

Innovation Strategy in Slovak Businesses

V. Lendel and M. Varmus

Abstract—The aim of the paper is based on detailed analysis of literary sources and carried out research to develop a model development and implementation of innovation strategy in the business. The paper brings the main results of the authors conducted research on a sample of 462 respondents that shows the current situation in the Slovak enterprises in the use of innovation strategy. Carried out research and analysis provided the base for a model development and implementation of innovation strategy in the business, which is in the paper in detail, step by step explained with emphasis on the implementation process. Implementing the innovation strategy is described a separate model. Paper contains recommendations for successful implementation of innovation strategy in the business. These recommendations should serve mainly business managers as valuable tool in implementing the innovation strategy.

Keywords—innovation, innovation strategy, innovative management, innovative potential

I. INTRODUCTION

IN the current period marked by the economic crisis impacts, the innovations play an important role. Successful can only be those businesses that invest their funds into innovation and research. It is necessary to manage innovation activities in the business. The innovative strategy is the basic tool that determines the innovation direction of the business. Innovation strategy is based on business strategy and strategic goals.

In addition to innovation are emerging new concepts as lateral marketing, lateral thinking and the blue ocean strategy that create conditions for implementation of innovation and development of innovative strategies in the business. Lateral marketing is focused on market expansion and discovery of new customer needs and new uses of the product. Its purpose is to meet new needs, in other situations for other customer groups. The lateral marketing is closely related to lateral thinking, which is essential for successful implementation of innovative business strategies. It is a playful, provocative and associative thinking, which is not thematically limited, looking for original ways and procedures.

The basis of blue ocean strategy is value innovation that generating jump increases in value (both for business and for customers). Blue oceans represent a previously untapped market space. Competition in this space has no effect because the game rules are not created and waiting for their determination.

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Effective management of innovation processes in the business provides innovative management. Its aim is to continuously improve and deliver the flexibility to meet growing customer demands. The result of his efforts is to ensure competitiveness. However in the business it is necessary to create a system of innovative management for systematic and regular innovation, developing innovative corporate culture, creativity and creative thinking of employees.

Innovation Strategy is designed especially for businesses that innovate randomly and irregularly. They haven't clearly defined goals in terms of innovation and do not prosecute respond to market changes, competition and customer demands. Innovation strategy also helps businesses find new challenges for their development and growth.

Innovation Strategy is a management concept, consisting of many internal and external activities that enhance the innovative potential of the business. It is necessary to stress the importance and role of actors affecting the formation of an innovation strategy. These are the business employees, managers, as well as customers.

II. OBJECTIVE AND METHODOLOGY

The main aim of the paper is to acquire new knowledge in the field of innovation management focusing on the area of innovation strategies and highlight the possibility of creating models for creating an innovation strategy in a business that guarantees its successful implementation. Proposal of the appropriate recommendations can contribute considerably to the success of the development and implementation of innovation strategies in the business. It ought to serve as a practical tool for decision making in different parts of the development and implementation of innovation strategies in the business. The aim is to give the guide for successful implementation of innovation strategies in the business.

Solution of the examined issues in the paper requires the use of several methods depending on the character of each part of the solution.

For the acquisition and collection of information were used method of analysis of documents (when analyzing current and historical data relevant to the issue), questionnaire method and the method of semi-structured interviews (data collection in empirical research), method of observation (visiting businesses).

For the information processing was used mainly method of quantitative assessment (formation of statistical averages, percentages, application of statistical tests and other statistical methods) and the comparative method (when comparing data obtained from the relevant empirical research and the collation of data from the analysis of secondary sources).

For solve of the problem were used methods of induction, deduction, synthesis (in the development of procedure of model for create innovation strategies and formulate recommendations to business managers), abstraction and modelling (for the proposal of abstract and concrete systems of objects and relations between them).

III. THE CURRENT STATE OF DEALING WITH THE ISSUE

Among the professional public is currently debate about definition of innovation strategy and allocation of areas of their operation. Kováč [19] sees innovation strategy as determining long-term fundamental business goals and determines the activities and resources for achieving these goals. Orientation of goals is focused on timely response to changes in signalling of need of innovations. The above-mentioned variability of innovation strategy highlights Zaušková [33]. Innovation strategy is often called in the scientific literature such as e.g. scientific and technical, development-innovation or research and development strategy. Zaušková [33] gives some attention to the fact that the scope of the adjective (in the context of innovation strategy) may be wider, respectively narrower.

There are a few definitions of an innovation strategy in the literature, but each of these cover only a section of the overall role of an innovation strategy. Table 1 summarizes the definitions of the term innovation strategy.

Katz, du Preez and Schutte [18] classified the components into two main groups, namely the components that help in the selection of innovative initiatives and those that allocate innovation resources.

Based on the different roles and comprehensive definition of innovation strategy Katz, du Preez and Schutte (2010) presented nine key components for innovation strategy. These components provide the structure and content of innovation strategy. Components are a useful guide for selection of innovation and the allocation of resources, but also guide for decision-making process and to prepare for the possibility of significant changes (Fig. 1).

Based on a thorough analysis of domestic and foreign literature, we can proceed to the following definitions of innovation strategy:

"Innovation strategy is innovative direction of business approach to the choice of objectives, methods and ways to fully utilize and develop the innovative potential of the business. This is the direction given of its boundary, which determines the potential of innovative strategies." (Lendel & Varmus, 2011)

TABLE I
DEFINITIONS OF INNOVATION STRATEGY

Author(s)	Definition
Gilbert (1994)	Innovation strategy determines to what degree and in what way a firm attempts to use innovation to execute its business strategy and improve its performance.
Katz, Preez, Schutte (2010)	An innovation strategy is: <ul style="list-style-type: none"> – An incrementalist, functional, predetermined plan governing the allocation of resource to different types of innovations in order to achieve a business's overall corporate strategic objectives and, – A decision framework guiding a business about when and how it should selectively abandon the past and/or change its corporate strategy and objectives in order to focus on the business of the future.
Dodgson, Gann and Salter (2008)	An innovation strategy: <ul style="list-style-type: none"> – Helps firms decide in a, cumulative and sustainable manner, about the type of innovation that best match corporate objectives. – Guides decisions on how resources are to be used to meet a firm's objectives for innovation and thereby deliver value and build competitive advantage.
Strecker (2009)	Innovation strategy is defined as the sum of strategic choices a firm makes regarding its innovation activity. Innovation goals (ends) are not included – only means. Innovation strategy is considered a firm wide, cross-functional meta-strategy.
Bessant, Tidd (2007)	Innovation Strategy helps to understand what, why and when to carry out innovation activities.
Kováč (2007)	Innovation strategy is the introduction products of new generations or technologies developed at intervals, which interrupt the period of relative stability. Innovations bring a jump in productivity and market share.

Source: own elaboration

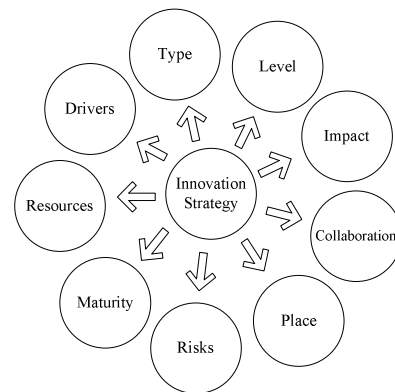


Fig. 1 Components of an innovation strategy
Source: (Katz, du Preez & Schutte, 2010)

Based on the analysis of domestic and foreign literature, we can also conclude that to the innovation strategy significantly affect five basic (key) elements. It can be written in the form of function with five variables that affect the implementation and actual realization of innovation strategy:

$$I_S = f(I_M, I_{PS}, L_T, P_C, O_S) \tag{1}$$

I_S – Innovation strategy

I_M – Innovation management,

- I_{ps} – Innovative potential of strategy,
 L_T – Lateral thinking,
 P_C – Pro-innovation climate,
 O_s – Organizational structure

Creating an innovation strategy is a complex process. Various authors state many variants of innovative strategies. Sabadka and Kováč (2004) consider innovation strategy as an integral part of an overall strategy that promotes innovation objectives. Šimková (2006) highlights the need to consider a range of factors. According to her the aim of creating of innovation strategy is find a balance between the potential for innovation, business and all relevant factors of the internal environment. According to Mihok (2010) to innovation strategy has the greatest impact innovative vision, innovation processes, organization, resources and innovation culture.

TABLE II
 MODELS OF CREATING OF INNOVATION STRATEGY AND THEIR STRUCTURE BY
 DIFFERENT AUTHORS

Author(s)	Structure of model of innovation strategy
Rudy (2004)	<ol style="list-style-type: none"> 1. Clarification of innovative ideas, 2. Formulate a vision of senior management, 3. Choice of effective ways of implementation.
Kadár a Vida (2007)	<ol style="list-style-type: none"> 1. Mapping and assessing the impact of ambient operating system (socio-cultural, economic, technological, political and legislative implications), 2. Analysis and evaluation of the internal environment (the products' own resources, structure and development), 3. Formulating competitive strategies (high productivity, quality and customer satisfaction, profit maximization, organizational growth, improved market position), 4. Elaboration of implementing programs and projects, 5. Evaluation of the effectiveness of innovation.
Šimková (2006)	<ol style="list-style-type: none"> 1. Analysis of the external environment (Step analysis, economic characteristics of the sector, analysis of industry dynamics, strategic maps, analysis of competitors, analysis of industry attractiveness) 2. Stakeholder analysis (opportunities and threats, strengths and weaknesses) 3. Internal environment analysis (evaluation of existing strategies, analysis of results in functional areas, vulnerability analysis, Space analysis, competitive analysis, key success factors).
Innovation Factory	<ol style="list-style-type: none"> 1. Strategic intelligence, 2. Identification of opportunities for innovation, 3. Evaluation of the possibilities for innovation, 4. Formulation of an innovation strategy, 5. Definition of the need for organisational structures and processes, 6. Definition of the required organisational competences
Mihok (2010)	<ol style="list-style-type: none"> 1. Define of innovation vision, 2. Assure of innovative processes, 3. Decentralize organization and agile management of internal and external resources, 4. Creating an innovation culture.

IV. EMPIRICAL RESEARCH - THE SITUATION IN THE SLOVAK BUSINESSES

We carried out research from May 2009 to end February 2011. His primary task was to obtain and interpret information about level of preparedness and the use of innovative strategies in the medium and large businesses operating in the Slovak Republic.

The target groups were medium and large businesses operating in Slovakia. Research object (the final respondents) was managers of high and middle level management of these businesses. The sample size was 348 respondents (medium and large) for the desired 95 % confidence interval and maximum permissible error of 5 %. Since the research involved 462 respondents, the sample is considered representative.

To the research were engaged businesses from the primary sector (7.79 %), from secondary (42.86 %) and especially from the tertiary sector (49.35 %). For objectification and better explanatory ability of the research were addressed medium and large businesses. Research involved 462 of the medium (87.01 %) and large (12.99 %) business operating in Slovakia.

During the research were contacted businesses with different dominant business concept. Most businesses were with customer orientation (50.60 %) and the least with a lateral orientation (only 3.90 %) (Fig. 2).

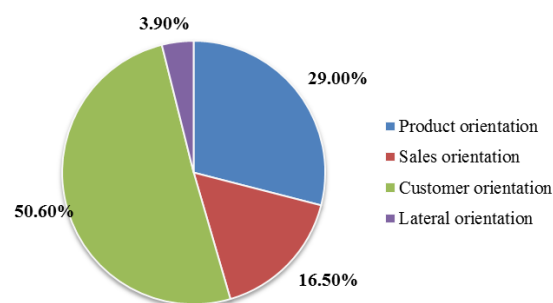


Fig. 2 Structure of the respondents based on dominant business concept

Source: own research

Among the innovative activities that most of the business deal is in particular the internal research and development (50.65 %), obtain of modern machinery, equipment, computer hardware and software (45.24 %) and training for innovative activity (38.53 %). Contrast, less apply innovative activities include an external research and development (12.34 %) and obtain of external knowledge (13.85 %). Only 1.30 % of the businesses don't do any innovative activities, what can be regarded as a positive fact (Fig. 3).

The biggest problem is the correct understanding of the fundamental of innovation strategy (Fig. 4), which is only average. Correct understanding of the fundamental of the innovation strategy referred only 12.34 % of respondents, who agrees with the opinion that this innovative direction of the business with the goal to exploit and develop its innovative potential. Up to 58.66 % of respondents defined the innovation

strategy as the innovation of a product or service. 15.37 % of the respondents perceived innovation strategy as the innovation of the business processes. Other respondents believe that it is a generation of creative business ideas (6.93 %), application change management (3.25 %) or a shift of corporate strategy for innovation (1.73 %).

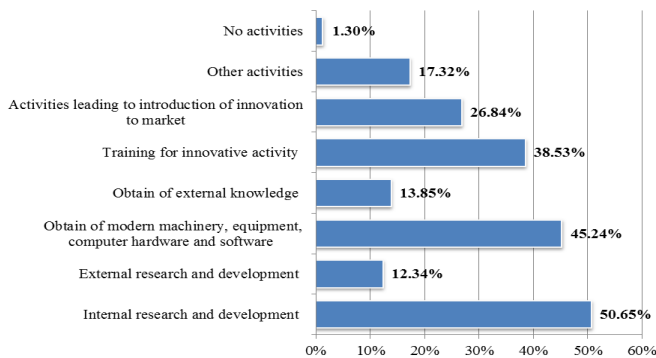


Fig. 3 The level of carried out innovation activities

Source: own research

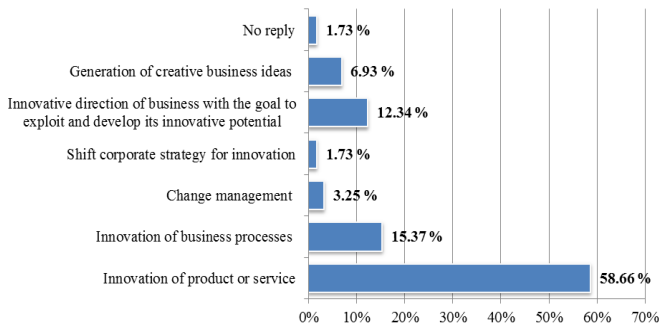


Fig. 4 Understanding the nature of innovation strategy

Source: own research

17.75 % of respondents did not deal with the issue of innovation strategy (Fig. 5). In the phase of the study is 8.66 % of respondents, 9.52 % are in the process of deciding on the significance of such a strategy for the business and 28.57 % of surveyed businesses are trying to implement an innovative strategy to business practice. 35.5 % of respondents said that the innovation strategy of their business is fully utilized, which we consider as a positive development. The experience of these businesses can make recommendations for the successful implementation of innovative strategies within the business.

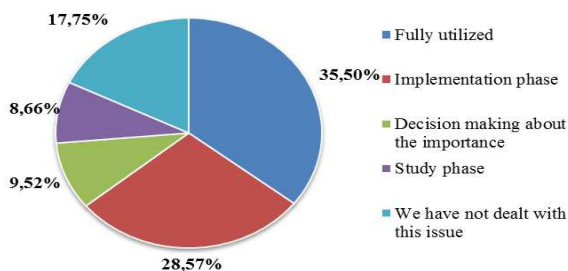


Fig. 5 The current state of implementation of innovation strategies in the business

Source: own research

In comparison (Fig. 6) of the expectations of business which have not yet applied innovation strategy and the findings of the businesses which already apply innovation strategy it is possible seen, that the expectations are more pessimistic than findings, and particularly in the case of creation of scenarios. Businesses that have applied innovative strategy seek to improve especially in achieving the goals of (6.97), market position (6.96), working with information and knowledge (6.93) and in work efficiency (6.81).



Fig. 6 Comparison of the expectations of business yet not applied the innovation strategy and the observed changes in business that apply innovation strategy

Source: own research

32.9 % of respondents regularly review the innovation strategy. The innovation strategy is reviewed by business managers frequently depending on customer needs (18.61 %). 9.09 % of respondents review the innovation strategy just in case of falling the identified indicators and 2.6 % of respondents depend from competition. Only 0.43 % of managers surveyed don't review the innovation strategy. Only 32.9 % of respondents don't apply innovative strategy (Fig. 7).

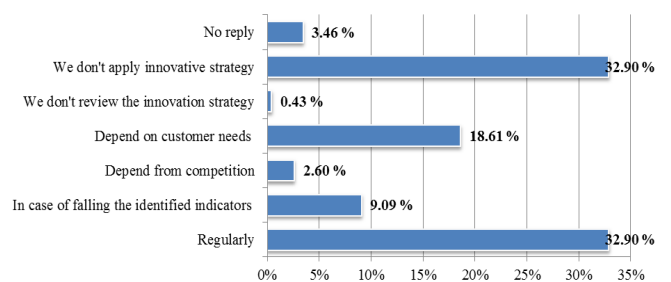


Fig. 7 Intensity of approach to innovation strategy

Source: own research

In Fig. 8 it is possible seen a positive fact that only 41.13 % of respondents record all the innovative ideas and use them if necessary. Contrasts to 18.83 % of respondents don't record the innovative ideas. 17.10 % of managers surveyed stated that their innovative ideas in business are always generated from scratch if necessary. 26.19 % of respondents use the analysis of innovative ideas in generated groups. Only 12.77 % of respondents have rating system of developed innovative ideas,

which is necessary for successful implementation of innovation strategy.

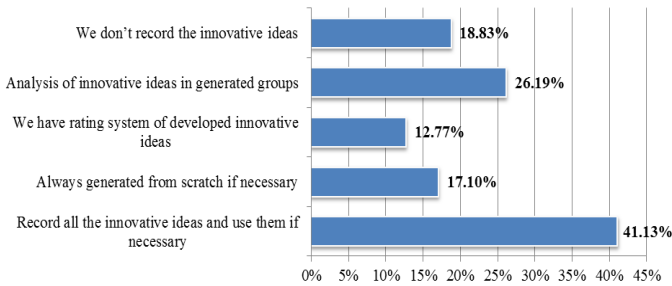


Fig. 8 Work with innovative ideas (inventiveness)

Source: own research

As regards the process of creating and applying innovation strategy in the business, 42.64 % of respondents identified that the most important is setting of strategic goals (Fig. 9). This phase focuses primarily on the formulation and definition of goals, innovative strategies to link business strategy and define key aspects of innovation activities. 26.84 % respondents considered that the analysis of business environment is the most important. Only 4.33 % of businesses considered the most important evaluation and control. Formulation of the strategy identified as the most important phase 13.2 % of surveyed managers. Implementation of innovation strategy involving the application of appropriate guidelines for the smooth conduct deemed to be the most important 12.99 % of respondents.

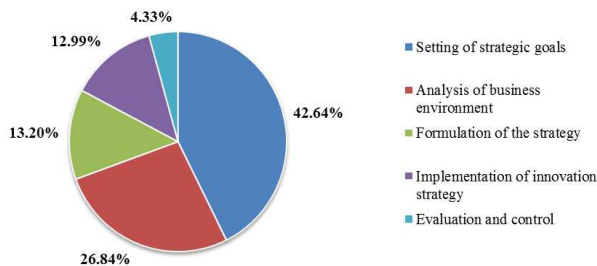


Fig. 9 The most important phase in the process of creation and implementation of innovation strategy according to the respondents
Source: own research

Managers of surveyed businesses were able to assign to each element of innovation strategy, importance level, respectively set priorities. As shown in Fig. 10, the highest priority the business managers have the elements of lateral thinking (7.60), pro-innovation environment (7.25) and work with innovation and knowledge in the process of innovation strategy (7.10). Conversely the lowest priorities have the innovative potential of the strategy (6.97), organizational structure (6.92), innovation management and managers (6.92).

In neither case does not exceed the performance evaluation the priorities of managers, what we consider to be unacceptable, especially when it is about innovation strategy. In all cases, we can see areas for improvement. The most notable differences are the elements of lateral thinking, innovation strategy, potential of strategy and pro-innovation environment.

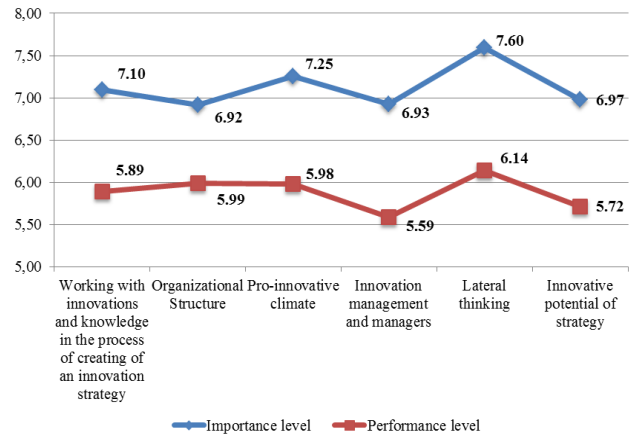


Fig. 10 Profile of performance innovation strategy in the business
Source: own research

As is shown in Fig. 11 up 46.97 % of businesses identified as a major problem for using innovation strategy in the business the lack of necessary funds. Other problems include the low level of employee motivation (31.60 %), technical and organizational complexity (31.60 %), lack of appropriate environment conducive to development of innovation (30.52 %) and insufficient use of available resources (24.03 %). For the smallest problem the managers considered the lack of trust between management and other departments (12.77 %), lack of information about technologies and markets (9.96 %) and lack of qualified personnel (only 2.60 %).

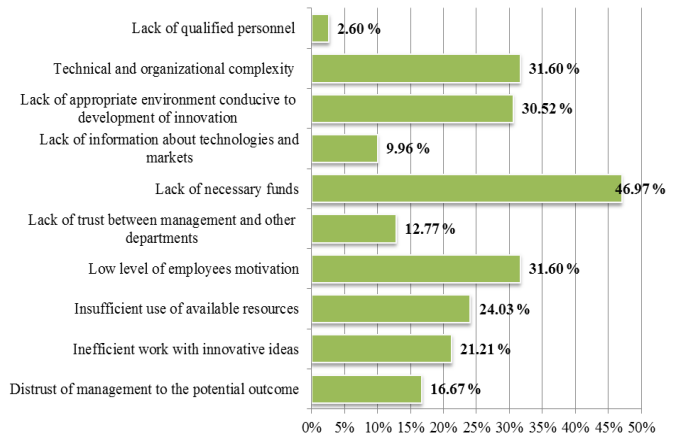


Fig. 11 The most common problems preventing the full exploitation of the innovation strategy
Source: own research

Qualitative test of independence confirmed that there is a relationship (dependence) between the application of the dominant business concept and the degree of preparedness for medium and large businesses to use innovation strategy.

V. PROPOSAL FOR A MODEL OF CREATION OF INNOVATION STRATEGY

The diversity of approaches of innovation strategy refers to the fact that innovation strategy as a system of work with

innovation in the business is evolving. Therefore, it is possible to create a relatively universal model that will ensure successful implementation and subsequent realization of innovation strategies. When creating a model of innovation strategy of business it should be suitably chosen structural (structural) elements of model so that it pointed to the importance of innovation in the business.

Referring to the opinions of many authors dealing with issues of model creation of innovation strategy in business and after a thorough analysis of the structure reported approach of innovation strategy; we designed the present model of innovative strategies. We took as a basis model of strategy by Jakubíková (2008). The process of innovation strategy is a complex process involving six basic parts. It is to define the vision and mission business, setting the strategic objectives, the realization of a detailed analysis of business environment (internal and external), strategy formulation, its implementation and subsequent evaluation linked to the control (Jakubíková, 2008).

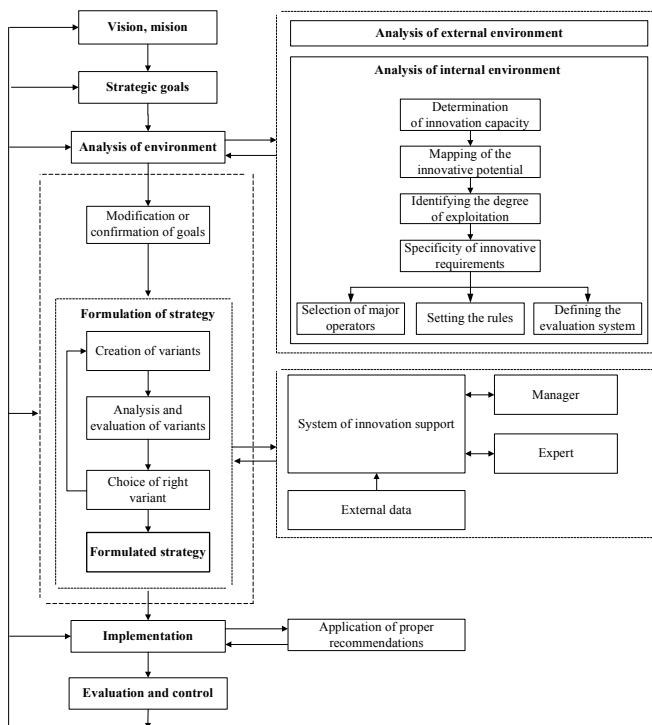


Fig. 12 Model of creation of innovation strategy

Source: own elaboration

This model (Fig. 12), we elaborated especially in the strategic goals sphere of the innovation strategy and its links to business strategy, analysis of internal environment of the business and strategy implementation, where we bring a new look in particular procedure for implementation of innovation strategy in business.

A. The strategic goals of the innovation strategy and its link to corporate strategy

Innovation Strategy provides a summary of strategic

decisions on which are managed and carried out innovative activities in the business. A successful innovation strategy has to have variants, i.e. it is processed in the variants that take into account past, present and expected future developments. Strategy has the long term character, taking into account all relevant factors operating in the business, as well as the time factor. For the implementation of innovation strategy is needed to ensure all available resources and its link with corporate strategy and other departments of business, especially with the marketing department and information technology. The business must have provided efficient collection and use of information and knowledge to support innovation. If to be created a good innovation strategy is essential that business managers were familiar with the details of business strategy.

B. Analysis of business environment

Preparation of an innovation strategy must be purposeful and based on analysis of internal and external environment, planning and innovative design. In the area of strategic analysis and planning is essential that the business make full use of appropriate methods of strategic management. The subject of strategic analysis is primarily scientific and technical capabilities of the business, competitors, the business's potential production (human capital, material and financial resources). Strategic analysis responds to important issues such as the existence of genuine research and development of business, the existence of new opportunities for the development of innovations, the existence of creative potential for the development of inventions and the like. This information significantly affects the creation process of innovation strategy.

Before the creation of innovation strategy in the business should be an audit of the current situation. An audit includes identification and analysis of human potential, competitors, partners, customers and business needs to create innovations. The broad methodological apparatus of strategic management is the base for analyze the starting position of a business. These are the methods of forecasting (experts, simulation, extrapolation, prognosis type scenarios), a conceptual methodological tools (SWOT analysis, BCG matrix, the matrix product - technology, map of project risks, SPACE analysis STEEP analysis, Porter analysis ...) and innovative graphs (method S-curves, J-curve method, the method of "gap analysis").

Analysis of internal environment includes identifying innovation capacity, innovation potential mapping, identifying the current level of use of the innovation capacity of innovation and specification of innovation requirements. Innovation capacity is composed of the summary of knowledge, experience, resources, assets, managerial capabilities and skills that are in business available, or they are able to obtained in due time.

C. Implementation of the strategy

On the basis of the detailed analysis and determination of different approaches in the lateral orientation of the business,

elements and the innovation process was developed the model for effective implementation of innovative strategies within the business. Implementation model of innovation strategy consists of four basic phases to follow each other:

1. Ensure of the information base,
2. Realization of organizational changes
3. Move to lateral thinking
4. Management of innovation processes.

D. Ensure of the information base

The first phase of implementation model highlights the need to ensure the information base that will provide important information and knowledge for management of innovation activities in the business (Fig. 13).

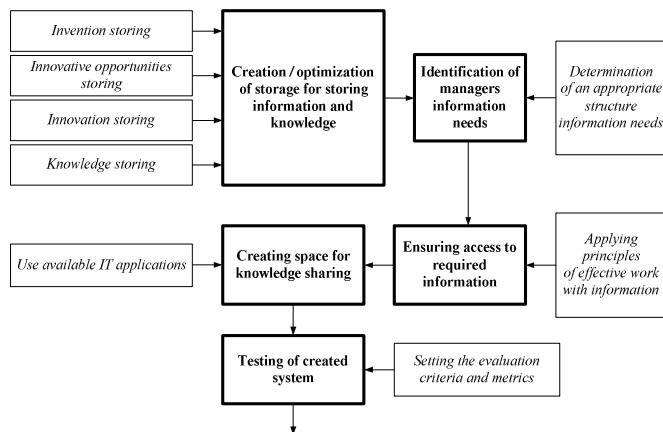


Fig. 13 Model information security base

Source: own elaboration

The first step is necessary to create, respectively optimize the storage for storing information and knowledge. This means ensuring the maintenance of inventions, innovation opportunities, innovation and knowledge. If it is well defined structure of information needs, it is possible identify the information needs in the next step and then precisely according to the principles of effective work with information to ensure access to the information to everyone who needs this information. Ensuring access to information is possible by creating an area available for sharing using IT applications. After determining the evaluation criteria and metrics must be created system tested.

E. Realization of organizational changes

If a business has secured the information base can then move smoothly into the second phase, whose main goal is to make the necessary organizational changes (Figure 14). When implementing an innovation strategy it needs to review and change their business strategy so that it reflected the plans of senior management in managing innovative activities, and subsequently to is supported the innovation strategy of business. This change may lead to affect of roles of more employees.

To create a vision of organizational change it is necessary to be perfectly familiar with corporate ties, organizational structure and set requirements. In preparation for organizational change is necessary to obtain the required knowledge, financial and personnel resources and then create the plan of organizational change. For the smooth progress of organizational change is necessary to communicate with employees and constantly monitor and evaluate the progress of these changes.

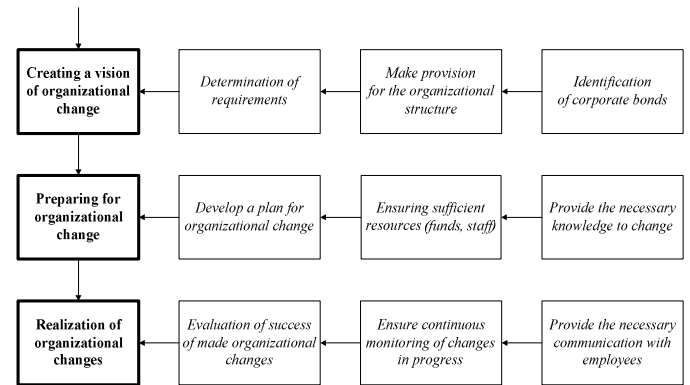


Fig. 14 Model of realization of organizational changes

Source: own elaboration

F. The move to lateral thinking

The business must move to lateral thinking (Fig. 15). Businesses wishing to be successful, should not focus solely on traditional methods, but should consider using a wide range of non-traditional practices, methods and techniques, based on which the goals of business are met.

The identification of strategic tasks is an essential step to move to a lateral thinking. Only by use a wide range of non-traditional practices, methods and techniques, and creating space for generating ideas can go to application of non-traditional procedure. Subsequently, based on continuous assessment of innovative security processes leads to effective management of innovation processes.

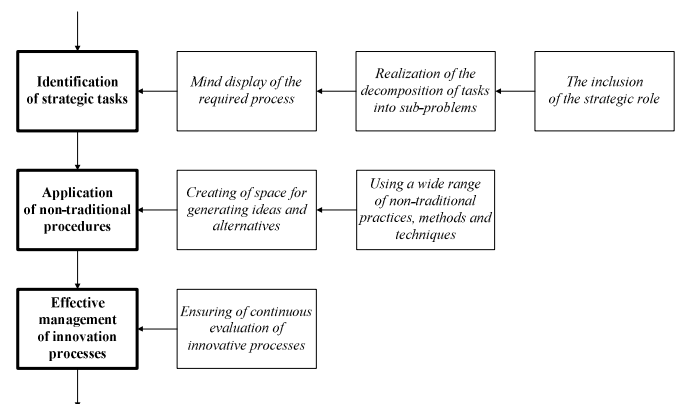


Fig. 15 Model of move to lateral thinking

Source: own elaboration

G. The management of innovation processes

If is provided the necessary information base in the business, were done organizational change and move on lateral thinking, then the business is ready to enter the fourth most important phase.

This stage is about management of innovation processes based on proposed practical recommendations (Fig. 16).

The most important part of this phase is to identify all the processes of innovation in the business. Only a thorough identification can detect missing or unrelated processes which in the future could cause a failure not only implementation but also the innovation strategy functioning. The business reveals lack processes above all on the base of the views of key employees. Understanding and description of processes (their definition) is the basis for continuous improvement of innovation processes.

The next step is to create maps of innovation processes. Its simplest form is a representation of gross scheme processes. In some (especially large) businesses are continuing after a detailed description of the selected processes - up to the level of processional chains, which are activated by a particular event and produce a concrete output.

Optimising of innovation processes is an important part of managing innovation processes in the business. This requires reengineering of innovative processes, implementation of the reorganization, the introduction of the performance of innovative processes and then ensure their continuous improvement.

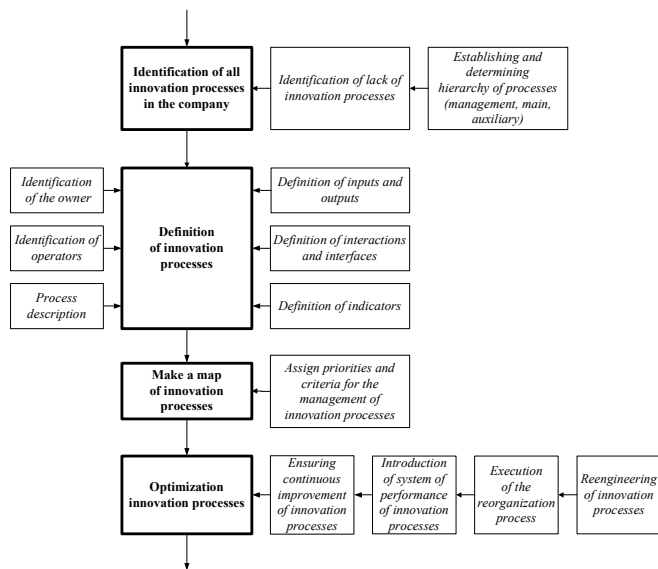


Fig. 16 Model of management of innovation processes

Source: own elaboration

VI. IDENTIFICATION OF THE MAIN PROBLEMS AND FORMULATING OF RECOMMENDATIONS

Creating innovation strategy in business, particularly services, is a complex process that requires detailed knowledge of the business environment. The failure of the formulation and subsequent implementation may be because of

several reasons that may have a different nature. For an example, it is an initiative aimed at marketing or production area, investment in research and development have been realized without the support to relevant business infrastructure, consider the current business innovation opportunities, analysis of innovation processes and the possible restructuring, to ensure effective work with inventiveness, innovative ideas and knowledge, lack of motivating employees to create and implement creative ideas without the support of lateral thinking, without encouraging the use of unconventional methods and techniques to solve business problems and in particular no links to corporate strategy as a basic building block for effective use of innovative potential.

On the other hand it should be noted that the reason for failure of implementation of innovation strategy in the business may be wrong formulated innovation strategy and analysis of innovation potential of businesses, as well as lack of support and attention from senior management of the business. Another important factor influencing the successful implementation of innovation strategy is themselves employees of the business if they wish to build and enhance the innovative potential of businesses to use the innovation capacity.

Business should be ready, that the process of creating and applying innovation strategy brings a number of risks. Otherwise, the creation of an innovation strategy is doomed to failure. Essential for success in this area is early identification of risk areas and then take the appropriate decisions to

TABLE III
IDENTIFICATION OF THE MAIN PROBLEMS AND FORMULATING OF RECOMMENDATIONS

Identified problem	Recommendations
<i>Ignoring of the inputs conditions</i>	<ul style="list-style-type: none"> – create characteristic indicators of introducing innovation strategy in business, – awareness of restrictions (time of introducing, the degree exploitation of innovation potential, risk of failure, the level of innovation capacity ...), – establish control points within the implementation of innovation strategy within the business.
<i>Absence of feedback</i>	<ul style="list-style-type: none"> – ensuring of ongoing evaluation implementation of innovation strategy in the business – clearly defined goals of introducing innovation strategy and measurable indicators – selection of appropriate metrics to assess the fulfilment of defined goals – clear definition and set of metrics, enabling better setting of measurable goals and to enable more efficient management of relevant parts of the business that affect its innovative approach, – set of metrics must be based on the main priorities in the management of innovative business activities.
<i>Lack of development of innovation program</i>	<ul style="list-style-type: none"> – carry out a detailed analysis of the current situation in the business – correct understanding of the role of technology in implementing the innovation strategy – quality mapping potential for innovation and administrative specify of innovation requirements – properly set up an evaluation system and rules.

<i>Errors in determining of strategic goals</i>	<ul style="list-style-type: none"> – a proper understanding of the innovation potential (good knowledge of the issue reached by studying literature, advice or appropriate professional training) – clarify the situation where the business wants to get by implementation of innovation strategy, – understanding of expected benefits and the way leading to their implementation, – a common vision.
<i>Exclusion of human factors</i>	<ul style="list-style-type: none"> – ensure of regular communication with employees to form a pro-innovation environment – allow to employees to participate in the development of innovation strategy – consideration and welcome ideas from business employees to create innovation strategy, – explain to staff the importance of innovation strategy for further direction undertaking – provide the necessary information for employees during each step of the implementation of innovation strategy.
<i>Automatization of previous incorrect innovation processes</i>	<ul style="list-style-type: none"> – identification and constant updating of innovation processes, – emphasis particular on processes that are directly related to the work of innovation, – identifying missing processes – attention to analyzing the current state of innovation processes, – Creating of own model of relations of innovation management (more Bartók, Ješka, 2006).
<i>Absence of system for evidence of innovative ideas, opportunities and innovations</i>	<ul style="list-style-type: none"> – evidence of innovative ideas and opportunities, including those which the business currently does not apply, – ensure the smooth flow of needed information about innovative ideas, opportunities and innovations in real-time – consider the use of IT applications for gathering and storing important data in a common database.
<i>Non-utilization of innovation potential</i>	<ul style="list-style-type: none"> – carry out a detailed analysis of the innovative capacity of business, – development incentive program to promote use of innovative potential by employees, – improve the conditions of the working environment to create pro-innovative climate, – staff training in the use of creativity.
<i>Insufficient starting point of formulated strategy</i>	<ul style="list-style-type: none"> – review of the business goals in relation to its desired innovative direction, – projection of innovations into long-term business plan, – concrete ideas about working with business innovation, including how to achieve it.

Source: own elaboration

increase the likelihood of successful implementation of innovation strategy in the business.

The following table gives details of identified possible areas of risks together with recommendations, which are designed to help reduce these risks. Also it is prevention and prerequisite for the successful operation of an innovative routing business.

VII. CONCLUSION

At present, most of businesses are aware of the significance and importance of innovation strategy. Almost every business is forced to approach to innovation, not just products and

services, but most processes. Effective management of innovation processes encourages innovative activities in business and will bring expected results in the future.

Innovation Strategy represents an innovative approach on a selective basis the objectives, methods and ways to develop and fully exploit the innovative potential of the business. Integrates new strategic approaches to managing innovation activities in the business, creates a common platform for recording and use of necessary information and knowledge related to innovation processes. When creating a model of innovation strategy has been used theory of strategic management and innovation management. In the literature the innovation strategy is also referred as scientific-technological, development of innovation or R&D strategy. Innovation Strategy involves determining the business objectives and determines the activities and resources to achieve them. Business through innovation strategy is capable of responding promptly to signalling changes the needs for innovation.

Based on the analysis (literature, empirical research carried out) were discovered the facts that helped to create the model and pointed out problem areas that affect the creation and implementation of innovation strategy in business. The collected theoretical aspects of innovation strategy with reference to the relationship to the concept of lateral as well as prepared methodological assumptions showed the absence of an integrated model development and implementation of innovation strategy in a business. The diversity of models of innovation strategy and structure pointed out that the innovation strategy is the subject of research and its definition is constantly evolving. Therefore, it is possible to create a universal model that will ensure successful creation and implementation of innovation strategy in a business.

Created model is based on the security of the interrelated activities (knowledge of the vision and mission, define strategic goals, evaluation of environment, strategy formulation, its implementation and evaluation). For the successful creation and operation model of innovation strategy in business is essential that the following elements of innovation strategy were analyzed, applied in business practice and created ties between them:

- work with innovation and knowledge
- organizational structure that supports innovation and the formation of pro-innovation environment
- lateral thinking
- pro-innovation environment
- innovative management and managers
- innovative potential of strategy.

Solution of the paper was aimed at the creation and implementation of innovation strategy in a business. The decisive outcome model is created. For the smooth progress have been developed the recommendations, which represent a valuable tool for managers in developing and implementing innovation strategy in the business. Recommendations are not

only for reducing the likelihood of problem areas and as prevent, but also as a tool to improve innovation processes in the business.

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REFERENCES

- [1] Aaker D.A. *Strategic Market Management*. Wiley; 7 edition, 2004. ISBN 978-0471484264.
- [2] Adair, J. *Leadership for Innovation*. London: Kogan Page Limited, 2009. ISBN 978-0-7494-5479-1.
- [3] Bartók, M., & Ješka, A. Procesy riadenia a implementácie inovácií vo firemných podmienkach. In: *Transfer inovácií 9/2006*, SJF, TU v Košiciach. ISBN 80-80-73-703-0. (pp. 222 – 224).
- [4] Beerel, A. *Leadership and Change Management*. London: SAGE Publications Ltd, 2009. ISBN 978-1-84787-341-5.
- [5] Damanpour, F. Organizational innovation: A meta-analysis of effects of determinants and moderators in *Academy of Management Journal*, 34(3), p. 555–590. 1991 ISSN 0001-4273.
- [6] De Bono, E. *Serious Creativity: Using the Power of Lateral Thinking to Create New Ideas*, HarperBusiness. 1993. ISBN 978-0887306358.
- [7] Dobni, C. B. The Relationship Between an Innovation Orientation and Competitive Strategy in *International Journal of Innovation Management* Vol. 14, No. 2, April 2010. p. 331–357. ISSN 1757-5877
- [8] Dodgson, M., Gann, D., SALTER, A. *The management of technological innovation: strategy and practice*, 2nd Edition, Oxford University Press. 2008.
- [9] Dupaľ, A., Baránek, I., Füzyová, L. *Manažment inovácií podniku*. Bratislava: Ekonóm. 1997. ISBN 80-225-0841-1.
- [10] Frappaolo, C. *Knowledge Management*. Chichester: Capstone Publishing Ltd., 2006. ISBN 1-841112-705-1.
- [11] Gilbert, J. T. Choosing an innovation strategy: theory and practice. In: *Business Horizons*. 1994.
- [12] Hamel, G. The Why, What and How of Innovation Management in *Harvard Business Review*, February, p. 72–84. 2006. ISSN 0017-8012.
- [13] Hittmár, Š. *Manažment*. Žilina: EDIS - vydavateľstvo ŽU, 2006. ISBN 80-8070-558-5.
- [14] Horňáková, R., Zaušková, A. *Vyhodnotenie inovačného potenciálu a inovatívnosti vo vybraných malých a stredných podnikoch drevospracujúceho priemyslu*. Zvolen: Technická univerzita vo Zvolene. 2008. ISBN 978-80-228-1889-6.
- [15] Jakubíková, D. *Strategický marketing. Stratégie a trendy*. Praha: Grada Publishing, 2008. ISBN 978-80-247-2690-8.
- [16] Johnson, J. Sholes, K. *Exploring Corporate Strategy: Text and Cases*: Financial Times/ Prentice Hall, 2006. ISBN 978-0273651123.
- [17] Kádár, G., Vída, M. Inovačný proces podniku. In: *Novus Scientia*. 2007. (pp. 202 – 208). ISBN 978-80-8073-922-5.
- [18] Katz, B. R., Du Preez, N. D., Schutte, C. S. L. *Definition and role of an innovation strategy*. [online]. [2011-01-02]. Available on Internet: <http://www.saiie.co.za/ocs/index.php/saiie/SAIE10/paper/view/119/72>.
- [19] Kováč, M. *Tvorba a riadenie inovácií*. Košice: Technická univerzita v Košiciach. 2007. 121 p. ISBN 80-8073-690-1.
- [20] Kováč, M., Sabadka, D. Model inovačného potenciálu podniku. In: *Transfer inovácií. 7/2004*. (pp. 3 – 6). ISBN 80-8073-222-1.
- [21] Lendel, V., Varmus, M. Creation and Implementation of the Innovation Strategy in the Enterprise. In: *Journal Economics and Management*. No. 16. 2011. p. 819 – 825. ISSN 1822-6515.
- [22] Mihok, J. et al. *Podpora inovácií Stratégie, nástroje, techniky a systémy*. Košice: Centrum inovácií a technického rozvoja, 2010. ISBN 987-80-970320-0-5.
- [23] Mintzberg, H., Lampel, J.B., Quinn, J.B., Ghoshal, S. *The Strategy Process: Concepts, Context, Cases* (4th Edition): Prentice Hall. 2002. ISBN 978-0130479136.
- [24] Molnár, P., Dupaľ, A. *Manažment inovácií podniku*. Bratislava: Ekonóm. 2002. ISBN 80-225-1642-2.
- [25] Rudy, V. Inovačná stratégia – prosperita malej firmy. In: *Transfer inovácií. 7/2004*. (pp. 166 – 168). ISBN 80-8073-222-1.
- [26] Sloane, P. *The Leader's Guide to Lateral Thinking Skills: Powerful Problem-solving Techniques to Ignite Your Team's Potential*. Nordwolk: Clays Ltd. 2003. ISBN 0-7494-4002-3.
- [27] Soviar, J. Cluster initiatives in Žilina region (Slovak republic) In: *Economics & Management*. ISSN 1822-6515. - No. 14 (2009), p. 528-534.
- [28] *Strategy formulation*. [online]. [2010-01-02]. Available on Internet. <http://www.innovationfactory.eu/how-do-we-do-it/consultancy/strategy-formulation/>
- [29] Strecker, N. *Innovation Strategy and Firm Performance: An Empirical Study of Publicly Listed Firms*. Gabler Verlag. 2009.
- [30] Šimková, H. Inovačný potenciál podniku – oblasť stratégie. In: *Národná a regionálna ekonomika VI*. Ekonomická fakulta TU v Košiciach. 2006. (pp. 400 – 403). ISBN 80-8073-721-5.
- [31] Tidd, J., Bessant, J., Pavitt, K. *Řízení inovací. Zavádění technologických, tržních a organizačních změn*. Brno: Computer Press. 549 p. 2007. ISBN 978-80-251-1466-7.
- [32] West, M.A., Farr, J.L. *Innovation at work. In Innovation and Creativity at work: Psychological and Organizational Strategies*, Chichester: Wiley. 1990. p. 3–13.
- [33] Zaušková, A. *Riadenie inovácií*. Zvolen: TU vo Zvolene. 220 p. 2006. ISBN 80-228-1634-5.
- [34] Zaušková, A., Loučanová, E. *Inovačný manažment*. Zvolen: TU. 2008. 91 p. ISBN 978-80-228-1953-4.