



The Use of Scenarios in Company's Planning

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Abstract. The current business environment is full of constant and rapid changes, to which companies must respond adequately and promptly if they want to maintain their market position. Most changes in the environment cannot be directly influenced by companies, they can only adapt to the new situation. The current changes are so rapid and surprising that it is not enough to stick to best practices and proven strategies in business management. Many strategic planning tools are too static and deal with the past and present of companies, but not with their future. Therefore, it is necessary to look for tools that will be compatible with the strategy and direction of the company, help it prepare for the future - better and worse, and give the company the opportunity to survive the difficult periods that regularly occur in the global economic environment. One of the methods that can be used for this purpose is scenario planning. This paper will address the importance of scenario planning in strategic business planning. The created General model of scenario planning environment explains how to incorporate scenarios into the strategy management system. Empirical research was conducted that assesses the readiness rate of companies to use scenarios for long-term planning in Slovakia.

Keywords: Scenario planning · Scenario · Strategy · Business planning · Enterprise · Model

1 Introduction

The occurrence of crisis situations as well as the need for consistent strategic decisions for the development of the company's future requires the adoption of various measures and changes in the corporate activities management [13]. Most managers expect that the changes they introduce will bring positive business results, such as profit growth, increase in the number of customers, increase in process efficiency and others. However, the results of measures and changes can be arbitrary in unpredictable situations, despite expectations. The company may strengthen its position and increase its market share or it will have to reduce its activities, lay off employees or close down, as was the case of many global and Slovak companies during the economic crisis. The period of crisis is usually accompanied by the emergence of many new businesses and the emergence of new innovations and ideas, because the confusion and emerging gaps in the market offer space for these activities. Businesses are either very flexible and adaptable, they

are "wise" and know how to take advantage of new situations and opportunities, they are simply lucky or they are prepared for something unexpected to happen.

The planning process has an irreplaceable function in the company system. Without planning, the implementation of business processes would be confusing and often would not even be implemented at all. Planning itself is a system and represents the important existence of interconnected elements and activities that take place in a constant cycle. It is also important to keep in mind the decision-making process that is part of every step of planning, as well as other management processes. The role of business managers is to ensure that the company survives and is successful in a highly competitive environment based on thorough planning and the right decisions.

Market development, the speed of changes in the company's internal and external environment, market volatility and factors whose impact on the company cannot ultimately be precisely determined. One of the tasks of planning is not only to prescribe the implementation of processes in the company, but also to create a possible future for the company, about which no one can say for sure what it will actually be. The future of the company deals with long-term planning and affects all activities of the company. Managers have at their disposal many different techniques and methods that enable quality implementation of the entire planning process. Many of these methods are a means of traditional planning path. The rapid development of the market, the turbulence of the environment, where there are big changes that business managers could not even imagine a few years ago, the influence of customers on business activities has a growing tendency and customers are involved in many processes, requires new non-traditional practices.

Scenario planning, when properly applied, helps a company prepare for unforeseen events. The scenario planning process is not simple, so it is necessary to thoroughly incorporate scenarios into the long-term business planning system, create a corporate climate that will be acceptable for the implementation of created scenarios and especially to attract managers and employees and involve all stakeholders in the whole process.

The method of creating scenarios intended for long-term planning is not new at all. Scenarios focus primarily on creating several possible futures and have many uses. Their main purpose is to build a resilient strategy and a company that can withstand the effects of the environment by being prepared for them. Scenarios help solve crisis situations, test existing business strategies, and serve to develop business proactivity, creativity, and the imagination of managers about what they will do when a situation arises and they have to deal with it.

In terms of the focus of scenarios and the purpose of their use, they need to be closely linked to the strategy management system. Therefore, it is necessary to appeal to the level of business processes and basic elements that are necessary for the company to be able to implement its strategy. The intention is therefore to create a suitable environment for the implementation of scenarios and their successful use.

It is important to find and develop a suitable scenario planning process for the company that plans to use this method. Business managers should focus on linking scenario planning process with the strategy management system. Both processes should be as compatible as possible. It is important to monitor the reasons for which scenarios are used and to look for their weaknesses, which could be complemented by other available

planning methods. The purpose of introducing the scenario method into the company's management system is to reduce the company's uncertainty in the necessary decisions and to create an apparatus that will be relatively easy to apply and beneficial in its procedures. Scenarios are often confused with forecasting, which is one of the possible tools used to create scenarios. Managers can view scenarios with great distrust that stem from the uncertainty of what will happen in the future and are reluctant to try new unknown practices in business planning.

Due to the complexity of the examined area of scenario planning, it is therefore necessary to monitor the development of the scenario method and look for advantages and benefits that will be usable in the conditions of companies. The intention of the created proposals is to set the basic process of introducing the method of scenarios into the company management system so that scenarios can be implemented into the planning systems of companies in Slovakia and abroad. In the event of a crisis situation, the company will be ready and will be able to draw up a specific scenario according to which it will proceed in its activities in order to be able to respond to the crisis in a timely manner. For this purpose, a research was carried out on the readiness of companies in Slovakia for the possible implementation of scenario planning. Research and its results can be used in the process of sharing knowledge between managers in Slovakia and abroad. Based on knowledge from the world literature, knowledge of business planning, creation and implementation of business strategy and research results, a general model of the scenario planning environment was created.

2 Literature Review

The first mention in the history of the future that could occur is divination. Futurology - the science of the future denies divination and deals with the use of various scientific methods. Flechthaim authored the term and first introduced it in a article in the Atlantic University of Phylon (1943) entitled: Toynbee and the Webers: Remarks on Their Theories of History. According to Flechtheim, "futurology consists of futuristic, forecasting and planning. Futurology includes the philosophy, politics and pedagogy of the future [2]. I. Klinec states that "futurology is the science of exploring the future. Creates alternative scenarios of possible future development of the company [4, p. 229]. He expressed the opinion that "futurology was a politically undesirable science and for this reason a prognosis was made [4, p. 210]. Scenario planning is part of the scientific field: Futurology, which is part of strategic planning. Strategic foresight has emerged as an attempt to distinguish between futurology and futurological studies. The difference between strategic foresight and futurology is that strategic foresight results in several alternative scenarios for a possible future, while futurology provides a definitive picture of the future.

2.1 Scenario Planning Process

As the business environment becomes increasingly volatile and new uncertainties emerge, the need for more rigorous preparation for the future increases. Therefore, there is space for the involvement of scenario planning in long-term business planning.

According to Schoemaker (1995), scenario planning is the difference between chaos and business management day after day with certainty and foresight [9, 11]. This view is very similar to the characteristics of planning as such. The concept of foresight appears here, which is a feature of scenario planning. Ringland combines scenario planning with an apparatus designed for its implementation. According to him, scenario planning is the part of strategic planning that is associated with tools and techniques designed to manage the uncertainties of the future [7, p. 4]. The definition precisely defines that scenario planning is only considered as part of strategic planning, so that its very existence is not possible and it includes methods, techniques and procedures by which the company prepares for the future. According to De Geus, scenarios are tools designed to discuss predictions and documents that are not intended to be a prediction or a plan, but a change in the minds of the people who use them [1]. Kahane argues that scenario planning is primarily a diagnostic tool designed for conditions in which uncertainty prevails [8]. It states that scenario planning not only uses various tools and techniques, but itself is a targeted tool in the hands of managers, which is designed to reveal uncertainties in the company's environment. Porter (1985) looked at scenario planning more comprehensively, arguing that it was: an internally consistent view of how the future might turn out - not a prediction, but one possible outcome of the future [5, 6]. Schwartz (1991) focuses on deciding on a possible future from the perspective of the individual, and according to him, scenario planning is a tool designed to organize the perception of an alternative future in one person's environment in which his decisions can take place [10]. The importance and essence of decision-making, which is part of all management processes, is emphasized.

All the mentioned definitions and opinions are very diverse, each author focuses on a certain meaning and purpose of scenario planning. The authors complement each other or, on the contrary, partially contradict each other, so it is possible to state the following from the overall overview of the problem: "Scenario planning as a part of long-term planning is a means of creating several possible images of the future of the company's environment in the form of scenarios that could support the implementation of the company's strategy after their implementation." [12].

If managers want to use scenario planning, they must see the scenario planning process in an organizational context and they must understand how scenario planning fits into the organizational system as a subsystem with its own inputs, processes, outputs, and feedback loops. At the Fig. 1 it is shown the performance-based scenario system where it is described shortly the process of scenario creating. The system consists of 5 phases [3, p. 66]: 1. Project preparation, 2. Scenario exploration, 3. Scenario development, 4. Scenario implementation, 5. Project assessment.

3 Research Methodology

The research was carried out in order to obtain data and their subsequent interpretation in the field of long-term business planning and their preparation for the future through the use of various available tools and techniques. The research was mainly focused on examining the degree of readiness of companies for the use of scenario planning procedures in long-term planning of companies. All phases of the research were carried

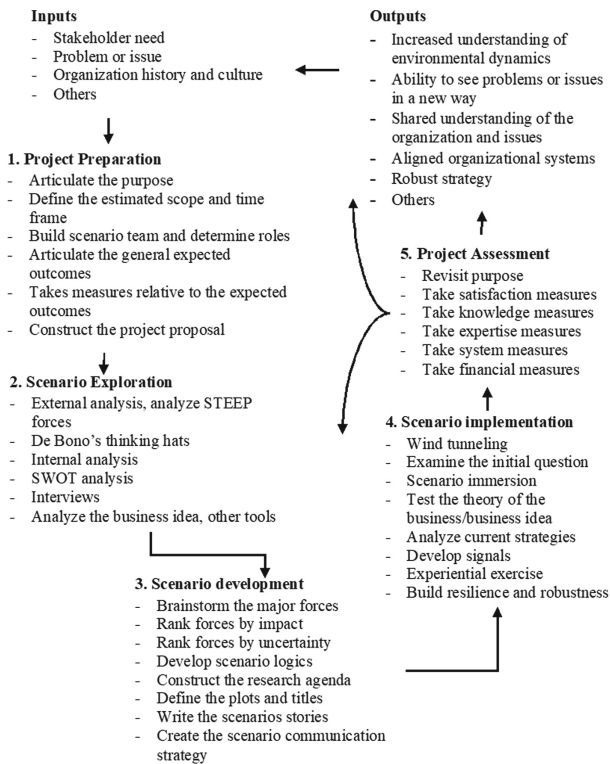


Fig. 1. The performance-based scenario system [3]

out in the period from July 2012 to December 2012. 4969 companies were contacted for research purposes. 133 directors were involved and cooperated in the research.

Data were obtained through an electronic questionnaire, personal interviews and also through a secondary survey (analysis of available written and Internet sources). In addition to the basic programs MS Word and Excel, the program SPSS 2.0 (Software package used for statistical analysis) from IBM was used for data processing. Primary data were obtained from a questionnaire survey conducted on a certain sample of respondents and from personal interviews that took place in selected companies. The questionnaire contained 48 claims divided into five research areas. The questions that have become the subject of quantitative research are linked to individual hypotheses so that the answers to them clearly confirm or refute the stated hypotheses of the research. In personal interviews, the method of semi-structured interview was used to clarify the situation in the company and the important relationships between some key business elements. Secondary data were obtained mainly from the Internet, professional literature, scientific articles, etc. Further data were drawn from the Statistical Office of the Slovak Republic.

The research problem was identified as: *Insufficient control and application of the principle of scenario planning in the strategic management of the company, which causes a reduced ability of the company to respond to the effects of external environments.*

The aim of the research was to identify, evaluate procedures and techniques that help companies work with the strategy and assess the degree of their readiness to use scenarios in long-term planning. Based on the tent goal of the research, 5 areas of research were determined: 1. Criteria of success and development of the company, 2. Personnel capacity in creating a company strategy, 3. Work with the company's strategy, 4. Critical areas of company management, 5. Identification of the company. Based on the stated goal of the research and the intentions of the research areas, the following research hypotheses were established:

H1: More than 60% of business managers are prepared to apply scenario planning procedures at least at an acceptable level.

H2: The current state of application of scenario planning procedures in medium-sized enterprises is comparable to the state of application of scenario planning procedures in large enterprises.

H3: More than 60% of managers of large and medium-sized companies consider the most important prerequisites for creating a strategy using scenario planning of employee knowledge and management systems in the company.

H4: There is a significant dependence between the degree of readiness of medium and large enterprises to apply scenario planning procedures and the long-term direction of enterprises.

Experts who participated in the research, based on their experience, evaluated that as a representative sample and a critical measure of the overall readiness of the surveyed companies in Slovakia will be a sufficient number of 60% of managers of the surveyed companies (accepted for hypotheses H1 and H3). The data is indicative and provides an idea and measure of the state of preparedness of companies.

4 Analyses

Before starting the scenario planning process, it is necessary to verify whether the process is suitable for the company and the company is able to perform all process activities in a form that makes sense and will show the desired results. Companies are encouraged to start creating scenarios in their comprehensive form if:

- the company is well placed to implement the scenarios,
- the company has a sophisticated system of work with strategy or a system of long-term planning,
- there are no other facts that could prevent or devalue the correct creation of scenarios and their implementation.

In order to achieve the intentions and expectations from the implementation of scenario planning in the corporate strategy, it will be necessary to eliminate problems that the company already knows about or which will be identified in the initial stages of the scenario creation process. Depending on the situation, some issues may need to be addressed immediately or during the planning process or may be resolved during scenario

implementation. Some of the problems, which were identified as key for the company and should be gradually eliminated, have been the subject of quantitative research in companies. Identified problems are:

- a problem with the company's strategy, e. g. the strategy is vaguely formulated, the goals of the company are incorrectly set, problems in terms of implementation of individual activities, incorrectly divided competencies of employees, etc.,
- absence of competent and responsible staff,
- absent or malfunctioning enterprise information system,
- absent or malfunctioning controlling system,
- incorrect, resp. improperly functioning organizational structure of the company,
- insufficient cooperation between the various departments of the undertaking,
- individual (supportive) activities of the company are inefficient, or they don't make sense at all,
- missing, resp. inappropriately set up motivation system of the company.

The large number of identified problems and the low level of the company's ability to solve them leads to the assumption that companies will not have a satisfactory level of strategic planning and this may prevent managers from implementing the main processes related to the process of preparing the company environment for scenario planning and final implementation of scenarios in the company environment.

On this assumption, complex elements were selected, which cover the most important areas for an adequately prepared company environment for scenario planning. Selected elements were included in the first version of the General model of scenario planning environment. Parts of the model together with the identified problems were broken down into research questions, which were asked by the manager during the research. Based on the used analytical methods and statistical processing of the research, parts of the model were modified and its final version is the subject of discussion in Sect. 5.

Micro (32.33%), small (17.29%), medium-sized (24.06%) and large enterprises (26.32%) participated in the research. All hypotheses that were the subject of the research were confirmed by statistical processing.

H1 verification: Based on the use of the enterprise readiness index for scenario planning, it was found that 68.42% of enterprises are ready for the application of scenario planning procedures.

H2 verification: Based on the test of agreement of two proportion of the basic sets, it can be argued that the current state of application of scenario planning procedures in medium-sized enterprises is comparable to the state of application of scenario planning procedures in large enterprises.

H3 verification: Cluster analysis was used to verify this hypothesis. The research confirmed that the managers of the surveyed companies consider the knowledge of employees and company management systems to be most important for the creation of a strategy using scenario planning.

H4 verification: The hypothesis was accepted on the basis of a test of the independence of quantitative features. There was a significant dependence between the degree of readiness of medium-sized and large enterprises to apply scenario planning procedures and

their long-term direction. Acceptance of this hypothesis is important, because it can be concluded that companies are preparing for the future precisely because of the desired change, in which they see great potential and begin to identify with ideas that will allow them to adopt new ways of dealing with situations.

The comprehensive processing of research is an extensive part of the processed dissertation thesis focused on the Using of scenarios in company's planning [12].

5 Design of a Model of Compatible Use of Scenario Planning in the Process of Creating a Business Strategy

The proposed solution, processed into a model, focuses on determining the conditions, procedures and possibilities for the effective use of the scenario method in long-term business planning. For its use and further elaboration, it was necessary to identify relevant elements influencing the scenario planning process. Relevant elements were selected on the basis of an analysis of the current state of the research problem and incorporated into the general model of scenario planning (see Fig. 2). Selected elements of the proposed general model were used in the research. Thus, a survey was conducted on the readiness of companies for scenario planning, and at the same time the importance and the current state of the incorporated components of the model was verified in advance. Based on the findings, the model was modified to the form that is presented in this discussion.

The model shows the interconnection of the scenario creation process, strategy management system, key success factors of the company, stakeholders and involved people (people directly influencing the creation of scenarios). Captured changes based on external and interactive environments can cause many problems. Scenario planning is a tool designed to prevent them.

The scenario planning system is part of the strategic planning of the company. Therefore, another condition for the possible creation and implementation of scenarios as a tool for shaping the future of the company is a functional strategic system or a system for long-term planning (hereinafter a system for working with strategy). The systems should be interconnected and their activities must be interlinked and consecutive. This will prevent the implementation of duplicate and redundant activities in individual stages of processes.

Figure 3 illustrates a simple strategy process linked to a scenario creation process that represents the basic idea and function of using scenarios in enterprise planning. The scenario creation process has a simplified form compared to the whole system, because it takes into account only the influences of the external environment and does not include internal influences. The model serves to simply represent the two principles of the systems on which further proposals are based. The mentioned model of the scenario creation process can also be connected with the model of the planning process. This means that the scenario method is applicable in different systems and activities depending on its adaptation.

If a company has decided to use a scenario planning system but has found that it does not have a functioning strategy system, it will be necessary to create a new one or modify the original strategy system of the company.

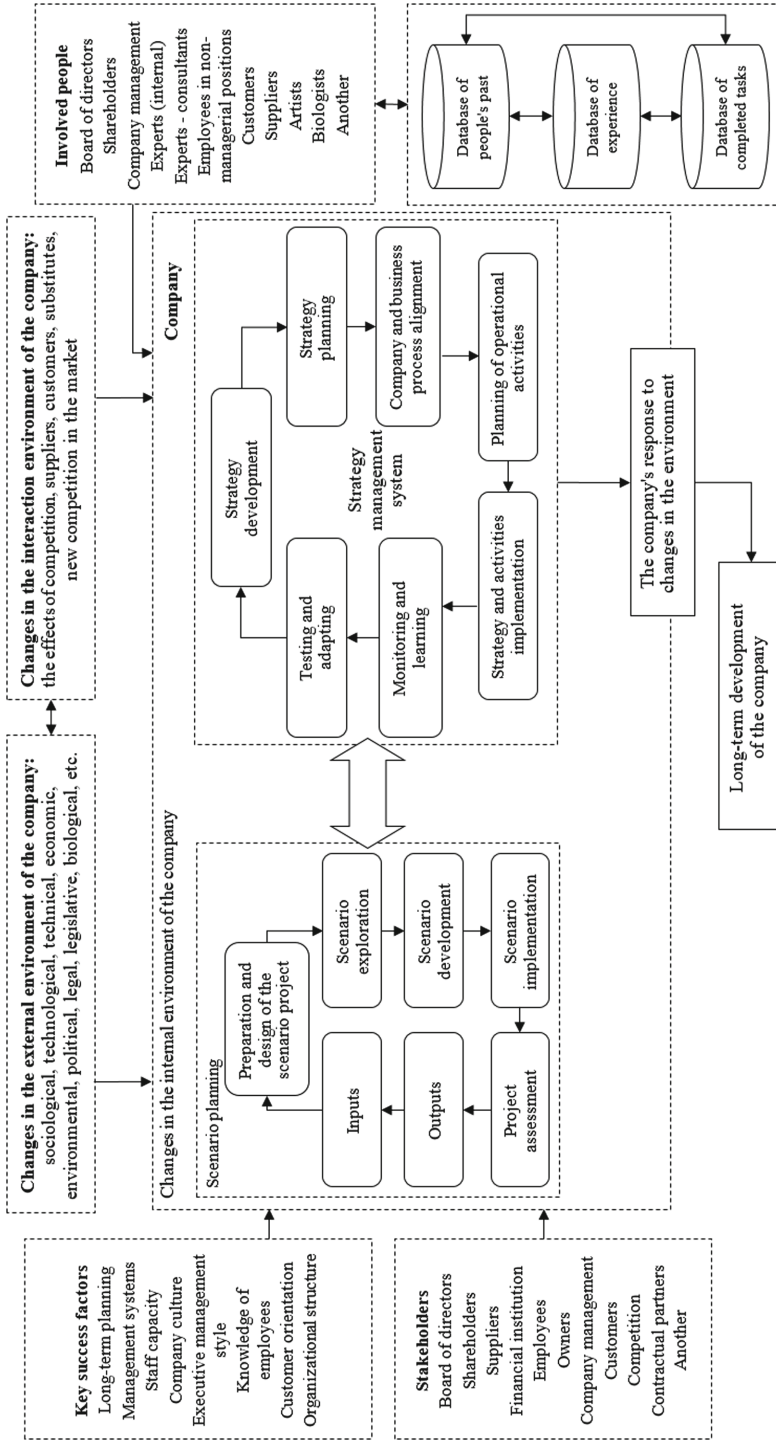


Fig. 2. General model of scenario planning environment [6]

Figure 4 shows a model situation where two systems are interconnected: a strategy management system and scenario planning. Both systems are created synchronously (or the functionality of the strategy management system is restored) under certain conditions. From the point of view of time and implementation of processes in the company, it may be more advantageous to perform some activities continuously and gradually supplement them as needed. The phases of the strategy management system are designated from 1 to 6 (F1–F6) and the phases of the scenario planning system are designated from 1a to 5a (F1a–F5a).

If the company is interested in the possibility of implementing scenarios in the strategic planning, its main goals may be the following:

- reducing the degree of business uncertainty,
- trying to find out about the possible future of the company,
- creating a more resilient strategy,
- building a more resilient company,
- increasing the flexibility of the company,
- increasing or maintaining the competitiveness of the undertaking,
- developing the creativity of employees and promoting their open thinking, and others.

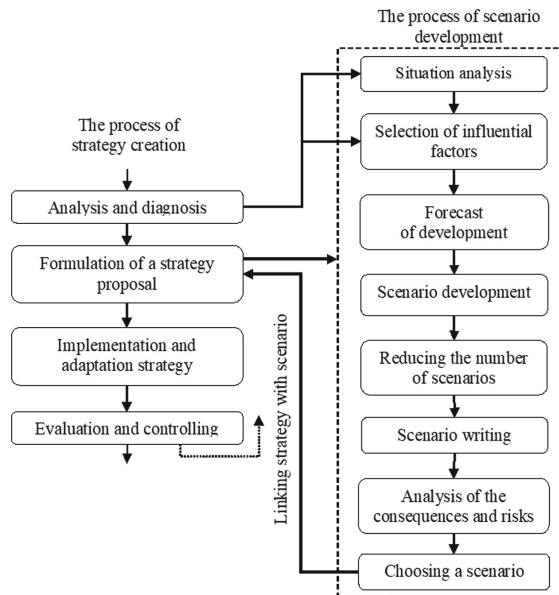


Fig. 3. Scenarios in the strategy management process [6]

Based on the analysis of the phases of the strategy management systems and scenario planning, it can be argued that the scenario planning system can be used for the following purposes:

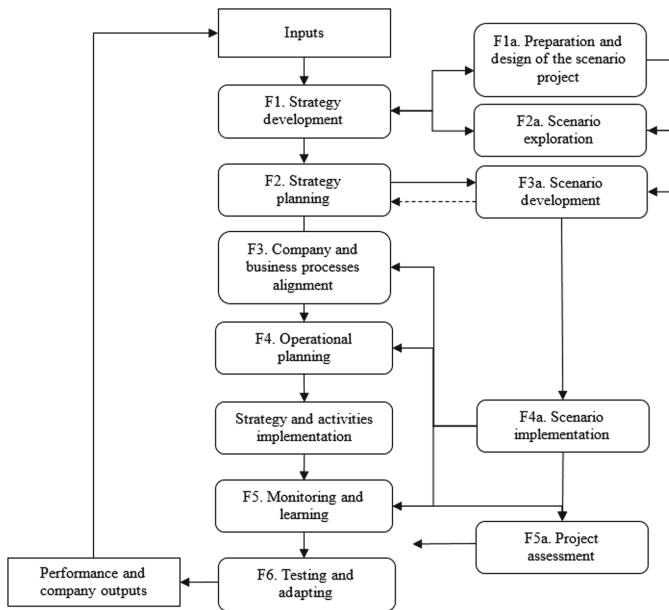


Fig. 4. BSC-based strategy management system model with link to scenario planning [6]

- Creation of a new strategic system of business planning using scenarios.
- Evaluation and testing of corporate strategy.
- Implementation of all scenarios or their parts at one time according to the needs of the company in the already functioning system of working with the strategy.
- Use of scenarios for project testing.
- Using a specific scenario to address a situation that has started to happen and for which a scenario has been created, e.g. the emergence of a new opportunity, the increase in the influence of some external factors, the collision of the system in the company, etc.
- Use scenarios to educate and train company employees to be able to comprehensively assess the company's situation, its problems and opportunities and to learn to better plan and predict future environmental conditions based on existing factors that can be monitored in the present.

6 Conclusion

The success of a company is to build a stable and resilient company that can move forward and respond flexibly to changes in the environment. One of the tools that managers have available for these purposes is the Scenario planning. The issue of scenario planning is demanding especially on the harmonization of individual processes and their subsequent implementation. In order to illustrate the environment in which scenario planning is incorporated into the processes of strategic management of companies, General model of scenario planning environment was created. The model was compiled on the basis of a study of the literature and the knowledge of various experts in the field of strategic

management. Research was carried out to verify the correctness of the general model and also to verify a comprehensive study of the readiness of Slovakia companies to integrate scenario planning into their strategic management system. The research was focused on verifying the assumptions of the correctness of the inclusion of individual elements in the General model of the scenario planning environment (Fig. 2) and also a series of questions which, after their statistical processing, led to the confirmation of the established research hypotheses. The primary purpose of this paper is to draw attention to the complexity of the processes of integrating scenario planning into the strategic management of companies and to illustrate the primary processes designed for these purposes. These processes can be developed into many other sub-models according to the type of integrated scenarios or according to the situations to which the company is interested to apply the scenarios [12]. The created data are also intended for modeling processes for researchers in the field of strategic business management.

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