Strategic Change in the Enterprise: Foresight and Management

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Abstract. Mobility, flexibility for a change and innovations implementation are key features of small and medium-sized enterprises. However, unstable external and internal environments require developing more complex and sophisticated management systems of the enterprise. The authors see management carried out according to changes as the optimum for small and medium-sized enterprises. It is certain managerial decision-making and implementation machinery for adequate management decisions, which helps provide insight of future trends of organization’s development, what, in its turn, ensures economic stability and sustainability of organization’s development. Strategic change management includes evaluation and monitoring of indicators in areas of enterprise activity. The authors provide a matrix of criteria and economic performance of private strategies. In order to foresee and manage strategic change a dynamic model for strategic change management is given and represented in a table and a graph. Foresight involves creating an enabling area which is formed through changes in external and internal environments. Management involves evaluation of initial condition of strategic changes implementation and setting necessary actions and processes to reach an enabling area. This survey is theoretically and practically important as methodology and tools for successful foresight and management of strategic changes is devised.

1. Introduction

It is evident from the modern stage of the economic development that we should expect the increased instability and the growing volatility of the external processes as well as the increasing in the number of factors forcing companies to adjust their business processes [1].

There is a great number of technologies for envisioning change. They can be divided into two groups: technologies for passive forecasting and technologies for active forecasting such as planning, prognosis, futurology, and foresight [2]. Planning is based on the company’s indicators that have been reached by the moment of analysis. The prediction was one of the first econometric tools based on scientific mathematical procedures. These procedures helped create possible scenarios for further functioning. Futurology predicts future outcomes based on the information processing methods with the help of self-fulfilling expectations mechanism. Foresight is a mixture of planning and futurology [3], [4].

Predictions, futuristic models, and foresight are soft technologies for the change implementation while plans are considered to be hard technologies [5]. Soft technologies that
reflect the democratic style of governing have begun to supplant the hard technologies and their hardline style. Instead of centralized procedures for plans development, mechanisms for self-organization come into being [6], [7], [8].

For companies, traditional systems for strategic management acquire new characteristics through foresight mechanisms implementation. Change management is one of such technologies.

The assessment of the effectiveness of the change strategies implementation is problematic. The majority of systems for effectiveness assessment are based on the annual budget and operational plan of the company. The data of the system aim at short-term periods and the tactics of the company, but not at the strategy. For instance, in their research conducted among 200 largest western companies, Renaissance Worldwide and CFO Magazine point out the following disadvantages of the traditional assessment systems: vision and strategy do not guide to action; resource allocation does not correspond with the strategy; the systems for effectiveness assessment are usually based only on financial indicators [9].

The low effectiveness of the change strategy implementation and the necessity to ensure the competitiveness of the company mean that there is a need to predict and foresee the future actions with regard to the changes in the external environment and not just wait for them to come into being.

2. Materials and method

Usually, the change implementation aims to raise the effectiveness of company performance. That is why the change effectiveness assessment is highly relevant. Firstly, the company’s management should have the opportunity to get a quantitative evaluation of possible advantages of the current changes. Secondly, the staff should have clear objectives that they need to focus on when developing the changes and they also should understand how to evaluate the way to obtain the deliverable. Strategic change management implies the implementation of new methods and technologies to adjust the company’s performance to the changing market demand or to take advantage of the emerging opportunities. The need for change stems from the gap between usual norms and patterns and the current state of the internal and external environment. Thus, the contradictions appear and they can be eliminated only through targeted strategic changes.

Change management comprises two types of action: preventive action (to eliminate the cause of the possible inconsistency or other unwanted situation) and corrective action (to eliminate the cause of the detected inconsistency or other unwanted situation). The main objective of the corrective action is to ensure the implementation of programs and aims, while the main objective of the preventive action is to organize the company’s performance [6], [10].

Under instability, the company should fully make use of its internal factors and react to the external factors as soon as possible [11]. We suppose that the crucial factors for the effective performance of the company are efficiency (the level of spending determines the success in terms of competitiveness), potential (the assessment of presence and enhancement of opportunities) and stability (the balance between ‘wishes’ and ‘capabilities’) [12], [13].

Having examined the scientific publications [1-13], we found that there is no accepted methodology for strategic change implementation. However, many companies need such methodological support due to the unstable environment and sustainable development.

We suggest a methodology for the strategy of change and the assessment of its effectiveness. This methodology has eight consecutive steps: 1) the data collection on the company’s performance, market situation, competitors; 2) the performance evaluation and identification of the general strategy of change; 3) the development of the general strategy of change and determination of the core and target indicators for the effectiveness of the general strategy implementation; 4) the development and implementation of measures to reach the goals of the general strategy; 5) the evaluation of the implementation of the general and private strategies of change; 7) the comparative analysis of the indicators for the general strategy of change performance; 8) the report preparation on the results of the general strategy of change performance [14].
The core spheres in any company are technology, finance and economy, market, and organization. This analysis helps determine the general (core) and private strategies for the company [15].

Under certain reaction to change and the possibility (or lack of it) to expand the activity into other market segments, the relevant private strategies of change can be used. It implies problem resolution through process actions. A number of criteria and indicators help estimate the effectiveness of the strategy of change implementation (Table 1). The choice of the criteria and indicators is justified by the objectivity, accessibility, statistical observability and measurability of those criteria and indicators [16], [17], [18], [19].

**Table 1.** A matrix of criteria and indicators in terms of the private change strategies for the core spheres in the organization.

| Sphere                      | Private strategies                                      | Criteria                                                                 | Indicators                                             | Reference values |
|-----------------------------|---------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------|------------------|
| Technology                  | Local strategy                                          | Problem resolution in a specific (local) business process in the activity of the enterprise; maintaining the status of the integrity of business processes | Stability coefficient of business processes (T1)        | +5%              |
|                             | Innovation implementation                              | Expansion and increase in the range of products                          | Volume and range of products (T2)                      | +5%              |
|                             | The strategy of research innovations                    | The share of "young" innovations in technology and business processes     | Assessment of scientific and financial resources (T3)  | Scale from -3 to 3 |
|                             | The strategy of "aggressive" innovations                | Active introduction of advanced technologies at the enterprise for the solution of radical and "very fast" innovations | Assessment of financial resources and refinancing (T4) | Scale from -3 to 3 |
| Cost minimization strategy  | Saving Cost Structure                                   | Increment of financial resources, assessment of the possibility of self-financing and loan | Cost price (F1)                                        | -5%              |
| Expansion of financial resources | Increment of financial resources, assessment of the possibility of self-financing and loan | Coefficient of self-financing, loan ratio (F2)                          | +5% -5%                                                 |
| Unique financial opportunities | Expansion of financial resources (self-financing or loans), diversification of financial resources, innovative financial solutions | Fixed assets and borrowed funds (F3)                                  | Scale from -3 to 3                                      |
| Synergy strategy            | Optimal combination of profitability and solvency of the organization | Coefficients of current liquidity and solvency (F4)                     | ≥ 2                                                    |
| Defense strategy            | Maintaining a Market Position                          | Market share (M1)                                                       | +5%                                                    |
| Focus on the segment         | Aggressive promotion of goods in a certain segment of the market | Sales volume of a certain segment (M2)                                  | +5%                                                    |
| The strategy of market diversification | Aggressive and active increase in new customers in the same market, customer base | Coefficient of "customer increment" (M3)                                | +5%                                                    |
| Rapid Response Strategy      | The increase in the number of new customers in the new market, customer base | The coefficient of "increment of customers in a new market, customer base | +5%                                                    |
For a more accurate problem definition in certain strategies, we suggest a graphical model for the evaluation of the private strategies indicators. For each indicator, there is an axis with a scale. Thus, Table 1 can be represented as the following graphical model (Fig. 1).

![Graphical model for strategic change management.](image)

The main advantage of such a graphic presentation is the possibility to illustrate the overall state of the structure through the simultaneous representation of the necessary values. This graphical model is a rapid analysis of the state and evaluation of the strategy of change effectiveness. The recommended values of the numerical indicators for this survey are adopted on the basis of compiling limit and optimal values. We suggest the expert assessment scale that corresponds with the rating system.

Graphical and table representation of the mentioned indicators aims to specify the system of goals according to the spheres of a company: technology, finance and economy, market, and organization. this approach makes it possible to assess the goals. As compared with the beginning of the report, the subsidence leads to the drift of the strategy [20], [21], namely, the accumulation of the strategic mistakes that will cause irreversible consequences. The increase by the reference value will be referred
to as the manageable expansion zone, while the decrease by the reference value will be referred to as the manageable drop zone of the indicators. The significant increase or decrease will be referred to as the strategic leap zone (Fig. 1).

The executive should determine the role of each indicator. For a particular organization, there can be major, minor, or irrelevant indicators. After ascribing the importance and evaluating the values of indicators, we can get the aggregated and generalized indicator for the company’s effectiveness through the additive linear convolution. Consequently, under proper management, the enterprise becomes an effective tool for achieving the desired objectives if the necessary changes help improve the performance [22].

3. Results
All in all, we have studied different technologies for change implementation in strategic management. Also, we have developed the methodology for the implementation of the strategy of change and the evaluation of its effectiveness. We suggest a matrix of criteria and indicators in terms of the private change strategies for the core spheres in the organization. In a graphical and table form, we suggest a dynamic model for strategic change management as a tool for the strategic change foresight and management.

4. Conclusion
1. The aim of the developing the strategy of change is to ensure the effective reaction of a company to any demand or problem that will be resolved by the situational approach to the selection of the effectiveness indicators on the part of the management. A set of indicators for the assessment of the strategies depends on the type of strategy and its particular content. During its implementation, the strategy proves its vitality.

2. The effectiveness of a strategy can be evaluated in terms of the basic and target indicators. The economic indicators of effectiveness should be accompanied by the behavioral indicators of the organization.

3. When the effectiveness criteria for the private strategy of change are included in the generalized strategies, they will provide the supporting tool for the strategic change planning in terms of the company’s development.

4. The analytical and graphical representation of indicators aims to specify the system of goals according to the spheres of organization: technology, finance and economy, market, and organization. After ascribing the importance and evaluating the values of indicators, the company’s management can get the aggregated and generalized indicator for the company’s effectiveness through the additive linear convolution. Its main objective is to compare the company’s current performance and to evaluate the implemented strategic changes.

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