of necessity-based entrepreneurship and lower level of opportunity based entrepreneurship. (Bosma at al., 2012).

The main tool for measuring entrepreneurial activity in countries is TEA index (TEA is an acronym which stands for "total early-stage entrepreneurial activity; originally, TEA measured "total entrepreneurial activity") and it represents the percentage of the adult population - either nascent entrepreneurs or owner-managers of baby-businesses. GEM defines two types of nascent entrepreneurs: those who started opportunity-perceived businesses and those whose businesses are necessity-based, started as the other options failed or were unsatisfactory.

In all reports since Croatia joined the GEM project, the TEA Opportunity vs. TEA Necessity in Croatia has been positioned below the average for all GEM countries, which is the characteristic of poorer and entrepreneurially less successful countries. People in higher-income countries have more employment opportunities and better social welfare programs for unemployed, so they more often enter into entrepreneurship out of perceived opportunity.

## 1.2 Small- and medium sized companies in Croatia

In 2009, Croatian small and medium-sized enterprises make up 99.4% of all registered businesses, 64.7% of total employment, 44% of the gross domestic product and 40.5% share in total exports of the Republic of Croatia (Strategy of Learning for Entrepreneurship, 2010, p. 11).

Developed countries have an economic growth rate of 2-3% per year, but Croatia needs growth of 7% to 9% long-term to solve its economic problems. According to estimates by economic analysts, it is necessary to annually set aside 5% to 7% of GDP for interest payments of foreign debt (Delač, 2010). Thus, the population remains available to less disposable income, which inevitably affects the standard, state of health, education and other indicators of economic development, including the entrepreneurial activity. Many studies and analysis, both in Croatia and the EU, emphasize the importance of small and medium enterprises in the economy of the country and their potential contribution to the economic growth. Small and medium-sized enterprises achieve economic growth not only through creation of a large number of new companies, but also by encouraging diversity of entrepreneurship in regional and local communities. It is also recognized that the degree of diversification affects the potential for economic growth (Drucker, 1985).

A component of TEA index - identification/recognition of business opportunities is described as the presence of job opportunities, availability of information about them and the ability to recognize opportunities into a venture (Singer at al., 2006, p 56). Previous GEM research has proven that there are entrepreneurs who started entrepreneurial activity because of the perceived opportunities, and they are more growth-oriented companies than those who were forced to become entrepreneurs due to unfavorable situation (Singer at al., 2006, p 16). In Croatia, there are more of these who enter into entrepreneurial activity out of necessity rather

than those who become entrepreneurs due to perceived opportunities (Singer at al., 2006, p 17). The trend has been presented in the Table 1.

	2002.	2004.	2006.	2008.	2010.
recognition of business opportunities for Croatia	2,93	3,28	3,43	3,43	3,01
recognition of business opportunities - average for all GEM countries	3,29	3,3	3,43	3,21	3,23
the best in class					4,01 Zambia

Table 1: Identification/recognition of business opportunities

Source: CEPOR, Letter to national experts responding to GEM questionnaire, 2011

In terms of recognition of business opportunities, after an initial lag reported in comparison to other countries, since 2004. Croatia maintains results close to the average recognition of business opportunities of all participating countries, but it is still lower in comparison to the best in class.

These data raise the question of (1) competence of Croatian entrepreneurs to identify business opportunities and (2) possession of appropriate knowledge and skills to launch and grow business ventures. Research has not proven that entrepreneurial training will necessarily result in successful enterprise performance, but it has been proven that the entrepreneurs, who were not funneled through some form of education, tend starting non-innovative, common, already seen jobs. Almost 18% of the variability in a company's performance can be accounted for with entrepreneur knowledge (Gomezelj Omerzel and Antončič, 2008.). Training increases the potential for entrepreneurs to influence the factors prevailing in the firm's environment (Littunen, 2000)

## 1.3 Growing companies (gazelles) in Croatia

As the awareness of the importance of entrepreneurship and sustainability is increasing, the need to research Croatian entrepreneurs has spurred. It has also been inspired by increased interest for the growing SMEs (gazelles) in the global markets. In 2006, Croatian business magazine Business.hr had launched the project Croatian Gazelles, and since then studied fast-growing Croatian companies, defined by achieving (cumulative) turnover growth of at least 30% in the three preceding years. Database with entries of 8787 companies for the period between 2006 and 2011 has been analyzed (business.hr). Among these companies, every year since 2006, there is a selection of the most successful fast-growing companies. Some of them report impressive growth rates expressed with three-digit or four-digit percentage growth rates, achieved in the reference period of three consecutive years. However, some of them demonstrate smaller growth in turnover, but they have been present for more then once at the 6 (six) annual listings of Croatian gazelles.

Regional Distribution of the gazelles is presented in the Figure 1:

-	regional Distribut		# gazeles	gazelles (2006-2011)   # gazelles   # gazell			# gazelles
#	region	(2006)	(2007)	(2008)	(2009)	(2010)	(2011)
1.	ISTRIA AND PRIMORJE	172	187	233	196	128	13:
	Istrian County						
	Primorsko-Goranska County						
	Lika-Senj County						
2.	CENTRAL CROATIA	192	192	286	256	126	11
	Karlovac County						
	Sisak-Moslavina County						
	Zagreb County						
	Bjelovar-Bilogora County						
3.	DALMATIA AND SOUTHERN CROATIA	200	244	311	284	170	16
	Zadarska						
	Zadar County						
	Split-Dalmatia County						
	Dubrovník-Neretva County						
4.	NORTHWEST CROATIA	125	170	218	222	131	10
	Krapina-Zagorje County						
	Varazdin County						
	Medjimurje County						
	Koprivnica-Krizevac County						
5.	SLAVONIA AND EASTERN CROATIA	144	158	220	245	147	12
	Vukovar-Srijem County						
	Brod-Posavina County						
	Pozega-Slavonia County						
	Osijek-Baranja County						
	Virovitica-Podravina County						
6.	ZAGREB	516	593	716	646	383	34
	City of Zagreb						
		1349	1544	1984	1849	1085	97
	TOTAL	1349	1544	1984	1849	1085	97

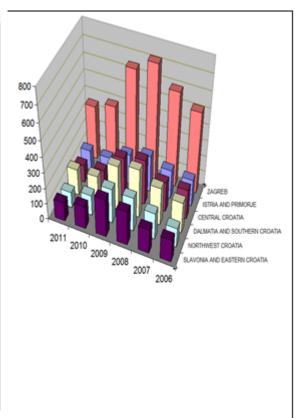


Figure 1: Regional distribution of Croatian gazelles (2006-2011)

Source: Business magazine Gazelles, special editions for each year (2006-2011)

Figure 1 shows that the gazelles in the City of Zagreb outnumbered the gazelles in other regions. This finding will be confronted with the regional competitiveness index and the results of the research of offered education programs for growing companies.

# 2 Regional Competitiveness Index in Croatia

Regional disparities are Croatian reality. The average income is three times higher in richer than in poorer regions, and it is necessary to implement adequate policies at national, regional and local level, in order to enable that entrepreneurial momentum spread to less developed regions and help them catch up with the developed ones. The Regional Competitiveness Index is a tool developed by the National Competitiveness Council of Croatia, based on the methodologies of the World Economic Forum (WEF) and the International Institute for Management Development (IMD). It measures and ranks the competitiveness of the three regions (NUTS2): Northwest region, Central and Eastern (Pannonia) region, and the Adriatic region. It also measures and ranks the competitiveness of 21 counties (NUTS3). The Regional Competitiveness Index is also based on a set of factors, policies and institutions that affect sustainable productivity. It evaluates quality of business environment and business sectors, and the quality of their interaction.



- 1. City of Zagreb
- Zagreb county
   Krapinsko-zagorska county
- Varaždinska county
   Koprivničko-križevačka county
   Međimurska county
- 7. Bjelovarsko-bilogorska county
- 8. Virovitičko-podravska county
- 9. Požeško-slavonska county
- 10. Brodsko-posavska county a
- 11. Osječko-baranjska county a
- 12. Vukovarsko-srijemska county
- 13. Karlovačka county
- 14. Sisačko-moslavačka county
- 15. Primorsko-goranska county
- 16. Ličko-senjska county
- 17. Zadarska county
- 18. Šibensko-kninska county
- 19. Splitsko-dalmatinska county
- 20. Istarska county
- 21. Dubrovačko-neretvanska county

Figure 2: Statistical Division of Croatia (counties in 3 regions)

Source: Regional Competitiveness Index of Croatia, 2010

According to the ranking results of three NUTS2 regions and 21 counties (Figure 3 and 4) 2), Northwestern Croatia is ranked first. It is followed by Adriatic Croatia in second place, then Central and Eastern Croatia in third. This is identical result as in 2007.

Region	Competitiveness rank 2007. 2010.		
Northwestern Croatia	1	1	
Adriatic Croatia	2	2	
Central and Eastern Croatia	3	3	

Figure 3: Ranking of regions in Croatia in 2007 and 2010

Source: Regional Competitiveness Index of Croatia, 2010

Overview of the counties' rankings is based on the values of the 8 statistical indicators and 9 perceptive indicators of competitiveness. The top 5 counties are Varaždin County, the City of Zagreb, Istria County, Međimurje County and Zagreb County, which are also the top 5 in terms of the Regional Competitiveness Index. The ranking of these counties was the same in 2007, only Varaždin and Međimurje Counties and the City of Zagreb have switched places.

rank 2010 (2007)		counties	Statistical ranking	Perceptive ranking
1.	(4)	Varaždinska	6	1
2	(1)	City of Zagreb	2	7
3	(3)	Istarska	1	13
4	(2)	Međimurska	3	6
5	(5)	Zagrebačka	7	5
6	(9)	Zadarska	10	3
7	(6)	Primorsko-goranska	5	12
8	(8)	Splitsko-dalmatinska	4	14
9	(10)	Dubrovačko-neretvanska	9	11
10	(13)	Šibensko-kninska	8	16
11	(15)	Krapinsko-zagorska	11	8
12	(7)	Koprivničko-križevačka	13	4
13	(14)	Osječko-baranjska	14	2
14	(12)	Karlovačka	12	10
15	(11)	Bjelovarsko-bilogorska	15	15
16	(18)	Brodsko-posavska	19	9
17	(17)	Virovitičko-podravska	17	17
18	(19)	Ličko-senjska	18	18
19	(16)	Sisačko-moslavačka	16	20
20	(21)	Vukovarsko-srijemska	20	19
21	(20)	Požeško-slavonska	21	21

Figure 4: Regional Competitiveness Ranking of 21 counties in Croatia in 2007 and 2010, and statistical and perceptive ranking in 2010

Source: Regional Competitiveness Index of Croatia, 2010

The counties ranked as least competitive are Požega-Slavonia County, Vukovar-Srijem County, Sisak-Moslavina County and Lika-Senj County, i.e. counties that suffered most in the Homeland War. All ten counties with the lowest competitiveness rank also have the lowest development index (below 75% of the average of the Republic of Croatia). This correlation suggests that the cause of their poor development is, for the most part, also the cause of their poor competitiveness.

Regional Competitiveness Index measures statistical and perceptive values of competitiveness pillars. Network diagrams presented in Figure 5 illustrate their regional competitiveness profile based on the business environment and business sector quality.

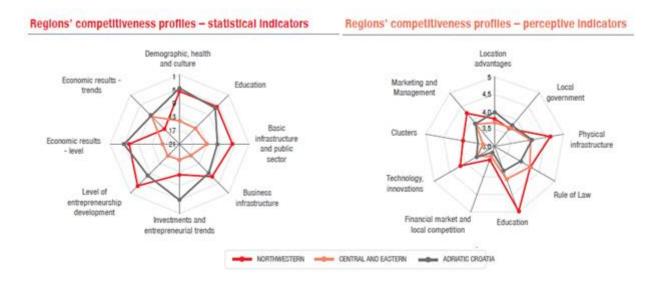


Figure 5: Regions' competitiveness profiles – statistical and perceptive indicators

Source: Regional Competitiveness Index of Croatia, 2010

Business environment is measured through (a) statistical indicators (demographics, health and culture, education, basic infrastructure and public sector, business infrastructure), and (b) perceptual indicators (locational advantages, local government, infrastructure, rule of law, education, financial markets and local competition). The education is measured through both statistical and perceptual indicators. Perceptive indicators are showing better results of evaluation of education in all three regions then the statistical ones. Both indicators are the highest for the Northwestern region, and the perceptive indicator of education is higher then the statistical one, while the indicators for education in the Adriatic region are showing the opposite result: the statistical are almost twice as better then the perceptive ones. It is important to compare both indicators (actually: facts versus perception), and thus act accordingly: increase the number and quality of programs, or better market educational activities.

Business sector is measured through (a) statistical indicators (investments and entrepreneurial trends, development of entrepreneurship, economics results – level, economic results – trends), and (b) perceptual indicators (technology and innovation, clusters, marketing and management).

# 3 Education for Entrepreneurship in Croatia

Lack of research and development projects in education for entrepreneurship in Croatia is one of the main reasons for underdevelopment of the field. Research on educational needs is necessary to ensure successful and efficient development of entrepreneurial education in all aspects of education and learning. Specifically, the lack of systematic research in the field of education, especially education for entrepreneurship, makes strategic approach to the problem impossible. At the national level, the current state of education and learning for entrepreneurship is not specified, nor are the entrepreneurial competencies. Exact development guidelines are also not defined (Learning strategy for entrepreneurship 2010-2014", p 10.).

## 3.1 Data and Methodology

The methodology included research of the regional specifics in GEM 2006-2010 data, ongoing research on entrepreneurship education, regional entrepreneurial potential, quality of performance, and comparison of these findings with the Croatian gazelles' research (2006-2011) and regional competitiveness indices (2007, 2010). Since the GEM project is not primarily focused on growing companies and gazelles, and the research sample is quite small, the research might be significant just for indication of further research directions. However, the authors plan to do additional quality research in the future.

#### 3.2 Previous Research

A few research initiatives have been done and strategies have been written only recently to address this problem. The two that received the most attention are "Learning strategy for entrepreneurship 2010-2014" (from May 2010) and the survey conducted by the Croatian Chamber of Commerce, with financial support from the Ministry of Economy, Labour and Entrepreneurship, titled "Analysis of the need for education and training in small and medium-sized companies, with special emphasis on entrepreneurial skills". It was firstly conducted in 2009 and planed to be carried out continuously. The survey analysed several segments of education: the use of governmental incentives for education, cooperation of economy and educational institutions, desirable entrepreneurial features of managers needed for future operations, and most wanted education profiles. The survey is presented in the Learning Strategy for Entrepreneurship 2010-2014 (May 2010), and generated a set of very useful suggestions for the decision makers:

- There is a need for organizing information campaigns that would encourage the small and medium-sized companies to use state incentives for education more frequently,
- Computer literacy must be enhanced,
- Planning of future governmental incentives must be done based on training needs analysis,
- The role of supporting institutions for entrepreneurship, in the development of small and medium-sized companies, must be enhanced,
- Cooperation between education and economy must be strengthened in order to increase competitiveness.

Entrepreneurship, which is in most cases created from necessity, without adequate education and training programs, are hardly able to accept greater challenges. Training programs for entrepreneurs, created or supported by the Ministry of Economy, Labour and Entrepreneurship, and other national, regional or local institutions, mitigate such an approach and initiate new processes which support Croatian entrepreneurs during different phases of their entrepreneurial ventures. In addition to standard training programs for new entrepreneurs, there are also programs available in the growth and development phase that help entrepreneurs acquire necessary practical knowledge and skills. Accordingly, different institutions offer different possibilities of acquiring entrepreneurial knowledge and skills. Most of them are directed towards start-up entrepreneurs in order to help them overcome initial difficulties before and immediately after becoming entrepreneurs. They can be formal, non-formal and informal in nature. Formal education for start-up entrepreneurship is organized in schools (in charge of secondary education) and universities, polytechnics and vocational education institutions (in charge of higher education). Secondary schools with economic or entrepreneurial prefix in Croatia are grouped according to the statistical distribution of the Republic of Croatia in three main regions, and their distribution is shown the Table 2, based on information presented in the public document from the Ministry of Science, Education and Sports: "Secondary Education Institutions and Their Programs":

I.	Northwest Croatia		
	City of Zagreb	7	
	Zagreb County	2	
	Krapina-Zagorie County	0	11
	Varazdin County	1	11
	Koprivnica-Krizevac County	0	
	Medjimurje County	1	
II.	Central and Eastern (Pannonian) Croatia		
	Bjelovar-Bilogora County	2	
	Virovitica-Podravina County	0	
	Pozega-Slavonia County	1	
	Brod-Posavina County	2	10
	Osijek-Baranja County	1	10
	Vukovar-Srijem County	2	
	Karlovac County	1	
	Sisak-Moslavina County	1	
III.	Adriatic Croatia		
	Primorsko-Goranska County	0	
	Lika-Senj County	0	
	Zadar County	1	
	Sibenik-Knin County	1	7
	Split-Dalmatia County	2	
	Istra County	2	
	Dubrovnik-Neretya County	1	

Table 2. The number of economic and entrepreneurial programs in secondary schools in three Croatian regions

Source: Public document from the Ministry of Science, Education and Sports: "Secondary Education Institutions and Their Programs"

As it is evident from the Table 2, there is a problem of centralization of economic and entrepreneurial programs that are conducted mainly at the secondary education institutions in the City of Zagreb.

Distribution of economic and entrepreneurial programs in the higher education is somewhat different. Specifically, although there is an obvious dominance of such programs in the City of Zagreb, the Adriatic region is at the forefront of their total number, with most equal distribution of all.

The public document from the Ministry of Science, Education and Sports: "Institutions of Higher Education" served as a basis for survey of number of economic and entrepreneurial programs in tertiary education institutions, presented in the Table 3:

I.	Northwest Croatia		
	City of Zagreb	5	
	Zagreb County	0	
	Krapina-Zagorie County	0	5
	Varazdin County	0	3
	Koprivnica-Krizevac County	0	
	Medjimurje County	0	
II.	Central and Eastern ( <u>Pannonian</u> ) Croatia		
	Bjelovar-Bilogora County	0	
	Virovitica-Podravina County	0	
	Pozega-Slavonia County	0	
	Brod-Posavina County	0	1
	Osijek-Baranja County	1	1
	Vukovar-Srijem County	0	
	Karlovac County	0	
	Sisak-Moslavina County	0	
III.	Adriatic Croatia		
	Primorsko-Goranska County	2	
	Lika-Seni County	1	
	Zadar County	0	
	Sibenik-Knin County	1	8
	Split-Dalmatia County	1	
	Istra County	1	
	Dubrovnik-Neretva County	2	

Table 3. The number of economic and entrepreneurial programs in tertiary education institutions in three Croatian regions

Source: The public document from the Ministry of Science, Education and Sports: "Institutions of Higher Education

Non-formal education is organized by different supporting institutions for entrepreneurship, such as: regional development agencies, centres for the promotion and development of entrepreneurship, technology parks, business incubators, and others. They are responsible for organizing round tables, workshops, seminars and conferences focused on the development of SMEs and entrepreneurship as a whole. They are working on promotion of self-employment in entrepreneurship, provide counselling, education and business information, preparation of business plans, as well as organizing joint fairs and trips to visit other centres in order to exchange experiences and disseminate good practice. Some of them additionally offer location and financial support. The list of supporting institutions for entrepreneurship is provided by the Ministry of Economy, Labour and Entrepreneurship, and their distribution is shown in the Table 4:

I.	Northwest Croatia		
	City of Zagreb	6	
	Zagreb County Krapina-Zagorje County		
			28
	Varazdin County	7	20
	Koprivnica-Krizevac County	7	
	Medjimurje County	3	
II.	Central and Eastern (Pannonian) Croatia		
	Bjelovar-Bilogora County	6	
	Virovitica-Podravina County	1	
	Pozega-Slavonia County	5	
	Brod-Posavina County	5	
	Osijek-Baranja County	15	39
	Vukovar-Srijem County	2	
	Karlovac County	2	1
	Sisak-Moslavina County	3	
III.	Adriatic Croatia		
	Primorsko-Goranska County	8	
	Lika-Senj County	1	
	Zadar County	2	
	Sibenik-Knin County	2	33
	Split-Dalmatia County	12	
	Istra County	4	
	Dubrovnik-Neretva County	4	

Table 4. The number of supporting institutions for entrepreneurship in three Croatian regions

Source: Ministry of Economy, Labour and Entrepreneurship

As it can be seen in the Table 4, the absolute dominance in quantity, but also in variety of supporting institutions for entrepreneurship, is located in Osijek-Baranja and Split-Dalmatia County. Osijek-Baranja County is also known for its very good connection of institutions of formal and non-formal entrepreneurial education. The lack of supporting institutions are found in Lika-Senj, Virovitica-Podravina and Krapina-Zagorje County, which count only one supporting institution for the whole county - the development agency.

That lack in quantity does not necessarily mean lack in quality, clearly illustrates an example of Krapina-Zagorje County with only one supporting institution - development agency, offering very diverse set of programs, particularly for start-up businesses. One of such is Virtual Business Incubator "Business Angel" – the program that consists of two parts:

- 1. Screening of the entrepreneurial concept and introduction to the holders of the projects entrepreneurs;
- 2. Workshop which deals with topics of a business plan. The aim is that participants, as their final assignment, present their own business plan with clear indication of the need for investment. The best business plan is then rewarded with: certain amount of money grants, subsidized interest rates on credit, local warranty guarantee fund, consulting and mentoring services.

The second program that draws attention is "Network for Developing Entrepreneurship", which encourages cross-border cooperation between Croatian and Slovenian regions. The aim of the program is to activate the target group of young people and enhance their entrepreneurial potential - to motivate them, to develop entrepreneurial and other skills needed for active performance in the labour market and develop new business ideas; and to ensure transfer of knowledge, experience and cooperation among potential young entrepreneurs and existing SMEs on both sides of the border.

#### 3.3 Research

During the process of articulating the research questions, it was discovered that previous research did not give enough attention to the issues of the context. For example, there is a lack of research on which context has the most impact on Croatian entrepreneurial activity in different phases (including start-up phase, survival phase, and growth phase) and what is the impact of developed soft entrepreneurial infrastructure (training, education) and other support mechanisms on success of some counties/regions in Croatia?

Although a lot of research has been done about the impact of education on motivation to become entrepreneur, there is a lack of research dealing with the entrepreneurs' need to continue with education once they've become entrepreneurs. Due to distinct (almost extreme) regional differences, the significance of regional context in shaping entrepreneurship capital (including knowledge, skills, and other resources required for both start-up and growth of entrepreneurial ventures) should be carefully examined. The emphasis in this paper is given to the number and variety of educational programs aimed to growing companies.

In order to diagnose the state of entrepreneurial learning, with the emphasis on non-formal programs created for the dynamic entrepreneurship, the authors of this paper contacted all of the mentioned institutions, centres, ministries and associations, at the national, regional and local level. The survey was sent to a total of 107 e-mail addresses of the relevant institutions for this question (the example of questionnaire that was sent to the institutions is available at the link

https://docs.google.com/spreadsheet/viewform?formkey=dGNMM0dST05GbDliZkVnNFBIR zVMUUE6MQ#gid=0). The contact persons have been carefully chosen to be responsible for our area of interest within their institutions. Only six representatives of supporting institutions filled in the questionnaire and four representatives sent an e-mail in response to an inquiry sent to them. Given the very low response rate, the authors have had to seek an alternative way of finding the necessary data and information, mostly through Internet sites of the institutions and personal contacts.

VIDRA Agency for Regional Development of Virovitica-Podravina County, with its activities - training of numerous entrepreneurs, providing them with technical assistance and information about opportunities for their development and growth through various programs, has had a very positive impact on improving the business climate and business activities in the County. VIDRA's way has also contributed to a strong growth in the border area of Croatia – Hungary, initiating and taking part in cross-border projects from IPA. It was declared the most successful development agency in 2011. Besides VIDRA, it is also important to mention the following supporting institutions with distinguished programs for dynamic entrepreneurs: Development Agency Zagreb – TPZ, Zagreb County Regional Development Agency, Varazdin County Development Agency, PORA Development Agency of Podravina Prigorje, Osijek Centre for Entrepreneurship, Regional Development Agency PORIN, Science and

Technology Park, University of Rijeka Ltd., Zadar County Development Agency, Istrian Development Agency, etc.

# 4 Research Findings

According to the research done by the authors of this paper, complete educational support provided by supporting entrepreneurial institutions for start-up entrepreneurs in Croatia can be grouped into six sections:

- Programs that encourage cross-border cooperation between neighbouring countries
  and their regions (i.e. The Wealth of Rural Areas in a Joint Tourism Offer (CRO-SLO)
  Project, EDU-PRENEUR (Entrepreneurial Education for European Pupils/Students
  Innovators), Project "YES Youth Entrepreneurial Spirit" (CRO-SRB), ...);
- Programs that support entrepreneurship among certain target groups (i.e. Seminars for Women New Entrepreneurs, The program of education and counselling of deaf women in entrepreneurship "We are Deaf, but Capable", Workshop on "Women in Business", Network for Developing Entrepreneurialism, EDU-PRENEUR, YIBE Youth in Business and Entrepreneurship, Project "YES Youth Entrepreneurial Spirit", Student Entrepreneurship Program creating and running student minicompanies, Family Business seminar, ...);
- Programs that facilitate entry into entrepreneurship by simulation of business start-up or by taking over someone else's business format ("Franchising from A to Z", Student Entrepreneurship Program, ...);
- Programs that promote sustainable development of regions by specializing in a particular segment characteristic for that area (i.e. project "YES for Gorski kotar", Centre for Education in Tourism CET "Sacred Hill", ...);
- Implementation of projects and measures of the Ministry of Economy, Labour and Entrepreneurship "Education for Entrepreneurship" (i.e. Basics of Entrepreneurship, Introduction to Entrepreneurial Environment, Fundamentals of IT, Marketing, Business Plan, EU Funds, Negotiation Skills and Rhetorical Skills, ...);
- Educational and advisory support for entrepreneurs protégés of a certain supporting institution (i.e. technology parks, business incubators, etc.).

Research has shown that there is a wide range of educational services available for start-up entrepreneurs through non-formal education. However, most of them provided the standard programs of the Ministry of Economy, Labour and Entrepreneurship. It is a smaller number of entrepreneurial supporting institutions that improve the average of the majority with highly innovative range of educational programs aimed at different target groups, fields and activities that go beyond expectations (i.e. Development Agency Zagreb - TPZ, Center for Entrepreneurship ROSA, Varazdin County Development Agency, Development Agency North, Business Park Bjelovar, Osijek Centre for Entrepreneurship, Centre for Entrepreneurship Pula, etc.).

Informal education for start-up entrepreneurship happens in different settings: centres, schools and colleges, streets and shopping malls, people's homes, workplaces, and other social, cultural and sporting settings. Often, there is a combination of the few within the same day. Informal educators use a variety of methods, like: group work, casual conversation, play,

individual work and casework. They place conversation at the centre of their activities (Smith, M. L. 1997, 2005, 2011). In the field of informal education in Croatia, there is a significant production of business content, but it is unsystematic. It is limited to web sites, web portals, specialized magazines, conferences, presentations and the like, where the contents are set up depending on the objective of creators of information.

Others focus on motivating students to opt for entrepreneurship after completing their formal education. In Croatia, year after year, there are an increasing number of requests received by the National Council for Higher Education for approval of new studies and new universities with the entrepreneurial character. There is a possibility that such uncontrolled growth of interest will compromise the quality of higher education systems in Croatia. To illustrate, in 2006, the National Council for Higher Education received 65 applications for approval of proposed new undergraduate, graduate and vocational studies and 16 for the establishment of new universities. In 2007, applications for 91 studies and 22 new colleges were received. Such a sudden, uncontrolled rise of initiatives in higher education has already led to problems, especially in entrepreneurship education, where the greatest interest was presented (Report of the National Council for Higher Education, 2008). Many colleges and other high education institutions have lost or face losing their license to operate due to a number of reasons: lack of permanently employed staff having an appropriate level of education or the teaching title, inadequate teacher ratio to the number of students, and such. The University of Applied Sciences Vern' was one of the few private vocational high education institutions in entrepreneurship education, highlighted as example of good practice.

According to the second part of the authors' research, complete educational support provided by supporting entrepreneurial institutions for dynamic entrepreneurs in Croatia can be grouped into six sections:

- Programs of assistance for entrepreneurs in times of crisis (i.e. How to Manage a Company in Times of Crisis, How to Understand Business Finance, Business Planning, Alternative Marketing, I Am My Own Designer, Secrets of Guerilla Marketing, Knowledge Required for Survival and Development, ...
- Programs that support internationalization of businesses (i.e. How to Export HIO, EU Funds, Creating a Successful Research, Benchmarking Export Plan, Market, Training center for new technologies, Innovative Cross-Border Network of Small Exporters CB NET (CRO SRB), Franchising from A to Z, Let the Internet be Your Sales Specialist, Seminar "How to Become an Exporter" and "Investment Planning for the Purpose of Export and EU Legislation Relating to Export", Promotion of Products and Services on the Internet, Inclusion of E-business, Improving Business Competitiveness Via E-business, ...
- Programs that facilitate cooperation between businesses and research institutions (i.e. SPRINT Continuous Support to Innovative and Technological Companies in the Cross-border Area (CRO and SLO)), Academy for Entrepreneurship, ...
- Programs that promote sustainable development of regions by specializing in a
  particular segment characteristic for that area (i.e. Project "Development of Rural
  Tourism in the County of Zagreb" Help of the Government of Flanders to the
  Countries of Central and Southeast Europe, By Association to Success: Clusters, the
  workshop entitled "The Importance of Cross-Border Clusters for Developing
  Economies of Both Regions" (Hungary-Croatia), workshop "The Role of Tradition in
  Establishing Tourism Destination Supply", Safety and Food Quality (HACCP and ISO
  9001), Organic Agriculture and Manufacturing, Sustainable Development, ...

- Implementation of projects and measures of the Ministry of Economy, Labor and Entrepreneurship "Education for Entrepreneurship", "Improving business competitiveness via e-business", and others (i.e. Negotiation Skills and Rhetorical Skills, Quality Management, Business Planning, Project Cycle Management, Project Management, Personnel Management, Success by Partnership, "E-business" workshop, Risk Management, ...
- Specialized courses for a particular industry sector (i.e. Passive House, Pressure Equipment, intensive courses in certain business technologies, courses in advanced technologies programming and scripting, etc.).

As far as formal education for the dynamic entrepreneurship, at undergraduate level, the only high education institution that offers courses on the subject is the University of Applied Sciences VERN'. The name of the course is "Dynamic entrepreneurship" and is mandatory course for the 3rd year students of the Entrepreneurial Economics study programme. In the first years of the programme, students are thoroughly acquainted with the basics of entrepreneurship, learning how to start their own company, to develop a business plan and to successfully implement it in their own entrepreneurial ventures. The "Dynamic Entrepreneurship" then introduces students to the process of growth in companies, in order to complete the spectrum of knowledge necessary for gaining practical experience through student practice or first employment. Other high education institutions offering business economics study programmes deal with dynamic entrepreneurship only superficially, as a few hour lectures within some other courses. At graduate level, there are several programs that recognize the importance of dynamic entrepreneurship. One of such is Graduate Program in Entrepreneurship which is carried out at Josip Juraj Strossmayer University of Osijek, Department of Economics. The aim of "Growth Strategies of SMEs" course is to develop a sound conceptually based approach to the practice of managing and supporting the growing SMEs. At the heart of the module is an exercise where the students undertake a growth audit in a company of their choice. The practice is that the owners of the chosen companies upon completion of the audit provide a critique of results. The second graduate program in Entrepreneurial Management can be found at the University of Applied Sciences VERN'. The course of interest within the program is called "Managing Business Growth". It explains company lifecycle and most common mistakes in each phase of company's lifecycle, and also provides advice on how to avoid or resolve these mistakes by building adequate managerial teams for each phase, and understanding the interests and commitments of various stakeholders.

Overall responsibility for implementation and development of entrepreneurial learning in the education sector lies on the Ministry of Science, Education and Sports and its agencies, the Ministry of Economy, Labour and Entrepreneurship, Croatian Chamber of Economy, Croatian Chamber of Commerce, the Croatian Employers Association and the Croatian Employment Service, as members of the Coordination E4E-Entrepreneurship Education, and related institutions at national, regional and local level. E4E is the advisory body of the Croatian Government, whose task is to monitor and propose measures for the development of education and learning for entrepreneurship, giving opinions on draft laws and implementing regulations and monitoring of the Learning strategy for entrepreneurship and Action Plan. Since there is little experience on systematic entrepreneurial learning available even at the national level, let alone the regional one, of utmost importance are international institutes and different centres which are organized to support research and disseminate good practices on entrepreneurship education. One of such is the Regional Centre for Entrepreneurial Learning for Southeast Europe, initiated in 2007 by the Ministry of Economy, Labour and

Entrepreneurship of the Republic of Croatia. The aim was to establish structured co-operation amongst the countries of South Eastern Europe (precisely Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia /the Former Yugoslav Republic/, Montenegro, Serbia and Turkey) on life-long entrepreneurial learning. Initially it was financed solely by the Government of the Republic of Croatia, but now the bulk of the financial support is ensured by the European Commission within the framework of the Multi-beneficiary envelope of the IPA Programme.

## **5** Conclusion

The paper provided an overview about regional distribution of gazelles, dynamic entrepreneurship education programs, and regional competitiveness index in the three Croatian regions.

The authors defined the missing links related to maximizing regional competitiveness and growth oriented entrepreneurs, so as the contribution of dynamic entrepreneurship education programs to these goals.

Entrepreneurs' motivation depends on perceptions of entrepreneurship and business owners, and affects the share of the growing businesses in the structure of the economy. Entrepreneurial efficiency therefore depends on the attitude of national policy makers to growing businesses (Singer at al., 2006, p 56). As long as the number of necessity-driven new entrepreneurs outnumbers opportunity-driven new entrepreneurs, the forecasts for growing and sustainable businesses are not promising. Since necessity driven businesses lack creativity, innovativeness and viability, domination of such start-ups will leave Croatia far behind the desired status of innovation-driven economy.

Growing businesses are the most effective link between the entrepreneurial capacity and economic growth in the country (Singer at al., 2006, p 27). Developed countries with their economic policies tend to increase the number and viability of companies with growth potential, bearing in mind that well designed key entrepreneurial framework, appropriate interaction with macroeconomic conditions and tailor made support programs for majority of stakeholders are necessary to increase survival rate of companies and enable progress to those with potential to grow.

Research has shown that there is a wide range of educational services available for dynamic entrepreneurs in Croatia through non-formal education. As opposed to the ones available for start-up entrepreneurs, these are much more specialized and tailored to the market needs and the needs of entrepreneurs themselves. They recognize the specific time and situation Croatian entrepreneur is confronted with today. Dominant themes are: export and EU legislation relating to export, preparing businesses for the use of EU funds, inclusion of e-business, assistance in times of crisis, etc. Several programs consist of a series of one-day workshops covering basic areas of business and basic business skills. The programs can last for several months, include a certain number of hours of free counseling, and the entrepreneur him/herself chooses a coach in one area in which business has the greatest need for advice and help.

The number of fast growing enterprises (gazelles) is the highest in the City of Zagreb, which also represents the most competitive region in Croatia, and has the highest quality educational support for dynamic businesses.

The growing companies are observed and evaluated through the innovative use of new technologies, innovativeness in developing new products, exposure to competition and the capacity of the new employment (Singer at al., 2007, p 29). It is noted that the application of new technology and capacity to create new products are basic assumptions of growing businesses. This is, in the same time, a justification for key recommendation to increase number, scope and quality of educational programs for dynamic entrepreneurs. Well-educated entrepreneurs and their innovative teams spread entrepreneurial attitude and have better chance to provide responses to changes in business on a timely manner. However, there are some gaps in the offer of education programs for sustainable, growing entrepreneurs and dynamic entrepreneurs. Increasing the number and quality of such programs, will reduce that gap, and thus, contribute to the increase in competitiveness of their countries and regions.

The entrepreneurial results in Croatia could be much better with the appropriate attention to the educational programs to real job creators – fast growing companies. Furthermore, such programs should help in creation of enabling environment for expanding knowledge- and innovation-based entrepreneurship.

The policymakers should, by all means, avoid situations where lack, decline or stagnation in providing support programs for growing businesses, particularly educational programs for dynamic entrepreneurs, fail to stimulate the economic growth through growth of the company. Better exposure of growing companies to educational programs may contribute to better use of potentials, and maximize both regional and national competitiveness in Croatia.

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