

**APPROACHES TO ASSESSING THE EFFECTIVENESS OF MANAGEMENT OF A
MACHINE-BUILDING ENTERPRISE**

**ABORDAGENS PARA AVALIAR A EFICÁCIA DA GESTÃO DE UMA EMPRESA
DE CONSTRUÇÃO DE MÁQUINAS**

**ENFOQUES PARA EVALUAR LA EFICACIA DE LA GESTIÓN DE UNA
EMPRESA DE CONSTRUCCIÓN DE MAQUINARIA**

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Scientific Editor: José Edson Lara
Organization Scientific Committee
Double Blind Review by SEER/OJS
Received on 20/02/2023
Approved on 22/08/2023



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Abstract

The article analyzes the main methods of constructing a system of performance evaluation indicators: a method based on financial indicators and a method based on the success factors of the strategy or business model used. On the basis of structural-logical and comparative analysis, a method for evaluating the effectiveness of management of machine-building enterprises in modern management conditions is proposed, including methods for setting standards and indicators of the effectiveness of enterprise management, taking into account the elements management efficiency; selection criteria and corrective characteristics of management efficiency; algorithms for evaluating the effectiveness of business management comprises of 13 stages of analysis and calculation of values are proposed.

Keywords: Efficiency assessment, Management efficiency, Machine-building enterprise, Enterprise strategy, Improving the efficiency of enterprise management.

Resumo

O artigo analisa os principais métodos de construção de um sistema de indicadores de avaliação de desempenho: um método baseado em indicadores financeiros e um método baseado nos fatores de sucesso da estratégia ou modelo de negócio utilizado. Com base na análise estrutural-lógica e comparativa, é proposto um método para avaliar a eficácia da gestão de empresas de construção de máquinas em condições modernas de gestão, incluindo métodos para estabelecer padrões e indicadores da eficácia da gestão empresarial, levando em consideração os elementos eficiência da gestão; critérios de seleção e características corretivas da eficiência da gestão; são propostos algoritmos para avaliar a eficácia da gestão empresarial composto por 13 etapas de análise e cálculo de valores.

Palavras-chave: Avaliação de eficiência, Eficiência de gestão, Empresa de construção de máquinas, Estratégia empresarial, Melhoria da eficiência da gestão empresarial.

Resumen

El artículo analiza los principales métodos de construcción de un sistema de indicadores de evaluación del desempeño: un método basado en indicadores financieros y un método basado en los factores de éxito de la estrategia o modelo de negocio utilizado. Sobre la base del análisis estructural-lógico y comparativo, se propone un método para evaluar la eficacia de la gestión de empresas de construcción de maquinaria en condiciones de gestión modernas, incluidos métodos para establecer estándares e indicadores de la eficacia de la gestión empresarial, teniendo en cuenta los elementos eficiencia en la gestión; criterios de selección y características correctoras de la eficiencia de la gestión; Se proponen algoritmos para evaluar la eficacia de la gestión empresarial que consta de 13 etapas de análisis y cálculo de valores.

Palabras clave: Evaluación de la eficiencia, Eficiencia de la gestión, Empresa de construcción de maquinaria, Estrategia empresarial, Mejora de la eficiencia de la gestión empresarial.

1. INTRODUCTION

The performance of any enterprise largely depends on the ability and capacity of management to make adequate situations of managerial decisions. The degree of their implementation is the level of effectiveness of the organization's management (Trofimov et al., 2022). The increasing demand for information on the effectiveness of an enterprise and, as a result, an increase in the volume of calculations of estimated indicators, requires the development of new approaches and methods for assessing the effectiveness of an organization's management (Safronova et al., 2023; Kozhina et al., 2022).

Papers of both domestic and foreign scientists are devoted to the problems of the management effectiveness evaluating of machine-building enterprises (Vaslavskaya, Koshkina, 2022; Kostromina et al., 2022). Various authors also offer a different set of indicators that form a management performance assessment system, which is often very wide.

Senge et al. (2003) compare the management performance evaluation system with the control panel of a jet liner. Since the manager spends time studying the control panel, he does not have time to look through the wind window, that is, he does not have the opportunity to directly manage the organization. In practice, two main approaches to the formation of a system of estimated performance indicators are used: an approach based on the financial results of an enterprise, and an approach based on the success factors of the strategy or business model used (Bugrov, 2004).

Regarding the first approach, in the practice of financial analysis (Ilkevich et al., 2022), relative indicators are widely used, such as cost-effectiveness or profitability, which makes it possible to compare results per unit of resources expended for different management entities (Voskovskaya et al., 2022; Gladilina et al., 2022). Scientists propose to evaluate trends, compare the effectiveness of other market participants according to the calculated estimated indicators, determine the degree of achievement of the set goals by finding the difference between the planned and received indicators (Sapozhnikov, 2005; Mel'nik, 2004; Yaremenko, 2004).

The second approach is based on the success factors of the strategy or business model being used. This approach is based on considering and reproducing the interests and goals of interested persons (groups), including outsiders in relation to the organization (Neverov et al.,

Criteria and characteristics of management efficiency are formed on the basis of the strategy, goals and objectives of the company's development. The main goal of the enterprise is to meet the needs of both external and internal consumers. Therefore, increasing the level of customer satisfaction due to and based on the growth of management efficiency is the main task of the management system as a whole.

The decision to change the criteria and indicators of management efficiency is made if the calculated indicators do not match the planned ones (normative, reference, etc.).

The main disadvantages of the existing methodological approaches for assessing the effectiveness of management are:

- Definition of efficiency as the ratio between the economic effect of the organization as a whole and the cost of resources to achieve it. And, therefore, expenses are considered as requiring mandatory reduction;
- In most of the considered methods the only financial statements of the enterprise are used as the information base;
- Almost no account is taken (or not considered at all) of environmental factors. Consequently, external management efficiency is not considered as a component of enterprise management efficiency.

3. RESULTS AND DISCUSSION

Regardless of the chosen approaches to the choice of a system of criteria and indicators, evaluation methods, the algorithm for evaluating the effectiveness of management consists of a certain sequence of stages (Fig. 2).

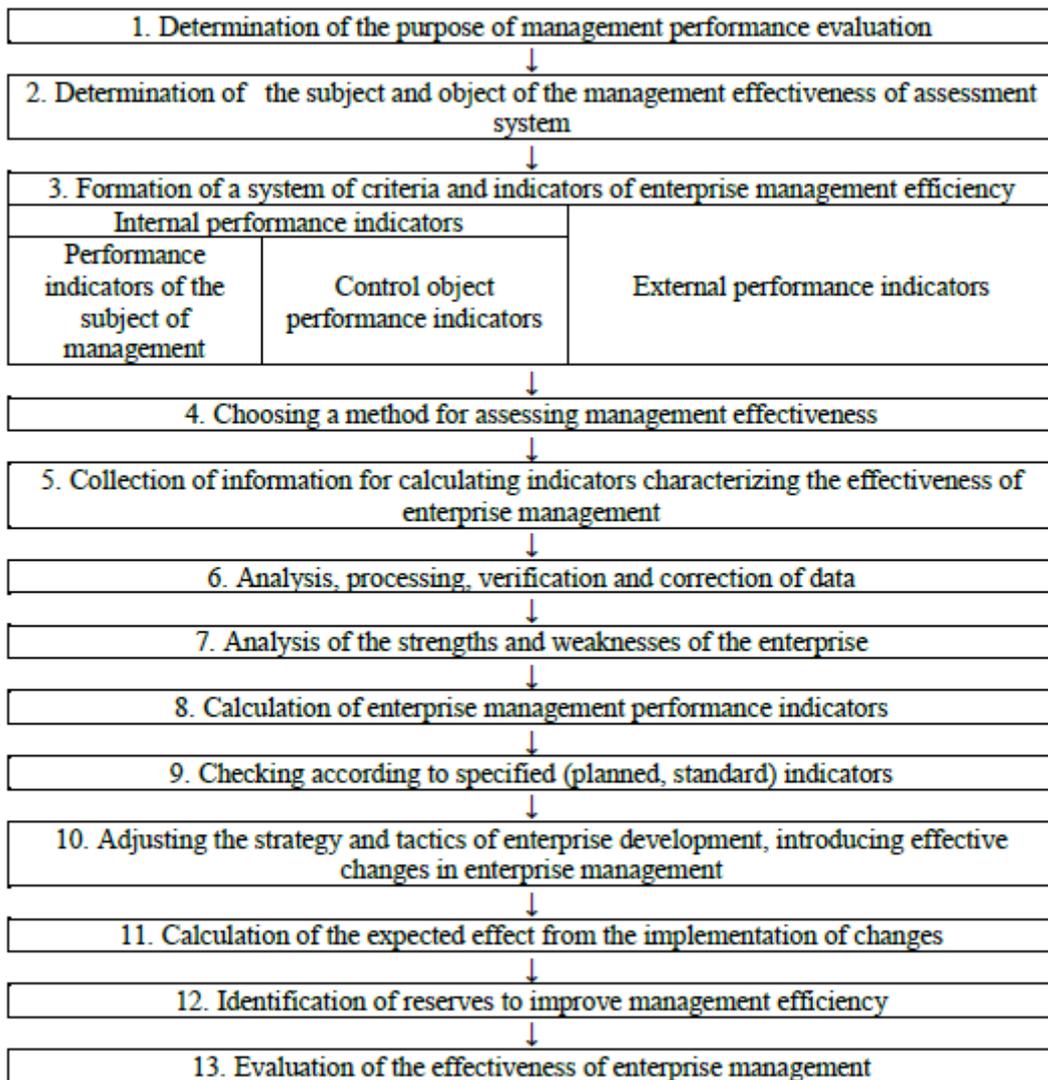


Figure 2. Algorithm for evaluating the effectiveness of enterprise management (own development)

The improvement of the considered methodological approaches is recommended to be carried out on such principles of the intended purpose of the assessment methodology. Khrustalev et al. (2022), Motyshina and Knyazev (2010), referring to the research by Ernst & Young (n.d.), identified eight main areas for improving the efficiency of an enterprise in terms of dominants:

1. Creation of business models based on innovative principles, reviewing business models and constantly evaluate their suitability for new economic conditions;

2. Optimization of market coverage by refining the presence in various markets and the volume of goods and/or services, that helps to increase profits and reduce risks;
3. Optimization of operational flexibility by ensuring the flexibility of structures and the optimal use of resources to increase the efficiency of the relevant activities of the organization;
4. Risk management processes improving by carefully scrutinizing all market risks and developing a reliable and comprehensive internal control system;
5. Funding sources optimization and distribution by calculating the amount of increased funding (where it's limited), should be optimized to ensure the flexibility and sustainability of the financial position of the organization;
6. Strengthening leadership by evaluating the effectiveness of managers who are able to work in difficult economic and organizational conditions and ensure an effective distribution of power;
7. Accelerating the process of making and executing decisions by evaluating the process of making and implementing decisions, which will allow to take advantage of short-term opportunities and quickly respond to negative changes;
8. Strengthening the confidence by assessing the levels of stakeholders' confidence in ensuring the transparency of financial and non-financial information and improving communication processes.

The above-mentioned areas help companies to overcome negative phenomena and increase the efficiency of enterprises in the future. Consequently, all directions of development are in the field of improving the efficiency of the management of organizations;

- Compliance with the economic conditions of a machine-building enterprise;
- Compliance with the organizational structure of the company's management;
- Software capability of the evaluation process.

- The conditions for the use of evaluation methods and the implementation of organizational changes based on the results of the evaluation are:
- The readiness of management to change by recognizing existing problems;

- Search for reserves to improve management efficiency;
- Information support at all levels of management in terms of efficiency.

4. CONCLUSION

The proposed algorithm for assessing the effectiveness of enterprise management comprises of 13 stages of analytical and calculated value and the methodology for evaluating the effectiveness of the management of a machine-building enterprise in modern management conditions is substantiated on the basis of structural-logical analysis and comparative analysis, covering: the methodology for the formation of criteria and indicators of the effectiveness of enterprise management; considering the internal and external components of management efficiency; selection of criteria and correction of the characteristics of management efficiency.

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