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RESOURCES FOR INNOVATION PROJECTS FINANCING IN THE REGIONAL SMALL AND MEDIUM SIZE ENTERPRISES IN THE CZECH REPUBLIC

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Abstract: The paper deals with possibilities of innovation projects financing in the Small and Medium Size Enterprises (SMEs) in the Czech Republic. It discusses, in the emphasis on SMEs, possible approaches to innovative company financing in dependence on company life cycle. Well established and functional models of innovative companies financing as FFF, Business angels, Private equity and Venture capital funding and mezzanine financing are discussed. Inasmuch SMEs are considered the key driving force of the Czech economy and the stabilizing feature of the regional development, the government places emphasis on the development of financial instruments which would ensure an ongoing financial support of innovation projects. But managements of SMEs insufficiently use all opportunities to obtain investment resources for the growth, future competitiveness and prosperity of their companies. According to researches performed in EU it was proven that financing constraints hinder innovation among SMEs. Maintaining regional balance through sustainable performance of SMEs is the common aim of municipalities as well. It is necessary for SMEs to form long-term relationships with their municipalities in the region. Programmes which arrange financial support for institutions are provided through private investors, grants, the EU funds and national budget. The paper evaluates pros and cons of various types of financial subsidies with respect to payback periods, risk exposure and availability. The paper includes the outputs of empirical research in SMEs carried out 2014 focused on steering innovation projects in SMEs. The aim of the research was to find out if SMEs can manage, evaluate and develop innovation projects. Moreover the authors examined the effectiveness of relationships established between SMEs and municipalities and problems which the SMEs are confronted by upon the ensurance of project innovation investments. The sources procurement is a very sophisticated topic and it is beneficial for the SMEs to establish a close cooperation not only with municipalities but also with universities.

Keywords: innovative projects financing; small and medium size enterprises (SME); venture capital; private equity; Research and Development (R&D) and SME support

JEL codes: O32, O38

1. Introduction

Small and Medium Size Enterprises (SMEs) are considered to be the key driving force of the Czech economy. In order to keep sustainable growth these companies are looking for the sources of competitive advantages. One of the most important underlying factors of their competitiveness is their ability to innovate (Lewandowska 2013). Companies which are able to base their competitive advantage on innovation are ranked among innovative companies. Innovations are understood, in accordance with the Oslo manual, as an implemented change. In case of project management we distinguish between the projects of innovative intention and the projects of innovative product (Švejda et al. 2007). The contemporary companies find themselves in the dynamic environment which stimulates their innovativeness. The following factors are typical for innovative projects: (1) pressure on shortening innovation cycles; (2) increasing technical risk; (3) necessity to increase economic efficiency and cost-effectiveness; (4) generation of a growing number of innovation stimuli.

A company is considered innovative if at least one of following four criteria is met (Pisano et al. 2009): (1) the company has introduced new or significantly improved products (goods or services) on the market, (2) the company has new or significantly improved processes for producing or supplying products (goods or services), (3) the company has been involved in activities – including R&D activities, which are aimed at the development or the market introduction of new or significantly improved products (goods or services) that are still ongoing (I.E. not completed), (4) the company was involved in innovation activities similar to the aforementioned point, but these activities were untimely aborted.

The principles of the project and strategic management are based on the assumption that innovations are the driving force of competitiveness and the growth of performance (David & Forest 2015; De Witt et al. 2014). Competitive advantage must be built on strategic assets, such as a unique product, differential power in the channel, a speed to market advantage or some form of information advantage. The innovation potential of the company is contingent upon several factors among which the main roles are played by availability of resources (financial, human, technical and information). The other factor is pro-innovative corporate culture which creates environment that stimulates creativity, mutual trustworthiness and sharing ideas and competences. The underlying factor of functional pro-innovative corporate culture is corporate communication which is oriented both inwards and outwards. Companies should not leave behind the technology base and knowledge which originate outside the company's borders.

Business model innovation as a new form of innovation plays a major role in sustainable company success, and is a tool for transformation and renewal (Demil & Lecocq 2010). Because the competitive environment is under permanent change, business models require constant vigilance; they must be adapted and strengthened over time as the competitive environment evolves. Business innovation model is conventionally focused on the firm's internal strategic activities, but these activities are greatly affected by the institutional environment in which the firms operate (Zott et al. 2011).

Per current literature referring to research and development investments in SMEs, the intensity of R&D expenses affects the firm profitability, and contributes to the sales profit (Chung et al. 2003). That is why the investors perceive outlays for R&D not as a simple expense, but rather as an investment to be made in anticipation of future benefits (Lev 2001). Eberhart et al. (2004) found out that the net benefit of R&D increases was positive for bondholders. Paying respect to innovation role typology, the innovation champions, leaders and sponsors should be proportionally represented (Galbraith 1999).

From macroeconomic point of view it is advisable for the state to establish innovation policy which is aimed at the support of innovative companies. The state has to establish policy which provides start-ups and company in early development stage with legal, consultancy and financial support. Moreover, well established companies or organizations with a proven track record may benefit from a goal-directed or institutional financing innovation. It was proven that the public subsidy enhances company liquidity and thus may boost the probability of a company survival (Ebersberger 2011).

Ministry of Industry of the Czech Republic followed up on the Europe 2020 strategy in terms of "mobilizing financial instruments" and executed several programs aimed at innovation financing at SMEs. These programs differ by their nature like subordinate bank loans provided by state owned banks, goal-directed subsidy provided through government institutions like Grant Agency of the Czech Republic (GAČR) or Technology Agency of the Czech Republic (TAČR). Moreover the Czech government arranged for the institutions of financial support which are provided through the state budget. The studies performed in EU countries proved that SMEs which tackled the innovation activities suffer from the deficiencies in the provision of loans (Belitz & Lejpras 2014). On top of that SMEs generally face difficulties in getting access to finance since investors do not prefer making investments in SMEs due to their risky nature of business operations (Gompers & Lerner 2001). In such high risk financing investment the investors expect high returns in the form of capital gains and dividends (European Private Equity and Venture Capital Association 2005). These expectations threaten the very existence of innovation policy of SMEs.

The objective of the paper is to analyse possible approaches to innovation financing in SMEs, identify resources for the innovation projects support and demonstrate their applicability in SMEs in regional dimensions. The supporting objective was to perform the analysis of innovation potential development in partial regions in the Czech Republic. (The region is an administrative unit of the Czech Republic).

This paper aims to close a gap in the practical access used in the SMEs in the Czech Republic by innovation projects development, where the lack of information and missing managerial competence in communication towards investors cause that the innovation activities in the SMEs are slow. This fact influences the loss of competitiveness of such firms which may affect their later existential difficulties, particularly when crises occur. From this point of view the mutual cooperation between SMEs and regional municipalities is required.

2. Research questions and used methods

The research was based on the literature search and critical comparison of methods to be used for innovation financing. The paper also uses results of questionnaire survey performed by the Ministry of Industry and Trade the objectives of which were to obtain SMEs management opinion on selected priorities and tools for the Ministry and Industry Concept 2014+ concerning the support of innovation development in SMEs. (MPO 2012). In addition, regional focus is accentuated in analytical study performed by the Czech Academy of Science. According to this study the Regional innovation potential can be expressed as the ability of the region at given circumstances to use effectively its own internal resources, flexibly react to external incentives of development, to create and develop the activities with higher added value, and continuously improve the quality of innovation entrepreneurship in the region (Pokorný et al. 2008).

To fulfil the objectives of this paper the authors performed ethnographic research by means of using contextual interview on the sample of SMEs dealing with innovative projects (innovative companies) operating in regional dimension.

As a key principle the contextual interview was used, which belongs to the ethnographic approach. This method enables those under examination to recollect specific details that would be lost in a standard surrounding of focused groups. Ethnographic research in particular has emerged within this literature as a potentially valuable methodological solution to the quest for empirical understanding and theoretically informed explanation (Dey 2002). It is not surprising that there is no consensual definition because it is impossible to encapsulate all its meanings in all contexts. One of them, perhaps the simplest one may be: 'Ethnographic research involves the use of various techniques for collecting data on human beliefs, values and practices' (Hume & Mulcock 2004).

Nevertheless there are essentially two criteria at the core of ethnography. It is a field-orientated activity and it has cultural interpretation (Lambert et al. 2010). The key role in conducting interviews uses contextualization. The underlying belief is that human behaviour cannot be studied in isolation or independently from the environment or context in which it occurs (Hammersley & Atkinson 2007). Contextual interview was applied to the group of company managers and specialists within the SMEs who were actively involved in the decision making process concerning the choice and realisation of innovative projects in theirs companies. 123 managers (including top and middle level) and company specialists from 53 companies acting in various branches (machinery, building industry, and electro engineering, chemistry, pharmacy, and hobby market) underwent interview. Following topics were discussed: (1) Do you know all disposable possibilities of innovation projects investment? (2) Are there enough possibilities to procure resources for innovation projects in the region, where your company has its headquarters? (3) What kinds of innovations prevail in implemented projects? (4) What approaches of the project portfolio management are mostly preferred? (5) How does the management the performance evaluation of realised innovation project execute?

Companies suitable for empiric research were identified on the basis of the following logical approaches: (1) TOP-100 innovators for the period 2011–2015 (247 potential respondents); (2) specific search for respondents by means of Associations of Small and medium size enterprises (193 potential respondents); Innovative companies constituted the target group of the respondents.

Pursuant to the Czech Statistical Office innovative companies are such organisations “which in the given period either introduced product innovations or process innovations or had some running or suspended innovative activities (technical innovations), or they introduced marketing or organisational innovations (non-technical innovations)”. As it is obvious from the above-mentioned definition, within this concept an innovative project does not necessarily need to be a project related to research and development.

3. Accesses to be used by SMEs for financing their innovative projects

Financing of innovative projects in SMEs is an important factor of their sustainable prosperity. In this way the SMEs contribute to preserving stability and growth of each region. Financing is a critical issue for the survival and development of small and medium size enterprises. The innovation obsolescence in the SMEs causes the decrease of the profit in the short-term period as well as the loss of competitiveness and uncertainty of employment for their employees in the middle-term period. The growing rate of unemployment caused by bankruptcies of SMEs can pose serious problem in the region when the period of economic crises occur. Therefore the availability of financial sources to be sufficient both for the development and commercial launch of the innovation projects is crucial. Moreover, innovation decisions are highly risky. Properly structured innovation financing is thus a pre-condition for further success of the innovation projects in the SMEs. It has become apparent that an innovative company which goes through its life cycle operates with alternating risk profiles which are typical for each life cycle period. The subjects which are in charge of financing an innovative company operate with a different “reference risk level” (Špaček 2009). This term can be explained as the maximum level of risk which is the financing subject or institution willing to accept. Figure 1 demonstrates possible approaches to company financing during its life cycle.

The most risky approach to innovation financing is Friends, Family and Fools (FFF). This approach is applied at the seed stage of the company’s existence. Mostly it represents financing the plain idea because the company has not come into existence yet. Seed capital is also applicable in the rudimentary stage. As opposed to FFF, an innovative company financing through seed capital usually requires co-financing from private sources. Company which finds themselves in early-development stage can be also financed by crowdfunding or crowdsourcing (Hossain 2015). This approach is based on publicly announced money collection which is dedicated to a specific purpose. Individuals can freely decide, if at all or at what extent they

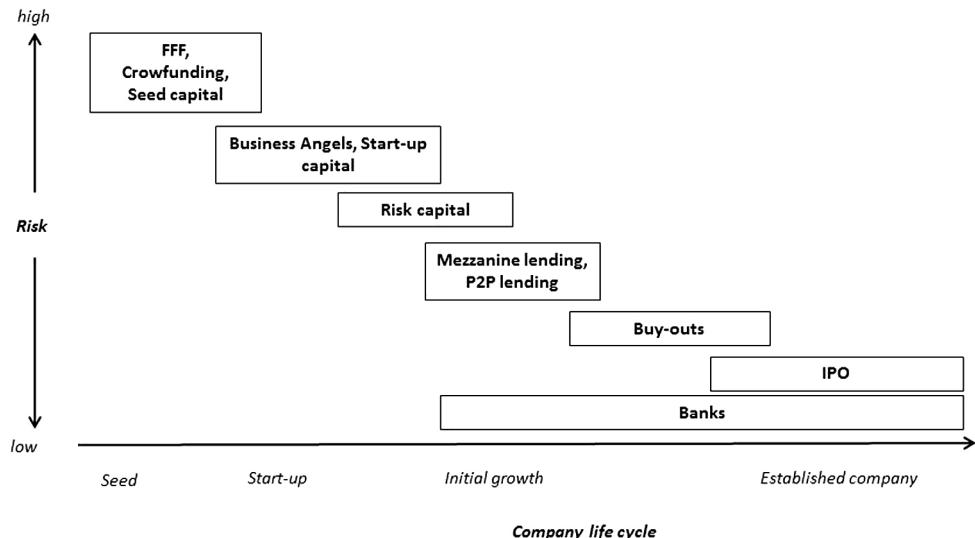


Fig. 1. Company financing during its life cycle

Source: own elaboration

provide investment project with financial support. Crowdfunding is thus believed to democratize both financing and the commercialization of innovation (Mollick & Robb 2016). From the technical point of view crowdfunding is organized on electronic marketplaces which balance money supply with money demand.

Crowdfunding platforms dramatically lower the costs of these campaigns by leveraging the geographic and social reach of the internet to connect fundraisers to millions of potential backers (Fleming & Sorenson 2016). If the requested sum of money is actually raised, then the project is implemented. If not, the money is given back to investors. Through crowdfunding various innovative products like the Pebble watch, book issues or cultural events are subsidized. Compensation of investors varies from “having a good feeling from the investment” to a direct engagement in the company. Typically they acquire the stake in the company for risk securing.

Another source of innovation financing is Business angels. They deal preferably with wealthy individuals who have had successful track record in management or entrepreneurship. They are usually able to perform a reliable assessment of an investment opportunity and quickly make a final decision. Business angels fill the gap between founders, family and friends on one side and institutional venture capital funds on the other side as a financial source. In addition to providing money they are hands-on investors and contribute their skills, expertise, knowledge and contacts in the business they invest in (Ramadani 2009). They invest in seed, start-up and early stage enterprises in exchange for acquiring a stake in these companies. The precondition for the investment is high growth potential. Business angels secure high risk capital and are motivated by something larger than money. Even today their emotional relationship to the investment plays an important role. In the Czech Republic, business angels’ investments rank from hundred thousand

to several million CZK. In contrast, Amazon's CEO Jeff Bezos, who is believed to be one of the most important Business angels in USA, subsidized 11 projects at minimum USD 1.5 M each (Prive 2013). In terms of scope of the investment Business angels cannot compete with investment funds. Business angels may operate either on individual basis or as an investment conglomerate. Some of them may be publicly known, while others are anonymous. In the meantime, some sub-categories to Business angels were developed. One of them are Founding angels (FAs) which operate on a bit different ground than usual Business angels. FAs join the start-up team of a new technology based firm (NTBF), complementing the scientific members coming mainly from universities and research institutions with business expertise and scientific understanding. They make significantly fewer investments than in the case of Business angels. FAs play more the roles of a founder and an entrepreneur rather than that of an investor because of their early engagement in the venture (Festel & Cleyn 2013).

A very effective way of innovation financing is the involvement of risk capital funds. These funds can be roughly split between Venture Capital Funds and Private Equity Funds and which mainly invest into companies listed in Stock Exchange with later stage development. The prerequisite for Private Equity or Venture Capital fund engagement in innovative company financing is a competent management and viable business plan. Venture capital is a medium-term and long term investment where the investor buys interests in an unlisted company to sell them after the company has been successful (Lewandowska 2013). Risk capital fund usually buys a minority stake in the target company and then pushes company management to boost the company's performance. The expected company valuation ranks between 20–30% per annum. After some period which is tentatively 4–7 years the fund exits the company and sells its stake which was in the meantime significantly revaluated to company managers – Management buy-out (MBO), external managers- Management buy-in (MBI) or strategic investor which can further benefit from incorporating a target company into its network (Schwienbacher 2008). Ebersberger (2011) argues that public subsidies, when successful in fostering innovation, indirectly affect the exit of firms. Subsidized firms are significantly less likely to exit than they would be without subsidy. Moreover subsidies do not have a significant effect on the closure of firms. Subsidies for innovation do not keep innovation alive which would have to close without subsidies. A risk capital fund can also participate in a Leverage buy-out (LBO) which aims at the purchase of the target company by means of using financial leverage (borrowed money). Schematic outlay of LBO process is depicted in Figure 2.

The LBO process works rather simply but sometimes at the border of the law. At the beginning there is a private equity fund which was established by the support of pension funds, donors or other providers of financing. Such a fund gets together with a limited company which was formed by the investors (which may include target company managers as well). They found a one-off purpose company which aims to buy a target company. This company is called "special purpose vehicle" (SPV). To raise money for these transactions, SPV floats a loan which is collateralized by the assets of the target company. In special cases, the SPV can issue bonds, which

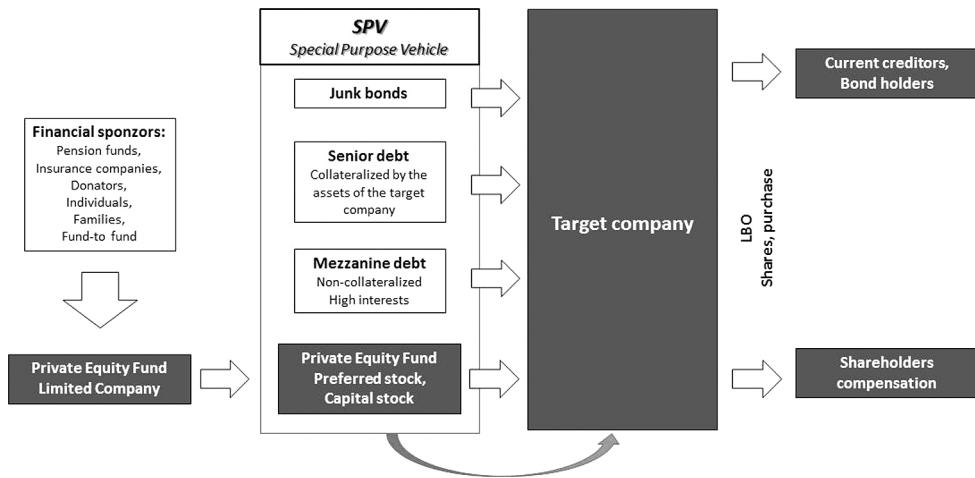


Fig. 2. The scheme of the Leverage buy-out (LBO) process
Source: own elaboration

are usually characterized by poor rating. The reason that stands in the background is that these bonds are issued by excessively indebted company. Debt burden may exceed 80% of the total company liabilities. That is why they are called junk bonds. Once a SPV raises enough money it is able to acquire the target company. At first the shareholders of the target company are compensated. In the wake of the shareholders compensation the SPV is merged with the target company and all the liabilities are transferred to a newly established company which is pushed to its maximum performance so as to repay all the debts (senior and mezzanine debt as well as to satisfy the claims of bond holders). Needless to say that banks are prone to finance LBO because they can afford to charge high interest rates. When using LBO the investors can purchase the target company even with minimum private financial funds. It stands to reason that LBO is a very risky operation, success of which is dependent on the target company's operation performance which is the condition for a timely debt repay.

Mezzanine lending is used almost preferably for further expansion of existing firms in situations when the company needs additional financing while all company assets are collateralized. Mezzanine debt is not collateralized and therefore it is very risky. Finance providers then charge high interest rates (20% or more) to compensate for excessive risks. In case of default the company may run debt-equity-swap so as to minimize potential losses. Nowadays peer-to-peer (P2P) lending grows in importance. This approach which leaves out the banks as financial brokers is very promising. P2P uses electronic marketplace to balance the supply and demand for money. Despite some initial mistrust to this concept, especially SMEs took fancy in this model of financing. Both parties concerned (lender and debtor) benefit from the partition of profit margin which originally belonged to bank. This inspired traditional banks to establish subsidiaries or other affiliated entities to grab a stake in

this new business. The portfolio of loans which is offered through P2P comprises one-off repaid loans, stepwise repaid loans, overdraft loan etc.

Initial Public Offering (IPO) represents the most traditional approach to raising money for further development of the company. Notwithstanding the fact that IPO was indicated at start-ups, this approach is usually reserved for well established companies with proven track record which are able to persuade potential investor to purchase company shares. "Going public" as it is termed in USA is arranged through an investment banker who is in charge to prepare shares underwriting. Investment banks act as a financial intermediary for businesses and other large organizations, connecting the need for money with the source of money. An investment bank helps an organization, which may be a company, or a government or one of its agencies, in the issuance and sale of new securities. The most critical point is to determine the initial share price so as to be in consonance with investors' demand. Any overpricing or under-pricing the shares is detrimental to the company. A good investment banker should be able to place all newly issued shares by IPO date (Higgins 2015). IPO is very costly and therefore it is advantageous preferably for big companies.

There is an example to follow in the Czech Republic. In late 1990s the biggest Czech pharmaceutical company Zentiva got together with a venture capital fund Warburg Pincus which acquired 66.6% stake. After having minority shareholders squeezed out, the stake was even increased up to 99.25%. Upcoming expansion was financed by IPO on the Prague and London Stock Exchange in 2004. During the IPO the company sold 11.2 M pieces of shares at more than CZK 5.5 M which accounts for 30.2% stake. This stake thus became freely tradable. The rest of shares was kept by Warburg Pincus (53.9), management and employees (13.8%) and other minority shareholders (2.2%). After the IPO the company's market capitalization reached the value of CZK 18.5 bill. (Nývltová & Režňáková 2007). After the exit Warburg Pincus sold its stake to the strategic investor Sanofi-Aventis in 2009. During this period Zentiva's share was valorised by 120%.

Financing innovative companies by a bank loan is one of the most favourite approaches. In the Czech Republic bank loans still remain prevalent way of financing innovative companies (Kislingerová 2010). This conservative approach exhibits many advantages. The loan is relatively easily accessible due to the increasing competition on the Czech bank market. New banks in the Czech Republic like Air Bank, J&T bank, Zuno bank, Fio bank and others approach clients very aggressively by offering them relatively low interest rates. They are also able to slash bank fees which are considered one of the highest in EU. There is also good experience with the Czech bank sector which went through financial crisis 2008–2012 almost unshaken (Wolf & Kain 2006). Czech banks offer a variety of loans at conditions which can be tailored as per company needs. Moreover, Czech companies are allowed to resort to any bank in abroad to ask for a loan which increases the competitiveness of the Czech loan market.

4. The possibility to finance innovation projects in the SMEs from institutional financial subsidy

The Ministry of Industry of the Czech Republic followed up on the Europe 2020's strategy in terms of "mobilizing the financial instruments" and executed several programs aimed at innovative financing for SMEs, which are available also for SMEs operating at the regional level. The Ministry has prepared the Ex-ante Analyses for the implementation of innovative financial instruments under Operational Program of Enterprise and Innovation for Competitiveness. Nowadays there are established the suitable processing issues for providing such instruments with cooperation the EIF, EIB and other institutes. The key role will be played by national development banks as the Czech-Moravian Guarantee and Development bank. The Czech government arranges financial support for institutions which is provided through the EU and national budget. Institutional financing provides R&D institutions with financial subsidy which is aimed at the support of their research activities. Such a subsidy targets long-term development of R&D institutions. Among the organizations which are supported from the state budget belong The Czech Academy of Science, universities and other research institutes in proportion to the results they achieved. As opposed to the institutional financing the goal-directed financing is focused on the support of a specific project which went through a demanding selection procedure in the Grant Agency of the Czech Republic (GAČR), Technology Agency of the Czech Republic (TAČR) or respective sector of the Ministry. GAČR specializes in the support of basic research while TAČR is active in the support of applied research. Over the past ten years TAČR executed several purpose oriented programs (Alfa, Omega, Epsilon Competence centres etc.). In the past, the Ministry of Industry and Trade executed specific grant subsidies which were oriented not only on the achievement of specific R&D results but also on the strengthening of collaboration between Universities and industrial companies (TRIO program). In addition, the Ministry of Industry and Trade channelled the subsidy of innovation coming from the ESI funds (POTENTIAL – R&D for innovation, Application, Cooperation programs). A great deal of emphasis has been already placed on public subsidy of innovation. It was proven that public subsidy enhances innovation performance of companies (Albors-Garrigos & Barreira 2011). Ministry of Industry and Trade is going to set up Národní inovační fond (National Innovation Fund – NIF) which is aimed at the subsidy of entrepreneurs in the initiation stage of their business, so that they can become competitive on the international markets (MPO 2015). By the execution of this program the Ministry of Industry and Trade pretends to become the key institution concerning the support of starting entrepreneurs. NIF is the answer to the scarcity of capital to be available for starting entrepreneurs. NIF will be investing money in parallel with the investments of a private capital that makes the acceptant of the subsidy handle this capital in more responsible way. The sense of the establishment of NIF is not to squeeze out private capital but to extend its investment possibility. NIF will be also enabled to focus on areas where private investors are not sufficiently active. Therefore NIF effectively complements on private capital investments. By 2020 NIF is determined

to invest EUR10 M per year. NIF also reckons on using both EU funds in the amount of EUR 50 M and private financial resources in the amount of EUR 32 M.

5. Actual opportunities for financing of innovative projects in the SMEs from the EU

InnovFin – EU Finance for Innovators – is a joint initiative launched by the European Investment Bank and the European Commission under Horizon 2020. It consists of a series of integrated and complementary financing tools and advisory services offered by the EIB Group (EIB 2016), covering the entire value chain of research and innovation (R&I) in order to support investments from the smallest to the largest enterprise. InnovFin targets R&I-intensive industries like ICT, manufacturing, life science/health and renewable energy (Malo 2015). InnovFin SME Guarantee, the first and current product, targets R&I-driven SMEs and small midcaps requiring loans of between EUR 25,000 and EUR 7.5 M. A loan of more than EUR 7.5 M can be considered on a case-by-case basis. Another instrument is the InnovFin SME Venture Capital. It is designed to improve access to risk finance by early-stage R&I-driven SMEs and small midcaps through supporting early- stage risk capital funds that invest, on a predominantly cross-border basis, in individual enterprises. SMEs and small midcaps located in the Member States or in the Associated Countries are eligible as final beneficiaries (EC 2016). Access to risk financing for Czech innovative businesses is one of the key factors regarding the effort to improve the status of Czech economy. Financial resources for funding via Horizon 2020 are limited and Czech enterprises have to face fierce competition amongst their European companions. The biggest added value for the needs of the Czech economy lies in the support provided to the SME instrument. Significant level of investment under SME Instrument program is needed in order to succeed at least in Phase 1 and receive EUR 50,000 in funding for the purpose of carrying out the feasibility study. InnovFin is a very important tool for overcoming these obstacles and enabling them to continue their development.

6. Results of the research and discussion

The innovation potential of the SMEs can be generally defined as the sum of results of R&D, innovation entrepreneurship, human resource quality, know-how and innovation supporting environment (Pokorný et al. 2008). According to this criterion the regions in the Czech Republic can be divided into the outstanding ones, such as Prague, involving the branches with high added value (universities, headquarters of R&D institutions, government institution, central banks offices etc.), the South-Moravian Region and the Královohradecký Region the high-developed infrastructure of which provides presumption to use the opportunity for the innovation potential growth. The biggest group of regions (6) provides mediocre innovation

potential. The SMEs in this regions evince a high activity of innovation projects. Moreover, the municipalities of this regions actively reflect this situation when providing growing support for innovation activities, mainly the support for the industrial areas development. As a consequence the unemployment rate in these regions is constantly low. The last group constitutes two below-average regions, the Karlovarský Region and the Vysočina Region. The problem of the Karlovarský Region is that there are industries with low added value, high rate of unemployment and low rate of GDP growth. Recently new industrial areas, which may positively influence the retention of graduate people and strengthen the innovation potential of this region are being built there. The Vysočina Region tried to support the development of the high-tech and medium high-tech branches, but most of investments were directed to the assembly lines development and into the activities with low added value. These facts reflect the structure of economic-active inhabitants, with low grade of graduate employees as well.

Research outcomes carried out in the environment of real firms, which proportionally represented all development levels of the regions in the Czech Republic, showed that it was beneficial to continue the research of the financing of the innovative projects in the SMEs with connection to region where they were active. Five research questions confirmed the innovative projects are the tool of strategic development of the SMEs. They are essential to maintain competitiveness of the firm and to safeguard their stability. That is why the support of innovative projects development in the SMEs should be a common goal of the SMEs all well as the municipalities where they are acting.

It was proven that 82% of the SMEs management doesn't know all possibilities how to acquire investment resources for innovation project. As they consider such projects to be too risky to demand a loan for their implementation, they prefer only equity for theirs financing (96%). The number of innovative projects in SMEs is then considerably reduced.

Going out of the data found out in previous research question, the management don't try to learn more about all possibilities how to finance innovation strategies. The only regional institutions providing information support in the regional centres in the Czech Republic are the Business innovation centres (BIC), where mostly consultancy how to succeed in arrangement of all bank requirements for achieving a credit is performed. By means of the executed research it was proved that in the environment of the innovative enterprises technological innovations prevail decidedly (41%), followed by incremental innovations (24%), radical innovations (16%) and marketing innovations (16%). In practice it is possible to use various approaches for the evaluation of the innovative projects during the implementation. The most respected approach is dividing projects into stages (64% of respondents). Then comes setting a specific number of gates (40% of respondents) followed by the quality-function-deployment approach (37% of respondents). The practice of the innovative project evaluation in the examined enterprises corresponds to the above findings (55% of respondents use stages, 21% of respondents use gates and 8% of respondents use the quality-function-deployment). A striking fact is that altogether 17% of the participants do not apply any of the above approaches for evaluating

the innovative projects in the process of their implementation. Within the research the question whether organisations apply maturity stage management was asked. The theoretical assumption for this question was that with the innovative projects the systematic selection does not guarantee, with regard to the development in the next stages of the project duration, high productivity or successful implementation (Jahn 2010). In contrast with this assumption there was stated that only 9% of respondents use maturity stage management. The low rate of applying this methodology may be the reason for the worse indicated performance of the innovative projects. A positive fact is that the innovative projects are, to a large extent, evaluated continuously. Altogether 41% of respondents evaluate projects during their implementation within the time range of 3 up to 6 months. An interesting fact is that 16% of respondents do not re-evaluate innovative projects at all. Our research also dealt with the question whether the continuous evaluation concerns also the innovative projects newly listed in a portfolio. Approximately 78% of respondents take this fact into consideration. 29% of respondents' dispose of a project inventory in which such projects are stored those were not approved for implementation or were suspended within the implementation process.

7. Conclusion and the way of further research

The paper closes the gap in SMEs information about the possibilities how to strengthen financing of their innovation projects development and implementation. Beside the right methods of project portfolio management to be adopted by the firm, the deeper knowledge of investment providers acting in the region of in the scope of the whole Czech Republic, the improvement of communication of the business plans outputs are necessary. The managements of SMEs need to acquire deeper economic and managerial competences (most of them are of the technical background) not to behave too much risk-averse. This may be the task for the Universities to develop more educational programmes of this kind. The content of this paper demonstrates the flexibility of corporate financing which is available on the financial market. It is apparent, that due to different reference risk levels to be typical for the company in the discrete phase of a company life-cycle, companies may opt between limited numbers of alternatives. The reason is that financial providers are reluctant to operate beyond some acceptable risk level. Ongoing data shows that the subsidy, when provided rationally, can influence company performance towards boosting its efficiency. The establishment of NIF fills the gap in financing entrepreneurs who find themselves in the initial stages of their business. The further space for research activities was ascertained in the access of municipalities, to be more helpful in support of SMEs innovation effort. Certain state projects, such as TAČR can be more focused on networking of SMEs and the municipality as a serious stakeholder in knowledge rise of the region. The synergies between the support in obtaining resources for innovation activities in the SMEs and the building innovation supporting infrastructure from the side of municipalities were proven. Regional universities preparing right educated graduates for the practice play the

decisive role. The outputs of performed interviews showed, that there was sustaining demand for graduates, mainly in technical and economical branches. On the basis of the outputs of the executed survey the authors recommend that the further research should be directed in the above mentioned ways.

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References and footnotes

- Albors-Garrigos J, Barrera RR (2011) Impact of Public Funding on a Firm's Innovation Performance. Analysis of Internal and External Moderating Factors. *International Journal of Innovation Management* 15(6): 1297–1322.
- Belitz H, Lejpras A (2014) Financing Patterns of Innovative SMEs and the perception of Innovative Barriers in Germany, IDEAS Working Paper Series from RePEc.
- Chung HY, Seong-II J, Hyung KJ (2003) Different Value Relevance of R&D Accounting Information Among Industries. *Korea Industrial Economic Review* 33(1): 257–282.
- David FR, Forest RD (2015) *Strategic Management, Concept and Cases*, 15th Edition. Pearson Education.
- Demil B, Lecocq X (2010) Business model evolution. In search of dynamic consistency. Long range planning LRP. *International Journal of Strategic Management* 43(2/3): 227–246.
- De Witt B, Meyer R (2014) *Strategy an International Perspective*, Cengage Learning EMEA, pp. 437–440.
- Dey C (2002) Methodological issues. The use of critical ethnography as an active research methodology. *Accounting Auditing & Accountability Journal* 15(1): 106–121.
- European Commission (2016) *Horizon 2020, Work Program 2016–2017, Access to Risk Finance*, European Commission, Brussels.
- European Private Equity and Venture Capital Association (2005) *Survey of Private Equity and Venture Capital in Europe*, European Private Equity and Venture Capital Association, Brussels.
- Ebersberger B (2011) Public funding for innovation and the exit of firms. *Journal of Evolutionary Economics* 21: 519–543.
- Eberhart AC, Maxwell WF, Siddique AR (2004) An examination of long-term abnormal stock returns and operating performance following R&D increases. *Journal of Financial and Quantitative Analysis* 46: 27–53.
- European Investment Bank (EIB) <http://www.eib.org/products/blending/innovfin/products/index.htm>, accessed: May 2016.
- Festel GW, De Cleyn SH (2013) Founding angels as an emerging subtype of the angel investment model in high-tech business. *Venture capital* 15(3).
- Fleming L, Sorenson O (2016) Financing by and for the Masses: An Introduction to the special Issue on Crowdfunding. *California Management Review* 58(2).
- Galbraith JR (1999) Designing Innovative Organization, CEO Publication, G 99-7, 366, <http://www.marshall.usc.edu/ceo/>, accessed: November 2015.
- Gompers PA, Lerner J (2001) *The Money of Invention*. Harvard Business School Press, Boston.
- Hammersley M, Atkinson P (2007) *Ethnography. Principles in Practice*, Third Edition. Routledge, London.

- Higgins RC (2015) *Analysis for Financial Management*, 11th Edition. McGraw-Hill/Irwin.
- Hossain M (2015) Crowdsourcing in business and management disciplines: an integrative literature review. *Journal of Global Entrepreneurship Research* 5: 21.
- Hume L, Mulcock J (2004) Introduction: Awkward Spaces, Productive Places. In: Hume I, Mulcock J (eds.) *Anthropologists in the Field. Cases in Participant Observation*. Columbia University Press, New York.
- Jahn T (2010) *Portfolio- und Reifegradmanagement für Innovationsprojekte zur Multiprojektsteuerung in der frühen Phase der Produktentwicklung*. Bericht 575. Institut für Konstruktionstechnik und Technisches Design, 161, Stuttgart.
- Kislingerová E (2010) *Manažerské finance*. 3. vydání, Beckova edice ekonomie. C.H. Beck.
- Lambert V, Glacken M, McCarron M (2010) Employing an ethnographic approach: key characteristics. *Nurse Researcher* 19(1): 17–24.
- Lev B (2001) *Intangibles: Management, Measurement and Reporting*. Brookings Institution, Washington, DC.
- Lewandowska L (2013) Opportunities For Funding Innovation *Versita*, 10.2478/cer-2013-0028, pp. 57–78. [http://www.degruyter.com/dg/viewarticle.fullcontentlink:pdfeventlink/\\$002fj\\$002fcer.2013.16.issue-4\\$002fcer-2013-0028\\$002fcer-2013-0028.pdf?t:ac=j\\$002fcer.2013.16.issue-4\\$002fcer-2013-0028\\$002fcer-2013-0028.xml](http://www.degruyter.com/dg/viewarticle.fullcontentlink:pdfeventlink/$002fj$002fcer.2013.16.issue-4$002fcer-2013-0028$002fcer-2013-0028.pdf?t:ac=j$002fcer.2013.16.issue-4$002fcer-2013-0028$002fcer-2013-0028.xml), accessed: May 2016.
- Mollick E, Robb A (2016) Democratizing Innovation and Capital Assess: The Role of Crowdfunding 58(2). University of California, Berkley.
- Malo J-D (2015) EU Access to Finance for Innovation, Programme Committee configuration „SMEs and Access to Risk Finance”, Brussels (October).
- Ministerstvo průmyslu a obchodu ČR (MPO) (2012) Koncepce podpory malých a středních podnikatelů na období let 2014–2020, (Praha: Ministerstvo průmyslu a obchodu), <http://www.mpo.cz/assets/dokumenty/45949/51878/588782/priloha002.pdf>, accessed: June, 2016.
- Ministerstvo průmyslu a obchodu ČR (MPO) (2007). Národní inovační fond. *Feasibility Study*, 2015.
- Nývltová R, Režňáková M (2007) *Mezinárodní kapitálové trhy: zdroj financování*. 1. vydání, Praha: Grada Publishing.
- Pisano P, Pironti M, Bertoldi BA (2009) Relationship Between Propensity to Innovation and Risk Capital. An Empirical Analysis. In: *Proceedings of 5th European Conference on Management Leadership and Governance (ECMLG)*, Athens, 5–6. November.
- Pokorný O, Kostic M, Čadil V, Valenta O, Hebáková L, Vorlíčková V (2008) *Analýza Inovačního potenciálu krajů České republiky*, Technologické centrum Akademie věd ČR.
- Prive T (2013) 20 Most Active Angel Investors. *Forbes*. December, 16.
- Ramadani V (2009) Business angels: who they really are. *Strategic Change* 18: 249–258.
- Schwienbacher A (2008) Innovation and Venture Capital Exits. *The Economic Journal* 118: 1888–1916.
- Špaček M (2009) *Pravděpodobnostní přístupy k analýze rizik investičních projektů*. Ph.D. diss., University of Economics in Prague.
- Švejda P et al. (2007) *Inovační podnikání*. Asociace inovačního podnikání ČR, Praha.
- Wolf V, Kain P (2016) Střídání stráží. *Index LN* 5: 45–48.
- Zott C, Amit R, Massa L (2011) The business model: Recent developments and future research. *Journal of Management* 37(4): 1019–1042.

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