

УПРАВЛІННЯ ПІДПРИЄМСТВОМ

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ASSESSMENT OF THE EFFECTIVENESS
OF ENTERPRISE MANAGEMENT
COMPONENTS IN MODERN CONDITIONSОЦІНЮВАННЯ ЕФЕКТИВНОСТІ СКЛАДОВИХ
УПРАВЛІННЯ ПІДПРИЄМСТВАМИ
В СУЧАСНИХ УМОВАХ

Urgency of the research. The concept and methodology for evaluating the effectiveness of management should be based on the specifics of the research object and the level of development of the institutional environment.

Actual scientific researches and issues analysis. The question of the effectiveness of corporate governance is highlighted in the works of J. Gibson, D. Ivantsevich, D. Donnel, B. Miller, D. Leonov, T. Momot, A. Pedkot etc.

Uninvestigated parts of general matters defining. The process of assessing the effectiveness of enterprise management needs to be considered through the prism of an integrated assessment of the components of management efficiency.

The research objective. To develop a theoretical and methodical approach to the assessment of the efficiency of management of enterprises of the mining complex by constructing integrated evaluation systems.

The statement of basic materials. To evaluate the effectiveness of the components of enterprise management, a combination of fuzzy-plural and linguistic approach is used.

In order to ensure a high level of adequacy of the results of diagnostics of the efficiency of management, it is suggested that companies use the weighting factors of the significance of individual compositional systems for assessing the effectiveness of management, based on the use of a multi-criteria matrix approach.

Conclusions. The use of methodological approaches to assess the effectiveness of enterprise management enables a consistent quality assessment and identification of characteristics of the state of management efficiency in accordance with the quantitative and linguistic estimates of the Harrington scale and to construct a matrix to determine the importance of the components of the efficiency of enterprise management.

Keywords: management instruments; corporation; mechanism; organizational and economic mechanism; management; functions of management.

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Urgency of the research. The concept and methodology for evaluating the effectiveness of management should be based on the specifics of the research object and the level of development of the institutional environment.

Актуальність теми дослідження. Концепція та методика оцінки ефективності управління повинні будуватися з урахуванням специфіки об'єкта дослідження та рівня розвитку інституційного середовища.

Аналіз останніх досліджень і публікацій. Питання ефективності управління корпорацією висвітлено в роботах Дж. Гібсона, Д. Іванцевича, Д. Доннелл, Б. Мільнера, Д. Леонова, Т. Момот, А. Педькота ін.

Виділення недосліджених частин загальної проблеми. Процес оцінювання ефективності управління підприємствами необхідно розглянути крізь призму інтегральної оцінки складових ефективності управління.

Постановка завдання. Розробити теоретико-методичний підхід до оцінки ефективності управління підприємствами гірничодобувного комплексу шляхом побудови систем інтегральної оцінки.

Викладення основного матеріалу. Для оцінки ефективності складових управління підприємствами використовується поєднання нечітко-множинного та лінгвістичного підходу.

Для забезпечення високого рівня адекватності результатів діагностики ефективності управління підприємствами пропонується використовувати вагові коефіцієнти значущості окремих складових системи оцінки ефективності управління доцільно розраховувати на засадах використання багатокритеріального матричного підходу.

Висновки. Використання методологічних підходів для оцінки ефективності управління підприємствами дозволяє отримати послідовність якісної оцінки та провести ідентифікацію характеристики стану ефективності управління відповідно до кількісних та лінгвістичних оцінок шкали Харрінгтона та побудувати матрицю визначення вагомості складових ефективності управління підприємствами.

Ключові слова: управління; ефективність управління; інтегральна оцінка; нечітко-множинний підхід; лінгвістичний підхід; бізнес-індикатори; складові ефективності управління.

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Actual scientific researches and issues analysis. In domestic science, to the problem of theoretical and methodological aspects of evaluating the effectiveness of management were dedicated works of L. Bondarchuk [1], M. Makarenko [2], D. Bayury [3] and other authors. However, it should be noted that with respect to the object of study in the scientific literature and practice of commercial rating, the development of a methodology for evaluating the effectiveness of management has not received adequate study.

The essence of the category of "organizational effectiveness" and "efficiency control" and understanding the role of managers in improving the efficiency of enterprises covered in the work of A. Zainchkovskiy [4], K. Abdulaev [5], O. Garafonova [6]. L. Livanova considered methodological approaches to management, defining managerial, strategic, legal, social approaches, the approach in terms of economic theory, institutional, integration and cost approaches.

Uninvestigated parts of general matters defining. The process of assessing the effectiveness of enterprise management needs to be considered through the prism of an integrated assessment of the components of management efficiency.

The research objective. To develop a theoretical and methodical approach to the assessment of the efficiency of management of enterprises of the mining complex by constructing integrated evaluation systems.

The statement of basic materials. It should be noted that the market conditions and competition summarizing important criterion for evaluating the efficiency of business management is their competitiveness, ie the ability to withstand competitors in the market for consumer satisfaction level of their products, production efficiency, quality and safety of use.

To measure the indicators characterizing the degree of achievement the main criteria now methods of direct payments and indirect methods of assessment (expert methods, questionnaire, etc.) are used [1]. Since none of the approaches has over other absolute advantages, in practice, identifying and evaluating the effectiveness of management activities is appropriate their combined use, which increases the reliability of the results. The concept and methodology for evaluating the effectiveness of management should be based on the specifics of the research object and the level of development of the institutional environment. Therefore, theoretical justification and development of recommendations for determining the components of the rating estimation for use in the analysis of domestic mining enterprises is necessary.

The effectiveness of management is influenced by various factors, among which define: mental and physical abilities of a person and their ability to carry out management activities; production means by which a person, group, society produces everything necessary for life, that strengthens the mental and physical abilities of the person; social conditions that contribute to the disclosure of individual employee creativity and team as a whole; the cumulative effect of previous factors reinforced their integration [2].

The components of the efficiency of the management of enterprises, which are the basis for evaluation, will be presented using Pic. 1.

Assuming that the efficiency of business management has a qualitative and quantitative level, the evaluation system should also be divided into two subsystems: qualitative and quantitative. An integrated system of evaluating the effectiveness of corporate governance, which consists of two parts: a quantitative assessment of the effectiveness of management and quality control assessment [3].

Integrated business management efficiency rating based on the use of aggregate absolute and relative indicators. An integral assessment system proposed to determine the effectiveness of enterprise management should be based on a combination of linguistic and fuzzy-plural approach. This will create the preconditions for identifying critical points of development and identification and elimination of deficiencies in the development of enterprise management.

Since the system of evaluating the effectiveness of business management consists of eight components, there is a need to develop evaluation indicators for each of them. System aforementioned indicators should be based on the principles of respect for the principles of minimizing the number, coverage and quality of information and ease of information provision calculation.

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To determine the effectiveness of business management full set of proposed efficiency levels divided into four fuzzy subsets: high efficiency of business management, above average management efficiency, intermediate management efficiency, low efficiency of management [4].

Components of effectiveness of enterprise's management	Semantic characteristics of the components of the efficiency of business management	Diagnostic business indicators
Financial and economic	Meets the financial condition of the company: profitability activity liquidity, financial independence, business activity. Reveals financial and economic performance, its resistance, susceptibility to positive developments, the potential in this area	The indicators of profitability, liquidity, financial independence, business activity, costs, etc.
Technic and technological	Displaying availability and scale enterprises owned land and property complexes, buildings, structures, equipment, technologies, etc.	Coefficient updating and withdrawal of fixed assets, capital, capital intensity, the book value of fixed assets, amortization fund, the number of patents and licenses to use technologies, etc.
Labor	Reveals the attractiveness of the enterprise for its existing and potential employees through wages established working conditions, benefits package, official vehicles, financing, communications, developed social infrastructure (health and preventive health institutions, sports facilities, canteens), for the prestige of workers	The level of basic and additional salary costs of maintenance of social infrastructure, productivity, social costs bonuses and packages
Partnership	Acknowledge <i>nalahodzhenosti</i> level and history of relationships with suppliers (their reliability and diversification), consumers (their ability to pay), banks (credit standing enterprise), transport and insurance companies, public authorities	The volume of lending hopeless receivables, fines, penalties, costs due to delayed delivery of raw materials, short delivery, insurance costs, etc.
Image and branding	Measures the presence of the company advertised brand, trademark image formed on the market	The cost of the goodwill carrying value of intangible assets, etc.
Product	The displayed unique products (goods, labor services) or consumer products, high competitiveness of products manufactured at different stages of the cycle	Price products, product quality, performance, market share, sales, competitiveness and other products
Administrative	Demonstrates the legal form of the company, its legal registration, or stay on a simplified single system of taxation lawsuits by foreign plaintiffs, the presence of criminal and administrative cases, professional warehouse management system	Court costs, fines and penalties, tax savings, skill level managers at various levels of management, effectiveness and efficiency of management decisions
Corporate management	Shows availability and compliance of corporate governance, the level of audit and accounting formation, the degree of protection of shareholder rights, the level of participation of stakeholders in management, the degree of disclosure, professional level of company	Administrative costs, transaction costs, costs of sales, the number of audits, payment of dividends, book value and market value of shares, economic value added, return on investment

Pic.1.Characteristics of main components of effectiveness of enterprise's management

Source: created by the authors

In addition, a set of signals effectiveness of business management for individual indicators proposed to distinguish between similar four fuzzy subsets:

C1 - fully meets the criteria regulatory level;

C2 - meets the criteria regulatory level to the lower limit;

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C3 - approaching the regulatory criterion level, but it does not match;
 C4 - fully meets the criteria of normative value.

To calculate the values of a particular company and their identification is proposed to form a matrix of performance management. Owing to the selected indicators for enterprises mining complex detected intensity signals of certain expressions and their accumulation in the respective zone (C1, C2, C3, C4).

Table 1

Matrix identification performance business management for individual components of the assessment and subsets

Coefficient	C1	C2	C3	C4
K ₁	b ₁₁	b ₁₂	b ₁₃	b ₁₄
K ₂	b ₂₁	b ₂₂	b ₂₃	b ₂₄
...
K _n	b _{n1}	b _{n2}	b _{n3}	b _{n4}
Interpretation signals about the state of governance a corporation $\sum_{n=1}^N b_{n1}$	The company has a high level of management efficiency	The first weak signals are identified potential crisis defined component that requires extra attention to strengthening the status and good governance	Progressing crisis of the component that causes a decrease in performance degradation and management corporation. There is a need for radical measures to improve this part	The low level of efficiency management corporation in all respects. There is a need for a decision on reorganization or restructuring of administrative and production activities

**generalized by the authors*

Formed integral assessment of the efficiency business management for each subset and ranked on the basis of determining the priority subsets.

Interpretation state management efficiency of enterprises is based on a prioritization of subsets. If the priority priori, it doubtless recognize and appropriate interpretation of the state of efficiency of business management [5].

Generalized evaluating the effectiveness of corporate governance, including an assessment of all subsets and all indicators of this component within each subset is given by [6]:

$$l_{ki} = 1 - r/4 \tag{1}$$

where r - the arithmetic mean of the numbers of subsets; 4 - the maximum number subsets.

Qualitative assessment of business management based on the task of ponuyetsya-performed in the order [7].

1. Qualitative-descriptive identification of different classes of attractiveness individual components of effective management of the company and subsequent conversion to meters using quantitative scale Harrington.

2. Definitions weight components efficiency management.

3. Comprehensive evaluation of integrated management efficiency.

4. Interpretation of the status and effective management of the enterprise according to the scale Harrington.

To ensure a high level of adequacy diagnostic results management efficiency of enterprises is necessary in determining the significance of the proposed components for analysis. The weights of individual system components importance of evaluating the effectiveness of business management advisable to calculate based on the use of multi matrix approach involves pairwise comparisons importance and priority of these components. Matrix determining the weight of the components

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business management efficiency shown is presented on an example of the mining industry of Vinnytsia region for 2012-2016 in the Tab. 2.

When evaluating the effectiveness of management stakeholders (owners, managers, investors) overstatement of the threat of the results and their particular bias. This is due to the desire of these entities diagnosis attract foreign investors and additional financial resources. In addition, the approach helps investors focus on the effective management components that cause the greatest concern. As practice shows, the priority criteria for capital investment in the company is technological and product appeal.

Table 2

Determining the importance and ranking of the components of the effectiveness of enterprise management

Components	Financial and economic	Technic and technological	Labor	Partnership	Image and brand	Product	Administrative	Corporate management	E _{ij}	E _{8ij} – the cumulative incidence of benefits	E _{ij} – weight indicators	Rating of figures
Financial and economic	X	1	3	1	5	6	1	1	4	4	0,148	3
Technic and technological	-	X	3	2	5	6	7	2	2	2	0,074	6
Labor	-	-	X	3	3	6	3	3	4	6	0,222	1
Partnership	-	-	-	X	5	4	4	8	1	1	0,037	8
Image and brand	-	-	-	-	X	5	7	8	1	4	0,148	3
Product	-	-	-	-	-	X	6	6	2	5	0,185	2
Administrative	-	-	-	-	-	-	X	7	1	3	0,111	5
Corporate management	-	-	-	-	-	-	-	X	-	2	0,074	6
E _{2ij}	-	0	2	0	3	3	2	2	-	27	1	-

The results of qualitative generalized assess the effectiveness of management based on the weight of components at the enterprises for the years 2012-2016 are shown in Tab. 3.

Table 3

Quality generic evaluating the effectiveness of business management and its interpretation by Harrington scale based on linguistic approach for the years 2012-2016

Enterprise	2012	2013	2014	2015	2016
PJSC "Stryzhavska Carrier"	0,51	0,52	0,45	0,52	0,47
Linguistic assessment for the diagnosis of conditions	Satisfied				
PJSC "Hnyvansky Carrier"	0,39	0,38	0,34	0,36	0,36
Linguistic assessment for the diagnosis of conditions	Satisfied		Low		
PJSC "Demidivsky Carrier"	0,53	0,55	0,59	0,61	0,63
Linguistic assessment for the diagnosis of conditions	Satisfied				
PJSC "Zhezhelevsky Carrier"	0,40	0,48	0,48	0,42	0,49
Linguistic assessment for the diagnosis of conditions	Satisfied				
PJSC "Ivankivsky specialized Carrier"	0,49	0,5	0,49	0,52	0,43
Linguistic assessment for the diagnosis of conditions	Satisfied				

The analysis showed that the enterprises surveyed satisfactory condition qualitative assessment of the effectiveness of management, and the JSC "Hnivansky hrnkar'ye" for years 2014-2016 - unsatisfactory.

Conclusion: The system for evaluating the effectiveness of integrated corporate governance, which consists of two parts: a quantitative assessment of efficiency of management and quality assessment of management, based on the use of aggregate absolute and relative indicators. To

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determine the effectiveness of business management full set of proposed efficiency levels divided into four fuzzy subsets and the set signal effective management companies for some indicators suggested to distinguish between similar four fuzzy subsets. Also, the sequence qualitative assessment of business management is responsible Vienna to its objectives. The results obtained research conducted identification characteristics of the effectiveness of corporate governance, according to the quantity and linguistic scale ratings Harrington and based matrix components determining the weight management efficiency of mining complex. Quantitative and qualitative assessment of the effectiveness of management are presented on the example of mining Vinnitsya region for the period 2012-2016 years. The analysis found that in most companies surveyed qualitative assessment of management effectiveness is satisfactory condition, and only one company has - unsatisfactory. As for the quantitative assessment, it is low and most of the deterioration concerns recent years, especially in 2016. This analysis allowed to expose the problems that need solutions to ensure efficient operation of business management. This basis acts as a basis for sound and effective management decisions.

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