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MODERN ANALYTICAL INSTRUMENTS FOR CONTROLLING THE ENTERPRISE FINANCIAL PERFORMANCE

Abstract. It was grounded, that analysis of financial performance allows discovering opportunities to improve the enterprise financial condition, implements effective control over revenue and expense metrics, makes economically sound decisions based on the calculation results. The features of generating and accounting profit are distinguished, which should be taken into consideration in the course of analysis of the financial performance of business entities that do not always ensure the accuracy of information. In particular, it was found that displaying the fact of sales at the time of goods shipment distorts the financial condition (there may be situations where the entity is financially stable but insolvent); even a profitable enterprise can show the signs of bankruptcy, if its funds are invested in low-liquid assets, the accounts payable are not paid off, and the profits are not used efficiently; the income accrued throughout the entity's operation is never equal to the amount of income accrued for each reporting period (this is due to revaluations and changes in accounting policies); the income according to the accounting data is not identical to the real (from the economic point of view) financial performance of the entity. A model of profit factor analysis, which takes into account the shortcomings of the previous model and which is based on the use of direct-costing is considered in detail. The peculiarity of this model is that the cost of production is calculated and planned only in part of the variable costs, and fixed costs at the end of each month are written off to the financial performance of the entity main activities. It is established that the current regulatory framework for income generating, accounting and analysis leads to the distortion of the real financial performance. Therefore, the concepts of economic, accounting and tax profit should be distinguished, and their relationships should be taken into account. It is proved that the results of profit and profitability analysis, including the quality of analytical studies and the rationality of management decisions made on their basis, depend on organising separate accounting for fixed and variable costs, implementing the budgeting system by the subject. In spite of the fact that in the conditions of management accounting, the method of factor analysis of profit becomes mathematically complicated, its results become more transparent from the economic point of view, and the possibilities of using information in carrying out strategic prospective analysis of financial performance expand.

***Keywords*:** analysis of financial results, control, profit, income, direct-costing, factor analysis.

JEL Classification C38, M20, M41

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СУЧАСНИЙ АНАЛІТИЧНИЙ ІНСТУМЕНТАРІЙ КОНТРОЛЮ ФІНАНСОВИХ РЕЗУЛЬТАТІВ ДІЯЛЬНОСТІ ПІДПРИЄМСТВА

Анотація. Обґрунтовано, що аналіз фінансових результатів дозволяє знайти можливості поліпшення фінансового стану підприємства, здійснювати ефективний контроль за показниками доходів і витрат, ухвалити економічно обґрунтовані рішення за результатами розрахунків. Виокремлено особливості формування прибутку і його відображення в обліку, які слід ураховувати при проведенні аналізу фінансових результатів суб’єктів підприємницької діяльності. Зокрема, установлено, що відображення факту реалізації на момент відвантаження продукції викривляє фінансовий стан; ознаки банкрутства може мати навіть прибуткове підприємство, якщо його кошти вкладено у низьколіквідні активи, не погашається кредиторська заборгованість, прибуток використовується неефективно; прибуток, нарахований за весь час існування суб’єкта господарювання, ніколи не дорівнює сумі прибутків, нарахованих за кожен звітний період, що зумовлено проведенням переоцінок, змінами в обліковій політиці; облікова вартість активів практично ніколи не дорівнює їхній реальній вартості, що зумовлено помилками в бухгалтерському обліку, природним убутком цінностей, розкраданнями тощо. Детально розглянуто модель факторного аналізу прибутку, яка побудована на використанні методу директ-костингу. Характерною рисою цієї моделі є те, що собівартість продукції розраховується та планується лише в частині змінних витрат, а постійні витрати по закінченню кожного місяця списуються на фінансові результати від основних видів діяльності суб’єкта господарювання. Установлено, що чинна нормативна база формування, обліку та аналізу прибутку призводить до спотворення реальних фінансових результатів господарської діяльності. Тому слід розрізняти поняття економічного, облікового і податкового прибутку, а також ураховувати їхній взаємозв’язок. Доведено, що результати аналізу прибутку і рентабельності, включаючи якість аналітичних досліджень і раціональність управлінських рішень, ухвалених на їхній основі, залежать від організації відокремленого обліку постійних і змінних витрат, упровадження суб’єктом системи бюджетування. Попри те, що в умовах ведення управлінського обліку методика факторного аналізу прибутку ускладнюється математично, його результати стають прозорішими з економічного погляду, розширяються можливості використання інформації при проведенні стратегічного перспективного аналізу та контролю фінансових результатів господарювання.

Ключові слова: аналіз фінансових результатів, контроль, прибуток, дохід, директ-костинг, факторний аналіз.

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СОВРЕМЕННЫЙ АНАЛИТИЧЕСКИЙ ИНСТУМЕНТАРИЙ КОНТРОЛЯ ФИНАНСОВЫХ РЕЗУЛЬТАТОВ ДЕЯТЕЛЬНОСТИ ПРЕДПРИЯТИЯ

Аннотация. Обосновано, что анализ финансовых результатов позволяет найти возможности улучшения финансового состояния предприятия, осуществлять эффективный контроль за показателями доходов и расходов, принять экономически обоснованные решения по результатам расчетов. Выделены особенности формирования прибыли и ее отражения в учете, которые следует учитывать при проведении анализа финансовых результатов. Подробно рассмотрена модель факторного анализа прибыли, которая построена на использовании метода директ-костинга. Установлено, что действующая нормативная база формирования, учета и анализа прибыли приводит к искажению реальных финансовых результатов хозяйственной деятельности. Поэтому следует различать понятие экономической, учетной и налоговой прибыли. Доказано, что результаты анализа прибыли и рентабельности зависят от организации обособленного учета постоянных и переменных затрат, внедрение предприятием системы бюджетирования.

Ключевые слова: анализ финансовых результатов, контроль, прибыль, доход, директ-костинг, факторный анализ.

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Introduction. Analysis of financial performance allows discovering opportunities to improve the enterprise financial condition, make economically sound decisions based on the calculation results. In the course of such analysis, the following tasks are envisaged: studying the data on the formation of financial performance and the use of profit; research into the dynamics of revenue and profitability indicators; identifying and evaluating the impact of individual factors on financial performance; finding reserves and exploring their opportunities to increase the profit and profitability.

The problems of analysis of profit generating and using are conditioned by the state of accounting and reporting. A large number of entities perform accounting functions and make financial reports that are of little use for economic analysis, while, in most cases, these are tax returns and only two forms of financial statements — Balance Sheet (Statement of Financial Position) and Income Statement (Net Worth Statement). In order to provide in-depth research, identify the factors affecting profit and profitability, formulate sound conclusions, develop a strategy for increasing the profitability of a company, it is necessary to improve accounting (in particular, to use integrated reporting), and actively introduce management accounting.

Analysis of research and problem statement. Information on revenue and the factors that influence its value is of paramount importance for different categories of its users, since it is the basis for making strategic management decisions. The research of methodological and practical issues on the analysis of generating and using net income has been the research focus of many domestic and foreign scientists and practitioners, in particular: Das D., Rao M., Kimura S., Poddierohin A.M., Skochii S.V., Chernyshova O.B., Yankovyi V.O., Ylenkova S.D., Osadcha O.O., Voronchenko T.V., Filatov E.A. , Nechayev V.B. and others.

Hence the purpose of the article is to explore modern methods of analyzing financial results to ensure effective control over income and expense, making economically sound decisions on the results of calculations.

The results of the research. In the course of analysis of the financial performance of business entities, certain features of generating and accounting profit should be taken into consideration that do not always ensure the accuracy of information. Consider the most common among them.

1. Commodities have been shipped, goods have been sold, services have been rendered, and the work has been completed under the terms of post payment. Monetary funds in the reporting period have not been received, however, we will conditionally assume that the Balance Sheet (in the part of equity) and the Statement of financial performance show profit over the reporting period at the expense of income growth. In this case:

– in the balance liability, the amount of income includes the amount of debt of buyers and customers (but it is only entitled to it). Accordingly, financial stability of the entity will be overstated;

– the emergence of erroneous income requires payment of dividends and taxes in the absence of real cash;

– outstanding payment for the goods sold (services rendered, work performed) is accounted as receivables that reduce the liquidity and solvency of the enterprise;

– if within three years, the receivables are not paid off, they are written off for losses.

Therefore, displaying the fact of sales at the time of goods shipment distorts the financial condition. There may be situations where the entity is financially stable but insolvent.

2. The enterprise purchased property (for example, fixed assets) for an amount that exceeds the income. In this case, the Income Statement may show net income and the amount of cash in the balance sheet asset that is either undisplayed or insignificant (as a result of their write-off as payment). Thus, in the reporting period, only a fraction of expenses is attributed to expenses, the value (share) of illiquid assets increases along with simultaneous decrease (or absence) of absolutely liquid assets. Accordingly, the entity's financial condition, including its creditworthiness, is deteriorating [1, p. 94].

A similar situation arises when reflecting future costs. Note that when analysing the impact of income on the financial condition for the entire payback period of purchased property based on cost discounting, the result will usually be positive due to the cumulative effect [13—15].

3. Even a profitable enterprise can show the signs of bankruptcy, if its funds are invested in low-liquid assets, the accounts payable are not paid off, and the profits are not used efficiently. As a result, both the entity's liquidity and its assets are lost.

4. According to the Income statement, the enterprise has a pretax profit, i.e. its production and economic performance can be considered effective. However, because of the fines, tax penalties, and deferred taxes, it actually runs at a loss.

5. The value of assets increased but the profit remained unchanged. This situation is possible, for example, in the asset revaluation [16—18].

6. The income accrued throughout the entity's operation is never equal to the amount of income accrued for each reporting period. This is due to revaluations and changes in accounting policies [19]. At the same time, the real value of the profit from the moment of its emergence until the liquidation of the enterprise is defined as the difference between the income received and the invested capital.

7. The same amount may be considered by different stakeholders as both profit and loss. For example, paying a business trip is an expense for the enterprise, but the tax authorities consider the employee's profit to be a part of the business expenses that exceed the regulatory costs.

8. Differences in accounting and taxation subsystems lead to the fact that the income reported in the Balance Sheet and the Income Statement differs from the pretax profit in the Income Tax Return. This fact significantly complicates the analysis of income allocation [2].

9. There is often a situation where an item of capital assets continues to be used after accrual of full depreciation, indicating a weak link between actual depreciation and the fact of its accrual in accounting [20]. The residual value of capital assets does not reflect the true value of the property, and the asset with its fully recoverable amount continues to be used in the course of business and generates income. In this case, the economic profit will exceed the accounting one.

10. The book value of assets is almost never equal to their real value, which is caused by errors in accounting, natural loss of values, and theft. It is necessary to conduct regular inventories. This means that the income according to the accounting data is not identical to the real (from the economic point of view) financial performance of the entity [21; 22].

11. There is no absolute certainty that accounts receivable are objectively and accurately determined and reflect the assets that will necessarily be received. In the presence of a large number of counterparties, a part of the accounts receivable may not be paid off, hence when they are written off at the end of the due period, the company will suffer losses [3, p. 117—118].

The above examples confirm that the profit calculated in accounting does not always accurately reflect the real result of economic activity: in the process of analysis, it is necessary to distinguish the concept of economic, accounting and tax profit.

The analysis of financial performance includes not only a detailed inspection of generating income, but also evaluation of its use. Income allocation is practically monitored through the preparation of appropriate financial statements [23; 24]. Since the reporting period is a part of the overall period of enterprise operation, the indicators of such reporting may distort the true state of affairs, and do not allow a detailed analysis of income allocation.

In the process of analysing the use of income, it is necessary to establish the reasonableness of the structure of its allocation in each direction according to the following indicators: profitability of production and sales, the rate of income and the amount of investment per worker and per hryvnia value of fixed assets, the coefficient of financial stability and availability of own working capital, etc.

Effective financial management depends on the degree of detail of economic analysis, organisation of analytical financial and management accounting. The identified problems of analysis of profit generating and allocating allow us to distinguish the following:

1. Profit is a strategic performance indicator both from the point of view of a business entity and the region or the state as a whole.

2. Current regulatory framework for income generating, accounting and analysis leads to the distortion of the real financial performance. Therefore, the concepts of economic, accounting and tax profit should be distinguished, and their relationships should be taken into account.

3. Imperfect accounting of net income and lack of full disclosure in the financial statements do not allow a detailed analysis of the use of profit. The main methodological principle of accounting for retained earnings should be the principle of restriction in its allocation, which combines two approaches: from the point of view of both the state and the commercial structures. This is especially true in the destabilizing periods of socio-economic national development.

4. It is necessary to establish the validity of the structure of net income allocation for each line of business in relation to the indicators that characterise the operating, financial and investment activities of the entity.

Consider a model of profit factor analysis, which takes into account the shortcomings of the previous model and which is based on the use of direct-costing. The peculiarity of direct costing is that the cost of production is calculated and planned only in part of the variable costs, and fixed costs at the end of each month are written off to the financial performance of the entity main activities [4, p. 56; 5, p. 30—31].

Variables include, first of all, direct costs associated with the production of certain types of products (work, services) and which are directly included in their cost.

Indirect costs associated with the production of different types of goods cannot be included in their direct costs. A significant part of these costs (first and foremost, the costs of maintaining the production and management of the entity) are fixed costs. The other part of indirect costs (energy and fuel costs for technological purposes, the cost of tools and instruments used in the production process, depreciation of fixed assets when used to calculate the production method, etc.) can be categorised as variable costs [6, p. 310; 7, p. 19—21].

It should be noted that modern scholars have different views on the subject of direct-costing. From the perspective of some researchers, this is a method of accounting for costs [25; 26]. Others tend to consider it a method of calculation. In the system “direct-costing”, the model of profit generating from the sale of products is used (*Fig.*):

Revenue (net) from sales of goods (*net income*)

\-

Variable costs

=

Marginal income

\-

Fixed costs

=

Profit (loss) from sales of goods

Fig. **Model of generating the operating profit in the direct costing system**

The use of the direct-costing system offers the following advantages in accounting and analytical work:

1) simplifying and improving the accuracy of cost price calculation (cost price is planned and accounted for exclusively the part of variable costs); lack of procedures for calculating the conventional allocating of fixed costs among the types of goods;

2) statement of financial performance (Income Statement), which is prepared using the direct costing system, reflects a change in profit under the influence of variable costs, sales prices and output structure;

3) cost price, calculated on the variable costs, allows making sound management decisions, because the classification of costs into fixed and variable allows estimating the future costs;

4) the ability to focus attention on changes in marginal revenue both for the enterprise as a whole and for a particular item; identify the profitability threshold (break-even point) and carry out its comparative analysis for different types of goods, since the difference between the selling price and the amount of variable costs is not hidden due to the write-off of fixed costs for the cost price of separate items [8, p. 725; 9, p. 53—57];

5) the ability to generate analytical advantages and prerequisites for the development of a range of cost-effective items [27; 28];

6) ensuring the accuracy of the analysis in order to justify the choice between own production of goods or services or their purchase from an outside source;

7) expanding analytical accounting capabilities, which can be observed in the process of close integration of accounting and analysis. Analysing the behaviour of fixed and variable costs depending on changes in the amount of output, the system provides the possibility of flexible and prompt response to changing market conditions [10];

8) the information received in the direct costing system allows carrying out an effective price policy, determining the most favourable combinations of the product price and the amount of output [11, p. 114; 12, p. 371].

The factor model of revenue from the sales of a certain type of goods in the "direct-costing" system is the following:

$$R = As(P - V) - FC\,, \tag{1}$$

where As — amount of sales, nat. units;

P — sales price, UAH;

V — variable costs per unit of production, UAH;

FC — the amount of fixed costs for the entire amount of units sold, UAH.

Factor analysis is performed by the method of chain substitutions:

$$\Delta R_{TOTAL} = R_F - R_{PL}\,; \tag{2}$$

$$R_1 = As_F\,(P_{PL} - V_{PL}) - FC_{PL}\,; \tag{3}$$

$$R_2 = As_F\,(P_F - V_{PL}) - FC_{PL}\,; \tag{4}$$

$$R_3 = As_F\,(P_F - V_F) - FC_{PL}\,. \tag{5}$$

Changes in the revenue due to the following factors:

a) changes in the amount of sales:

$$\Delta R_{As} = R_1 - R_{PL}\,, \tag{6}$$

b) changes in the sales price:

$$\Delta R_P = R_2 - R_1\,, \tag{7}$$

c) changes in variable costs per unit of production:

$$\Delta R_V = R_3 - R_2\,, \tag{8}$$

d) changes in the amount of fixed costs:

$$\Delta R_{FC} = R_F - R_3\,. \tag{9}$$

In order to provide a systematic approach, it is advisable to use a margin analysis based on marginal revenue when studying the factors of change in revenue and forecasting its value in the direct-costing system.

Marginal revenue means the change in total income (revenue) resulting from the sales of an additional unit of output. In the context of our study, the concept of marginal revenues interpreted as the difference between the proceeds and variable costs. From a mathematical point of view, it can be calculated as a profit added to fixed costs:

$$MR = P + FC\,, \tag{10}$$

where MR — marginal revenue, UAH;

P — profit from the sales of products (work done, rendered services), UAH;

FC — the amount of fixed costs for the entire amount of sales of this product, UAH.

Hence:

$$P = MR - FC, \tag{11}$$

Using this formula, you can calculate the amount of profit, if you know the values of marginal revenue and fixed costs.

Thus, the factor model of operating profit by the method of direct-costing has the following form:

$$R = proceeds\sum_{i=1}^{n}(Spr_i - SMR_i) - FC, \tag{12}$$

where n — the number of units sold, nat. units;

Spr_i — the share of proceeds from the sales of the *i*-th product in the total amount of proceeds;

SMM_i — the share of marginal revenue of the *i*-th product in the total amount of proceeds;

FC — the amount of fixed costs for the entire volume of this product sales, UAH.

As you can see, this model allows establishing a change in profit due to the number (amount) of items sold, its structure, selling prices, unit variable costs and fixed costs of the enterprise.

Implementation of management accounting in the domain of separate accounting of fixed and variable costs will help to improve the methodology of factor analysis of profitability indicators.

Factor model of profitability of production by the method of "direct costing":

$$R = \frac{proceeds\sum_{i=1}^{n}(Spr_i - (P_i - V_i)/P_i) - FC}{\sum_{i=1}^{n}(As_i \cdot V_i) + FC}, \tag{13}$$

where As_i – amount of the *i*-th unit, nat. units.

Consistently replacing the planned (base) level of each factor indicator with the actual one and comparing the calculation result before and after the replacement of each factor, you can determine a change in the level of profitability due to the amount of proceeds (*proceeds*), structure of sales (As_i, Spr_i), price (P_i), specific variable costs (V_i) and the amount of fixed costs (FC).

Similarly, an analysis of the revenue profitability takes the following form:

$$R_{PR} = \frac{proceeds\sum_{i=1}^{n}(Spr_i - (P_i - V_i)/P_i) - FC}{\sum_{i=1}^{n}(As_i \cdot V_i)}. \tag{14}$$

Conclusions. Therefore, the results of revenue and profitability analysis, including the quality of analytical studies and the rationality of management decisions made on their basis, depend on organising separate accounting for fixed and variable costs, implementing the budgeting system by the subject. In spite of the fact that in the conditions of management accounting, the method of factor analysis of profit becomes mathematically complicated, its results become more transparent from the economic point of view, and the possibilities of using information in carrying out strategic prospective analysis of financial performance expand.

The article also highlights the features of the formation of financial results and their reflection in the system of financial and tax accounting of an enterprise, which can cause certain inaccuracy of analytical data, and also make it difficult to control profit indicators. It is established that the current regulatory framework for the formation, accounting and analysis of profit leads to a distortion of real financial results, therefore, it is recommended to distinguish between the concepts of economic, accounting and tax profit of an enterprise. In the course of the study, a model for generating profit from operating activities in the «direct costing» system was formed, and its advantages as an effective component of the analytical tool for monitoring financial results were highlighted.

Література

1. Ворonченко Т. В. Совершенствование механизма комплексного управления финансами предприятия с помощью аналитических инструментов / Т. В. Ворonченко // Экономические науки. — 2015. — № 11. — С. 91—98.
2. Податковий кодекс України від 02.12.2010 № 2755-VI [Електронний ресурс] // Відомості Верховної Ради України. — 2011. — № 13—14, 15—16, 17. — Режим доступу : https://zakon.rada.gov.ua/laws/show/2755-17.
3. Осадча О. О. Вплив елементів методики бухгалтерського обліку на результативність аналізу формування і використання прибутку / О. О. Осадча // Наукові записки. Економіка. — Острог : Вид-во «Національний університет «Острозька академія», 2013. — Вип. 22. — С. 115—118.
4. Ильенкова С. Д. Факторный индексный анализ финансовых показателей фирмы / С. Д. Ильенкова // Финансы. — 2017. — № 7. — С. 56—58.
5. Osadcha O. Category of «economic benefit» as the estimates of revenue and expenditure [Electronic resource] / O. Osadcha, S. Svirko // Economic Annals-XXI. — 2014. — № 1—2. — С. 30—33. — Available at : http://soskin.info/ea/2014/1-2/201411.html.5.
6. Поддєрьогін А. М. Факторний аналіз формування прибутку виробничого підприємства [Електронний ресурс] / А. М. Поддєрьогін, С. В. Скочій // Збірник наукових праць Університету Державної фіскальної служби України. — 2018. — № 2. — С. 304—318. — Режим доступу : http://nbuv.gov.ua/UJRN/znpnudps_2018_2_25.
7. Das D. Factor analysis of financial and operational performance measures of non-profit hospitals / D. Das // Journal of Health Care Finance. — 2009. — Vol. 36 (2). — P. 13—23.
8. Filatov E. A. Problem-Solving in Deterministic Factor Analysis / E. A. Filatov, V. B. Nechayev // Middle-East J. Sci. Res. — 2014. — Vol. 19 (5). — P. 723—728. doi:10.5829/idosi.mejsr.2014.19.5.21022.
9. Чернишова О. Б. Теоретичні засади факторного аналізу прибутку підприємства на базі детермінованих моделей [Електронний ресурс] / О. Б. Чернишова, В. О. Янковий // Економіка харчової промисловості. — 2015. — № 2. — С. 52—60. — Режим доступу : http://nbuv.gov.ua/UJRN/echp_2015_2_10.
10. Cheng X. Modeling, analysis and mitigation of contagion in financial systems / X. Cheng, H. Zhao // Economic Modelling. — 2018. doi:10.1016/j.econmod.2018.08.007/.
11. Kimura S. Cost-profit analysis for Japan-Russia and Japan-South Korea interconnectors / S. Kimura, S. Ichimura // Global Energy Interconnection. — 2019. — № 2 (2). — № 114—121. doi:10.1016/j.gloei.2019.07.002.
12. Rao M. A performance measurement system using a profit-linked multi-factor measurement model / M. Rao // Industrial Management & Data Systems. — 2006. — Vol. 106. — № 3. — P. 362—379. https://doi.org/10.1108/02635570610653506.
13. Lyulyov O. V. Lotka-Volterra model as an instrument of the investment and innovative processes stability analysis / O. V. Lyulyov, T. V. Pimonenko // Marketing and Management of Innovations. — 2017. — № 1. — P. 159—169.
14. Lyulyov O. Ecological and economic evaluation of transport system functioning according to the territory sustainable development / O. Lyulyov, Y. Chortok, T. Pimonenko, O. Borovik // International Journal of Ecology and Development. — 2015. — № 30 (3). — P. 1—10.
15. Vasylieva T. Macroeconomic Stability and Its Impact on the Economic Growth of the Country / T. Vasylieva, S. Lyeonov, O. Lyulyov, K. Kyrychenko // Montenegrin Journal of Economics. — 2018. — № 14 (1). — P. 159—170.
16. Bilan Yu. EU vector of Ukraine development: Linking between macroeconomic stability and social progress / Yu. Bilan, T. Vasilyeva, O. Lyulyov, T. Pimonenko // International Journal of Business and Society. — 2019. — № 20 (2). — P. 433—450.
17. Bilan Yu. Brand management and macroeconomic stability of the country [Zarządzanie marką i stabilność makroekonomiczna kraju] / Yu. Bilan, S. Lyeonov, O. Lyulyov, T. Pimonenko // Polish Journal of Management Studies. — 2019. — № 19 (2). — P. 61—74. doi:10.17512/pjms.2019.19.2.05
18. Bilan Yu. Linking between renewable energy, CO2 emissions, and economic growth: Challenges for candidates and potential candidates for the EU membership / Yu. Bilan, D. Streimikiene, T. Vasylieva, O. Lyulyov, T. Pimonenko, A. Pavlyk // Sustainability (Switzerland). — 2019. — № 11 (6). doi:10.3390/su11061528.
19. Liubkina O. Financial Instruments of Stimulating Innovative Activities of Enterprises and Their Improvements / O. Liubkina, T. Murovana, A. Magomedova, E. Siskos, L. Akimova // Marketing and Management of Innovations. — 2019. — № 4. — P. 336—352. http://doi.org/10.21272/mmi.2019.4-26.
20. Kalyayev A. Global Security Governance: Conceptual Approaches and Practical Imperatives / A. Kalyayev, G. Efimov, V. Motornyy, R. Dzianyy, L. Akimova // International Business Information Management Conference (33rd IBIMA). Granada, Spain, 10—11 April, 2019. — P. 4484—4495.
21. Akimova L. M. State regulation of foreign economic activity / L. M. Akimova, O. O. Akimov, O. O. Liakhovich // Scientific bulletin of Polissia. — 2017. — № 4 (12). — Part 1. — P. 98—103.
22. Harafonova O. I. The substantiation of the strategy of social responsibility of the enterprise with the aim of providing efficiency of its activities / O. I. Harafonova, G. V. Zhosan, L. M. Akimova // Scientific Journal Marketing and Management of Innovations. — 2017. — № 3. — P. 267—279.
23. Yakymchuk A. Yu. Appled project approach in the national economy: practical aspects / A. Yu. Yakymchuk, L. M. Akimova, T. O. Simchuk // Scientific bulletin of Polissia. — 2017. — № 4 (12). — Part 2. — P. 170—177.
24. Yakymchuk A. Yu. Regional innovation economy: aspects of economic development / A. Yu. Yakymchuk, A. M. Valyukh, L. M. Akimova // Scientific bulletin of Polissia. — 2017. — № 3 (11). — Part. 1. — P. 170—177.
25. Mishchuk H. Prospects of Assessing the Impact of External Student Migration on Restoring the Country's Intellectual Potential (Case Study of Ukraine) / H. Mishchuk, I. Roshchyk, J. Sułkowska, S. Vojtovič // Economics & Sociology. — 2019. — № 12 (3). — P. 209—219.
26. Mishchuk H. Income inequality and its consequences within the framework of social justice / H. Mishchuk, N. Samoliuk, Yu. Bilan, D. Streimikiene // Problemy Ekorozwoju. — 2018. — Vol. 13 (2). — P. 131—138.
27. Mishchuk H. Shadow incomes and real inequality within the framework of leadership and social change / H. Mishchuk, H. Yurchyk, Yu. Bilan // Springer International Publishing AG. — 2018.
28. Bilan Yu. Impact of Income Distribution on Social and Economic Well-Being of the State / Yu. Bilan, H. Mishchuk; N. Samoliuk; H. Yurchyk // Sustainability. — 2020. — № 12 (1). https://doi.org/10.3390/su12010429.

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References

1. Voronchenko, T. V. (2015). Sovershenstvovanie mekhanizma kompleksnogo upravleniya finansami predpriyatiya s pomoshch'yu analiticheskih instrumentov [Improving the mechanism of integrated financial management of an enterprise using analytical tools]. *Ekonomicheskie nauki — Economic Sciences, 11*, 91—98 [in Russian].
2. *Verkhovna Rada Ukrainy*. (2010). Podatkovyi Kodeks Ukrainy vid 02.12.2010 № 2755-VI [Tax Code of Ukraine from 02.12.2010 № 2755-VI]. *Vidomosti Verkhovnoi Rady Ukrainy — Bulletin of the Verkhovna Rada of Ukraine, 13—14, 15—16, 17*. Retrieved from https://zakon.rada.gov.ua/laws/show/2755-17 [in Ukrainian].
3. Osadcha, O. O. Vplyv elementiv metodyky bukhhalterskoho obliku na rezultatyvnist analizu formuvannia i vykorystannia prybutku [Influence of elements of accounting methodology on the effectiveness of the analysis of the formation and use of profit]. *Naukovi zapysky. Ekonomika — Scientific notes. Economy, Vol. 22,* 115—118. Ostrog: Vydavnytstvo «Natsionalnyi universytet «Ostrozka akademiia» [in Ukrainian].
4. Il'enkova, S. D. (2017). Faktornyj indeksnyj analiz finansovyh pokazatelej firmy [Factor index analysis of the financial performance of the company]. *Finansy — Finance, 7,* 56—58 [in Russian].
5. Osadcha, O., & Svirko, S. (2014). Category of «economic benefit» as the estimates of revenue and expenditure. *Economic Annals-XXI, 1—2,* 30—33. Retrieved from http://soskin.info/ea/2014/1-2/201411.html.
6. Poddierohin, A. M., & Skochii, S. V. (2018). Faktornyi analiz formuvannia prybutku vyrobnychoho pidpryiemstva [Factor analysis of profit formation of a manufacturing enterprise]. *Zbirnyk naukovykh prats Universytetu derzhavnoi fiskalnoi sluzhby Ukrainy — Collection of scientific papers of the State Fiscal Service of Ukraine, 2,* 304—318. Retrieved from http://nbuv.gov.ua/UJRN/znpnudps_2018_2_25 [in Ukrainian].
7. Das, D. (2009). Factor analysis of financial and operational performance measures of non-profit hospitals. *Journal of Health Care Finance, Vol. 36* (2), 13—23.
8. Filatov, E. A., & Nechayev, V. B. (2014). Problem-Solving in Deterministic Factor Analysis. *Middle-East J. Sci. Res., Vol. 19* (5), 723—728. doi:10.5829/idosi.mejsr.2014.19.5.21022.
9. Chernyshova, O. B., & Yankovyi, V. O. (2015). Teoretychni zasady faktornoho analizu prybutku pidpryiemstva na bazi determinovanykh modelei [Theoretical principles of factor analysis of profit of the enterprise on the basis of deterministic models]. *Ekonomika kharchovoi promyslovosti — Economics of the food industry, 2,* 52—60. Retrieved from http://nbuv.gov.ua/UJRN/echp_2015_2_10 [in Ukrainian].
10. Cheng, X., & Zhao, H. (2018). Modeling, analysis and mitigation of contagion in financial systems. *Economic Modelling.* doi:10.1016/j.econmod.2018.08.007/.
11. Kimura, S., & Ichimura, S. (2019). Cost-profit analysis for Japan-Russia and Japan-South Korea interconnectors. *Global Energy Interconnection, 2* (2), 114–121. doi:10.1016/j.gloei.2019.07.002.
12. Rao, M. (2006), A performance measurement system using a profit-linked multi-factor measurement model. *Industrial Management & Data Systems, Vol. 106*, 3, 362—379. https://doi.org/10.1108/02635570610653506.
13. Lyulyov, O. V., & Pimonenko, T. V. (2017). Lotka-Volterra model as an instrument of the investment and innovative processes stability analysis. *Marketing and Management of Innovations, 1,* 159—169.
14. Lyulyov, O., Chortok, Y., Pimonenko, T., & Borovik, O. (2015). Ecological and economic evaluation of transport system functioning according to the territory sustainable development. *International Journal of Ecology and Development, 30* (3), 1—10.
15. Vasylieva, T., Lyeonov, S., Lyulyov, O., & Kyrychenko, K. (2018). Macroeconomic Stability and Its Impact on the Economic Growth of the Country. *Montenegrin Journal of Economics, 14* (1), 159—170.
16. Bilan, Yu., Vasilyeva, T., Lyulyov, O., & Pimonenko, T. (2019). EU vector of ukraine development: Linking between macroeconomic stability and social progress. *International Journal of Business and Society, 20* (2), 433—450
17. Bilan, Yu., Lyeonov, S., Lyulyov, O., & Pimonenko, T. (2019). Brand management and macroeconomic stability of the country. [Zarządzanie marką i stabilność makroekonomiczna kraju]. *Polish Journal of Management Studies, 19* (2), 61—74. doi:10.17512/pjms.2019.19.2.05.
18. Bilan, Yu., Streimikiene, D., Vasylieva, T., Lyulyov, O., Pimonenko, T., & Pavlyk, A. (2019). Linking between renewable energy, CO2 emissions, and economic growth: Challenges for candidates and potential candidates for the EU membership. *Sustainability* (Switzerland), *11* (6). doi:10.3390/su11061528.
19. Liubkina, O., Murovana, T., Magomedova A., Siskos, E., & Akimova, L. (2019). Financial Instruments of Stimulating Innovative Activities of Enterprises and Their Improvements. *Marketing and Management of Innovations, 4,* 336—352. http://doi.org/10.21272/mmi.2019.4-26.
20. Kalyayev, A.., Efimov, G., Motornyy, V., Dzianyy R., & Akimova, L. (2019) Global Security Governance: Conceptual Approaches and Practical Imperatives. *International Business Information Management Conference (33rd IBIMA).* Granada, Spain, 10—11 April, 2019, 4484—4495.
21. Akimova, L. M., Akimov, O. O., & Liakhovich, O. O. (2017) State regulation of foreign economic activity. *Scientific bulletin of Polissia, 4* (12), 1, 98—103.
22. Harafonova, O. I., Zhosan, G. V., & Akimova, L. M. (2017) The substantiation of the strategy of social responsibility of the enterprise with the aim of providing efficiency of its activities. *Scientific Journal Marketing and Management of Innovations, 3*, 267—279.
23. Yakymchuk, A. Yu., Akimova, L. M., & Simchuk, T. O. (2017). Applied project approach in the national economy: practical aspects. *Scientific bulletin of Polissia, 4* (12), 2, 170—177.
24. Yakymchuk, A. Yu., Valyukh, A. M., & Akimova, L. M. (2017). Regional innovation economy: aspects of economic development. *Scientific bulletin of Polissia,* 3 (11), 1, 170—177.
25. Mishchuk, H., Roshchyk, I., Sułkowska, J., & Vojtovič, S. (2019). Prospects of Assessing the Impact of External Student Migration on Restoring the Country's Intellectual Potential (Case Study of Ukraine). *Economics & Sociology, 12* (3), 209—219.
26. Mishchuk, H., Samoliuk, N., Bilan, Yu., & Streimikiene, D. (2018). Income inequality and its consequences within the framework of social justice. *Problemy Ekorozwoju, Vol. 13* (2), 131—138.
27. Mishchuk, H., Yurchyk, H., & Bilan, Yu. (2018). Shadow incomes and real inequality within the framework of leadership and social change. *Springer International Publishing AG*.
28. Bilan, Yu., Mishchuk, H., Samoliuk, N., & Yurchyk, H. (2020). Impact of Income Distribution on Social and Economic Well-Being of the State. *Sustainability, 12*, 429. https://doi.org/10.3390/su12010429.

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