

Classification of factors that affect loss of sustainability in organization

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Abstract

For the enterprise to function successfully it is necessary to possess the fullness of knowledge that allows timely warning of a possible danger that may lead to the occurrence of unforeseen losses.

For the control system to react to environmental conditions and prevent the system from switching to an unstable, uncontrolled and faulty state, it is necessary to understand and take into account the factors that affect the loss of stability. The approach of restoring the features of stability loss under open systems conditions is proposed.

Keywords: Stable dedication, external audit, selection, long-term perspective

1 Introduction

The DIKW conceptual framework is used as the core for restoring the sustainability of an organization.

Relying on the model of Russell Ackoff (DIKW), we are talking about the application of technology that can indicate the path of sustainable dedication, and hence the possibility and tool applicable in the event of destructive processes in the organization [2].

In DIKW model, the vector of purposefulness is always aimed at considering a new quality of the system.

The main meaning of this concept is the ability of the control system to influence the conditions of the external environment. When we talk about a sustainable system, it means that our management system should be well prepared for timely response to environmental conditions. Thus, the task of strategic management is being solved.

2 Method

In order to understand the full-scale strategic management, we recall the conceptual model of David [1] Figure 1, consisting of 7 matrices, decomposed into three units. Stage 1 includes EFE - analysis of the external and internal environment. The use of this analysis is a time-consuming process, which in our case takes more than three months, since a formal attitude to the method causes errors at subsequent stages.

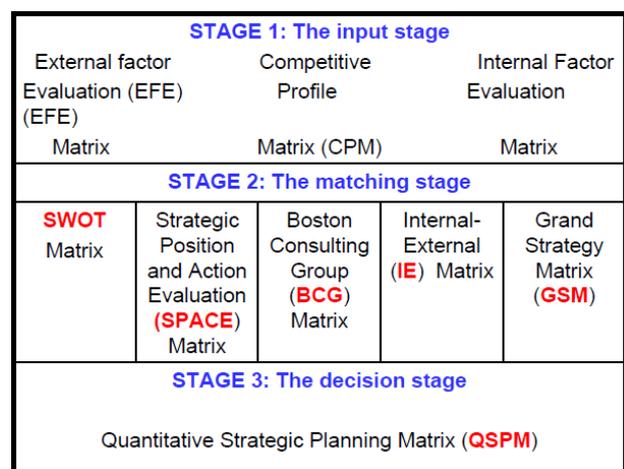


FIGURE 1 Formulating strategy of analytical flame work (David)

The EFE matrix was applied in the research, analyzing the field under the DIKW model. (see Figure 2)

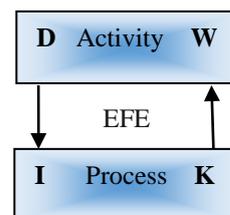


FIGURE2 Combination of EFE and DIKW model

The combination of the two approaches in the context of sustainability required the identification of 72 factors that

affect the process of organization's sustainability loss. It is a matter of deviations in goal setting arising in the management system. In order to make our management system sustainable, it was necessary to identify the main key factors affecting the recovery process of the stability features.

The EFE audit procedure requires the use of Pestel analysis.

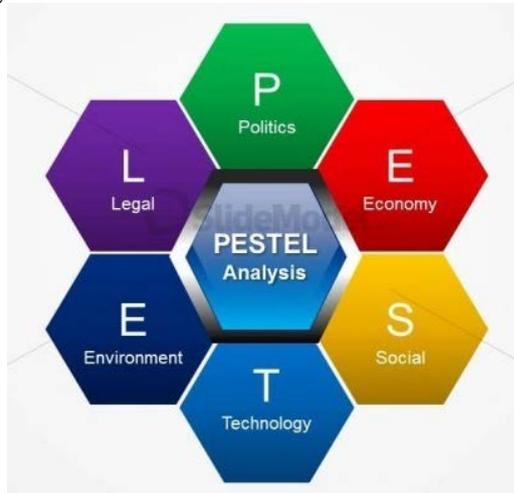


FIGURE 3 Pestel -analysis

The Pestel analysis allowed classifying all 72 observed factors into 6 groups. In the course of such classification, the expert has difficulty in determining whether a particular factor belongs to a particular group. In addition, there are no rules to identify the loss of stability. Thus, to rank factors according to six categories: Political, Economy, Social, Technology, Environment, Legal, it was necessary to develop rules for attributing the belonging of a factor to a certain group by characteristic features. The operational definition technique was used [5]. For instance, we refer ideology, formulas, rules, construct, and the transformation of the business model to political factors. The economical factors include the economy, efficiency, the science of wealth. Social factor: losses, cost, capital, benefit, description of how external environment destroys the influence system on the management system. Technological factors include: technology, information, training techniques [4], retraining, formalization, impact of the expert. The environmental factor describes the resistance of a 5% strategy, rule 2/98, the hidden influence on the management system, the social enterprise is what adds value (to occupy people), recovery, capitalization, relationships, environmental impact, auditors. The legal factor include the laws of management, the specifics of business management, rules and principles, destructive forces, mistakes / demining, fatal errors, arbitration courts, arbitrators, creation of chaos.

This allowed us ranking using a small set of factors from the perspective of their impact on the loss of sustainability. In general, it is required to determine the degree of influence on the management system and the importance for the market. In the first case, expert evaluation is carried out on a three-point system, whereas in the second case, on a five-point system. At this stage, the expert is experiencing

difficulties due to the lack of methodological guidelines for rating in the specified conditions. Therefore a double step selection was proposed.

In the course of the work, methodical materials on grading points were developed for the expert.

The first level – defining the choice of the program by 3 point scale: 1-the effect of the factor is small, any change in the factor has practically no effect on the company's activity (communication); 2-only significant change in the factor affects the sales and profits of the company (vacancy); 3-The effect of the factor is high, any fluctuations cause significant changes in sales and company profits (potential).

The second level - qualification of the factor resonance according to 5 - point scale in the context of business organization's life cycle. Expert estimation: 1 -debugging of the system; 2-test; 3-introduction; 4- implementation; 5-growth.

3 Findings

As a result, it was possible to identify 6 significant threats that negatively affect the stability of the organization. In contrast to the combined threats (T), the organization's growth potential (O) is determined.

As a result, the conceptual scheme of DIKW was reduced to the form DITKWO (see Figure 4) Thus, EFE analysis allows us to move into a new strategic space in which the control system needs to be adjusted to a new quality.

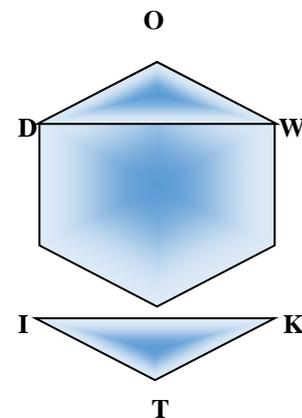


FIGURE 4 Conceptual scheme DITKWO

4 Results and discussion

Applying the concepts of EFE, we reveal a program that brings a long-term perspective. Through an external audit, we disclose the potential of our system; form rules and principles that allow us to increase our income. Revealing the weak and strong points help to form a representation of new space (potential).

By classifying the factors, we managed to remove the uncertainty and describe the rules for the expert's actions. By carrying out the ranking (the *selection* mechanisms were *carried out* at *two levels*), which consisted, firstly, in determining the impact on the management system and, secondly, determining the importance of each factor, we

managed to reduce the number of main factors from 72 to the main 15, capable to describe our basic capabilities and threats.

It is necessary to go through the algorithm EFE-PESTEL-OT, thereby revealing the influence of the external environment on the control system.

As a result of the conducted studies, we managed to obtain an instrument that makes it possible to classify factors that affect the stability of our organization. The use of this tool makes it possible timely foresee the shortcomings of the system and to work on a sustainable successful functioning.

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