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METHODOLOGY FOR ASSESSING THE INNOVATIVE SUSCEPTIBILITY OF AN ENTERPRISE: EFFECTIVE FORM

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A full fledged practical assessment of the innovative susceptibility of enterprises can be carried out only if the result and factor characteristics of this property are taken into account together. The purpose of the article is to develop a mechanism for quantifying the resulting characteristics of innovation susceptibility, taking into account their hierarchical structure, for example, taking into account the fact that the implementation of an enterprise's innovation susceptibility has both its direct and final (indirect) results. In this regard, the appropriate evaluation methodology should assume, firstly, the possibility of quantifying each of the types of results of the implementation of innovation susceptibility, and secondly, the possibility of assessing the relationship between such results.

Keywords: innovative susceptibility; effective form; form factor; the flow of innovations; the intensity of the flow.

МЕТОДИКА ОЦЕНКИ ИННОВАЦИОННОЙ ВОСПРИИМЧИВОСТИ ПРЕДПРИЯТИЯ: РЕЗУЛЬТАТИВНАЯ ФОРМА

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Полноценная практическая оценка инновационной восприимчивости предприятий может быть осуществлена только при совместном учете результатных и факторных характеристик этого свойства. Целью статьи является выработка механизма количественной оценки результатных характеристик инновационной восприимчивости с учетом их иерархической структуры, т. е. с учетом того, что реализация инновационной восприимчивости предприятия имеет как свои непосредственные, так и конечные (опосредованные) результаты. В связи с этим, соответствующая оценочная методика должна предполагать, во-первых, возможность количественной оценки каждого из типов результатов реализации инновационной восприимчивости, а во-вторых, возможность оценки взаимосвязи между такими результатами.

Ключевые слова: инновационная восприимчивость; результативная форма; факторная форма; поток нововведений; интенсивность потока.

The immediate results of the implementation of the innovative susceptibility of the enterprise are expressed in the solution of specific problems related to the optimization of individual functional characteristics of this enterprise. Since such tasks are exclusively situational in nature, the evaluation of the results of their solution can be carried out only within the

framework of problem-oriented methods, i. e. methods involving the study of the susceptibility of a particular enterprise to a particular innovative idea. The set of requirements that such a criterion must meet:

- it should be able to act as an intermediate logical link between assessments of factors of innovation susceptibility and assessments of the final results of its implementation;
- it should be able to take into account the two most important parameters of the process of implementing the innovative capabilities of the enterprise: the speed of implementation of innovative developments; the quality level of such developments;
- it should be universal, i. e. applicable in the evaluation of innovative developments of various types;
- it should ensure a minimum subjectivity of the received estimates, i. e. it should be based on objective quantitative characteristics of innovation processes [1].

Taking into account the listed requirements, it is proposed to use the indicator of the intensity of the flow of innovative developments implemented by the enterprise as the basis of the methodology for assessing the immediate results of the implementation of the enterprise's innovation susceptibility. The basic formula for calculating this indicator is:

$$IPN_i = \frac{ON_i}{SON_i^{cp}},$$

where *IPNi* is an indicator of the intensity of the flow of innovations of the *i*-th type implemented by the enterprise for the considered period of time, thousand rubles/day; *ONi* – the total volume (total cost) of type *I* innovations implemented by the enterprise during the period under review, thousand rubles; *SONsri* – the average speed of implementation of type I innovations implemented by the enterprise during the period under review, days.

The proposed methodology for assessing the immediate results of the implementation of the innovative susceptibility of the enterprise can be used in two forms: expanded (methodology for detailed analysis) and abbreviated (methodology for express analysis). The detailed form of the assessment methodology involves analyzing the intensity of implementation by the enterprise of three main types of innovative developments: technical and technological, product and organizational and managerial.

The express methodology is designed for a more simplified and rapid quantitative assessment of the main direct results of the implementation of the enterprise's innovation susceptibility and considers the following types of innovative developments: technical and technological and product.

The assessment of the intensity of the implementation of each type of innovation by the enterprise according to both of these methods is implemented according to a single algorithm consisting of four stages.

1. Setting the time range of the assessment.
2. Determination of the total volume of innovations of each type under consideration.
3. Determination of the average speed of implementation of innovations of each considered type.
4. Calculation of the indicator of the intensity of the flow of innovations of each type under consideration [3].

The final results of the implementation of the innovative susceptibility of the enterprise are expressed in an increase in the level of its adaptation to the dynamics of the external market environment. In this regard, the assessment of such final results can be focused on the quantitative characteristic of the actual achieved level of such adaptation. Since the adaption itself is a way to improve the performance of the enterprise, as its characteristics should be used to measure changes in the level of productivity, i.e. changes in the level of achievement by the enterprise of the main target results of its activities.

The general algorithm for the implementation of the proposed methodology for evaluating the final results of the implementation of the innovative susceptibility of the enterprise includes seven main stages.

1. Assessment of the main results of the company's activities in the time period selected for the analysis.

2. Assessment of the average level of performance of enterprises in the considered period of time.

3. Calculation of the relative level of the company's performance in the time period under consideration

4. Assessment of the dynamics of the relative level of performance of the enterprise.

5. Expert assessment of the relative significance of individual results of the company's activities within the corresponding groups of such results.

6. Calculation of group estimates of the dynamics of the relative level of performance of the enterprise [2].

Further, the researchers are faced with the task of determining the nature of the relationship between the immediate and final results of the implementation of the innovative susceptibility of the enterprise, i.e., checking the significance of such susceptibility as a tool for adapting the enterprise to the dynamics of the market environment. The solution to this problem in the framework of the proposed methodology is based on using the method of nonlinear pairwise correlation analysis, which assumes the assessment of the relationship between the independent (level of innovation of the enterprise) and dependent (the result of the enterprise adaptation to the environment) variables using the correlation coefficient.

The proposed method of analysis is carried out according to the algorithm, which consists of six stages in the cycle.

1. Selection of a pair of analyzed variables.

2. Making variables linear

3. Calculation of the correlation coefficient.

4. Evaluation of the statistical significance of the correlation coefficient.

5. Search for a time lag.

6. Interpretation of the results of the relationship assessment [4].

After receiving all these conclusions, the following form of adaptation of the enterprise to the dynamics of the environment is selected as the object of analysis, and the entire analysis cycle is repeated again.

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