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DOI <https://doi.org/10.26661/2414-0287-2021-1-49-07>**KEY INDICIES OF BUSINESS EFFICIENCY ANALYSIS AND EVALUATION****Proskurina N.M., Pushkar' I.V.***Zaporizhzhia National University**Ukraine, 69600, Zaporizhzhia, Zhukovsky str., 66*

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**Key words:**

efficiency, business efficiency, economic efficiency, efficiency evaluation, return, EBITDA, OIBDA, net cash flow.

The problems of analytical evaluation of economic entities' efficiency amid complexity and instability of the market environment have been examined in the article. Meeting the changing information needs of investors and analysts, as well as the improvement of financial analysis methods according to the management demands, the issue of the formation of key indicators system aimed at the analysis and objective assessment of business efficiency is relevant. Within the set objective economic essence of the efficiency has been revealed, characteristics of the methodological approaches to the efficiency analysis and evaluation have been provided: traditional, multifactorial and based on the concept of performance management. It has been found out that to form the system of indicators for efficiency evaluation, it is necessary to take into account the form of ownership, industry characteristics, goals of enterprise's development and stakeholders expectations. The methods and analytical indicators of the traditional approach typical in the local context have been analyzed, its strengths and weaknesses have been clarified. Taking into account that the methods of business economic efficiency evaluation are being developed and improved, the characteristics of EBITDA and OIBDA indicators and their main differences have been specified. The indicators' advantages and disadvantages have been systematized and the significance of cash flow analysis as the criterion of solvency and enterprise development have been revealed. The relevance of traditional and modern foreign methods and indicators combination for the complete and objective business efficiency evaluation have been presented.

**КЛЮЧОВІ ПОКАЗНИКИ АНАЛІЗУ ТА ОЦІНКИ  
ЕФЕКТИВНОСТІ ДІЯЛЬНОСТІ ПІДПРИЄМСТВА****Проскуріна Н.М., Пушкар' І.В.***Запорізький національний університет**Україна, 69600, м. Запоріжжя, вул. Жуковського, 66***Ключові слова:**

ефективність, ефективність діяльності підприємства, економічна ефективність, оцінка ефективності діяльності, рентабельність, EBITDA, OIBDA, чистий грошовий потік.

У статті досліджено проблеми аналітичної оцінки ефективності діяльності суб'єктів господарювання в умовах ускладнення та нестабільності ринкового середовища. Із зміною інформаційних потреб інвесторів, аналітиків, удосконаленням методів фінансового аналізу у відповідності до запитів системи управління, актуальним є питання формування системи ключових показників для аналізу та об'єктивної оцінки ефективності діяльності підприємств. У рамках поставленої мети розкрито сутність ефективності в економічному аспекті, надано характеристику основним методичним підходам до аналізу та оцінки ефективності діяльності: традиційному, багатofакторному, на основі концепції управління результатами (Performance Management). З'ясовано, що для формування системи показників оцінки ефективності діяльності, необхідно враховувати форму власності, галузеві особливості, цілі розвитку підприємства та очікування зацікавлених сторін. Проаналізовано методи та аналітичні показники традиційного підходу, що найчастіше застосовується у вітчизняній практиці і з'ясовано їх сильні та слабкі сторони. У зв'язку з тим, що методи оцінки економічної ефективності діяльності підприємства продовжують розвиватися та удосконалюватися, надано характеристику таких показників як EBITDA, OIBDA, уточнено їх основні відмінності. Систематизовано переваги і недоліки кожного з цих показників та розкрито значимість аналізу грошових потоків як критерію платоспроможності та рівня розвитку підприємства. Обґрунтовано доцільність поєднання як традиційних так і сучасних зарубіжних методів та показників для повної та об'єктивної оцінки ефективності діяльності підприємства.

### Statement of the problem

Nowadays ensuring the efficiency of business activities is the priority of enterprise management. Efficiency is an important principle for business entity competitiveness and the ability of its strategic innovation development. Therefore, the management system must respond quickly to the negative external and internal environmental factors to offset them. And this in turn requires timely analytical information on the rational use of all its resources, company's potential and profitability. Profit is an important source of capital formation, financial sustainability and solvency. It performs the protective function of an enterprise, namely it resists the threat of bankruptcy and acts as the background for the growing market value. However, current market development reveals that businesses are not profit-seeking, as profit is one of the principles of entering the market, i.e. business entities consider not only profit itself but also methods to gain it ensuring business efficiency. Growing and ensuring performance management efficiency is impossible without its complex evaluation. The results of the evaluation allow to estimate scale and changes in management, to make rational management decisions to improve and maintain managerial efficiency and to choose methods and tools for business management.

### Analysis of recent studies and publications

Ukrainian and foreign scholars pay considerable attention to the issues of analytical evaluation of the business entities efficiency. Blank I.A. [1], Grechko A.V., Grechukhin A.S. [3], Matyukh S.A. [5] and Pilipenko S.M. [6] were mentioned in this article. Lobodzynska T.P. [4] and Busler A.G. [2] dedicated their papers to the peculiarities of foreign methods application for performance management evaluation. J. Strong [2] studied the significance of cash flow analysis and insisted on performance evaluation by cash flow criterion. Despite the importance of the existing scientific research, there are still some relevant controversial issues that need further improvement. There is the need to choose from a large number of analytical indicators those that are really able to provide comprehensive information to assess business efficiency.

### Objectives of the article

The objective of the article is to study and generalize theoretical and methodological approaches to present business performance evaluation and prove key indicators of analytical evaluation which will contribute to the efficient business management.

### The main material of the research

Efficiency analysis and evaluation occupy an important place in managerial system being information background for the development of strategic and tactical goals of an enterprise. The concept of "effect" as an economic category reflects the excess of performance over costs, i.e. it is a form of result. There is no consensus over the essence of the "efficiency" concept, but most authors [3; 5; 6], define the concept of "efficiency" as the ratio of effect to costs or resources put for obtaining this effect. Thus, in general,

efficiency is an economic category that reflects correlation between performance and invested resources. The resources are put either in a certain amount at their original cost, or as part of their cost in the form of production costs or resources consumed.

Business efficiency as an economic category reflects the compliance of the actual result to the desired one, that is, it is the extent organization meets its goals and its ability to operate in a competitive environment. Efficiency in this case is applied to justify business decisions and for analytical evaluations [6, p. 453].

It should be noted that when evaluating the performance, the "efficiency" concept is considered differently, including economic, organizational and social efficiency. This accordingly affects the choice and formation of the system of performance evaluation indicators. All types of efficiency are interconnected and interdependent: higher economic efficiency contributes to the growth of other types of efficiency; social efficiency combines the properties of economic and organizational efficiency and is aimed at meeting the needs of employees.

Economic efficiency is a category used to assess economic performance of an enterprise if to compare to the efforts associated with the activity. Economic efficiency is the main qualitative determinant of businesses economic growth, as it provides its absolute performance growth with the same efforts [7].

Efficiency evaluation is the method to determine performance efficiency of an enterprise and its divisions on the basis of indicators system to calculate the extent of tasks meeting. Besides, efficiency evaluation is an effective tool for information and analytical support of management activities of an enterprise, which is based on certain criteria and indicators. The issue is to form the system of indicators that will be most informative for analytical evaluation, as well for the description of higher performance efficiency. It should be mentioned, that today there is no single approach to the assessment of business efficiency, so each company based on its ownership, field, purpose of evaluation (assessment of business development, assessment of capital investment) and the goals of stakeholders (consumers, owners, shareholders, staff, suppliers, partners), forms individually the appropriate system of indicators to evaluate its performance efficiency.

Typically, companies use traditional financial statements to analyze performance – Balance Sheet (Statement of Financial Position) and Statement of Financial Performance (Statement of comprehensive income). These two reports are used by companies to examine their organizational health by comparing actual results with past or planned or industry averages. Based on these results, companies make changes in their activities to get better performance in the future. This type of accounting and business analysis refers to GAAP, which is a common accounting practice widely recognized in business management [8]. Scholars like Grechko A.V., Grechukhin A.S. and Pilipenko S.M. [3, 6], distinguish the following methodological approaches to performance analysis: traditional, multifactorial, performance evaluation based on the concept of Performance Management.

Traditional approach is based on Du Pont classic model. It characterizes the return on equity and applies two groups of indicators for efficiency evaluation, namely first level summary indicators, which reflect business efficiency in general. When studying, the performance indicators are compared with the costs of all resources, which are indicators of the second level. The latter evaluate the efficiency of certain enterprise resources [3]. Local analytical practice of efficiency analysis is based on the traditional approach of the return evaluation.

The return is defined as business' ability to gain profit using its resources; it is an economic tool that underlies all managerial

decisions referring to business management and relations with business partners; therefore, it acquires the status of the key criterion for economic efficiency evaluation [7]. Thus, the system of performance evaluation indicators has been identified on the basis of traditional approach and the essence of economic efficiency. The latter reflects the extent of material, financial, labour, natural and other resources application; production of appropriate value at the lowest cost; achievement of the largest volume of production using resources of appropriate value; standard of cost to meet set goals (Fig. 1).

As for the multifactor approach, it is rarely used due to the complex interpretation of aggregate indices.

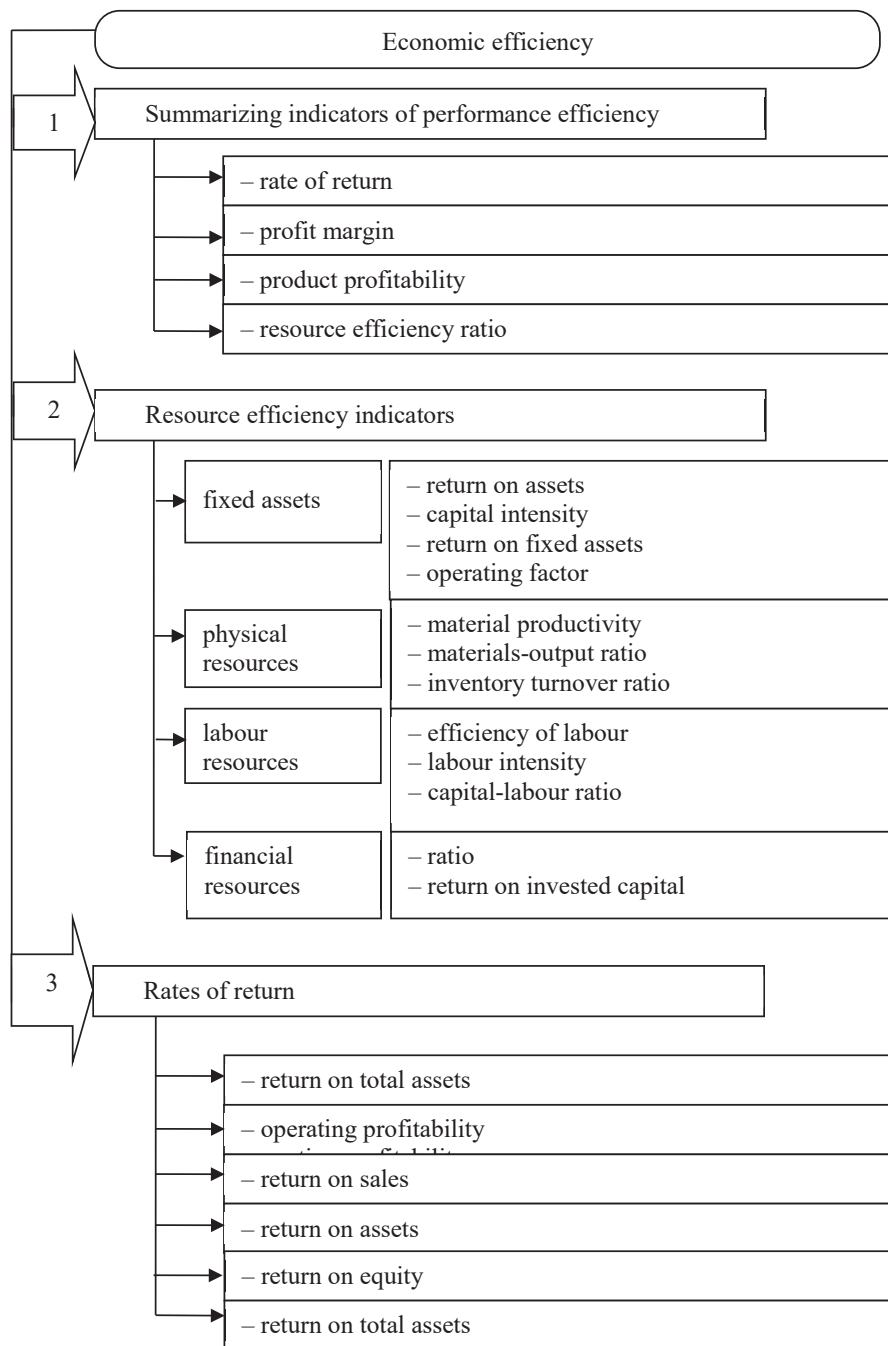


Fig. 1. Indices of economic efficiency evaluation of an enterprise

It should be noted that today amid the situation of risk and uncertainty, management system expresses strong demand for the system of informative performance indicators. Thus, the emerging application of the return on equity capital index led to the modification of the original Du Pont model. This further allowed to determine the most acceptable correlation between equity and loan, i.e. to use financial leverage indicator.

Since the end of the 20-th century, the attention has been focused on the indicators that allow to evaluate value based efficiency of an enterprise. This is VBM (Value Based Management) approach, which is absolutely different from the previously discussed methods of performance evaluation.

The shortcomings associated with the profit as an indicator for the calculation of business performance indicators, were partially corrected by the Economic Value Added indicator. EVA index was developed by the American company "Stern Stewart & Co". It is used by numerous well-known companies by now. It is based on the key principle: the company creates added value if its return on capital exceeds opportunity costs [5, p. 83].

The essence of performance evaluation based on the concept of Performance Management lies in Balanced Scorecard (BSC) application, which was developed by R. Kaplan and D. Norton [9] and includes financial and non-financial indicators. Return in this case takes back seat. The system of indicators that uses this method combines most of the existing indicators into certain groups, which allows to evaluate in more detail businesses' economic efficiency. However, due to the complexity of application, this system is inferior to traditional methods of efficiency evaluation.

However, the considered indicators of business efficiency evaluation do not contain enough financial information for investors, taking into account the peculiarities of European integration processes, characterized by instability and entrepreneurial risks. Amid growing inflation none of the profit indicators show the real efficiency position of an enterprise or forecast the future activities: neither operating income, nor earnings before taxes, nor earnings before interest. At the same time, in foreign analytical practice, EBITDA and OIBDA indicators are often used instead of earnings to evaluate business efficiency and to calculate other ratios: return on assets, interest coverage ratio, return on equity, etc. (Table 1).

EBITDA is often used for business efficiency evaluation. This financial ratio is used to determine company's overall financial performance. EBITDA is applied in comparisons with industry counterparts, allows to track earnings formation at all levels.

EBITDA (Earnings before Interest, Taxes, Depreciation and Amortization) is analytical ratio of earnings before interest, taxes, depreciation and amortization [2]. EBITDA should be measured on the basis of accounting information obtained from financial statements prepared in accordance with International Financial Reporting Standards (IFRS), as international standards almost always reflect the vision of owners and company management for internal affairs (the principle of economic over legal form when representing a transaction). The main advantage of EBITDA is that it can be used to correctly compare companies operating in the same industry but having different accounting policies (for example, depreciation accounting or asset revaluation), different tax terms or debt burden. When comparing companies of the same specialization, but located in different countries, it is not enough to apply only net earnings ratio. Therefore, the use of EBITDA is mainly explained by three factors: different national tax systems; various methods of depreciation; assorted loan terms of financial institutions.

Nevertheless, EBITDA has some disadvantages:

- its calculation using financial report ratios needs additional measurements;
- does not fully reflect company's cash flow;
- subtracting depreciation by companies with highly depreciated assets cause drawbacks in financial performance.

It should be noted that among the main indicators that reflect company's performance, except earnings before interest and taxes and the already considered EBITDA, the OIBDA metric is also very popular in foreign analytical practice. Therefore, let us consider its relevance for the performance evaluation.

OIBDA is Operating Income Before Depreciation and Amortization of intangible assets [10]. Thus, this indicator includes only the income received from continuing business activities. That is, OIBDA is not subject to one-off charges, such as exchange rate differences or tax preferences. Common use of OIBDA can be explained by its advantages [4, c. 384]: includes depreciation and amortization being a transparent ratio, as amortization expenditure is added back into business; excludes non-operating

Table 1 – Characteristics of foreign analytical indices of performance efficiency evaluation standards

Index	Characteristics
EBITDA	The indicator is necessary, first of all, for external consumers of information: investors, analysts and all those who want to make a comparison between companies of the same field. Cost-effectiveness by EBITDA is one of the main criteria for business comparisons. From this point of view, this indicator could be useful for internal information consumers' own business evaluation: financial managers, managers and shareholders of the studied companies.
OIBDA	The indicator is closer to the real indicator of business' return. It is also one of the important indicators of current financial and economic environment of an enterprise, as it serves to demonstrate company's current position, or rather, its ability to pay its debts and raise new loans.
Net cash flow	The indicator shows the extent to which company has the opportunity to raise its value. Analysis of the structure and dynamics of net cash flow provides an opportunity to review not only financial environment, but also investment attractiveness.



income and expenditure, that is OIBDA does not consider earnings and expenditure of currency fluctuations as foreign exchange market is not company's core activity and the main source of earnings, then profitability ratios must exclude these earnings and cost; does not consider cost cuts as tax benefits.

It is worth noting that running any business today means its cash flow management. For instance, Blank I.A. considers that the main efficiency indicator is earnings or growth of company's equity. In any case, cash flow acts as the function of efficiency. The main form of company's efficiency is its net cash flow, i.e. the difference between a company's cash inflows and outflows. The ratio shows the extent to which a company has the opportunity to increase its value [1]. The dynamics of this ratio indicates changes in operating activities, and company's investment.

Thus, the combination of generalized performance indicators, resource efficiency indicators, rates of return with EBITDA, OIBDA and net cash flow will provide complete analytical information for the reliable efficiency evaluation of an enterprise taking into account its solvency and terms of further development.

## Conclusions

The study has revealed that the efficiency is a complex and multifaceted concept that reflects correlation between the outcomes and all types of resources put into the production process. Moreover, it characterizes the extent to which it meets business goals and enterprise's ability to work in a competitive environment. Both traditional and modern approaches are used for analytical evaluation of performance efficiency. They are defined and systematized by their features, advantages and disadvantages. It has been proved that it is possible to fully analyze and evaluate the efficiency of an enterprise based on the indicator system but taking into account the peculiarities of businesses' functioning and goals of their strategic development. Therefore, traditional methods based on profitability indicators should be supplemented with modern ones, in particular: EBITDA, OIBDA and net cash flow indicators, which will contribute to the objective understanding of an enterprise performance and provide comprehensive analytical information to all stakeholders. Prospects for further research are to find the ways to improve organization and methodology of business efficiency analysis using current information technology incorporated into cost-biased management.

## References

- Blank I.A. (2007). Upravleniie denezhnymi potokami [Cash flow management]. (Vols. 2). Kiev: Nika-Centr [in Ukrainian].
- Busler A.G. Opasnyie tendentsii v vygodnom svete [Dangerous tendencies in a favorable light] EBITDA. URL: <http://www.buslergroup.com/opasnye-tendencii-v-vygodnom-svete-ebitda.html>.
- Grechko A.V., Grechukhin A.S. (2016). Otsinka efektyvnosti vyrobnochoi diialnosti pidpriemstva [Evaluation of the efficiency of the industrial activity]. *Efektivna ekonomika – Effective economy*, 1. URL: [http://www.economy.nayka.com.ua/pdf/1\\_2016/44.pdf](http://www.economy.nayka.com.ua/pdf/1_2016/44.pdf). [in Ukrainian].
- Lobodzynska T.P. (2017). Pokaznyky EBITDA ta OIBDA: ekonomichniy zmist ta osoblyvosti obchyslennia [Indicators of EBITDA and OIBDA: economic content and features of calculation]. *Infrastruktura rynku – Market infrastructure*, 7, 381-385 [in Ukrainian].
- Matyukh S.A. (2014). Doslidzhennia suchasnykh metodiv otsinky efektyvnosti diialnosti organizatsii [Research of modern methods of estimation of efficiency of activity of the organizations]. *Ekonomichniy analiz: zbirnyk naukovuh prac. Ternopil'skyi Nacionalnyi Ekonomichnyi Universytet – Economic analysis: a collection of scientific papers. Ternopil National Economic University*, 15 (3), 79-85 [in Ukrainian].
- Pilipenko S.M. (2016). Teoretychni zasady otsinky efektyvnosti diialnosti pidpriemstva [Theoretical bases of an estimation of efficiency of activity of the enterprise]. *Globalni ta nacionalni problemy ekonomiky: elektronne naukove fahove vydannia – Global and national problems of economy: electronic scientific professional publication*, 10, 452-456. URL: <http://global-national.in.ua/archive/10-2016/94.pdf>. [in Ukrainian].
- Geamanu M. Economic efficiency and profitability. URL: [https://www.researchgate.net/publication/265814327\\_ECONOMIC\\_EFFICIENCY\\_AND\\_PROFITABILITY](https://www.researchgate.net/publication/265814327_ECONOMIC_EFFICIENCY_AND_PROFITABILITY).
- James P. Strong. Cash is king the importance of cash flow management. URL: <http://www.theacagroup.com/cash-is-king-the-importance-of-cash-flow-management>.
- Kaplan, R.S., Norton D.P The Balanced Scorecard: measures that drive performance. Harvard Business Review. Jan. I Feb, 1992.
- OIBDA. Ivestopedia. URL: <http://www.Ivestopedia.com/terms/o/oibda.asp #axzz1rpmSzKBB>.