

# “Innovative controlling and audit – opportunities for SMEs”

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<b>ARTICLE INFO</b>	Přemysl Písař and Václav Kupec (2019). Innovative controlling and audit – opportunities for SMEs. <i>Problems and Perspectives in Management</i> , 17(3), 184-195. doi: <a href="https://doi.org/10.21511/ppm.17(3).2019.15">10.21511/ppm.17(3).2019.15</a>
<b>DOI</b>	<a href="http://dx.doi.org/10.21511/ppm.17(3).2019.15">http://dx.doi.org/10.21511/ppm.17(3).2019.15</a>
<b>RELEASED ON</b>	Tuesday, 20 August 2019
<b>RECEIVED ON</b>	Friday, 31 May 2019
<b>ACCEPTED ON</b>	Wednesday, 17 July 2019
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<b>JOURNAL</b>	"Problems and Perspectives in Management"
<b>ISSN PRINT</b>	1727-7051
<b>ISSN ONLINE</b>	1810-5467
<b>PUBLISHER</b>	LLC “Consulting Publishing Company “Business Perspectives”
<b>FOUNDER</b>	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

**30**



NUMBER OF FIGURES

**1**



NUMBER OF TABLES

**2**

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BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"  
Hryhorii Skovoroda lane, 10,  
Sumy, 40022, Ukraine

[www.businessperspectives.org](http://www.businessperspectives.org)

Received on: 31<sup>st</sup> of May, 2019

Accepted on: 17<sup>th</sup> of July, 2019

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# INNOVATIVE CONTROLLING AND AUDIT – OPPORTUNITIES FOR SMEs

## Abstract

This research is oriented to SME's innovation activities, its management system and competitiveness based on innovations. Research is focused on causalities between innovative controlling, audit, enterprise innovation activities and the results put in context with ROA, ROE, turnover. Data for this research were collected in 317 European SMEs by researches by using questionnaire and analyzed by advanced statistical methods. The aim of this research is to identify key factors for successful innovation enterprise activities, to define weaknesses and common mistakes. Secondary aim is to design controlling process for SME's innovation activities. The findings of this research are opening up topics for further research.

## Keywords

audit, controlling, innovation, process, SMEs

## JEL Classification

L11, L15, M10, M15, M42

## INTRODUCTION

Innovative control and audit as an opportunity for small and medium-sized enterprises (SMEs)? Why bother with the controlling management of innovation processes? Innovation is the main driving force of the business and a natural part of it. Thanks to innovations (strategic, product, technology or process), businesses grow and gain a major competitive advantage. It is however vitally important to recognize that the innovative process is one of the riskiest areas for a business – its sales, marketing, technical or financial mismanagement may lead to bankruptcy. Innovations are not just about ideas; they are primarily about the ability of management to manage their implementation. Innovations provide enterprises and in particular SMEs with not only a great opportunity, but also a great threat. A suitable tool for managing innovation activities can be controlling, or in the case of process innovations, auditing as well.

The below presented literature review serves as literary input for the perception of the issue being solved. For the purpose of this research, SME is defined accordingly with the EU recommendation no. 2003/361. The issue that is being dealt with here are business processes and the need for their continuous innovations, in accordance with the basic Draheim's thesis (2010, p. 11): "Businesses are made of processes. Enterprises strive for excellence in business processes". Corporate processes are therefore in the following text, i.e. research, regarded in view of the primary theory according to Weske (2012, p. 5): "A business process consists of a set of activities that are performed in coordination in an organizational and technical environment. These activities jointly realize a business goal". The integrity of this teaching is verified also by Svozilová (2011, p. 14) who additionally sees logical

sequences in the processes, sequential processing and defined results. In the practical interpretation, we can interpret these statements as a continuous effort of a business to ensure excellent business performance through process innovations. According to Stanculescu (2015), as for stimulating innovation activity of SMEs in the EU over the last four to five years, the number of SMEs, which conduct research, development and innovation or have the necessary means for the assimilation of RDI results, available on national and international community, is still very low. Based on previous finding, supporting the SMEs and their innovation activities is the basic task for the EU and research objective.

## 1. LITERATURE REVIEW

Business processes can hold many forms, as well as delimitations. Processes must be continuously evaluated and streamlined, which is confirmed for instance by Řepa (2012, p. 15) who also confirms the above definitions of business processes. The importance of professional care for business processes is highlighted also in the report of McKinsey and Company (2017, p. 16).

To follow the abovementioned Draheim's theory about businesses (2010, p. 10) that strive for quality processes, it is necessary to highlight the activities that ensure quality processes. The perspective of the presented text and research is primarily innovations. To capture them, Goller and Bessant (2017, p. 3) state the following: "Although there are many definitions of innovation at its simplest, it is the process of creating value from ideas". In the same publication, Baumol subsequently adds: "Virtually all of the economic growth that has occurred since the eighteenth century is ultimately attributable to innovation" (Goller & Bessant, 2017, p. 3). Based on Dobrovic et al. (2018), the indicator of efficiency of competitiveness bears witness to the fulfilment of those goals of the sustainable growth. On the basis of these theories, there is really obvious importance of the application of innovative approaches in the processes of management practice, which is also verified by Zaušková, Bobovnický, and Madleňák (2013, p. 256).

Managerial practice has identified innovation as a central success factor for companies today, and CEOs underline innovation's importance with statements such as "all I've done since I got here is focus on one word: innovation" (Zacharias, 2011, p. 1). Innovations alone do not, however, ensure improvement. They must always be part of yet another process, which subsequently fulfils the Goller and Bessant's (2017, p. 3) theory of creating val-

ue. According to Goffin and Mitchell (2017, p. 2), innovative approaches are as follows: "Innovation is an exciting topic because successful innovation cuts across functional boundaries – from research and development (R&D) to marketing; it relies on different disciplines". This is in an interdisciplinary context confirmed also by N. Vitezić and V. Vitezić (2015, p. 176). In the following text, these disciplines will be controlling and audit.

The interplay between innovations and controlling is based on the definition of controlling. "The typical controlling process is designated to plan, observe and steer enterprise and business processes. In this way, controlling has to generate compressed information to support the management in its decision processes". (Kamps, 2013, p. 60). He adds that controlling is necessary for effective innovations. The initial theories of controlling are based on its historical focus. This concept, however, has evolved and controlling today is regarded in a modern perspective.

Modern controlling can be represented through the following theory: "Controlling can support management by identifying, planning and steering decisions which contribute to the added-value of the company". (Laval, 2018, p. 13). The orientation of modern controlling to the future and planning is also evident in Benedic (2015, p. 153). "Controlling is one of the new approaches which helps management to adapt better to new circumstances, to build vital and vivid organizations, capable of facing new challenges". These theses are subsequently verified and extended also by Písař and Havlíček (2018, p. 1172). Adding the management value is also the task of the audit.

Also, modern auditing approaches are fully consistent with the theory of Laval (2018, p. 13) on adding the value of the company. The added val-

ue of conducting audits through departmental perspective is mentioned by Pickett (2010, p. 32) who also highlights the positive impacts of audit on corporate operations, risk management, just as well on the process control. It is important to mention that this concept of audit focuses on its innovative application in today's businesses. Selected audit approaches that will be methodically applied in the following research are further analyzed and theoretically complemented by Jukka, M. Niskanen, and J. Niskanen (2018, p. 450), Rezaeia and Mohd-Saleh (2018, p. 886), or by Kupec (2017, p. 28) in the context of the digital environment. The above-named authors verify the importance of the application of auditing techniques across the processes of various businesses. Today, an audit is not only based on "hard" control approach, but focuses mainly on the "soft" consultation concept (Moeller, 2011, p. 32). These processes are currently undergoing rapid development, agile impacts or large degree of automation. It is, therefore, necessary to approach them with adequate care of digital audit in accordance with the teaching of Kupec (2017, p. 28).

The above selected theoretical concepts refer to terms which are then worked within the presented text and the entire research. It can, however, be hypothetically assumed that the two named techniques in the concept of Kupec (2017, p. 28), Písař and Havlíček (2018, p. 1172) are able to contribute significantly to the innovativeness of the selected corporate processes/SME in the Mares and Petra concept (2018, p. 207). How is possible to accomplish the indicated task is described systematically in the following portion of the text on the selected methodology of the presented research.

## 2. AIM, METHODOLOGY AND DATA

The research limitation concerns the (im)possibility to directly assess the impact of innovative controlling and innovative audit on overall health and performance of SME in relation to the time factor when their influence will manifest. Innovation activities of the enterprise are generally manifested in the longer term, especially in the area of product and strategic innovations. The somewhat earlier

effect comes in the area of process innovations, but it is necessary to realize that the design, development and implementation of important process innovation in all its stages is not a question of weeks or months, but usually long term. A question arises, how to measure the impacts of innovative controlling and audit when these cannot be measured directly? Controlling and its level of maturity is not able to evaluate directly, because there are many other influencing factors. Similar restrictions are imposed on the evaluation also by innovative audit, the impact of which on the overall health, performance of the business and its competitive advantages cannot be measured directly.

The main objective of the research is to define the essential key factors for the successful innovation activities of an enterprise. The secondary objective is to define the weaknesses of the innovation activities of the enterprise and threats for SME arising therefrom, establish modern innovative controlling and audit processes.

Following the findings obtained in the framework of the conducted research will then be examining the issue of utilization of controlling and audit to increase the success of the innovation process for SME. If the correlation between the level of implementation of controlling and audit management with an innovative plan and its fulfilment is demonstrated, then the acquired knowledge can be used to connect the academic and business sectors and can help increase the success of innovation activities of SMEs.

The following hypotheses were defined in order to fulfil the objectives of the research:

- H1: If the correlation of innovation activities of the enterprise and the degree of controlling implementation in SMEs has a very close relationship of the min. value of 0.7 of the Pearson correlation coefficient, the innovation activity of the enterprise can be supported by the development of the business's controlling management.*
- H2: If the correlation of innovation and innovative audit plan has a very close relationship of the min. value of 0.7 of the Pearson corre-*

*lation coefficient, the innovative activities of the enterprise can be supported by the development of an innovative audit.*

*H3: If the observed correlation level of innovation activities, financial health and performance of the business achieve at least moderately the tight status of the min. Pearson correlation coefficient value of 0.4-0.7 – moderately tight correlation, consistent management of innovation activities can be declared to be essential for the financial health and performance of the business.*

## 2.1. Data sources

The study is based on a sample of 317 European SMEs (206 SMEs from CZ). The examined data were obtained on the basis of a survey in SMEs. Survey questionnaire questions on first part were oriented on management system, financial analysis, HR, innovations and changes management, strategic management, quality management and other areas. Second part of questionnaire is depth research, which was focused on innovation management in form of researchers' interviews with top and middle management and also with staff. Main principles of questionnaire first parts was the evaluation scale, based on predefined key. Second survey part was used for depth understanding, how innovation management is operated in SMEs, to define main factors and design innovation controlling process. Another part of the research were local inquiries and structured interviews with management and employees of enterprises focused on controlling, audit and innovative business plan of the enterprise in order to define the key factors for the successful innovation activities of the enterprise. The research was conducted on data for the period 2017–2019. In order to demonstrate the reliability of the data obtained, the Cronbach alpha statistical calculation was used, which takes values in the range 0 to 1, the value 0.7 or more meaning high consistency, and reliability – i.e. the reliability of the analyzed data and conclusions.

When demonstrating the dependency of variables, the research will focus on the evaluation of the relationship between the level of maturity of the in-

novation plan and the indicators of financial analysis. The conclusions of the statistical analysis will be verified in experimental testing on individual SMEs to meet the objectives of the research – defining the main factors that promote or threaten the innovation activity of SMEs. The result should be obtaining knowledge about the key areas that are crucial for the successful innovation process of the enterprise.

### 2.1.1. Variables examined

Operative controlling – Evaluation of the execution and implementation of controlling activities in the short term. The level of controlling processes is evaluated based on the Capability Maturity Model Integration (CMMI) methodology.

Strategic controlling – Evaluation of the execution and implementation of controlling activities in the long term. The level of controlling processes is evaluated based on the CMMI methodology. The allocation of the assessment of the controlling activities is of particular importance with regard to the characteristics of innovations (process innovations – short to medium-term, product innovations – medium to long-term, strategic innovations – long-term).

Innovation plan – Level of existence, implementation and development of innovation plan in the examined business, with an emphasis on the methodology for the assessment of the success of innovations and the feedback for the development of the innovation plan.

Innovative audit – Level of conducting an innovative audit in the enterprise, its frequency, the acceptance of the conclusions as an impulse for continuous improvement – particularly in the area of business processes.

In the second phase of the research, there were examined the variables indicative of the financial health of the enterprise and its economic activity in relation to the innovation activities of the enterprise:

Annual turnover of the enterprise – the amount of funds received by SME in a specific period (the fiscal period).

Return on Equity (ROE) – return on equity capital  
 $ROE = EAT/\text{equity capital}$

Return on Assets (ROA) – return on the company assets  
 $ROA = EBIT/\text{assets}$

### 2.1.2. Correlation analysis

To determine the dependency of variables, the method of Pearson correlation coefficient calculation was used, which measures the strength of the linear dependency between two variables. The Pearson coefficient is a parametric statistical test to determine how close the correlation of the variables is (to 0.20 the correlation is negligible, 0.20-0.40 is not a very close correlation, 0.40-0.70 is moderately tight correlation; 0.70-0.90 is a very close correlation and more than 0.90 is an extremely close correlation). The results of the correlation analysis allow confirmation or refutation of the hypotheses *H1*, *H2* and *H3*.

### 2.1.3. Experimental testing

If at least the moderately close correlation relationship between the variables is proven, a research sample will be generated for further investigation. This sample will be then used for experimental verification in qualitative research in SME of the validity of detection of the correlation analysis with the emphasis on achieving the objectives of the research.

### 2.1.4. Definition of the basic key factors for the SMEs' successful innovation activities

Another part of the research will be carried out based on local surveys and structured interviews with the management and employees of the enterprise with the focus on the area of controlling, audit and innovation plan of the enterprise with a view of ascertaining the key factors for the successful innovation activities of the business.

## 3. EMPIRICAL RESULTS AND DISCUSSION

The data were analyzed using an IBM statistical program SPSS ver. 25.

### 3.1. Verifying the consistency and reliability of the examined sample and the reliability of the data analyzed

The analyzed sample  $n = 317$  was tested in the first stage in terms of the integrity of the tested variables using the SPSS program. The analyzed sample satisfied the data completeness to 100%. The next step was testing the reliability – the reliability of the analyzed data using the Cronbach Alpha calculation. The calculation of this indicator reached a value of 0.909. On the basis of this result, the examined data can be declared highly consistent and reliable.

### 3.2. Correlation analysis

The purpose of correlation analysis is to determine whether the variables selected for this research show the dependency in relation to the innovation plan of the enterprise. The results of the correlation analysis are given in Table 1.

The correlation analysis of the values of the examined variables confirmed the high level of correlation of the examined variables of the value of dependency that the Pearson correlation coefficient takes; can be interpreted in the variables of the innovation plan, operative controlling and audit as very tight. The correlation between strategic controlling and innovation plan can then be interpreted as a moderately tight to very tight correlation. It is however important to note that SMEs generally exhibit lower activity in the areas of strategic planning, which may explain the lower correlation coefficient in Table 1.

Based on these findings, the hypothesis *H1* can be declared partly established.

*H1: If the correlation of innovation activities of the enterprise and the degree of controlling implementation in SME has a very close relationship of the min. value of 0.7 of the Pearson correlation coefficient, the innovation activity of the enterprise can be supported by the development of the business's controlling management.*

**Table 1.** Correlation analysis of variables

Source: Processed by authors using SPSS.

Specifications		Innovation plan	Innovative audit	Operative controlling	Strategic controlling
Innovation plan	Pearson correlation	1	.774**	.834**	.622**
	Sig.(2-tailed)	–	.000	.000	.000
	N	317	317	317	317
Innovative audit	Pearson correlation	.774**	1	.715**	.636**
	Sig.(2-tailed)	.000	–	.000	.000
	N	317	317	317	317
Strategic controlling	Pearson correlation	.834**	.715**	1	.702**
	Sig.(2-tailed)	.000	.000	–	.000
	N	317	317	317	317
Operative controlling	Pearson correlation	.622**	.636**	.702**	1
	Sig.(2-tailed)	.000	.000	.000	–
	N	317	317	317	317

Note: \*\*Correlation is significant at the 0.01 level (2-tailed).

In the area of innovation activities and operative controlling, the Pearson correlation coefficient reaches the value of 0.834. In the area of innovation activities and strategic controlling, the Pearson correlation coefficient is at the level of 0.622, which can be also interpreted as a moderately tight condition. This finding also reflects the fact that SMEs place less emphasis on strategic controlling, nevertheless the dependency between strategic controlling and innovation activity of the enterprise is significant, and their correlation can be described as moderately tight.

In the area of innovation activities and innovative audit, the Pearson correlation coefficient reaches the value of 0.774. The hypothesis *H2* can be declared to be confirmed.

*H2: If the correlation of innovation and innovative audit plan has a very close correlation relationship of the min. value of 0.7 of the Pearson correlation coefficient, the innovation activities of the enterprise can be supported by the development of innovative audit.*

The dependency between the innovative plan of the enterprise, the operative and strategic controlling and the innovative audit confirms that the increase in the business's activity in the area of controlling and innovative audit at the same time supports the innovation activities of the

enterprise. This suggests that the increase in the activity of the examined variables will at the same time lead to the increase of the innovation activities of the enterprise.

The research was additionally focused on proving or disproving the hypothesis *H3*. To this effect, financial indicators ROA and ROE were analyzed along with the indicator of the turnover of the undertaking in relation to the innovative activities of the enterprise. This is described further in Table 2. The examined data did not confirm the hypothesis *H3* and it can be considered refuted.

*H3: If the observed correlation level of innovation activities, financial health and performance of the business achieve at least moderately the tight status of the min. Pearson correlation coefficient value of 0.4-0.7 – moderately tight correlation, consistent management of innovation activities can be declared to be essential for the financial health and performance of the business.*

Correlation analysis of the values examined of the variables confirmed negligible to not very tight correlation between the examined variables. As it is clear from the above findings, the financial health of the enterprise and its turnover are conditioned by other factors and the innovation plan in this case is only one of several critical factors.

**Table 2.** Correlation analysis between the innovation plan and the financial analysis indicators

Source: Processed by authors using SPSS.

Specifications		Innovation plan	Turnover x 1000	ROE	ROA
Innovation plan	Pearson correlation	1	.346**	.290**	.001**
	Sig. (2-tailed)	–	.000	.000	.987
	N	317	317	317	317
Turnover x 1000	Pearson correlation	.346**	1	.079**	-.020**
	Sig. (2-tailed)	.000	–	.159	.725
	N	317	317	317	317
ROE	Pearson correlation	.290**	.079**	1	.104**
	Sig. (2-tailed)	.000	.159	–	.066
	N	317	317	317	317
ROA	Pearson correlation	.001**	-.020**	.104**	1
	Sig. (2-tailed)	.987	.725	.066	–
	N	317	317	317	317

Note: \*\* Correlation is significant at the 0.01 level (2-tailed).

### 3.3. Definition of the key areas for the successful innovation activities of enterprise

The analysis of variables for the examined sample of SME n = 317, their dependencies and experimental testing, the key areas for the successful innovation activities of the enterprise were defined based on a qualitative research through a structured dialogue.

#### 3.3.1. Key factors for successful strategic innovations

Within the framework of defining the key factors for the successful strategic innovations, it can be concluded that in a SME controlled by a dominant (directive) manager, strategic steering is often suppressed at the cost of operational and intuitive management. As such reality implicates, the frequency of strategic innovations is lower in comparison with product and process innovations. In contrast, companies with a higher degree of controlling implementation and the degree of utilizing audit are usually more active in strategic business management of the business. Defining clear key areas for the successful strategic innovation in SME is difficult; the authors nevertheless suggest the following areas for doing so:

- Precise research and analysis of the environment – strategic innovations are associated with high costs and risks. Therefore, precise research

and analysis are necessary and help reduce the level of risk.

- Thorough planning of innovative objectives – strategic innovation is inherently a long-term project. Without thorough resource planning, a timeline and an effective control mechanism of achieving the objective, such project has no chance for success. In SME, this factor is often underestimated, which is usually associated with the extension of the period of implementation, failure of the innovation process and in extreme cases also the bankrupt of the enterprise.
- Controlling process – clearly defines the need for fundamental reform of strategic innovation or its termination in case the achievement of the set goals repeatedly fails. It is essential for the enterprise. Especially for SMEs it is in the area of strategic innovation very important to be able to discontinue a failed innovation and admit that the costs associated with it must be labelled as “sunk”. That situation can be avoided by carrying out a thorough, rigorous and cyclically innovative controlling so that the enterprise had, in the event that deviations occur, a space for response and timely correction.

#### 3.3.2. Key factors for successful product innovations

Increased activity and successfulness of product innovations are linked with higher level of im-

plementation of particular operative controlling. For the successful product innovations, all of the above factors can be used; the authors propose yet other:

- Precise marketing survey in order to determine market expectations, customer wishes and needs, sales forecasting – if the survey is insufficient, inaccurate or completely wrong, then the innovative activities of the enterprise are based on erroneous assumptions.
- Precise survey of competition – if it is not implemented or if it is incorrect, then the enterprise may invest in innovations that are used already by competing undertakings, or that are retreated from by them.
- Setting goals, plans and compliance – is a very common mistake in product innovation. In the aftermath of faulty planning and goal setting, there is a mistaken capacity and resources planning by the enterprise (financial, human, ...), when the innovative activity can be significantly damaged or completely terminated.
- Timing – product innovation can only be successful if introduced to the market with the right timing. If the product is launched to the market too early or on the contrary too late, entire innovation project may be devalued.
- Marketing innovation commercialization (marketing of innovations) – the right choice of marketing communication is crucial for the success of product innovation and it pays off to devote sufficient time and other resources to this aspect.
- Development of product innovation plan and product lifecycle management – especially in SMEs, this factor is often ignored and the enterprise exerts much effort and invests a lot in the promotion of a product that was once interesting for the market, failing to realize early enough that the market preferences have changed. To limit this effect, it is advisable to use for instance the Boston matrix, when an undertaking repeats that method at adequate regular intervals, monitors and predicts the

movement of the product in different sectors of the Boston matrix.

- Early termination of innovation project – in order to minimize losses in the event that milestones are not met is another quite frequent mistake of SME. Enterprise must clearly define the expected performance of product innovations and compare the actual values achieved to the planned state and, in case a deviation occurs, eliminate that as soon as possible. To that end, it is very convenient to use innovative controlling.

### **3.3.3. Key factors for successful process innovations**

This can be based on the factors listed in subsections 4.3.1 and 4.3.2. However, process innovation is different by nature. Processes in businesses should evolve over time along with the business. This however does not often happen, and the enterprise then clings to the processes that are inefficient and ossified due to the constantly changing business environment. Audit of the enterprise can be considered a key tool for process innovations. Based on the findings of the innovative audit, the enterprise then analyzes the existing processes and proposes innovation to those.

The human factor is fundamental and critical to the success of any innovation and in particular the process one. People in general tend to reject changes – specifically process innovations. There are many reasons for this behavior; it is however necessary to acknowledge that any process innovation, which will not be accepted by the human factor, will be doomed to failure. SMEs then in practice spend a considerable amount of time, energy and capital on process innovation and neglect to make a similar investment in communication, training and belief – it means in the acceptance of process innovation by the human factor.

Information system and effective form of communication are necessary for successful process innovations. Businesses are aware of that, but the implementation of information systems and innovations in corporate communication lag behind that awareness. The culprit is often the human factor again, as well as rejection of changes, but so is poor

choice of the information system and communication platform with respect to the size of the enterprise and its needs.

### 3.4. Innovative controlling

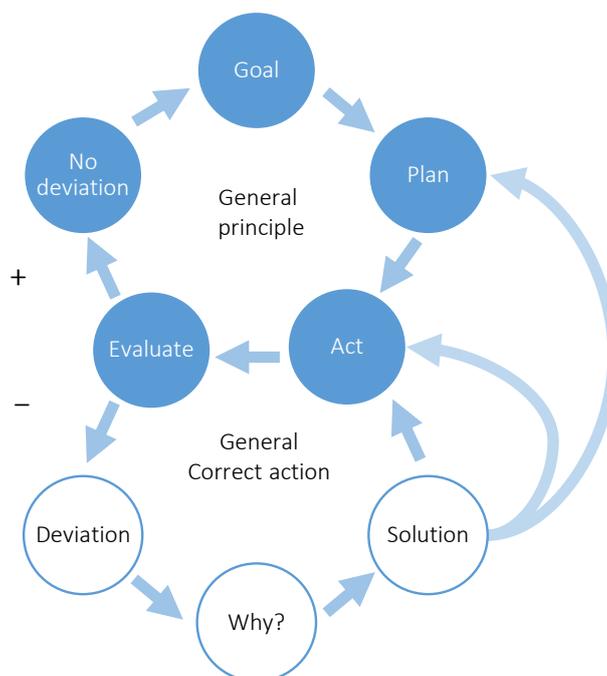
The research has identified that enterprises with greater involvement of controlling in the business management of the enterprise and innovations used a modern future-oriented controlling concept. In these enterprises, controlling is focused on the analysis of historical data and their comparisons with the current results, primarily for the purpose of more accurate planning and achieving the set goals. It is oriented to the future and is an ideal tool for managing innovations, especially product and strategic innovations. The main principle of controlling is explained in Figure 1.

- Innovative goal – most often it can be a product or process innovation. Controlling and its activities provide valuable data for creating the business strategy of the enterprise. Innovative controlling then usually triggers innovations of strategic nature.
- Innovation plan – describes the strategy to achieve the goal – a successful innovation. This plan includes planning of resources, risk

management, budget, expected outcomes and other essential components.

- Action – starting to implement the plan and continuing until the innovation goal is achieved.
- Measurement and evaluation – at a regular adequate interval continuously until the goal is achieved.
- No deviation is found – in this case, the process of innovation controlling will continue to achieve the goal.
- Deviation identified – if the innovation controlling process reveals a variation in the performance of an innovation goal, then it may be a deviation positive or negative.
- Negative deviation – the achievement of the innovation goal is threatened. The innovation fails to meet the planned expectations – these may be, for example, low sales, higher costs, poor quality, failure to meet customer expectations, failure to meet the expected deliveries, etc. Those negative deviations are then reflected back to the financial stability of the enterprise. A very significant step and role of

Source: Own processing by authors.



**Figure 1.** Main principle of innovative controlling

innovative controlling is considered the possible termination or a major restructuring of the innovation plan or the innovation. A common mistake especially in SMEs is fierce continuation of the innovation process with the expectation that the situation will change. Then controlling, when the possibilities for acceptable solutions are withdrawn, has to give a clear signal to end the innovative behavior of the enterprise.

- Positive deviation in innovative controlling – the first reaction to positive deviation is usually positive. Sell more than we expected, complete the innovation process faster, with less costs, etc., is positive. But only at first glance. In fact, a positive deviation indicates an error in the planning, inefficient utilization of resources, capital, and more. It may also be a lack of, or incorrect, testing of the innovation – i.e. a potential problem. The solution is precise planning and therefore optimization of the innovation result achieved.
- Why? At the time of detection of a deviation, i.e. the difference between the planned and the actually achieved status outside the tolerance band, it is necessary to immediately begin the analytical part of the process and examine the causes of the formation of the deviation in order to eliminate it.
- Solution – based on the deviation analysis, measures – solutions – are proposed. Where the solution proves to be wrong, then the enterprise tries out different solutions and continues until the detected deviation is eliminated. Innovation controlling usually detects weaknesses in the implementation of the innovation plan, in innovation planning or in an incorrectly set innovative goal – such as unrealistic expectations of sales in the case of product innovation. Less common is finding that the cause of formation of deviations is associated with an ineffective or erroneous innovative strategy of the enterprise, its mission and vision.

### 3.5. Innovative audit

Same as innovative controlling, innovative audit is focused on the future as well. Business processes

are viewed by the audit dynamically rather than statically. It therefore changes methodically from the control approach focused on the past, as is spoken about by Moeller (2011, p. 32), thanks to the innovative approaches. Primarily to the approaches focused on continuous auditing and remote controls. These changes additionally make possible to use the audit tools not only in large companies, but also in micro and small enterprises, particularly with regard to lower financial demands of the application of innovative audit. Innovative approaches primarily audit data collected remotely, without the necessity of physical presence at the audited workplace.

The methodology of innovative audit is based on the theories of Kupec (2017, p. 28), aimed at digital verifying of the business strategies. The above-mentioned approach can yet be implemented also in the auditing of selected corporate processes. Each corporate process entails a certain order, defined process and control points. If we are able to connect a process divided like that to the predefined automatic controls, these controls can continuously read out correct execution of the audited processes (continuous auditing). Possible deviations from the correct performance of individual processes are remotely sent to audit centers (remote controls) which either provide the appropriate remedy online, or arrange that correction offline on site.

The above referred-to approaches are based on the mentioned theories by Kupec (2017, p. 28), which primarily address the continuous verification of corporate strategies. With innovation activities of an enterprise, it is essential for that act to take place according to the previously known plan with a clear budget, sufficient production capacity, available human resources and, last but not least, the expected objectives.

## 4. DISCUSSION

The presented results have to be put into the proper interdisciplinary contexts, the results confronted with other controlling and audit theories and approaches – particularly in the context of the nowadays Industry 4.0 application of innovations. The significance of interdisciplinary approaches to SME is confirmed by Müller and Däschle (2018, p. 1), Petru,

Havlíček, and Tomášková (2018, p. 139) in terms of the resources and capacities for innovations by Jespersen, Rigamonti, Jensen, and Bysted (2018, p. 879). Particular significance of the application of the issue of controlling and auditing principles into innovative processes is emphasized by N. Vitezić and V. Vitezić (2015, p. 176) or Jukka, M. Niskanen, and J. Niskanen (2018, p. 450). They state that both disciplines, the controlling and auditing profession, in the future will play an important role in business.

The modern conception of controlling as a tool for the management of an enterprise's innovation activities in relation to the innovation plan has many important functions within an enterprise, which is primarily verified by Laval (2018, p. 13). Such approaches, intending to help the management to control processes, are recommended also by Benedic (2015, p. 153) who sees in them the importance of facing new challenges. This is also stressed out by Kamps (2013, p. 60) with regard to the monitoring and management of corporate and business processes.

The designed innovative audit also continuously monitors the compliance of the predetermined criteria on the selected business processes. The interdisciplinary verification of the suitability and importance of corporate processes monitoring is presented by Belas, Smrčka, Gavurova, and Dvorsky (2018, p. 1217) or Draheim (2010, p. 11). Nwaiwu (2018, p. 87) seems as important factor, if the depth required to understand how different industry segments are being shaped and transformed by digitization. Such audit approaches have in addition implications on the quality of the conducted audits, which is confirmed by Khudhaira, Al-Zubaidia, and Raji (2018, p. 272), since they are part of the innovated processes of modern SMEs. The examined SMEs yet need to be adequately paid attention to considering the fact that they are the cornerstone of any economy, as indicated by Belás, Dvorský, Kubálek, and Smrčka (2018, p. 81), and from the domestic perspective by Mares and Dlasková (2016, p. 79).

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## CONCLUSION

Innovations are the driving force of each enterprise. Innovations create competitive advantage of the enterprise and push it forward. At the same time, they however pose a great risk for the enterprise, since in case the innovation fails, the enterprise may face significant adverse effects, which in consequence may result in serious harm to the undertaking, or in extreme case, lead to bankruptcy. Innovation management is therefore one of the key areas for the enterprise in long-term evolution. The data gathered in the survey involving 317 SMEs and its analysis indicated how important it is to address controlling management and audit of an enterprise in order to increase the innovation activities and successfulness of the enterprise.

The basic key factors for the successful innovation activities of the enterprise were defined, as well as the weaknesses of the innovation activities of the enterprise and potential threats for SMEs. Processes of modern innovative controlling and audit were defined. The defined primary and secondary research objective has been met. The obtained knowledge also identified a number of interesting topics in the field of SME management and its innovative behavior. The findings of the research are applicable to other practical use and development. This can promote stability, competitiveness and successfulness of the innovation process in SME.

## ACKNOWLEDGEMENT

The result was created in solving the student project "Risk Management in Industry 4.0" using objective oriented support for specific university research of the University of Finance and Administration.

## REFERENCES

1. Belás, J., Dvorský, J., Kubálek, J., & Smrčka, L. (2018). Important factors of financial risk in the SME segment. *Journal of International Studies*, 11(1), 80-92. <https://doi.org/10.14254/2071-8330.2018/11-1/6>
2. Belas, J., Smrcka, L., Gavurova, B., & Dvorsky, J. (2018). The impact of social and economic factors in the credit risk management of SME. *Technological and Economic Development of Economy*, 24(3), 1289-1304. <https://doi.org/10.3846/tede.2018.1968>
3. Benedic, N. O. (2015). The Challenge of Controlling. *International Journal of Industrial Engineering and Management (IJIEEM)*, 6(4), 153-163.
4. Dobrovic, J., Gallo, P., Mihalcova, B., Stofova, L., & Szaryszova, P. (2018). Competitiveness Measurement in Terms of the Europe 2020 Strategy. *Journal of Competitiveness*, 10(4), 21-37. <https://doi.org/10.7441/joc.2018.04.02>
5. Draheim, D. (2010). *Business Process Technology: A Unified View on Business Processes, Workflows and Enterprise Applications* (306 p.). Berlin: Springer.
6. Goffin, K., & Mitchell, R. (2017). *Innovation Management: Effective Strategy and Implementation* (3rd ed.) (440 p.). London: Palgrave.
7. Goller, I., & Bessant, J. (2017). *Creativity for Innovation Management* (332 p.). New York: Routledge.
8. Jespersen, K., Rigamonti, D., Jensen, M. B., & Bysted, R. (2018). Analysis of SMEs partner proximity preferences for process innovation. *Small Business Economics*, 51(4), 879-904. <https://doi.org/10.1007/s11187-017-9969-0>
9. Jukka, K., Niskanen, M., & Niskanen, J. (2018). The effect of audit partner gender on modified audit opinions. *International Journal of Auditing*, 22(3), 449-463. <https://doi.org/10.1111/ijau.12130>
10. Kamps, T. (2013). *Systematic Chasing for Economic Success: An Innovation Management Approach* (120 p.). Hamburg: Anchor.
11. Khudhaira, D. Z., Al-Zubaidia, F. K. A., & Raji, A. A. (2018). The effect of board characteristics and audit committee characteristics on audit quality. *Management Science Letters*, 9, 271-282. <https://doi.org/10.5267/j.msl.2018.11.012>
12. Kupec, V. (2017). Digital Possibilities of Internal Audit. *Acta VŠFS*, 11(1), 28-44.
13. Laval, V. (2018). *How to Increase the Value-added of Controlling* (215 p.). Berlin: Gruyter.
14. Mares, D., & Dlasková, G. (2016). Small and Medium-Sized Enterprises – Opportunities and Challenges. *European Research Studies Journal*, 19(4), 78-87. Retrieved from <https://www.ersj.eu/journal/582>
15. Mares, D., & Petra, N. (2018). Stabilization factors of family enterprises in the context of macroeconomic performance. *European Research Studies Journal*, 21(1), 206-220. Retrieved from <https://www.ersj.eu/journal/942>
16. McKinsey and Company (2017). *Digital Czech Republic: How we grow* (120 p.). Praha.
17. Moeller, R. R. (2011). *COSO Enterprise Risk Management: Establishing Effective Governance, Risk, and Compliance* (2nd ed.) (384 p.). Chichester: John Wiley & Sons.
18. Mohammadrezaei, F., & Mohd-Saleh, N. (2018). Audit report lag: the role of auditor type and increased competition in the audit market. *Accounting and Finance*, 58(3), 885-920. <https://doi.org/10.1111/acfi.12237>
19. Müller, J. M., & Däschle, S. (2018). Business Model Innovation of Industry 4.0 Solution Providers Towards Customer Process Innovation. *Processes*, 6(12), 1-19. <https://doi.org/10.3390/pr6120260>
20. Nwaiwu, F. (2018). Review and Comparison of Conceptual Frameworks on Digital Business Transformation. *Journal of Competitiveness*, 10(3), 86-100. <https://doi.org/10.7441/joc.2018.03.06>
21. Petrů, N., Havlíček, K., & Tomášková, A. (2018). Comparison of Marketing Vitality of Family and Non Family Companies doing Business in the Czech Republic. *Economics and Sociology*, 11(2), 138-156. <https://doi.org/10.14254/2071-789X.2018/11-2/10>
22. Písař, P., & Havlíček, K. (2018). Advanced Controlling and Information Systems Methods as a Tool for Cohesion and Competitiveness of the European Union (1172 p.). *Proceedings of the 4th International Conference on European Integration 2018*. Ostrava.
23. Řepa, V. (2012). *Podnikové procesy – procesní řízení a modelování [Business Processes – Process Management and Modeling]* (2nd ed.) (304 p.). Praha: Grada.
24. Spencer Pickett, K. H. (2010). *The Internal Auditing Handbook* (3rd ed.) (1088 p.). Chichester: John Wiley & Sons.
25. Stanculescu, E. (2015). Innovation activity of small and medium enterprises in the European Union. Summary of supported concerns and poor results. *Knowledge Horizons. Economics*, 7(2), 72-76. Retrieved from <https://search.proquest.com/docview/1686096996?accountid=37662>
26. Svozilová, A. (2011). *Zlepšování podnikových procesů [Improvement of Business Processes]* (232 p.). Praha: Grada.
27. Vitezić, N., & Vitezić, V. (2015). A Conceptual Model of Linkage Between Innovation Management and Controlling in the Sustainable Environment. *The Journal of Applied Business Research*, 31(1), 175-185. <https://doi.org/10.19030/jabr.v31i1.8999>
28. Weske, M. (2012). *Business Process Management: Concepts, Languages, Architectures* (2nd ed.) (404 p.). Berlin: Springer.
29. Zacharias, N. (2011). *An Integrative Approach to Innovation Management: Patterns of Companies* (97 p.). Wiesbaden: Gabler.
30. Zaušková, A., Bobovnický, A., & Madleňák, A. (2013). How can the state support the innovations to build sustainable competitive advantage of the country. *Serbian Journal of Management*, 8(2), 255-267.