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Sociology

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EVALUATION OF ENTREPRENEURS WITH A FOCUS ON OPERATIONAL PROGRAMME ENTERPRISE AND INNOVATION (OPEI). RESULTS OF A QUESTIONNAIRE SURVEY

ABSTRACT. The article is focused on the support of subjects from Operational Programme Enterprise and Innovation. The aim of the article is to analyse subjects applying for the financial support under the OPEI from the perspective of their legal form, number of employees and other indicators. The following hypothesis will be examined:

1. Financial support from OPEI is not distributed evenly among the individual regions (counties) – the highest number of projects (number of projects and the height of subsidy) was approved in the place of implementation in a structurally affected regions (hereinafter ISAR). In these regions, most projects, in terms of their number and the height of the subsidy, are realized in the "group" of economically weak regions due to the fact that they occupy the greatest territory of the ISAR – about 47% (14% of the Czech Republic Area).
2. There is a correlation between the amount of the subsidy from the OPEI and the unemployment rate in supported regions.
3. Subsidies contribute to development of entrepreneurship, i.e. the number of applicants who would not realize their project without the structural funds prevails.

We investigate the relationship among subsidy of the OPEI and unemployment rate by applying the econometric approach, concretely panel regression estimates with Fixed Effects. The research itself was based mostly on analysing data from various databases (Albertina, CzechInvest, ČSÚ, MagnusWeb) and based on the questionnaire survey.

JEL Classification: R11, R32

Keywords: entrepreneurship, OP Enterprise and Innovations, structural funds, support of SMEs.

Introduction

Supporting of entrepreneurship is part of stimulation of economic growth and is one of the key element of economic change. Policy of supporting entrepreneurship has become

significant for regional development. It is entrepreneurship that has positive influence on economic growth (Audretsch, 2001; Carree *et al.*, 2007; van Praag, Versloot, 2007; Naude, 2010; Romero, 2012; Sternberg, 2012; Marcotte, 2012), e.g. Nyström (2008) confirms a positive relationship between entrepreneurship and economic growth and productivity in the long term (approximately 10 years). Seen from this perspective, policy of supporting entrepreneurship is very important. The greatest attention is focused especially on small and medium-sized enterprises (SMEs) as they are considered to be the greatest source of innovations, economic growth, employment and social integration of the society. Greater flexibility in reacting to changes in the market, more ability to exploit market niches (Hodorogel, 2009) and faster and better implementation of innovations are often listed as advantages of SMEs. Wit and Kok (2014) prove that contribution of SMEs to creation of employment opportunities is higher than in the case of larger companies. In connection to innovations in small enterprises, Burns (2001) claims that these enterprises introduce products and services, which are very different from those of the big companies. Even though conducting research and development is less probable in SMEs than in big companies, when they do conduct them, it is more effective and they launch new products in the market much faster than big companies. Audretsch (2001) sees SMEs as leaders in the process of innovations, which gives them a great competitive advantage. Also Copus, Skuras, and Tsegenidi (2008) see SMEs as a contributor to the competitiveness of the local economy and innovation. Countries such as Czech Republic, Hungary, Poland, Slovakia and Slovenia have already accepted the fact that SMEs are an essential part of economic reforms (Maletić *et al.*, 2014).

In the Czech Republic, 70% of those employed in the corporate sector work in small or medium-sized enterprises. These enterprises contribute to the employment in economy more than by a half and generate approximately a third of the nominal GDP (Czech statistical office, 2013). The figures concerning the share in employment and GDP are very similar in Poland (Peszko, 2014). Among the disadvantages of SMEs, lack of capital and limited opportunities to gain advantages from the scope of production are mentioned. Their being is very often dependent on banks' lending, so government bodies tried to find ways to simplification of access to entrepreneurial finance (Fossen, 2011). The key element for survival, development, and growth of SMEs, but not only them, is the access to finance. Czech enterprises can use various types of support, financial or non-financial. In the European Union, cohesion policy and structural funds have a key position. When focusing on support from structural funds and the Cohesion Fund, these operational programmes can be named in the period of 2007 – 2013 in the Czech Republic: OP Human Resources and Employment, OP Education for Competitiveness, and OP Enterprise and Innovations (hereinafter "OPEI").

1. Research goals and hypotheses

OPEI, which is the third biggest operational programme in the Czech Republic (about 12% of all the financial resources of the Convergence is determined for it), is focused on supporting entrepreneurs, especially in manufacturing, research and strategic services. The programme is designed especially for SMEs, however, in some programmes, big companies and other subjects may also apply for support. One of the conditions for receiving a subsidy is realization of the project in the Czech Republic, with the exception of the capital city of Prague. Specific conditions are defined in the calls to the individual programmes of support. The article focuses on analysis of subjects with an issued Decision to Provide a subsidy (applicants with loan or guarantee contracts will not be included) and the way they used the aid offered to them. The aim of the article is to analyse subjects applying for financial support

under the OPEI from the perspective of their legal form, number of employees and other indicators. The following hypothesis will be examined:

1. Financial support from OPEI is not distributed evenly among the individual regions (counties) – the highest number of projects (number of projects and the height of subsidy) was approved in the place of implementation in a structurally affected regions (hereinafter ISAR). In these regions, most projects, in terms of their number and the height of the subsidy, are realized in the "group" of economically weak regions due to the fact that they occupy the greatest territory of the ISAR – about 47% (14% of the Czech Republic Area).
2. There is a correlation between the amount of the subsidy from the OPEI and the unemployment rate in supported regions.
3. Subsidies contribute to development of entrepreneurship, i.e. the number of applicants who would not realize their project without the structural funds prevails.

The research itself was based mostly on analysing data from various databases by 30th June 2014 (Albertina, CzechInvest, ČSÚ, MagnusWeb) and based on the questionnaire survey in which 5832 OPEI applicants were addressed.

2. Analysis of subjects drawing subsidies under OPEI

The analysis focuses on subjects with a signed Decision to Provide a Subsidy. By 30th June 2014, there were 5,832 recorded applicants and 11 322 projects in the CzechInvest database (2014). OPEI focuses on SMEs which is in accordance with Community Strategic Guidelines. These companies have a dominant position in the structure of Czech companies, they create 99,85% of active enterprises (Czech statistical office, 2014). However, big companies may apply under this support programme, while SMEs are supported at least by 2:3 (the ratio – SMEs: big companies without including Priority Axis 4 – Innovation and Priority Axis 7). Moreover, at least one half of the allocation of the whole area must be aimed towards the SMEs (excluding Priority Axes 4 and 7) (Ministry of Industry and Trade, 2014b). When attempting to define SMEs, one encounters many approaches and definitions. Eurostat defines and approaches these differently than the Commission Regulation (ES) n.800/2008 and in the Act n.47/2002 Coll., on supporting small and middle-sized entrepreneurship. For the purposes of drawing subsidies under OPEI, small and medium-sized enterprises are defined in the appendix of the main manual for OPPI 05_01_M_Definition of MSP (see Ministry of Industry and Trade, 2014a, pp. 1-2).

When the legal form of the applicant is concerned, the following can generally apply: natural persons, legal persons, contribution organizations, universities, regional governments, public research institutions, interest groups and associations of professionals, whose activities belong to the supported categories of economic activities according to the CZ-NACE. Details are defined in the individual calls of the programmes. Limited companies are the most frequent applicants (69,5%), followed by joint-stock companies (20%), then natural persons conducting business according to the Trade Act not entered in the Trade Register (4,5%) and natural persons conducting business according to the Trade Act entered in the Trade Register (2,3%). Cooperatives exceed 1%. Other legal forms are represented only by tens of subjects. This distribution of subjects according to the legal form does not correspond with the structure of subjects in the Czech Republic where the entrepreneurs not entered in the Trade Register hold the first position. Then there are limited companies, associations, and joint-stock companies. This difference can be caused by the fact that applicants – natural persons are less informed about the possibility to draw subsidies or do not have enough knowledge to process the project application. Services of consulting agencies are financially demanding when compared to the amount they could receive in a subsidy. Another reason could also be the lack of financial resources for co-financing the project (the height of allowed intensity of

public support is set according to the map of regional support in the Czech Republic, and ranges from 20% to 75%, unless it is stated otherwise in the corresponding programme of support). Limited companies and joint-stock companies, on the other hand, can have a special department, which focuses on subsidies. They can also use the services of consulting agencies, which process the project application, and use loans for co-financing the project. These companies also realize bigger and more financially demanding projects than natural persons thus the actual financial contribution is bigger than in case of smaller projects.

When we look at applicants from the perspective of the number of employees, the most frequent applicants are enterprises with 10 – 49 employees (42%) followed by enterprises with 50 – 249 employees (33%). However, we cannot forget that for more than 18% of applicants, the information concerning the number of employees is not publicly accessible. When compared to all the enterprises in the Czech Republic, the above-mentioned data does not correspond with the overall data for the Czech Republic. According to the Czech Statistical Office, most enterprises in the Czech Republic employ 1 – 9 employees. In our statistics, these enterprises are represented by 20%. This structure corresponds with the structure of subjects from the perspective of legal form. The most frequent legal form is being self-employed. Self-employed persons usually do not have any employees. These findings correspond with the focus of the programme on SMEs according to the above-mentioned definition.

3. Supporting regions with concentrated state aid under the Operation Programme OPEI

The condition for financing under the OPEI is that the project is realized in the cohesion region excluding the capital city of Prague. *Figure 1* shows the number of projects and the total height of the subsidy from the Decision for all the projects in the counties of the Czech Republic and also shows that distribution of resources among the individual counties is uneven. The greatest amount of subsidies is allocated mostly to Moravia and Silesia, there the greatest number of projects is realized under OPEI. The lowest number of projects was realized in the cohesion region Southwest – 892 projects, i.e. about 8% of all the projects under the OPEI. The second place belongs to cohesion region Northwest where 941 Decisions on projects were signed. The highest number of projects, 2558 was realized in the cohesion region Southeast. Some programmes of support are limited to realization of projects only in some specific regions. For example, under the programme of support Development, projects have to be realized in the regions with concentrated state aid or in regions with a higher unemployment rate, which are defined in the MPO methodology and are included in the call.

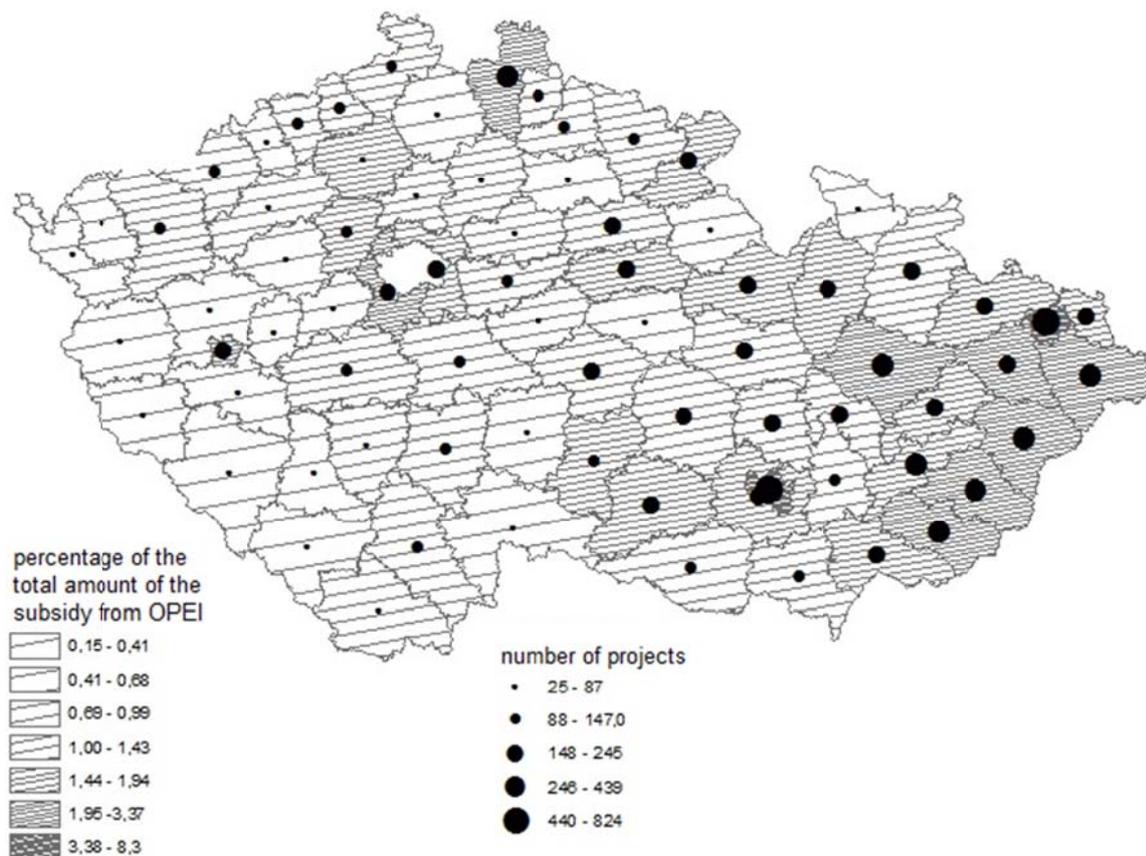


Figure 1. The number of projects in the Czech Republic counties realized under OPEI and the percentage of granted subsidies in CZK from the Decision in the County compared to the total amount of the subsidy from OPEI

Source: own according to data from CzechInvest (2014) and MPO statistics.

In the regions with concentrated state aid, which create about 30% of the area of the Czech Republic, there are more than 37% of projects realized. From the perspective of subsidies, 33% of the total volume of subsidies under OPEI goes to these regions. Thus is not possible to say that projects under OPEI are mostly realized in the regions with concentrated state aid and the highest amount of subsidies would go to these regions. Thus the hypothesis concerning the preference of regions with concentrated state aid has not been proved. However, the way calls are formed and our calculation shows that these regions are preferred under some programmes. If we take into account that programme Development has been designed for these regions and the regions with high unemployment rate, the percentage of projects and the volume of subsidies will be higher – it will reach 46% and 39%. These two numbers point at an effort to support the above mentioned regions. Felixová (2012) has achieved the same conclusion (with different figures, though) who analysed 1455 projects under 7 programmes of support in OPEI. Smékalová *et al.* (2015, p. 222) observe that the czech regions „with the concentrated state support are not so apparently promoted in the operational programmes documents as the leading beneficiaries from the cohesion policy with the exception of single operational programme targeting the entrepreneurs”.

From the perspective of the number of projects, other programmes that prefer regions with concentrated state aid are programmes Eco-Energy, ICT in Enterprises, and Real Estates. These programmes focus on basic development of entrepreneurship as purchasing machines, renovating properties, implementing information systems in companies, etc. The lowest number of programmes realizes in these regions, and in the Czech Republic as well, was

realized under the programme Cooperation and Prosperity. If we want to look at the height of the subsidy in these regions, the highest percentage was granted in programme Development (34%), Innovation – innovation project (18%) and Properties (14%). From the "three" groups of regions with concentrated state aid, the lowest number of projects from the perspective of number of projects and the height of the subsidy was realized in structurally affected regions. This is a group with the lowest number of inhabitants and it is the smallest group. The highest number of projects was realized in the regions with a very small unemployment rate. Hence, the hypothesis about realizing the highest number of projects in the largest area of the regions with concentrated state support, i.e. in economically weak regions was not proven as most projects were realized in the group with regions that have a very low unemployment rate.

As it was mentioned before, projects co-financed with OPEI have to be realized outside the capital city of Prague. That does not mean that the applicants cannot have their seats in the region of Prague. Let us look at applicants' seats and places of project realization. In total, 1,841 projects (i.e. 16%) in the amount of 21,961,221,856 CZK (i.e. 23%) were realized in a different region from the region where the company has its seat. For example, 739 subjects have their seats in Prague that is 13% of OPEI applicants. They realized 1310 projects (about 11% of OPEI projects) in a different region than Prague. Almost one third is realized in the Central Bohemia Region and about 10% in South Moravian Region and Ústí nad Labem Region. Decisions for applicants with their seats in Prague received more than 15 billion CZK (about 16% of all the OPEI Decisions). If we subtract these projects of "Prague applicants", we will see that there were 532 (4,6%) of projects realized in a different region in the total height of almost 7 billion CZK (7,2%). Based on these findings, it is possible to conclude that the flow of resources between individual regions is not very high as projects are mostly realized in the same region in which the company has its seat.

4. Using resources from the individual programmes of support

The highest number of projects in the Czech Republic was realized under programmes Development, ICT Development, ICT in Enterprises, and Eco-energy. The lowest number of projects was realized under programs Cooperation – Clusters, or Technological platforms and under the programme Prosperity. These numbers are affected by the focus of these programmes. For example, clusters are aimed at improving conditions for innovations and creating better entrepreneurial environment. Not all subjects want to participate in this programme as they cannot see the benefits of their participation; there is no cluster in their field, or they refuse to cooperate with other companies as they see them as competition and not co-workers. Thus the programme is limited to a certain number of subjects who want to participate. Pavelková (2013) claims that in the previous period, more clusters used the opportunity to receive financial support. She sees more issues with the current setting of clusters and two of them are the "purposefulness of the OPEI support without a system or concept; centralization of the system without taking the needs and specifics of regions into account" (Pavelková, 2013, p. 130). Prosperity is only for a very narrow spectrum of applicants when we take into account focus on scientific-technological parks, business incubators, and centres for technology transfer, etc. The number of projects corresponds with this as they are very financially challenging due to their focus. An average amount of a subsidy on one project can be found in *Figure 2*. It is necessary to point out that the average and median are determined from the amounts which were stated in the Decisions to Provide a Subsidy and which are the maximum amount an applicant can receive. In many cases applicants do not receive the whole amount stated in the Decision. Sometimes they even leave the project due to project costs, not meeting the binding indicators, or other reasons.

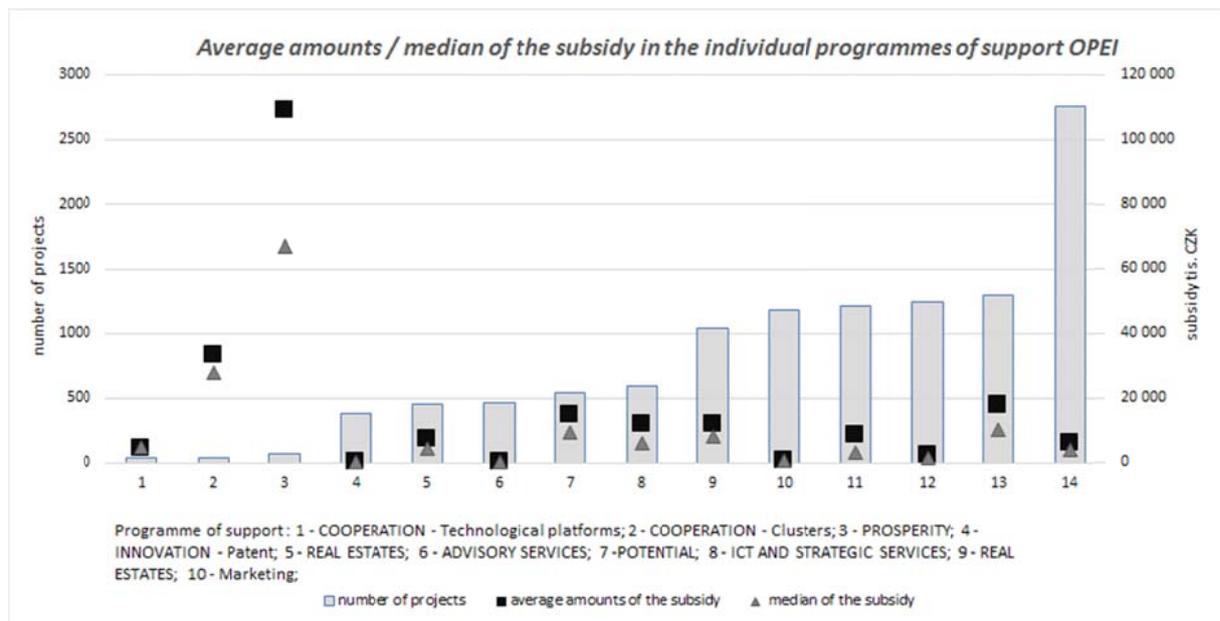


Figure 2. Average amounts / median of the subsidy in the individual programmes of support from OPEI

Source: own calculations according to data from CzechInvest (2014) and MPO statistics.

Some applicants submit more than one project under OPPI. This can be seen from the number of applicants and the number of signed Decisions on granted subsidies. 3,402 applicants (58%) submitted one project, 1,174 applicants (20%) submitted 2 projects and 541 applicants (9%) 3 projects.

5. Correlation between the amount of the subsidy from the OPEI and the unemployment rate in the supported regions

Many studies have discussed the relationship between entrepreneurship and employment or unemployment rate (Thurik, 2003; Fritsch and Mueller, 2004; Van Stel and Storey, 2004; Baptista and Thurik, 2007; Dvouletý and Lukeš, 2016). In some regions, SMEs are bearers of employment as they absorb workforces released by big companies (Veber and Srpová, 2012). Because of the OPEI is mainly focused on SMEs we tried to verify the hypothesis that there exist the negative relationship of subsidy from OPEI and the unemployment rate of the region. To evaluate stated hypothesis we use econometric approach, concretely panel regression estimates with Fixed Effects. Collected series are for 13 regions of the Czech Republic supported by OPEI (region Prague was excluded because of no eligibility in this programme of support) and for the period 2007 – 2015. Unemployment rate is expressed in percentages as the share of the unemployed persons which represents the share of unemployed job applicants aged 15-64 years from all residents of the same age (The Ministry of Labour and Social Affairs uses this new index from the year 2013), the financial amount of subsidies was recalculated per persons 15 – 64 year. We employed regression analysis to investigate the impact of the financial subsidies from OPEI on the unemployment rate. Regression models were estimated by using software EViews 8. The negative relationship between EU subsidy per persons 15-64 years and the share of the unemployed persons 15-64 years was identified with 2 years lag. Estimated model is presented in *Table 2*. Models for the basic period and in the situation with 1 year lag were not significant, so we cannot demonstrate this relationship. So it was verified the claim of Mohl and Hagen (2008),

who reported that the impact of structural funds reflected with a time lag of two or three years.

Table 2. Model table

Variable/model	Model
dependent variable	<i>the share of the unemployed persons 15-64 years(%)</i>
<i>EU subsidy_15-64 years (CZK)</i>	-0.000294***
<i>(-2)</i>	(-3.609010)
<i>Constant</i>	7.803744***
	(107.8698)
R-squared	0.817762
Adj. R-squared	0.786994
F-statistic	26.57873
Observations	91
Note: Standard errors are in paranthesis*** stat. significance on 1 %, ** stat. significance on 5 %, * stat. significance on 10 %	

Source: own.

The next part of this article is focused on the results of questionnaire survey.

6. Questionnaire survey

In the questionnaire survey, all the 5 832 applicants under OPEI registered in the CzechInvest database (2014) by 30th June, 2014 were approached. E-mail addresses were looked up on the web pages of the individual enterprises or in other publicly accessible databases. The aim of the questionnaire survey was to obtain the opinion on the subsidy process under OPEI and on Czech business environment. In addition it aims to collect data for verifying the hypothesis about the realization of a project without receiving a subsidy. In total, 1502 questionnaires were filled, i.e. 26% return. Most returned questionnaires were received from enterprises employing 10-49 persons (44%), and enterprises employing 50 – 249 persons (33%). This percentage corresponds with the percentage of addressed applicants in these groups of number of employees (see Chapter 1). Following subchapters present the results of the questionnaire survey.

6.1. Results

6.1.1. Czech entrepreneurs' content with the business environment in the Czech Republic, and information on programmes of entrepreneur support

Kadeřábková and Šmejkal (2007, p. 1) claim that conditions for entrepreneurship "significantly and immediately affect the realization and performance of entrepreneurial activities, and also the total economic performance". The survey clearly showed that Czech entrepreneurs are not content with the current state of the business environment. The following are seen as barriers for entrepreneurship in the Czech Republic: frequent changes of legislation, administrative and legal demands on entrepreneurship, and lack of qualified staff

as workers, technicians, etc. These findings correspond with the results of other surveys and research, on the state level (Hodinková and Svirák, 2013; Kadeřábková and Šmejkal, 2007), as well as regional level (Příkryl, 2009; Technological center, 2013). Literature in the field also sees changes in legislation as a great barrier, for example Malach (2005) or Veber and Srpová (2012). In the global evaluation of business environment, the Czech Republic is on the 44th place (Singapore is the first one). In the category "beginning of entrepreneurship" it is evaluated how many steps a subject must take in order to start a business, how much time is spent on it, etc. the Czech Republic ended on a 110th place out of 189 (World Bank Group, 2014). Vojík (2009, p. 73) says: "The reality is that making the conditions for starting and realization of a business more achievable cannot replace the attributes of entrepreneurship, i.e. quality business idea, business plan, flexibility, leaders who are able to realize the plans and solve problems". Figure 3 shows the most frequent barriers to entrepreneurship in the Czech Republic according to the OPEI applicants. Applicants who crossed the option "other" often mentioned corruption, poor law enforcement, poor payment behaviour of customers, tax burden, poor public procurement system, and poor setting of Public Procurement Act. Cumming, Johan and Zhang (2014, p. 176) show that „institutional barriers have a negative impact on the real effects of entrepreneurship. So, not only do barriers influence the decision to become an entrepreneur but also, conditional on becoming so, they have a negative impact on GDP and future growth“. Because of that the government bodies should improve business environment.

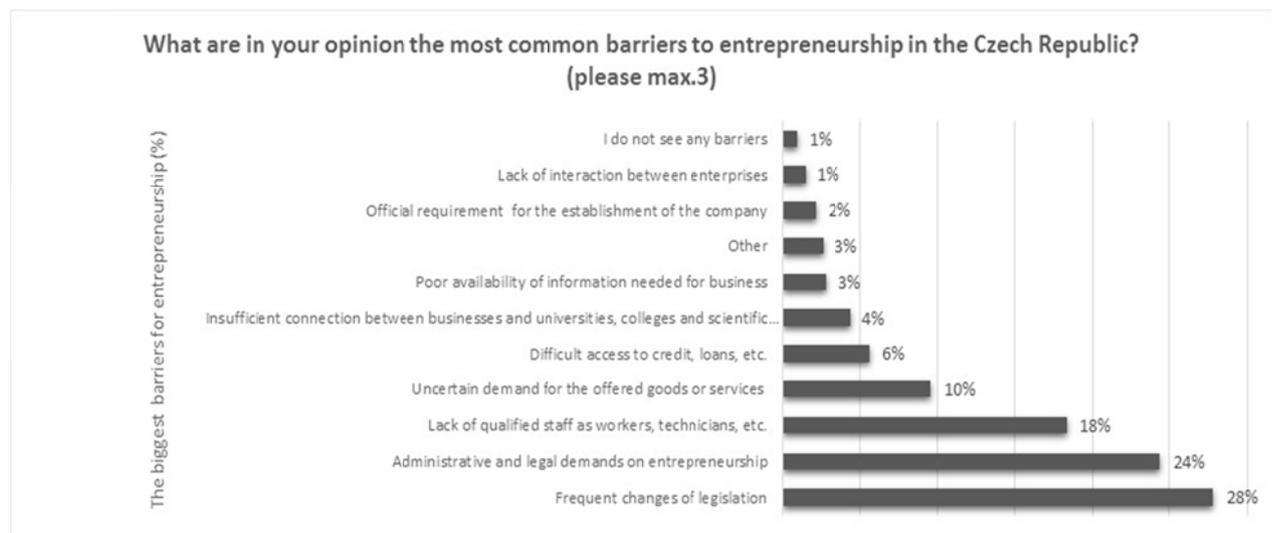


Figure 3. Biggest barriers to entrepreneurship in the Czech Republic according to OPEI applicants

Source: own according to questionnaire survey.

OPEI applicants do not feel adequately informed about the programmes of support. 66% of subjects answered that the information is sufficient but they do not find it satisfactory. More than 75% from those who do not consider the information sufficient would welcome one web portal with information on entrepreneurship support, 17% would like to see a periodically published bulletin with information on entrepreneurship support and current information in this area, and 4% of applicants would like to attend seminars on entrepreneurship support. The last 4% would prefer a different source of information such as e-mails sent to enterprises. As far as seminars are concerned, there were some seminars organized under OPEI, but these focus on the realization of the project rather than the process

of application. Seminars focus on monitoring payment requests or selecting suppliers within OPEI. There is a web portal for entrepreneurship and export called BusinessInfo.cz. It is run by CzechTrade, under the auspices of Ministry of Industry and Trade, and it offers aggregated information on subsidies and financing. The question is whether OPEI applicants know about the existing portal. These findings form recommendations for the Ministry of Industry and Trade or CzechTrade. They should promote the web portal among the entrepreneurs in the Czech Republic. Information on OPEI can also be found on the web page of the Ministry of Industry and Trade of the Czech Republic, on the web page of CzechInvest, and also on <http://www.mpo-oppi.cz/>. When looking at the number of various web portals, it is suitable to ask whether the information is not transmitted through too many channels, whether the information is not duplicated and confusing for the applicants.

6.1.2. Applicants' competences in connection to activities connected with realizing projects under OPEI

Some applicants submitted more than one applications under OPEI. When analysing returned questionnaires, 35% of applicants submitted one application, 24% two applications, 16% three applications, 16% five and more applications, and 11% submitted four applications. Not all the applications were accepted and supported by the Ministry of Industry and Trade, though. 50,2% of applicants said that they signed one Decision to Provide a Subsidy about granting support and thus at least one of their projects was accepted. 22% of applicants received a Decision on two projects, 12% on three projects, and 8% on five and more projects.

In connection with submitting applications and realization of specific activities connected with these, applicants were asked, whether they used the services of a consultancy company during processing the project and its realization. More than 86% subjects did use these services. If these subjects had more than one project approved, 82% did use a consultancy company for all the realized projects. When creating the questionnaire, the fact that there will be subjects which will not process projects by themselves or they will use external services for at least some tasks. Another question was thus aimed at the ability of applicants to perform certain activities. A list of activities was presented and they could choose from four answers: we perform this; we perform this but we need help; we cannot perform this even with help; we don't know, we haven't encountered this. Their answers are displayed in *Figure 4*.

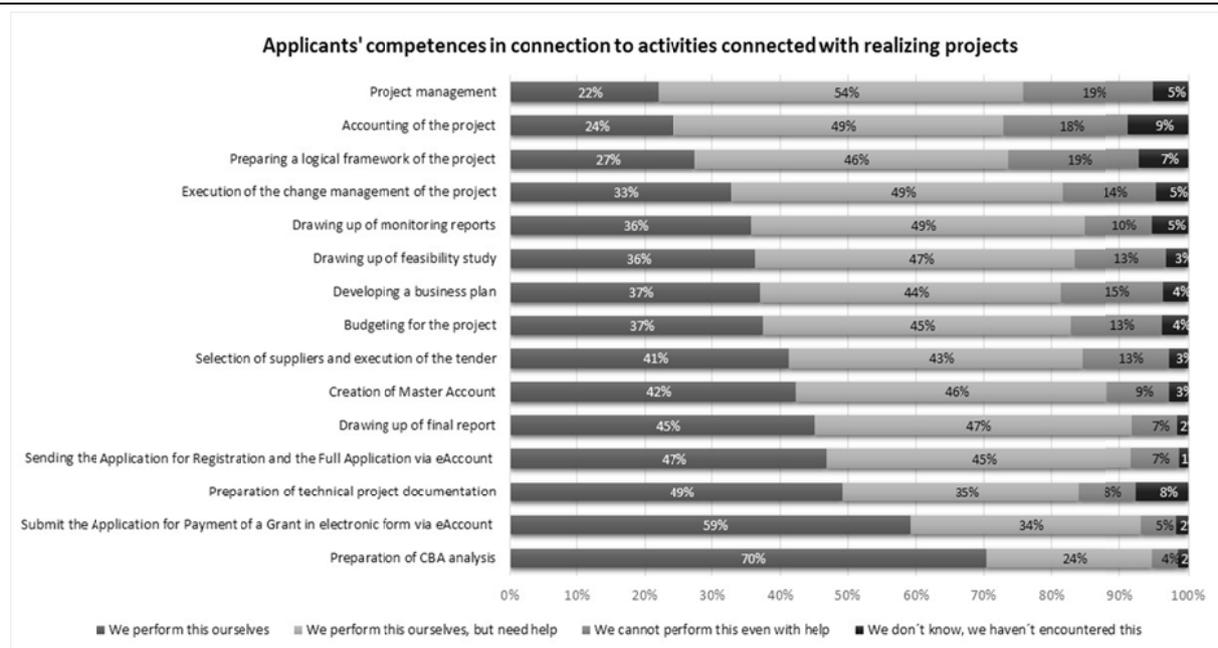


Figure 4. Applicants' competences in connection to activities connected with realizing projects under OPEI

Source: own according to questionnaire survey.

It is obvious from respondents' answer, that the easiest task for them is processing CBA analysis and submitting a application for payment of a grant in electronic form via eAccount system. Surprising results appeared in the question regarding "creation of a master account". Each applicant has to have this account in order to submit a project request. Majority of applicants needed help completing this task. In the programming period 2014 – 2020, there is one portal for all the operational programmes, this task could be made easier for applicants or there should be efforts to make this task as simple as possible. There should also be a detailed step-by-step manual for this task.

6.1.3. Problems in the course of realization of the project

The previous question was followed by an inquiry whether applicants encountered any problems or complications. In case they gave a positive answer, they were supposed to mark at most 5 most serious problems. More than a half of respondents (53%) has answered that they have encountered some problems. The most problematic process they encountered was administering a subsidy request (marked as problematic 490 times) – see *Figure 5*.

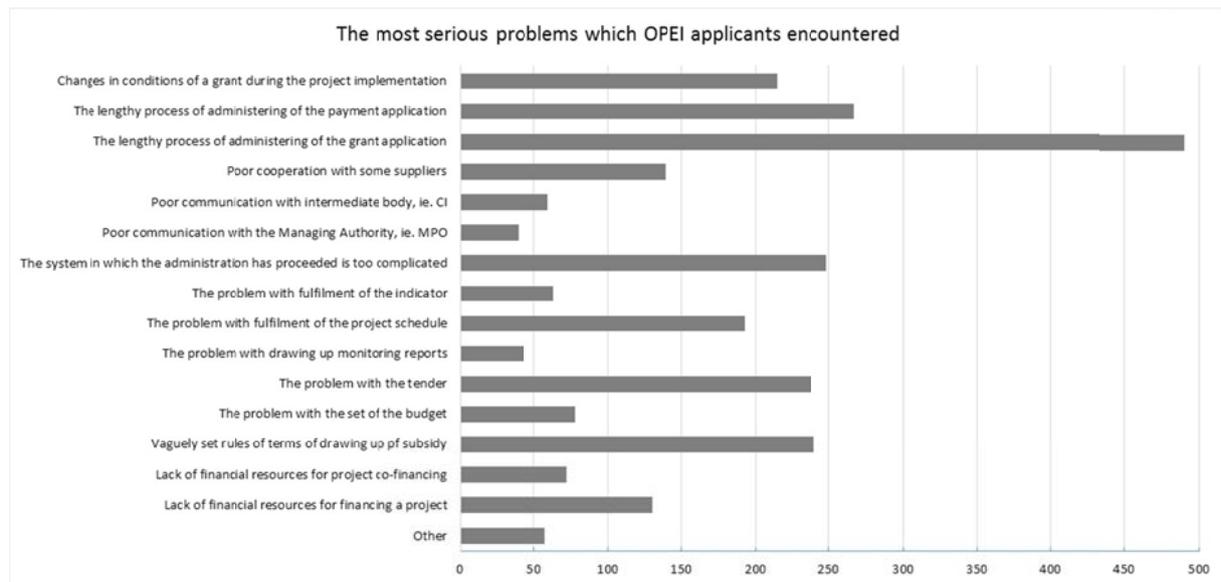


Figure 5. The most serious problems which OPEI applicants encountered

Source: own according to questionnaire survey.

In the option "other" in their answer to the above-mentioned questions, participants wrote administration, different approach from the side of the intermediate-body and the ministry, changing methodologies – e.g. rules for selecting suppliers. From the collected answers it is possible to form recommendations for the programme period 2014-2020. The top three problems mentioned by the respondents could be solved by the unified system for all the operational programmes MS 2014+ (OPEI had its own system e-Account), which should be simpler. But the first experience with this system is full of contradiction. Methodologies, which are not clearly set or which change frequently are also a problem. The Governing Body should thus improve this aspect significantly. As it will be the third programme period for the Czech Republic, the Governing Body should learn from its mistakes and methodologies could be and should be clearly defined from the beginning. Applicants often struggle with selecting suppliers. Again, rules should be clearly set also in this area and the Governing Body should continue to hold seminars on this topic. The issue of most serious problems is also connected with another question that was asked in the questionnaire: "Which part of realizing a project under OPEI do you consider to be the most challenging?" This was a multiple-choice questions where candidates were supposed to choose only one answer. There was also an option to provide their own answer. Processing the project application and preparing the project itself was chosen as the most challenging part of the process – 49% of respondents chose this answer. Realization of a tender with 19% and financing of the project with 12% followed. If candidates decided to write their own answer, they mentioned administration of the whole project or they said that the whole process is challenging. More than 60% of subjects considered administrative burden of realizing a project under OPEI as very high.

6.1.4. Benefits of subsidy to entrepreneurs

The next part of the questionnaire survey focused on the benefits of OPEI subsidies to entrepreneurs. Again, this was a multiple-choice question and respondents could choose 4 benefits at most. They could also provide their own answer. The most frequent answer was increasing competitiveness, gaining new technologies, increasing turnover, innovation of

products, innovation of services, and new information system. If participants chose to provide their own answer, they often mentioned reduction of energy consumption, lowering costs, own training facilities, or a new research and development centre. These results correspond with the results of findings of the Association of SMEs in the Czech Republic (2011), where increasing competitiveness and new technologies were the most frequent benefits. Some of the respondents wrote down negative aspects of the project, e.g. costs related to processing the project application as the applicant withdrew from the project. The question on benefits was followed by an inquiry whether the applicant would realize the project even without receiving a subsidy. 45,27% of respondents chose "rather yes"; 32,62% "rather not", 15,71% "definitely yes"; and 6,39% "definitely not". These answers show that majority of projects would probably be realized even without the subsidy and applicants do not condition realization of a project by subsidies. Based on the collected data and through the χ^2 -test on independence (Hendl, 2009) it was checked whether the realization of a project is dependant on the number of employees in the enterprise or its turnover. As in both cases, the value of tested criterion exceeded the critical value at selected 5% level, the tested hypothesis about independence was rejected and a hypothesis claiming that the realization of the project is dependant on the number of employees in the enterprise or its turnover was accepted. Based on the collected data it could be estimated that in the group of enterprises with 0-9 employees, 50% of subjects would realize the project even without a subsidy. In the group of enterprises with 10-49 employees 59% of subjects would realize the project. In the group of enterprises with 50-249 employees, 69% of subjects would realize the project and from the group of enterprises with 250-999 employees 68% would realize the project. In the group of enterprises with more than 1000 employees 86% would realize the project even without a subsidy. However, monitored dependence is very weak. It was confirmed by calculating Cramér's contingency coefficient which is 0,098 and Pearson's contingency coefficient (0,167). Gherghinescu (2012) points out that in case of some SMEs, there is no correlation between projects and their development plans and business strategy. This partly confirms the percentage of respondents who would not realize the project without a subsidy. In their case, it could be a random decision and using the opportunity to gain financial support. Based on our findings, we could conclude that enterprises use subsidies as a supplementary source of financial resources and they would realize their projects even without this support.

6.1.5. Programme period 2007 – 2013 and 2014 – 2020

For the programme period of 2014 – 2020 Ministry of industry and Trade prepared Operational Programme Entrepreneurship and Innovations for Competitiveness (OPEIC). As in the previous periods innovative entrepreneurship will be supported. The questionnaire survey showed that applicants who applied under OPEI will also be interested to submit projects under OPEIC. More than a half (58%) of the respondents would like to submit a project under OPEIC and 22% of respondents is not sure yet. These findings do not correspond with the research conducted by the Association of smaller and middle-sized enterprises in the Czech Republic (2011), where 90% of the subjects who submitted a project in the period of 2007 – 2013 would also submit a project in the period of 2014 – 2020. The difference in results can be caused by the sample of respondents and also by the fact that the research was conducted in 2011 and some applicants could have changed their minds about submitting projects in the next programme period. Economic crises could have also had an effect on their decision. The most frequent reasons participants stated for not applying for subsidies in the period of 2014 – 2020 include:

- we will probably not have enough financial resources for co-financing,
- project will not be prepared,

- the whole process of application for a subsidy under OPEI was too complicated for us,
- lack of information – we do not know that it will be possible to draw subsidies in this Operational programme.

Lack of finances is very difficult to influence. Partial financial help for some enterprises could be offered by financial tools that are being prepared such as loans and guarantees. Project not being completely ready can be influenced as many applicants can come up with a new idea during the new programming period. As far as other reasons are concerned, the Governing Body could and should take some measures. As the necessity to make drawing resources from structural funds is being constantly mentioned, it would be suitable to make the whole process of application much easier as applicants still consider it to be too complicated. Association of SMEs of the Czech Republic (2011) also states the complexity of the whole process and a very high administrative burden.

Conclusion

The aim of the article was to analyse the subjects applying for financial support under OPEI by analysing data from the questionnaire survey. The greatest volume of subsidies under OPEI is allocated especially to counties in Moravia and Silesia, where the highest number of projects is being realized. In the regions with concentrated state aid, there is more than 37% of projects under OPEI realized, which makes about 33% of the total amount of subsidies under OPEI. The hypothesis about the highest number of projects and the highest subsidy in the regions with concentrated state support was not proved. Based on collected data, the conclusion is that about 16% of projects were realized in a different region than the region where the applicant has his/her seat. About 11% of projects have applicants with their seat in Prague. Projects of these "Prague" applicants were mostly realized in Central Bohemia Region, South Moravia Region and Ústí nad Labem Region. Thus it is possible to conclude that more than 80% of projects are realized in the same region, where the enterprise has its seat. In terms of the binding part of the subsidy, the percentage is a little bit lower – about 77%. Financial resources under OPEI are thus mostly use to develop the regions where applicants have their seats.

From those who completed the questionnaires, 86% used services of an advisory agency. Respondents view the CBA analysis and submitting a application for payment of a grant in electronic form via eAccount system. Preparing a logical framework of the project, managing the project and bookkeeping are the most challenging tasks. Starting a "master account" has also caused difficulties to applicants. Once again, several recommendations could be presented to the Ministry of Industry and Trade and CzechInvest, check how user-friendly this procedure is. However, as there is a new system MS2014+ for all the operational programmes in the programme period 2014 – 2020, this recommendation is not that valid. It could be used by administrators of the new system – the task of starting an account in the new system should be simple and there should be detailed instruction. More than 50% of respondents have encountered some difficulties with administration. The most common issues will probably be solved by implementing the new system for all the operational programmes. Methodologies that were not clearly defined or that changed quite frequently were also mentioned. As this is the third programme period of the Czech Republic, methodologies should be defined clearly from the very beginning.

Based on collected data, it is possible to conclude that most projects would probably be realized even without receiving a subsidy. Applicants thus do not condition realization of their projects by subsidy policy. Moreover, it was clear that applicants who applied under OPEI will be interested to submit their projects under OPEIC – 58% said they are interested. 22% of applicants were not sure.

Estimated regression model identified negative relationship between EU subsidy per persons 15-64 years and the share of the unemployed persons 15-64 years with 2 years lag. Models for the basic period and in the situation with 1 year lag were not significant, so we cannot demonstrate this relationship. So it was verified the claim of Mohl and Hagen (2008), who reported that the impact of structural funds reflected with a time lag of two or three years.

Collected data pointed out at the generally known weaknesses and barriers to entrepreneurship in the Czech Republic – these include frequent changes of legislation, administrative burden, and the issue of unqualified staff, which has been ignored for a long time. The respondents were also not very content with the amount and extent of information they receive about programmes of support concerning entrepreneurship. There is a web portal called BusinessInfo.cz but Czech entrepreneurs do not know much about it. Applicants were also asked why they did not draw subsidies in the period 2014 – 2020. They often answered that their project was not prepared and that they did not have enough information about the operational programme, the process of applying was too complicated, and last but not least, they did not have enough resources for co-financing their projects.

Conducted research brought more detailed knowledge about realization of OPEI in the Czech Republic and the findings from the questionnaire survey also allowed to form some recommendations for the current period of realization of the Operational Programme Enterprise and Innovations.

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References

- Association of SMEs in the Czech Republic 2011 *Závěrečná zpráva „Provedení a vyhodnocení dotazníkového šetření mezi malými a středními podniky*, <http://www.mpo-oppi.cz/document.file.php?idDocument=1283> (referred on 10/12/2014).
- Audretsch, D. (2001), Research issues relating to structure, competition, and performance of small technology-based firms, *Small business economics*, Vol. 16, No. 1, pp. 37-51.
- Baptista, R., Thurik, A. (2007), Relationship between Entrepreneurship and Employment: is Portugal an Outlier? *Technological and Social Change*, Vol. 74, pp. 75-78.
- Burns, P. (2001), *Entrepreneurship and Small Business*, New York: Palgrave Macmillan.
- Carree, M. et al. (2007), The relationship between economic development and business ownership revisited, *Entrepreneurship and Regional Development*, Vol. 19, pp. 281-291.
- Code of Laws of the Czech Republic (2007), Sdělení Českého statistického úřadu o zavedení Klasifikace ekonomických činností (CZ-NACE), Částka 80.
- Copus, A., Skuras, D. and Tseggenidi, K. (2008), Innovation and peripherality: An empirical comparative study of SMEs in six European Union member countries, *Economic Geography*, Vol. 84, No. 1, pp. 51-82.
- Cumming, D., Johan, S. and Zhang, M. (2014), The Economic Impact of Entrepreneurship: Comparing International Datasets, *Corporate Governance: An International Review*, Vol. 22, No. 2, pp. 162-178.
- Czechinvest 2014 Statistika čerpání dotací z programu OPPI*, <http://eaccount.czechinvest.org/Statistiky/StatistikaCerpaniDotaci.aspx> (referred on 30/06/2014).

- Czech statistical office 2013 Malé a střední firmy v ekonomice ČR v letech 2003 – 2010*, <http://www.czso.cz/csu/2011edicniplan.nsf/p/1161-11> (referred on 15/12/2014).
- Czech statistical office 2014 Veřejná databáze*, <http://vdb.czso.cz/vdbvo/uvod.jsp> (referred on 1/06/2014).
- Dvouletý, O., Lukeš, M. (2016), Review of Empirical Studies on Self-Employment out of Unemployment: Do Self-Employment Policies Make a Positive Impact? *International Review of Entrepreneurship*, Vol. 14, No. 3, pp. 361-376.
- Felixová, K. (2012), Zhodnocení intenzity absorpce podpory podnikání v regionech se soustředěnou podporou státu, *Ekonomie a Management*, Vol. 15, No. 1, pp. 17-27.
- Fossen, F. M. (2011), The private equity premium puzzle revisited – New evidence on the role of heterogeneous risk attitudes, *Economica*, Vol. 78, No. 312, pp. 656-675.
- Fritsch, M., Mueller, P. (2004), The effects of new business formation on regional development over time, *Regional Studies*, 38 (8), pp. 961-975.
- Gherghinescu, O. (2012), Structural funds' use by the SME sector in Romania – structural expectations, difficulties and impacts, *Young Economists Journal*, Vol. 9, No. 18, pp. 35-42.
- Hendl, J. (2009), *Přehled statistických metod: analýza a metaanalýza dat*, Praha: Portál.
- Hodinková, M., Svirák, P. (2013), Bariéry rozvoje malých a středních podniků, *Trendy ekonomiky a managementu*, Vol. 7, No. 17, pp. 61-67.
- Hodorogel, R. (2009), The economic crisis and its effects on SMEs, *Theoretical and Applied Economics*, Vol. 5, No. 5, pp. 79-88.
- Kadeřábková, A., Šmejkal, V. (2007), Podmínky podnikání v České republice při hodnocení institucionální kvality, *Politická ekonomie*, Vol. 11, No. 2, pp. 164-182.
- Malach, A. a kol. (2005), *Jak podnikat po vstupu do EU*, Praha: Grafa Publishing a.s.
- Maletić, R., Popović, B., Paunović, T. (2014), Regional aspect of agribusiness SMEs development in Serbia – opportunity to reduce unemployment, *TEME: Casopis za Društvene Nauke*, Vol. 38, No. 4, pp. 1445-1456.
- Marcotte, C. (2012), Measuring entrepreneurship at the country level: A review and research agenda, *Entrepreneurship and Regional Development*, Vol. 25, No. 3-4, pp. 174-194.
- Ministry of industry and Trade 2014a Aplikační výklad pro vymezení pojmů drobný, malý a střední podnikatel a postupů pro zařazování podnikatelů do jednotlivých kategorií*, <http://www.czechinvest.org/data/files/definice-maleho-a-stredniho-podniku-2-1112.pdf> (referred on 01/06/2014).
- Ministry of industry and Trade 2014b Operační program Podnikání a inovace(OPPI) 2007 – 2013*, <http://www.mpo.cz/cz/podpora-podnikani/oppi/> (referred on 01/06/2014).
- Mohl, P., Hagen, T. (2008), Does EU Cohesion Policy promote growth? Evidence from Regional Data and Alternative Econometric Approaches, *ZEW Discussion Papers*, <ftp://ftp.zew.de/pub/zew-docs/dp/dp08086.pdf> (referred on 20/01/2016).
- Naude, W. (2010), Entrepreneurship, developing countries, and development economics: New approaches and insights, *Small Business Economics*, Vol. 34, No. 1, pp. 1-12.
- Nyström, K. (2008), Is Entrepreneurship the Salvation for Enhanced Economic Growth, *CESIS Electronic Working Paper Series*, Paper No. 143.
- Pavelková, D. a kol. (2013), *Klastrové politiky a jejich vliv na rozvoj klastů a klastrových organizací*, Praha: Linde Praha.
- Peszko, A. (2014), Micro-, small-, and medium-sized enterprises using structural funds, *Managerial Economics*, Vol. 15, No.1, pp. 97-106.
- Příkryl, J. (2009), *Průzkum podnikatelského prostředí Hl.m. Prahy. Souhrnná zpráva*, http://www.rishmp.cz/public/1e/5a/f5/1306151_206266_Pruzkum_podnikatelskeho_prostredi_Souhrnna_zprava.pdf (referred on 30/12/2014).

- Romero, I. (2012), Analysing the composition of the SME sector in high- and low-income regions: some research hypotheses, *Entrepreneurship and Regional Development*, Vol. 23, No. 7-8, pp. 637-660.
- Smékalová, L., Janíček, P., Škarka, M., Kozák, V. (2015), Spatial Concentration of the Cohesion Policy Projects in Nationally Delimited Intervention Areas: The Case of the Czech Republic and Poland, *Economics and Sociology*, Vol. 8, No. 2, pp. 211-226.
- Sternberg, R. (2012), Do EU regional policies favour regional entrepreneurship? Empirical evidence from Spain and Germany, *European Planning Studies*, Vol. 20, No. 4, pp. 583-608.
- Technological centre of Hradec Králové o.p.s., Berman Group s.r.o. 2013 Analýza podnikatelského prostředí města a identifikace možností podpory jeho rozvoje Statutárním městem Hradec Králové, www.hrdeckralove.org/file/7241_1_1/ (referred on 30/12/2014).
- Thurik, R. (2003), Entrepreneurship and unemployment in the UK, *Scottish Journal of political Economy*, Vol. 50, No. 3, pp. 264-290.
- van Praag, C. M., Versloot, P. H. (2007), What is the value of entrepreneurship? A review of recent research, *Small business economics*, Vol. 29, No. 4, pp. 351-382.
- van Stel, A. J., Storey, D. J. (2004), The link between firm births and job creation: Is there an Upas tree effect? *Regional Studies*, Vol. 38, No. 8, pp. 893-909.
- Veber, J., Srpová, J. a kol. (2012), *Podnikání malé a střední firmy*, Praha: Grada Publishing.
- Vojík, V. (2009), *Podnikání malých a středních podniků na jednotném trhu EU*, Praha: Wolters Kluwer ČR.
- Wit, G., Kok, J. (2014), Do small businesses create more jobs? New evidence for Europe, *Small Business Economics*, Vol. 42, No. 2, pp. 283-295.
- World Bank Group (2014), *Doing Business 2015. Going Beyond Efficiency*, Washington DC: International Bank for Reconstruction and Development / The World Bank.