

Innovation and Creativity as a Source of Competitive Advantage at Start-ups

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Abstract: *A dilemma in innovation is becoming more and more obvious every day. The ideology of free enterprise and the market economy suggest that policy-makers do not touch the mechanisms of competition or business development. It is held that public interventions, such as subsidies, low-interest loans or grants, deter free competition and cause imbalances in the market. At the same time, the needs of individual enterprises to get support in their pursuit of innovations are acknowledged. The purpose of this article is to report on an inventory of measures employed to overcome barriers to innovation in Czech start-ups (SMEs.) It examines the impact of such variables as actions for continuous improvement, pressures for cost-cutting, aspects of internal management systems, innovativeness, and structures for managing product and process innovation in Czech SMEs.*

Keywords: start-ups, innovation process, factors influencing innovativeness, support for the innovation process

JEL codes: M2, M3

Introduction

Intense competition in the marketplace is forcing organisations to examine the different ways by which they can enhance or retain their competitive advantage. Some organisations have generated sustained cooperative advantage through a continuous stream of incremental overarching, and discontinuous innovation.

Central to the notion of technology as a competitive advantage for nations, firms, and industries is the significant role of small and medium-sized companies as a source of innovation. In the Czech Republic a great number of measures have been taken to promote innovation and entrepreneurship. The question remains as to whether, the measures really address the needs that prevail in these enterprises.

In practice, we come across different start-up definitions. One of the most common criteria is the development phase of a business. This says that a start-up is defined as a new, yet-to-be established business based on an innovative business model and funded by start-up capital (Hathaway, 2016). Other definitions do not take the development phase into account and define a start-up as an organisation designed to seek a business model that is repeatable and scalable (Blank, 2010). An important characteristic of all start-ups is the entrepreneurial spirit and high degree of risk associated with the uncertainty of the environment.

A start-up is a legal entity that has been established as a business environment to implement a business plan linked to a particular product, idea or, **innovation**. It is usually **an innovative company** that seeks to expand its innovation on a mass (usually global) scale. This does not necessarily have to be IT innovation, but technology companies are predominant. The success of a start-up need not be defined by mere survival. Other indicators of success include, for example, the number of job opportunities created, revenue growth, return on investment and its return over a certain period of time, etc. (Schutjens, Wever 2000).

The business model of a successful start-up is based on **innovation**, repeatability and scalability. The word "**innovation**" was first used in the economic context by Joseph A. Schumpeter (1976).

- Innovation consists of the successful production, adaptation and use of progress in the economic and social sectors. An innovative business model is looking for new ways to meet customer needs, and/or creates new needs, thereby opening new markets.

- The repeatability of a business model is the ability to apply the main advantages and strengths of an organisation in new conditions for further growth and expansion. The repeatability of a business model is based on three basic assumptions: simplicity, certainty and adaptability.
- Scalability is the ability of a business model to work with an increasing volume of inputs.

Commercially viable innovations are becoming the driving force of success on the global market, helping to increase the overall productivity of the company. Innovation determines the economic growth of developed and industrialised countries. Innovations have different forms. One of those forms is commodity innovation. Innovation changes the structure of organisations and develops their potential. What is more, institutional innovation strengthens market mechanisms for business, and for technology trading. As a result, new ideas, products and practices penetrate the commercial sphere (Kirchmer, 2017)

Many innovations, despite being original, do not have any market potential.

Innovation can be divided into the following types, each affecting the competitiveness of the organisation (Afonichkina, 2012):

Entrepreneurial innovation. Thanks to such innovation the company has an ability to divide into related and unrelated industries, providing an opportunity to strengthen the overall competitiveness of the organisation by dividing the different risks across markets and geographical areas.

Technical innovation. Gives the company the opportunity to improve the technical characteristics of the created goods (services), which in turn will increase its competitiveness compared to analogues.

Production innovation. Allows the organisation to switch to a new energy-saving technology that is more efficient, for example. This innovation generates price and non-price competitive advantages of goods (services). The company can also gain competitive advantage (or disadvantage) in cooperation with suppliers within the value chain. This is due to changes in the required production services.

Market innovation. Allows the organisation to get new customers in new markets and increase sales, which results in the better application of price competition methods. It also increases the possibility of having a competitive impact on suppliers by increasing the supply of similar services in new markets.

Information innovation. Its purpose is to change the internal environment of the organisation to improve the efficiency of internal processes, resulting in a faster response to changes in the environment.

Managerial innovation. Helps the company with faster and more accurate decision-making in comparison with the competition.

Economic (financial) innovation. Enables the more efficient use of the company's financial resources, increase competitiveness by increasing financial independence (Usoltsev, 2017).

1 The Czech Start-up Scene

As part of the Start-up Survey the Aspen institute¹ implemented the Czech Start-ups Report 2016. Having created a database of 550 start-ups, the Aspen institute invited all of them to take part in the survey that ran in the summer of 2016. The questionnaire was also distributed via Czech incubators, acceleration programmes, CzechInvest, and other popular channels for Czech start-ups which maintain their own databases.

¹ For more information see <https://www.aspeninstitutece.org/project/czech-startup-report/>

Based on the replies collected from 140 Czech start-ups an analysis of the Czech start-up ecosystem was prepared. The survey results are as follows:

- Nearly 70% of the surveyed start-ups are in the **early stages of development** (pre-seed and seed stage), whereas only 15% of them are in the scale-up phase.
- Slightly over 60% of the start-ups claim they offer **new services or products**, and almost 23% of them are working on an **improvement of an existing** service or product.
- 78% of the Czech start-ups surveyed have used **finances from their own resources**. Local business angels or the start-up's network (the so called 3F – friends-family-fools group) financially supported 13% of the surveyed start-ups.
- Startups mainly operate in the following fields: **SaaS** (28%), **web services** (21%) and **mobile software services** (17%). Other often chosen areas are: analytics/ business intelligence (16%) and cloud services (12%). Interestingly, around 10% of start-ups mentioned Internet of Things and education as their fields of activity.
- The vast majority of companies surveyed are micro-enterprises, employing up to ten people. More than **65%** of them **had increased** their **number of employees** in the past six months by at least one person.
- Among the surveyed start-ups, almost **25% do not export**. Only 22% get more than half of their income from abroad.
- Collaboration with universities and commercial **R&D centers** is not a common trend and only a few of the surveyed start-ups began in academia or research centers. This is also reflected in the areas where the surveyed start-ups operate – most of them are bringing in **new IT products and services rather than technological solutions**.
- When asked about the biggest internal challenges, the surveyed start-ups listed **human resources (53% of responses)** and **finances/investments (43%)** as the top two.

In 2015, the Ministry of Industry and Trade carried out a questionnaire survey of 64 small businesses². It was found that:

- Start-up creation is not easy in the Czech Republic.
- In addition to the initial idea and quality team, especially demanding innovative solutions require a large initial investment, which is often difficult to obtain for start-up entrepreneurs. It is the very limited opportunity to receive financial capital in the early stages of business that hampers the development of small innovative companies.
- 70% of the business owners had to limit their investments.
- In the first years after establishing the company, their investments ranged up to a maximum of CZK 5 million. The reason for the low volume of investment is, in particular, the very limited access of enterprises in the early stages to external sources of financing.
- In terms of existing business financing, the use of own resources without the addition of foreign resources is dominant (46%). Another 22% of companies have received funds from family and friends. External sources outside friends and relatives primarily include business angels, i.e. individual investors (9%) and banks (7%).
- The results of the survey showed that the risk capital market, which is very poorly developed in the Czech Republic compared to other EU countries, is non-functional. (Ekonomický deník, 2015).

According to the World Bank, the Czech Republic ranks 81th among 190 countries in terms of the difficulty of setting up a new business entity. The Czech Republic has worse conditions for start-ups than Ukraine, Kosovo or Benin. Domestic start-ups therefore have a much more complex position than start-ups in other Central European countries. Support is important for Czech start-ups not only because of the extra bureaucracy when setting up the company, as shown by the above-mentioned World Bank ranking, but also due to worse access to investment. (Dostál, 2017)

2 Methodology

Contemporary research undertaken in the area of technology and innovation in SMEs (especially in start-ups) can be conveniently grouped into three research streams. The first concerns the definition and overview of technology and innovation in SMEs. Innovation is viewed as the creation,

²Most of them work in Prague and Central Bohemia (37%), South Moravian Region (31.5%), Plzeň Region (11%) and Moravian-Silesian Region (9%). In terms of sectors, respondents were particularly active in ICT (almost 51%), while fewer than 17% are in research and development, followed by the manufacturing sector and trade with 5%.

development, and introduction of new products and services, or product and service components, or a new procedure or process doing things to benefit one or more of the stakeholders in an organisation. Innovation is based on process needs, changes in industry or market structure, and new knowledge.

The second research stream is concerned with the development of conceptual models and instruments that deal with the assessment and measurement of technology and innovation in start-ups. Several studies have suggested specific models and/or methodologies that describe the role of small firms in the emergence of new technologies, different business strategies, and ways to control new product development in small technology-based firms.

The third stream, which can be considered to be the culmination of all of the research done in this area, deals with the assessment and successful implementation of technology and innovation practices at start-ups. Most of the research in this stream illustrates how technology and innovation can help SMEs (start-ups) to create a competitive advantage.

Our research consists of three parts:

Part One: **Marketing objectives and R&D expenditures of the firms in question**

Part Two: **Identifying the factors influencing innovative actions at the firms in question**

Part Three: **Describing several types of support for the innovation process of start-ups**

The questionnaire used for this study was developed by the authors of this article and was based on the critical factors proposed by PKMC (2017). PKMC is an independent economic consulting firm which has been managed by the author of this article since 2000. The questionnaire investigated the following aspects of business:

1. Company profitability.
2. Expenditure on R&D - respondents were asked for the following information: proportion of sales spent on R&D; level of change in expenditures in the last three years; and change planned for the next three years.
3. Measures to improve short-term profitability (importance and performance).
4. Measures to ensure long-term wellbeing (importance and satisfaction with response).
5. Sources of innovation in product or service procedures - respondents were asked to consider a recent successful and significant innovation and then to indicate just how important a number of items were as sources of that particular innovation on a four-point scale (unimportant to very important).
6. Sources of innovation in processes and procedures – respondents were asked to consider a recent successful and significant innovation in work processes and procedures and a number of potential sources of that innovation.
7. Drivers for change (organisation's response to current pressures).
8. The organisation in general, involving issues such as structure and management, innovation strategy, innovation culture, market approach, etc.
9. Types of support of innovation activities.

Questionnaires were mailed to the executives of SMSs (start-ups) who had completed earlier business surveys. The rate of return where participants had completed earlier surveys was about 32 percent. Only SMEs (contemporary or former start-ups) located in Bohemia and Moravia were included. The sectors of these SMEs were manufacturing, transport and services.

A total of 112 completed responses were obtained.

3 Data

As we mentioned above, our research consists of three parts.

Part One: Marketing objectives and R&D expenditures of firms in question

Table 1 provides information on **marketing objectives and R&D expenditures**. As for the size of the firms in question, 65 percent of the respondent firms were small firms – especially start-ups, as they employed fewer than 49 employees and had sales of less than 10 million Euro. The remaining firms were medium-sized enterprises – former start-ups who employed between 50 and 249 people and with sales between 10 and 40 million Euro.

Table 1 Profile of respondent organisations

Characteristic	Percentage of Responses in the Category
Marketing objectives	
Same products, same markets	34
New products, existing markets	22
Same products, new markets	26
New products, new markets	18
R&D expenditure (over next three years)	
Greatly decreased	5
Decreased	10
No change	21
Increased	56
Greatly increased	8

Source: Own research

There was evidence of increasing innovation in marketing strategy (see Table 1). Forty percent of the firms surveyed identified the introduction of new products as the main thrust of their marketing objectives. Twenty-two percent of the firms (of the total) introduced new products in existing markets, 18 percent of the firms developed new products for new markets. On the other hand, 34 percent of the firms were more conservative, focusing the main thrust of their marketing objectives on promoting existing products in existing marketplaces. In terms of R&D expenditure, 64 percent of the respondents planned to increase or greatly increase their spending on R&D during the next three years, 21 percent planned to spend the same amount, while 15 percent planned to spend less on R&D during the next three years.

Part Two: Identifying the factors influencing innovative actions at the firms in question
In order to identify the factors influencing innovative actions in the business, the analysis was divided into five sections: (1) actions for continuous improvement; (2) internal management system; (3) pressures for cost-cutting; (4) sectorial technological innovativeness; and (5) structures for managing innovation (see Table 2).

Table 2 Description of the factors influencing innovativeness

Factor	Description	Concrete measures
Factor 1	Actions for continuous improvement	Improved staff competence, team approach, learning organisation, improved quality of product/service, shared vision, design to meet market need, high innovation profile.
Factor 2	Internal management system	Performance measurement for managers, targets for performance improvement, support for creative people, manager responsible for innovation.
Factor 3	Pressures for cost-cutting	Importance of waste reduction, reduction of staff numbers.
Factor 4	Sectorial technological innovativeness	Products include high tech, high tech processes, R&D dependence for innovation, high impact of information technology on product.
Factor 5	Structures for managing innovation	Technology portfolio analysis, board promotion of innovative behaviour.

Source: Own research

Dealing with the dilemma of innovations, the lack of knowledge on the characteristics of the innovation process is apparent: no one is willing to take the risk of not supporting the innovation process and possibly ending up with having lower rates of economic growth, employment and welfare of small firms.

There are three “areas” for innovation that appear in a different light when they are discussed during research about the promotion of innovative activity: start-ups, SMEs and large companies. As we concentrated on start-ups, let us explain this type of entrepreneurial activity: by the “start-up” we mean a new enterprise with a new entrepreneur, starting a firm from “scratch”.

The innovation types which are found in start-ups, are most likely to require assistance and resources for implementation. When promoting innovations in start-ups firms, catalytic (disruptive) innovation is rare, largely because this type of innovative activity requires highly specialised organisational and technical resources and skills. Start-ups, by definition, normally suffer from a lack of critical learning-related capabilities, and the routes for overcoming the learning-problem would include e.g. external innovation strategies, which would require a reasonable level of face validity for the starting entrepreneur in the business environment.

Part Three: Describing several types of support to the innovation process of start-ups

There are several types of support for the innovation process of start-ups in the Czech Republic (Petrů, 2017). In this article, we discuss two examples, governmental support (e.g. Operation Programme EIC, CzechInvest) and alternative support (e.g. Mamnapad.cz).

a. Governmental support

CzechStarter is a project implemented from the Marketing programme, of Priority Axis 2 Development of business and competitiveness of small and medium enterprises of the **Operational Programme Enterprise and Innovation for Competitiveness** (OP EIC) 2014–2020.

CzechInvest is also targeting start-ups with other programmes such as **CzechDemo**, **CzechAccelerator** and **CzechMatch**.

The **CzechAccelerator** project provides rental of office space and an acceleration programme full of mentoring in Silicon Valley, New York, London and Singapore. The selected participants participate in a three-month acceleration programme in developed destinations where they can expand their horizons and gain invaluable business experience. In addition to arranging office space, mentoring from experienced foreign mentors, counselling services related to the protection of intellectual property and, help with preparing promotional materials corresponding to the local mentality, it provides two return tickets and within three months organises workshops on different topics (Lean Canvas, Pitching B2B Sales) and entry to interesting networking events where start-ups can meet potential customers, partners, and investors.

The **CzechMatch** project prepares start-ups for presentation and negotiation with investors and business partners. They have a unique opportunity to introduce their innovative idea to foreign investors and get feedback from them. During a week-long seminar abroad, start-ups can expect a programme full of mentoring and networking, with a matchmaking event at the end. They will strengthen their presentation skills, gain new contacts and experience abroad, and increase the chance of internationalising their business project.

CzechDemo is a project allowing start-ups to present themselves at major international events and showcase their innovative product. Young entrepreneurs have the opportunity to exhibit at the most famous fairs, festivals and conferences.

CzechLink Start is a project designed for **start-up innovative Czech companies** looking for a strategic or investment partner. Its aim is to not only facilitate Czech start-ups with foreign investors, but also to provide them with capital to start their business and increase the inflow of foreign investment into the Czech Republic.

b. Alternative support

Mamnapad.cz is an independent magazine about **innovation, creativity** and start-ups for business innovators and enterprising people. In addition to information from the world of creative projects and start-ups, it provides tips and guides for promoting creativity and innovation in organisations. Its vision is to help individuals, groups and organisations successfully implement their ideas and innovative projects and promote creative thinking in society. It believes that creative thinking and

innovation can create a better world together. On its website, it introduces new business ideas (such as irrigation technology, a taxi for pregnant women, a scarf against the cold, Vissto – a start-up focusing on smart solution for data visualisation, and more), looking for investment capital, or offering a suitable investment project.

3.1 Qualitative Research – semi-structured interviews with start-up entrepreneurs

On Tuesday, 19 June, 2018, the Meeting of Women – Entrepreneurs was held at the Prague Start-up Market in Holešovice. More than two dozen women – entrepreneurs who had already set up a start-up took part at this event. The event and the whole programme were prepared for them by CzechInvest in cooperation with the Association of Small and Medium-Sized Entrepreneurs and Tradesmen of the Czech Republic. The authors participated as observers. The meeting can also be considered as a three-hour group discussion forming part of the methodology. Individual interviews lasted 30 minutes and were conducted face-to-face.

The participants of individual interviews were asked for answers to the question: How do you define a start-up? There were some interesting answers:

- As a start-up I understand the emergence of a completely new technology / product, with minimal investment input requirements, with a decisive share of creativity and invention of its founder.
- A small team of people who develop a product / service with a great potential for growth. Growth potential is due to the uniqueness of the product / service offered, the ability of the team to respond quickly to customer feedback and the use of current technologies to overcome the competition that is either not innovating or innovates slowly.
- A rapidly growing company with an innovative and technological product / service with at least an EU regional potential.
- A non - rigid company with an innovative idea and a desire to conquer the world.
- Courage to build a team on the green meadow, to build a product with a modest budget / A project relying on community support and using modern technology ...
- A project without stable processes, a final product and a vision. / A new innovative group of people with a product that has not yet had any buyers.
- A temporary phase of a company where everything is allowed for the sole purpose of surviving meeting reality.
- A start-up always means uncertainty and when it starts to be certain, it is no longer a start-up.
- A scalability, a uniqueness, an ability to think of something that currently does not exist on the market.

For this study, the authors selected three entrepreneurs who were asked five identical questions in semi-structured interviews. The responses were recorded on an electronic device and transcribed. The aim of the research was to find out what caused the start-up founders to implement their business plan and what they saw as their own contribution.

These answers could be considered as case studies. They summarize the replies of the selected start-up founders.

Company A -Type of business: e-shop with special goods for disabled children and adults. Number of employees: 2. Region: Capital City of Prague

Company B - Type of business: food supplements. Number of employees: 2. Region: Capital City of Prague

Company C - Type of business: Design, Marketing. Number of employees: 2. Region: Czech Republic

Table 3 - Answers of qualitative research respondents

Question	Company A	Company B	Company C
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<p><i>What brought you to doing business, how would you describe your company in 5 sentences?</i></p>	<p>19 years ago, my daughter Paulina was born. Unfortunately complications during childbirth led to a diagnosis of childhood cerebral palsy (DMO) and with all her limbs affected, she will have to live with the assistance of others. She has had special needs since birth, and I realized that I most often solved the question of the lack of relevant choice in special aids (especially textiles for teenagers and disabled / wheelchair users) myself. I started producing typical shapes of bibs and my plan is to continue producing special clothes for wheelchair users. So in a short word, my daughter Pauline brought me to business.</p>	<p>Our entrepreneurship started more than four years ago with a project that is now stabilised and successful. Less than half a year ago, we began to look for another area that is still waiting for proper innovations. Dietary supplement is certainly such an area.</p>	<p>Originally business was not spoken about. We wanted to publish a brochure on some shops with interesting designs. We quickly moved from a printed media to a web presentation and the project started to grow. The decision to do business came at a time when demands for implementation were increasing, and we realized that it was only sustainable if the project was able to pay for itself. Business has led us to more meaningful decisions, we have ceased to be too personal, and have gained insight. Our specific focus is unique in the market: it does not have a parallel here or abroad.</p>
<p><i>What helped you at the beginning of your business and what complicated your life?</i></p>	<p>Funnily enough, my own experience brought me to the idea of launching the project, and it helped me the most. I come from the needs of my own daughter: I solve the problems I face and I have to deal with. I am a mother, I am interested in the practical side of the products and I am a woman. I see the complication for the project in the limited group of customers: according to available statistics in the Czech Republic there are around 5,000 teenagers like my daughter and it is really a small group that is rarely online.</p>	<p>At the moment, the experience gained from starting other projects is most helpful to me. If we compare my business beginnings with the current project, there is a huge gap between them. The main difference would be the approach to project management, prioritization and discipline.</p>	<p>All kinds of consultations, various meetings, startup competitions and crowdfunding were waving us from side to side and often it was just a waste of time and money. More than once we have met with offers where we would become victims of someone else's business plan. The consultations that led us to build independence helped us most.</p>
<p><i>What do you consider your greatest success?</i></p>	<p>My success is my children. Pauline encourages me to</p>	<p>I am very pleased with the way I have managed to run a</p>	<p>We are happy with very positive feedback. Our web and our facebook</p>

	change things, to see the world with other eyes, to distinguish what is important in life and not to only communicate verbally. I also work as an external eCommerce consultant for two multinational companies. I am proud, that I have managed it alongside the care of my daughter.	new project. Right from the start, we decided to build on the data and Lean principles; in other words, with the smallest cost, to bring the product to real clients and to gain data, and on the basis of the data thus obtained, make further decisions.	have also won a number of supporters just from the start. It is also great to have a co-founder where we understand each other, although it is unpleasant to pronounce or accept a critical opinion. We are pleased we managed the great pressure at the beginning and kept to our initial thoughts.
<i>What are your plans for the future?</i>	My primary objective is to build a globally known brand that will be synonymous with a design solution for the disabled, to facilitate an already complicated life for families who care for affected children or adults and offer a sufficient selection of products.	I will continue to evaluate data and feedback. Based on that, I will decide how to proceed further.	We realize that the database is still incomplete and that there are many places around the country that we do not know about. This complexity is very important for us. It's one of the things that make up our uniqueness. We are also planning our own mobile application. The wider future is then growth beyond the Czech Republic.
<i>Based on your experience, is there anything you would not do again?</i>	I waited for 19 years to start the project - I should have started earlier. At this moment, I consider communication to the community of families with affected children to be very sensitive and I still have a lot to do in this field.	Not to wait unnecessarily! Especially, in the final stages of the project, one tends to delay the official start. But my experience shows that the thing you were often waiting for is not in the customers' interest.	We have been very cautious, and so we have managed to make very few mistakes. However, I consider my worst decision to have been our participation in the crowdfunding campaign. Even though we finished it, it was a hard reed for us, and we took a beating.

Source: Own research

The authors considered how to generalise the knowledge gained and what would be appropriate for start-up founders. The following business and managerial "rules" / "principles" were considered useful:

- to prepare a good business plan and to be able to present it well
- not to give up on the first failure/to be ambitious
- to have a meaningful product/to think about the idea
- to be quick / to do it now
- to cooperate with top professionals, traders, a high-quality team of co-workers / investors
- to be effective
- to elaborate in detail financial analysis for pessimistic, medium and optimistic variants of the business plan
- to focus on trending communication tools, quality Web design, quality content marketing, etc.
- to gather information from abroad
- not to underestimate contacts with authorities / financial, social, etc.
- before starting a start-up, to count on the later entry of investors (this should be taken into

- account in particular in the social contract / statutes)
- to have all the essential contracts in order even among best friends, there may be disagreements during the company's existence; all possible future problems must be considered
 - to participate regularly in start-up activities, to identify current information on possible forms of support

Discussion

The definition of "what is a start-up" can be considered from many points of view. Essentially, a start-up should be a company that offers a unique, scalable solution that ideally "changes people's lives".

The start-up environment in the Czech Republic can be considered to be relatively young in the global context. The above-mentioned text gives us information on the freshness of this business. Based on the research, the authors have realised that companies in the initial stages of development and an up to three years prevail. Maybe this could be a reason why start-ups' plans are mainly short-term. Czech start-ups are evolving and becoming an increasingly important part of the innovative economy. But they lack human resource and government bureaucracies hinder entrepreneurs from starting businesses. The local market is very small and a condition of rapid and sufficient growth can only be ensured by expanding into foreign markets. Companies are very inexperienced regarding foreign expansion and lack help from business partners (investors) in this area. Another weak point for start-ups is the lack of legal protection of business. Low unemployment supports the fact that there is a lack of a quality workforce.

Investors in start-ups need more innovation and discipline. The Czech economy has a sufficient amount of finance but the money is mostly invested in "conservative" investment opportunities (real estate, securities, established and well known companies). Investment into start-ups is considered as relatively complicated, ineffective and very risky. It is not enough to put the funds into the start-up. It is necessary to take care of this investment all the time, to work actively with the start-ups and to help them. It is interesting to note that many successful start-ups are trying to "give back" their success and to help young start-ups market in the form of their own "smart money" investments. Investing into start-ups is always a combination of thorough business analyses and, most importantly, chemistry among people.

How is start-up support evaluated by start-up founders? In their opinion, such support is not enough, and it is considered an area where there is great room for improvement. This view illustrates the relatively insufficient interest of start-ups in various forms of state subsidies. In addition, accelerators are not one of the dominant forms of business development. The main reason is probably their lower occurrence and lack of familiarity with this possibility, especially outside Prague. This issue was interesting to the authors as another area of research. (especially around the questions: how do start-ups cooperate with the academic / research sphere and why is there only a small number of patents registered by start-ups?).

Conclusions

In today's competitive environment, the challenge for all businesses is not only to innovate in existing markets to survive and remain profitable, but also to innovate in new markets in order to stay ahead of competitors. In this article the author identifies factors influencing innovativeness.

Some factors are related to both product and process innovations, others are related either to product or process innovation.

Among factors related to both innovations we can mention *pressures for cost-cutting*, *structures for managing innovation* and *internal management systems* as these innovations (product and process) create an innovative organisation based on innovative behaviour and financial discipline.

Product innovation is significantly related to *sectorial technological innovativeness* because of its emphasis on development and research in high technology.

Process innovation is related to the factor *actions for continuous improvement*, which include many process-related activities.

The context in which innovation is likely to take place in SMEs (start-ups), relates to perceiving new market opportunities, intensifying current internal resources or recycling resources into new uses. Here we come back to the importance of internal initiative for innovation: the use of teams, application of different creative techniques and the use of external expertise would bring valuable inputs in regard to the innovative quality of decisions.

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References

- Afonichkina, Al. (2012). *Fundamentals of Management*. Saint Petersburg: Publishing house "Peter",
- Aspen Institute Prague. (2016) *České startupy 2016*. Available at: <http://www.czechstartups.org/vysledky-studie-aspen-insitute-prague/> [Access: December 6, 2016]
- Blank, S. (2010). *What's a Startup?* Available at: <http://steveblank.com/2010/01/25/whats-a-startup-first-principles> [Access: June 25, 2018]
- Dostál, D. (2017) *Rozjet start-up v ČR je těžší než jinde, v žebříčku Světové banky jsme v polovině*. Available at: <http://www.businessinfo.cz/cs/clanky/rozjet-start-up-v-cr-je-tezsi-nez-jinde-98008.html> [Access: November 22, 2017]
- Hathaway, I. (2016). What Startup Accelerators Really Do. *Harvard Business Review*. Available at: <https://hbr.org/2016/03/what-startup-accelerators-really-do> [Access: May 15, 2018]
- Kirchmer, M. (2017). *High Performance Through Business Process Management: Strategy Execution in a Digital World*. Berlin: Springer
- Petrů, N. (2017). *Nástupnická strategie v českých rodinných podnicích*. Praha: Vysoká škola finanční a správní, a.s.
- Schumpeter, J. A. (1976) *Capitalism, Socialism and Democracy*. Fifth edition. London: George Allen & Unwin (Publishers) Ltd
- Schutjens, V.A.J.M.; Wever, E. (2000). Determinants of New Firm Success. *Regional Science*, Vol. 79, No 2, pp 135-159.
- Usoltsev, VI. (2017) *Creation of a system of natural-science and technological training of young people for innovative activities*. Moskva: Litres