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ENGINEERING SYSTEM APPROACH: MAINTAINING THE LOGICAL AND PHYSICAL DATA INDEPENDENCE

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This study is devoted to the operational response of the management system to the influence of the external environment. This is achieved through the presence of special mechanisms, the use of which allows you to bring the organization out of an unstable state at a given time. The peculiarity of the mechanisms lies in their protective property and high functionality, which are ensured by the implementation of effective proposals. Such proposals include descriptions of the links that cause a violation of the instructions for the organization's stay in a stable state. The definition of links is carried out on the basis of fundamental and thorough assessment of the results of related losses. In this case, the amount of loss incurred by the organization in the event of missing serious violations, as well as in situations of accepting applications drawn up from the position of satisfying the interests of individual participants in the organization, is taken into account. The thoroughness of the selection of improvements included in the new version of the management system is considered from two sides, taking into account the contribution to the value of the organization and in the context of not destroying efficiency. Thus, there is a check of the fulfillment of the property of logical and physical independence (LPI), which allows you to protect the interests of the enterprise as a whole.

Keywords: dissatisfaction, new beginning, return, stability, emergence, superposition, efficiency

1 Introduction

The practical application of the LPI principle places higher demands on the management of the enterprise. Such demands require a transition to management focused on the development of a device that would determine the organization's losses when measuring its growth potential. Such a device is created in accordance with the provisions of Engineering Systems (Eng_S) methodology, which allows creating high-level organizations that are forced to make frequent changes [1]. In general, the use of an Eng_S device focused on the process and product removes a serious contradiction. The fact is that Eng_S eliminates the incompatibility of new proposals imposed on the

functions of the existing organization. Conceptually, we are talking about the superposition effect. The essence is that new projects belonging to the "in the open field" class are imposed on the model of the existing enterprise. In this case, the implementation of each new project is considered not only from the standpoint of compatibility, but also, if necessary, taking into account the transition to a stable state. The focus on eliminating incompatibility made it possible to identify the research problem presented in the following wording: "It is impossible to conduct a full assessment of the state of the organization in the absence of means that allow a timely response to the emergence of crisis prerequisites and bring the organization out of an unstable state." The carrier of the identified problem is the authenticity of the object. Its content is disclosed when issuing independent expert opinions formed during the diagnosis of the state of the organization. Independence is ensured by means developed as a fundamental selection of proposals for improving the organization. In this regard, the set of subsequent changes does not include algorithms that do not contribute to the growth of the organization's potential. Thus, the management system is protected from false recommendations. And vice versa, implementing the effective integration of a new element into the structure of the system, the quality of management improves and the attitude to the diagnostic complex changes. This occurs during the measurement of the efficiency parameters distributed across the operating modes. This allows us to accurately localize the location of the organization's exit from a stable state and confirm the reliability of the issued diagnostic messages.

The subject of the study is Sensemaking (SM) technology, which is used to reveal the content of an object operating under conditions of high uncertainty at a specific point in time [2, 3]. This technology comes down to a certain mechanism that allows us to measure the result of folding a volumetric information space into a capacious form in conditions of recording the features that influenced the change in the system's states. In this case, two aspects of the SM mechanism should be taken into account. Firstly, the presence of a metaphor that allows us to find a word on the way to explaining the subject and to determine methods that reveal the subtleties of realizing the main thing that can ruin the business. The name "Superposition" is used as a metaphor, the content of which is to integrate a new element into the system without damaging the organization. A four-level hierarchy of value consisting of fifteen nodes is chosen as a structure. The use of SM is made in order not only to remove misunderstandings that arise when assessing a position, but also to instill a special attitude to the design of a device that has a high share of intangible assets. With the help of the mechanism, methodological foundations of the device are formed, with the help of which diagnostic phases are determined, glorious links of the organization are identified, training of organization participants is carried out. As a result, the level of trust in the

developed device increases. The purpose of this study is to develop a procedure that ensures the measurement of efficiency in various modes of the organization's functioning, before and after making effective proposals aimed at improving the system. Careful and fundamental selection allows achieving consistent introduction of changes in the approved program, adapted to ensure image proposals for reputational requirements. This confirms compliance with LPI within the Eng_S device [4].

In accordance with the formulated goal, the following four tasks were set:

- conduct a current analysis of the organization's condition, organize the collection of information on instability, record cases of dissatisfaction with the system developers, explain the reasons for the efficiency indicator going beyond the established limits;
- conduct actual control of capital turnover as part of the short-term option for the distribution of the organization's resources, record cases of dissatisfaction with the activities of the financial service;
- justify the development of the organization's potential within the framework of the medium-term scenario, determine the reasons for dissatisfaction with investors, conduct an analysis of the optimal capital structure;
- develop instructions for the prospective growth of the organization's potential in the long term, process expert opinions regarding the bureaucratic apparatus, debug the algorithm for the formation of capitalized profit.

The selected tasks make it possible to determine the status of distributed responsibility. Its distribution is carried out between all participants of the organization according to the levels established during the design of the device, including: the level of life support mechanisms, the level of concepts, the level of technology, the level of designs. The description of the developed device occurs in terms of the designated levels.

2 Full-scale Assessment Device Description

In the course of setting and solving problems related to the disclosure of the independence principle, four key points were identified.

First, each problem is solved over a time interval of different duration.

Second, all solutions are implemented as part of a single device that has an internal structure and is designed to perform certain functions.

Third, each function corresponds to a certain operating mode.

Fourth, depending on the diagnosis issued, the device switches to a specific operating mode.

Thus, in the applied plan, the LPI principle is observed by means of a multifunctional device [5, 6]. Based on the device, a given goal is achieved. The goal is focused on measuring efficiency in various operating modes. Table 1 provides a description of the device.

Table 1

Full-scale Assessment Device Description

Level	Mode	Process	Product	Organization	Duration	Function
1	Bio-vital	SM (Sensemaking)	S_Eng (Modernization Implementation)	Eng_S (Reproduction Organization)	Long-term perspective	Diagnostics
2	Conceptual	Superposition	Emergence	Independence	Medium-term scenario	Analysis
3	Technological	Goal setting	Purposefulness	Purpose Education	Short-term option	Processing
4	Constructive	Overcoming Crises Phases (VMSG)	Lifecactivity Phases (IEEF)	Operation Phases	Current moment	Collection

The device consists of mechanisms that represent a complete set of correct designs. assets. The essence of their correctness is that the device designs represent a complete set of assets for which the algorithms of their wear are known. At the same time, in addition to tangible assets, there are also intangible assets. To ensure the assessment of two types of assets, it is necessary to use methodological devices. The focus of such a device is aimed at organizing the compatibility of the process and the product. Such an organization is the most protected from the influence of the external environment. It should be noted that the system developers, experiencing pressure from those who are related only to the product, in the conditions of LPI demonstrate their skills, protecting the process from accepting false proposals. Thus, not only is the growth of the organization ensured, but the skill of the developers is also reflected. In other words, the image of the product increases with the perfection of the process. Reducing the time spent in an unstable state releases significant resources. Thus, the developed update procedure, causing savings, positively affects the change in consciousness of all participants in the organization. But the main achievement is that when developers realize the degree of impact of their product's reputation on the organization's image, professional qualities increase. The level of responsibility of the device developers grows, and the characteristic signs of burnout fade into the background. Efficiency becomes a universal indicator of the state assessment.

At the same time, the degree of trust in the assessment results increases. It is easy to determine when the developer has lost control over the organization, including: has become dependent again, or a hostage to private opinions, or changes his consciousness and those around him. During the specified

assessment regulations, the organization's activities are monitored. When unfavorable events are detected, a switch to the appropriate operating mode is carried out. The content of each function is revealed through step-by-step detailing using two technologies of the descending and ascending type, taking into account the sequential change of design phases. As a result, four main functions of the device were identified.

3 Conclusion

The practical value is that the developed device combines the functions of measuring efficiency, identifying the organization's weaknesses, selecting effective proposals and rejecting notifications, such as a private opinion. The development of the device requires fundamentality, tuned to deep knowledge techniques. Its application allows for a full-scale assessment to be carried out within one device from one side and for revealing the organization's growth potential from the other side. The scientific novelty of the study is that compliance with LPI as part of the Eng_S device allows for assessing the organization's performance of the new version of the system as a whole, as well as identifying shortcomings in its production at individual phases, such as: identifying ineffective rules that caused a complaint. The use of LPI carries a complete character of development. The fundamental nature of the selection of proposals that have an intangible nature of assets forms a new attitude to selection. Thus, a new trend of choosing in favor of proving efficiency is formed, which frees developers from focusing on the cult of systematicity. The head of system developments cares about the growth of the organization's potential. Thus, protecting the system from the consequences of large-scale circumstances, the professional qualities of the developers are revealed.

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