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## Kyiv National University of Technologies and Design, Ukraine METHODS FOR ASSESSING THE EFFECTIVENESS OF PUBLIC-PRIVATE PARTNERSHIP MANAGEMENT

The article substantiates the results of research on the methodology and methods for assessing the effectiveness of public-private partnership management and their application in the conditions of post-war economic and modern realities of situational management. It is substantiated that efficiency is considered to be a comparison of the results of economic activity with the costs incurred to obtain it by human, material, natural, fixed assets and taking into account modern realities of situational management. The effectiveness of public-private partnership management is analyzed as the ratio of the general results of managers' activities; ensuring the rational construction of the management object, timely development of necessary solutions and their implementation, achieving set goals, realizing the potential capabilities of the organization with optimal use of resources of cooperation of authorities and business entities and taking into account modern conditions to the costs associated with obtaining results and functioning of the management apparatus. According to the results of the study of approaches to assessing the effectiveness of enterprise management in the conditions of public-private partnership, it was found that there are many such approaches, they differ in the objects of assessment (management system, management apparatus). The main reasons for the diversity of approaches are as follows: firstly, approaches are formed for different conditions of use; secondly, changes occurring in the state economy constantly put forward new requirements for these approaches; thirdly, in the conditions of integration processes, existing approaches cease to be relevant. These approaches do not allow considering efficiency as a comprehensive characteristic of management, since they do not take into account the influence of factors from the side of functional subsystems.

**Keywords:** management effectiveness; management processes; public-private partnership; organizational support; management methods; efficiency assessment.

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# Київський національний університет технологій та дизайну, Україна МЕТОДИ ОЦІНКИ ЕФЕКТИВНОСТІ УПРАВЛІННЯ ДЕРЖАВНО-ПРИВАТНОГО ПАРТНЕРСТВА

У статті обгрунтовано результати досліджень, щодо методології та методів оцінки ефективності управління державно-приватного партнерства та їх застосування в умовах повоєнного відновлення економіки та сучасних реалій ситуаційного менеджменту. Обгрунтовано, що ефективністю вважається порівняння результатів господарської діяльності з витратами, що понесені на його отримання людськими, матеріальними, природними, основними фондами та врахування сучасних реалій ситуаційного державно-приватного менеджменту. Проаналізовано ефективність управління партнерства як відношення загальних результатів управлінської діяльності; визначення об'єкта управління, розробки та затвердження управлінських рішень, досягнення цілей, реалізації можливостей організації при оптимальному використанні ресурсів кооперації влади та суб'єктів господарювання і з врахуванням сучасних умов до витрат, пов'язаних з отриманням результатів і утриманням управлінського апарату. За результатами вивчення підходів до оцінки ефективності управління підприємством в умовах державно-приватного партнерства було встановлено, що таких підходів існує багато, вони відрізняються об'єктами оцінки (система управління, управління). Основні anapam

різноманітності підходів полягають у наступному: по-перше, підходи формуються для різних умов використання; по-друге, зміни, що відбуваються в економіці держави, постійно висувають нові вимоги до цих підходів; по-третє, в умовах інтеграційних процесів існуючі підходи перестають бути актуальними. Ці підходи не дозволяють розглядати ефективність як комплексну характеристику управління, оскільки вони не враховують вплив факторів з боку функціональних підсистем.

**Ключові слова:** ефективність управління; управлінські процеси; державно-приватне партнерство; організаційне забезпечення; методи управління; оцінка ефективності.

**Statement of the problem.** The effectiveness of assessing the efficiency of enterprise management in the context of synergistic public-private partnership allows to establish the scale and change of management focus, to predict the impact on key functional subsystems of the enterprise, to choose methods, ways, and tools for managing the enterprise.

Views on performance evaluation procedures are still ambiguous, in particular, regarding approaches, methods, techniques and other tools.

Unsolved parts of the problem. The peculiarity of the traditional approach to defining efficiency as a characteristic of results is an attempt to present the results and costs or means used to obtain it in value terms. This approach is not applicable to assessing the efficiency of enterprise management in public-private partnerships, and other, sometimes fundamentally different approaches to assessing the efficiency of enterprise management do not allow for a comprehensive characterisation of enterprise management. Therefore, the issue of assessing the effectiveness of management as such, which cannot be considered finally resolved, requires further research, development and clarification.

The purpose of the article is to study and substantiate the methods for assessing the efficiency of public-private partnership management.

**Analysis of literature sources.** The number of assessment methods according to the integrated approach is greater than that of other approaches. The main reason for this is the difference in the authors' views on the allocation of elements of the management system.

The work of W. L. Charles Hill and R. Gareth Jones [10] focuses on the positive aspects inherent in various methods of an integrated approach in order to use them in a comprehensive methodology for assessing management effectiveness. These are: assessment of management efficiency on the basis of a systematic approach to management; assessment of internal and external efficiency; grouping of assessment indicators by components that should coincide with the areas of assessment; assessment of efficiency taking into account the state of the management system in statics and dynamics; assessment of efficiency of the management and managed management subsystems; assessment of external management efficiency in the interests of different groups of environmental actors interacting with the enterprise.

Simultaneously with the analysis of methods of selective and integrated approaches, W. L. Charles Hill and R. Gareth Jones [10] conducted a detailed analysis of methods of calculating indicators for the selected methods of assessing management efficiency, which showed that different authors propose the same methods of calculating assessment indicators – absolute, relative, integral, stating, dynamic and comparative.

Taking into account the time factor, the efficiency of management of enterprise activities in the conditions of public-private partnership should be assessed in statics and dynamics. In statics, the object of evaluation is the state of the enterprise management system, which is determined by the stating value of indicators. In the dynamics, the purposefulness of the management system functioning is assessed by the dynamics of indicators. The stating value of the indicator is determined by the calculation algorithm, and the dynamics – by the growth rate. The calculation

determines the indicators of management efficiency in the following areas: assessment of the efficiency of the management subsystem (assessment of the efficiency of the organisational structure of management, of management technology) and in all areas of assessment of the efficiency of the managed subsystem. Qualitative indicators are determined through expert assessments and surveys. The survey can be used to determine the indicators of organisational culture effectiveness as part of the assessment of the effectiveness of the managed subsystem. Along with the analysis of methods of selective and integrated approaches.

W. L. Charles Hill and R. Gareth Jones [10] carried out a detailed analysis of methods of calculating indicators for the selected methods of assessing management efficiency, which showed that different authors propose the same methods of calculating assessment indicators - absolute, relative, integral, stating, dynamic and . The expert estimates will be used in determining the indicators for assessing the external efficiency of management of enterprise activities in the context of public-private partnership.

**Main material of research.** From the point of view of a systematic approach to management, all approaches to performance evaluation are combined into three general approaches:

- 1. Selective approach involves assessing the effectiveness of enterprise management in the context of public-private partnership in terms of one element of the management system. The selectivity of the approach to assessing the effectiveness of enterprise management leads to fragmentation and diverse orientation of the assessment results, which does not allow to have a general idea of the state and purposefulness of the functioning of the enterprise management system as a whole.
- 2. Fragmentary approach the main characteristic of the approaches to assessing the effectiveness of enterprise management, which are combined under this approach, is their episodic nature. That is, the evaluation of the efficiency of management of the enterprise in the conditions of public-private partnership is carried out only under certain changes: either a management decision, or improvement of management, or change in the value of the business. This explains the complexity of assessing management effectiveness, which leads to the loss of relevance of the fragmented approach to achieving the assessment goal.
- 3. Integrated approach combines existing approaches to assessing management effectiveness, which are to some extent complex. That is, the assessment of the effectiveness of management of the enterprise in the conditions of public-private partnership within this approach is carried out by a set of individual elements of the management system.

Methods of evaluation within the selective approach can be divided into two groups. The first group combines methods based on the assessment of production efficiency and economic efficiency. The second group includes methods based on assessing the efficiency of management costs and the effectiveness of management work. The methods differ in the composition of the indicators calculated within each method, although some indicators are used in several methods. The most common of these are sales volume, sales profit, production profitability, capital intensity, material intensity and asset turnover. These indicators are more general indicators that characterise the results of an enterprise's operating activities. The use of the same indicators in the second group of valuation methods within the selective approach is quite rare.

Assessing the efficiency of management of an enterprise in the context of public-private partnership is of particular importance, since it allows assessing the level of efficiency of the management system, identifying existing and potential opportunities for its development, and most importantly, providing the necessary information for making appropriate management decisions both for the enterprise's managers and external users (investors, suppliers, consumers, competitors and regulatory authorities). The range of interests of internal and external users of the results of the assessment of the efficiency of enterprise management in public-private partnerships is significantly

different. External users may receive non-detailed information on the overall level of efficiency of the enterprise's management and information on the level of efficiency of those elements of the management system that directly affect the management decisions made by external entities with respect to the enterprise. Internal users of the results of the assessment of the efficiency of enterprise management should be grouped according to their attitude to a certain level of management, i.e., top, middle or bottom. Top management users are provided with detailed information on the overall level of management efficiency; middle management users are provided with unspecified information on the overall state of enterprise management efficiency and information on the level of efficiency of individual relevant elements of the management system.

O. Nifatova develops the idea that for a comprehensive analysis of management there is a need to determine the cost, effectiveness and need efficiency [11]. Cost efficiency is defined as the ratio of costs to the result that was achieved. Effective efficiency is the ratio of the achieved result to the set goals. Necessary efficiency is the ratio of goals to needs, ideals and norms. These types of efficiency create a chain: need efficiency determines effective efficiency, and effective efficiency determines cost efficiency.

It is possible to distinguish between different methods of forming performance criteria, including mono-criteria and multi-criteria problem formulation. While the mono-criterion formulation optimises one of the effect parameters, the poly-criterion formulation optimises these parameters together. Another method of formulating performance criteria involves including one part of the effect parameters – the parameters to be improved – in the numerator, and the other part – the parameters to be reduced – in the denominator. The disadvantage of this method is that a decrease in the denominator and a small value of the numerator results in a large value of the criterion. Therefore, there is a problem of limiting either the numerator or the denominator. Another method is to maximise or minimise one of the effect parameters and limit the others.

At the present stage of management development, there is often a need to apply a retrospective method of assessing the effectiveness of management, which consists in studying previously created management systems and the results of their functioning. Analysing previous experience, quantitative indicators reflecting the effectiveness of management are obtained. It should be noted that a retrospective assessment does not allow determining the comparative effectiveness of different management systems, as well as comparing different options for organising and implementing management. A successful comparative assessment of different management system options can be made on the basis of predictive calculations and, in particular, the use of mathematical modelling.

The following methodological approaches are used to assess the effectiveness of enterprise management in the context of public-private partnership:

- 1. Comparison of management costs with the final results of the enterprise's activities: gross output per manager, profit, etc.
- 2. Use of indicators directly related to the management process: labor intensity of management and its individual functions and operations, costs of material and financial resources.
  - 3. Use of final indicators of the enterprise's work.
- 4. Use of empirical formulas that characterize management efficiency. Empirical formulas are derived on the basis of established dependencies, for example, using correlation analysis.
- 5. Calculation of integrated indicators that determine the degree of influence of managers on the use of the main factors of production: land, labor and technical means. The integral indicator is calculated on the basis of individual coefficients of their use.
- 6. Normative approach, which consists in comparing actual management costs with normative ones.
  - 7. Conducting expert and qualitative assessments.

Depending on the nature of the developed measures, the object of assessment may be: management as a whole (system, organization, methods), management structure, level of use of managerial labor, efficiency of structural units.

Some foreign scientists suggest using labor, cost, information, technical (technological) indicators to analyze management efficiency [10].

The general indicators of the management apparatus include – efficiency of work, reliability and optimality of the management system. The efficiency of the management apparatus reflects the timeliness of the implementation of resolutions, orders and instructions of managers and chief specialists of the enterprise. The reliability of the management system is manifested in its continuous functioning, which ensures the achievement of production goals. The optimality of the management system is characterized by the level of application of modern economic and mathematical methods for the development of management decisions, the validity of the ratio of centralization and decentralization of management, and the manageability of the enterprise.

For a comprehensive assessment of the effectiveness of the management system, it is necessary to use indicators that are combined into three groups: general performance indicators of the enterprise's production and financial activities – gross output in dynamics, gross output, return on assets, mass of profit, profitability of production, etc.; indicators of managerial labor productivity – production of gross output per one managerial employee or per one person-day, gross output per one hryvnia of management costs, the amount of profit per one person-day spent on management; indicators of the management apparatus' efficiency – the share of management personnel in the total number of employees and the total payroll, the share of management costs in the cost of production. To determine the effectiveness of management improvement, it is necessary to take into account such indicators as a comparison of rationalization costs with the results of the management object's activities; the ratio of costs for improving management and directly for the management process; the dynamics of management costs compared with total production costs.

Conclusions and prospects for further research. Thus, we believe that the efficiency of enterprise management in the conditions of public-private partnership is most expedient to define as the ratio of managers' performance results to the costs associated with the implementation of this activity. It can be represented in the form of an equation that includes the goals of the organization and three types of efficiency – necessary, effective and cost. The most common modern methods for assessing management efficiency include the following: monocriterial and polycriterial methods, the method of assigning parameters to the numerator and denominator, the method of maximizing or minimizing effect parameters, the retrospective method, the method of using a system of criteria. For a comprehensive analysis of the management system, it is possible to use such methodological approaches as comparing management costs with the final results of the enterprise's activities; using indicators related to the management process; using final indicators of the enterprise's performance; using empirical formulas that characterize management efficiency; calculating integrated indicators that characterize the degree of influence of managers on the use of the main factors of production; normative approach; conducting expert and qualitative assessments. In the process of assessing efficiency, it is necessary to take into account generalizing indicators of the management apparatus, effective indicators of the enterprise's activities and other indicators.

So, according to the results of studying approaches to assessing the effectiveness of enterprise management in the conditions of public-private partnership, it was established that there are many such approaches, they differ in the objects of assessment (management system, management apparatus). The main reasons for the diversity of approaches are as follows: firstly, the approaches are formed for different conditions of use; secondly, changes occurring in the state economy constantly put forward new requirements for these approaches; thirdly, in the conditions of integration processes, existing approaches cease to be relevant. In addition, these approaches do

not allow us to consider efficiency as a comprehensive characteristic of management, since they do not consider the influence of factors by functional subsystems.

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