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## DEVELOPMENT OF TECHNOLOGY FOR ASSESSING THE VALUE OF AN INFORMATION SYSTEM

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### **Abstracts**

This work is devoted to the detection of subtle that influence the identified loss of system. Missing such signals causes a loss of the emergentness property. Its assessment requires knowledge of the organization's full system of assets, a significant part of which is intangible assets. The work uses assessments of the organization's position, described in terms of «image-reputation». The work shows that knowledge of the position prevents potential losses in the future.

**Key words:** *efficiency signals, value, innovations, emergentness, performance, ROI.*

### **1. Introduction**

To assess the position, the condition is accepted that Unreasonable innovations cause the destruction of the system. Fulfillment of the condition requires synchronization of external factors and internal symptoms. System developers are interested in having a means to select promising improvements [1]. For this purpose, the approach of preserving the property of emergentness is used. This approach is focused on the valuation of intangible assets.

The five key factors:

- financial decision making;
- resource optimization;
- risk management;
- strategic planning;
- competitive advantage.

The destructive nature of private opinions negatively affects the reputation of system developers. In this regard, continuous performance measurement is necessary to maintain their image and improve their ranking. This measurement prevents the value of key elements of the system from

being compromised as it changes. It is impossible to make reliable decisions in the absence of means to identify the degree of destructive impact of innovations on business performance.

In this regard, five symptoms have been identified

- complexity of information systems;
- uncertainty and variability;
- inadequate cost visibility;
- dynamic business environment;
- limited integration with project management practices.

The presence of the identified symptoms allowed us to formulate the following problem: “It is impossible to make reliable decisions in the absence of means to identify the degree of destructive impact of innovations on business performance”.

## **2. Description of the Approach**

The identified attributes made it possible to determine the object of the study, which is: developing tools and methodologies that enable organizations to effectively measure the value obtained from their investments in information systems [2]. The subject of the study is a diagnosis of losses incurred by an organization due to the disability to recognize the contribution of effective proposals for changing the system. Identification of losses is carried out under conditions of maintaining the property of emergentness.

The purpose of the study is aimed at developing a procedure that ensures the issuance of an objective conclusion about the current state of the system of analysed assets and the prospects for its development.

In accordance with the goal, four tasks were formulated:

- Revealing the property of emergentness.
- Analysis of the methodology for the current analysis of the components of intangible assets in the context of the Andriessen-Tissen approach [3].
- Assessment of the current position of the system taking into account the influence of factors and the response impact of symptoms.
- Improving the methodology for calculating ROI in terms of assessing the contribution of intangible assets to measuring efficiency.

Having systematized the elements of the Andriessen-Tissen classification, it turned out that their unity makes it possible to prevent the organization from losses.

### 3. Conclusions

Reputation includes everything of value that has been created over the years, is internal in nature, and is aimed at a narrow audience, including partners, investors, and suppliers. In the context of time, reputation lasts a long time and is difficult to correct. Symptoms of this nature of intangible assets are compensatory mechanisms that prevent one from falling under the influence of «private opinions», including untested ideas.

In practical terms, the main result of the study is the full-scale diagnostics, the peculiarity of which is the organization's ability to justify the amount of damage prevented.

Novelty is that Instilling a culture in the developer to care about his rating, confirmed by the quality of the developed product. Such a product is focused on providing effective improvements to the system without losing the value of the underlying assets.

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