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Scenarios as a Strong Support for Strategic Planning

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Abstract

The article deals with the concept of scenario planning. Based on methodological platform, it describes in details stepwise process of scenarios construction. It introduces and discusses various types of scenarios which might be respected due to development of entrepreneurial environment. Respecting indicated risk factors from the business environment and theirs influence on key risks of the firm´s performance, the spread of scenarios is being drafted. The basic scenario concerning set strategic goals and the most expected probability forms a referent version opening determination of the scenarios variety. In business practice commonly three or four scenarios are used. The space delimited within each scenario enables to do serious managerial decision making processes by testing and selecting appropriate strategic variant of the business plan. According to Risk Appetite of each firm each of scenarios can be quantified. The choice depends usually on stakeholder´s attitude or Risk Appetite of the firm´s management [1].

Keywords: strategic planning; scenario; risk; probability; strategic variant; decision making process; performance; gap analysis

1. Introduction - concept of scenarios

Scenarios offer the future pictures of certain subject´s development where these pictures are built by qualitative and quantitative elements and interlinking between them. Very important aspect in this theory is internal consistency inside the system [2]. Other possibility of the perception of scenarios is pushed through by Ratcliffe[3], where scenarios may represent:

- descriptive stories of variant projections of a specific part of the future;

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- management tools enhancing quality of executive decision making as well as supporting the choice in favor of better and more robust strategic decisions;
- vehicles representing future reality aimed at clarification of current activities from the point of view of possible and requested future.

Some dissimilarity in scenario concept arises from the fact, whether decision making elements are fully integrated into scenario formation or not. Thus scenarios represent integration of possible future development and chosen type of reaction to this development. The way of reaction can be strategy formulation. In this way scenarios become the part of strategy planning increasing flexibility and exploitability of strategic planning tools. Strategic planning offers potential to establish consequences of met strategic decisions within particular variants of resources deployment by fulfilling set goals. Involvement work with scenarios into regular strategic planning process is the way how to preserve performance and competitiveness of organizations even if the environment shows unpredictable turbulences.

2. Scenarios position in strategic planning

Preliminary step in strategic planning is the right vision statement formulation. An exact formulation, time determination and consistency of the whole content, is the necessary condition for expression of the desired status of the firm in the future planning horizon [4]. Rational planning horizon is middle-termed, but it is almost determined by the character of core business (power engineering, pharmaceutics, and capital construction use longer planning forecasts). From the formulated vision relevant strategic goals are derived, which together with the basic strategy constitute **strategic base**, which is the basic scenario [5]. This scenario describes the shift of the firm towards the finishing position on the basis of known information, stakeholders attitude and recourses disposal. The basic scenario design has been elaborated as if under certainty, other eventualities are not taking into account. Managerial practice relies on risk decision making, thus there is consider that the future development may vary from the contemporary view on the states of nature.

Peculiar strategic scenarios process construction can be divided into six basic steps:

- Risk factors identification and theirs significance assessment.
- Choice of key risk, which have essential influence on strategic goals fulfilling.
- Scenarios formulation and testing their consistency.
- Setting probability of which they may occur.
- Carrying out the “gap analysis” for fulfillment rate of strategic goals estimation.
- Scenarios correction on risk rate reserve for strategic planning.

2.1. Risk factors identification and assessment of their significance

Identification of risk factors is a process, in which the factors having serious influence on strategic base are detected. The quality and reliability of created scenarios depends on the quality and extent of gained and compiled information. Complex methodology, which focuses on identification and elaboration of sources from analysis comprising business environment is **Business Intelligence and Competitive Intelligence**[6]. This methodology goes out from elaboration of open to the public and verified data, which include:

- Statistical sets, government information, materials and documents,
- Web sites, slide shares, social media,
- On-line database,
- Interviews and summaries,
- Financial reports, business presentations, business negotiations,
- Press releases of firms and institutions.

As a support for Business Intelligence further methodical tools done inside the firm, data analysis, predictions and evaluations are made, such as [7]:

- SWOT analysis,

- Competitors profiles,
- Benchmarking,
- Business development models, statistical econometrics,
- Branch analysis, financial analysis,
- Feasibility studies, "Win/Loss" analysis.

The set of identified risk factors is necessary to select by assessment of their significance. Usual way for selection is qualitative or semi quantitative assessment. First tested position is probability of risk factor occurrence and the second tested position is intensity of risk factor impact on results of business activities of the firm. Particular grades of scale for negative impact of risk should respect the set firm ´s Risk Capacity. Mentioned assessment by **Risk assessment factor Matrix** can be the tool of expert assessment, based on knowledge and experience of competent subjects (top managers, external experts etc.).

2.2. Choice of Key Risks, which according to Risk Appetite of the firm fundamentally influence fulfilling of strategic goals

The choice of **Key Risks** realizes by quantitative evaluation of sensitivity of chosen criterion (sales, prices, costs, currency or other economic criterion) and theirs impact on key performance criterion (EBIT, EBT, EVA, ROCE etc.) compared with the values in the basic scenario. The output of the **stress test** is the identification of such factors, which chances show high sensitivity as to the fulfilling of set strategic goals. Components, which equal relative changes (10 %) to be compared with the basic scenario led to the considerable changes of set performance criterion (resolution rate is the Risk Appetite of the firm), are the **Key risks**, which potential development is to be followed in further scenarios construction.

2.3. Basic scenarios formulation and testing their consistency

Scenarios represent a set of internally consistent pictures of future states of nature based on logical and rationally justifiable link of particular elements. In contrast to vision statements put scenarios emphasis on potential development of risk factors and explore their impact on key risks, which are significant for fulfilling the set strategic goals of the firm. During scenarios construction there is monitored a real delimitation of deviations from the foreseen development of chosen risk factors and key risks, which were qualitative or quantitative specified in previous analyses. The numbers of constructed scenarios in practice are being limited on description of utmost, as to the probability feasibly admitted, predictions of future development of selected risk effects. Regularly there are worked out three or four scenarios [8]:

- **Optimistic scenario**, where also further existing opportunities, which can be utilized by internal potential of the firm are taken into account. Optimistic development offers assumption that set goals will be exceeded.
- **Basic scenario**, which elaborates formulated vision statement and set long-term goals under most realistic suppositions of development.
- **Pessimistic scenario**, which takes into account circumstances and trends result from identified threats, that firm can hardly cope due to its internal potential. In such way the firm can fail in fulfilling set strategic goals.
- **Realistic scenario**, with planned reserve for covering the risk. This scenario is constructed as a weighted average of values of above mentioned scenarios, where the weights are expected probabilities of anticipated scenarios.

In Risk Management even extra ordinary development is being considered, which leads to **warning scenarios**, based on critical progress of risk. In business practice this process is known as a **contingency planning.**

By construction of scenarios it is usual one of scenarios represent the most probable environment development, other ones depict less probable alternative of future states of nature. Statistical characteristics of variability, such as **variance**, **determinative deviation**, **variational coefficient**, represent classical risk rates used mostly in financial management. Firm ´s risk is growing if these characteristics grow.

The same results give **probability trees**, which are suitable for more risk factors, or rather if these factors occur in certain time sequence. Probability trees works with discreet characteristics of risk factors. In case that the risk factors are continuous, it is necessary to approximate continuous distribution function with stepped function and work with some values representing particular risk factors values. Advantage by use of probability trees in scenarios

design is that it is not necessary to preview the end of event and it is possible to identify the weak point of the system [9]. Disadvantage is the less clarity of trees.

Testing scenarios means the process of their consistency detection that is testing of rationality of chosen assumptions and theirs viability. If testing proves that the scenario is internally incoherent, it is necessary to return back to the beginning, redefine presumptions and by interactive way reach consistency.

2.4. Setting probability how scenarios come to pass

While setting probability of partial scenarios, it is necessary to go out from identified number of risk factors and theirs probability of values assessment, where the sum of probabilities of each of factors in scenarios is one. Probability of each scenario is then weighted average of relevant risk factors occurring.

In case those scenarios are designed by probability trees, the final probability of scenario is given as a multiple of probabilities of risk factors values lying on the same branch of the tree. If risk factors are mutually dependent, the issue is that the factors are conditional dependent.

Scenario approach is effective only if it is considered as a fluent process. Management has to follow development of risk factors and simultaneously also business environment and make correction even if influence of such factors had not been previously considered as serious. Connection of scenarios with controlling actions leads to ensuring of firm ´s flexibility on tactical and operational management level. For establishment that the developments of external in internal environment correspond with certain scenario´s content, **early warning signals**are being established. By exceeding set limits of monitored values (**trigger points**), responsible persons or department have to undertake relevant measures to avoid crises.

Basic requirement of rapidity and efficiency of accepted changes is transparency and communication of each scenario.

2.5. "Gap analysis" as a tool for fulfilling of strategic goals assessment

Discussed set of scenarios were designed under the influence of potential risk factors and determination of probabilities they can occur. Now it is necessary to prove performance of partial scenarios by comparison with formulated strategic outcomes. **Gap analysis** is identification of planning deviations (**Planning gaps**) between planned strategic goals and outputs of certain scenario. If detected deviation is unacceptable, there is possibility to work out further strategic variation within given scenario. Gap analysis detects the need for corrections which is less strenuous as carrying out unconceptual changes at operational level during strategy implementation [8].

2.6. Creating scenario as a base for construction of the strategic plan

One of the most important areas of use of scenarios construction is decision making about evaluation and selection of **strategic variant** constituting business plan and its implementation [10]. Strategic variants are possibilities to decide how to focus internal resources of the firm under the development described in partial scenarios in order to preserve or strengthen firm ´s competitiveness [11]. Most frequent managerial decision problems are development investments into technology, strategic acquisitions securing the growth of the firm or the way of financing planned activities. During decision making process there is necessary to follow, if partial strategic variants are coherent with the character of relevant scenario and whether they may have influence on the anticipated probability of the scenario. If this occurs, probability of each project or strategic variant within the scenario is to be assessed [12,13].

As to the evaluation of investment projects it is important to evaluate each of them by all considered scenarios. Determination of criterion's values in each strategic variant under all scenarios enables to evaluate the risk rate and acceptability of risk. In this way it can be checked, how is the project robust, or as the case relevant reserve may be set down. Commonly used criterions are:

- **Interval extends of possible results** of investment projects compared with set criterions. As intervals are broader, the risk of project grows. Tight intervals express high stability of the project or strategic variant.
- **Results in pessimistic scenario**. This serve for assessment of financial stability of the project, ability to save returns of capital expenditure, mainly bank´s credits, if the development of business environment is adverse.
- **Statistical values** of development of key performance criterion of the project (return rates, net present value etc.), such as **variance**, **determinative deviation** or **variational coefficient.**

Decision making process is relatively easy, if economic performance of the project or strategic variant is either acceptable even under pessimistic scenario, or no acceptable under optimistic scenario. More usual in business practice is that the choice of strategic variant of the business plan depends on stakeholder´s attitude or Risk Appetite of the firm´s management. The most respected criterion is the growth of shareholder´s value (Economic Value Added, Market Value Added).

3. Outputs of research and further development of gained results

The research of the use of scenarios as a tool of strategic planning in SMEs was carried down in 2011 – 2012. During this period about 30 enterprises were analyzed focused on strategic planning processes. The result of this research was that only pure rates of SMEs use regularly scenarios design as a part of strategic planning. The reason for it is the lack of knowledge and missing theoretical background of the top management, bad exploitation of information of business environment, greater stress on tactical and operational management, the convincement that the actual drafted strategic plan is based on the most realistic predictions etc. Work with scenarios enables the firms to put more realistic data into financial plans and thus to follow their set strategic goals. The topic of integration of the risk into strategic planning in SMEs has not been closed. As a further research target there is the problem of the strategic controlling implementation as a feedback of strategy´s performance management.

4. Conclusion

Using scenarios involving recognized risks arise in strategic management qualitative higher level bringing firmer stability of the firm, setting more realistic performance goals and finally stimulating the growth of firm´s value. The use of scenarios contributes to better communication with the firm´s stakeholders, because it is possible to argue realistic the firm´s potential and possibilities for the growth within the context of anticipated development of entrepreneurial environment. Further benefit of scenarios construction is the use of scenarios as a platform for the work with strategic variants and testing their feasibility. The methodology distinguishes between scenarios and strategic variants, which makes decision making more transparent for managers. Last but not least scenarios attitude is helpful for determination of limits for performance values in controlling processes.

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