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## SEGMENTARY ANALYSIS OF THE EFFICIENCY OF STATE ENTERPRISES

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### ABSTRACT

*The purpose of the article is to substantiate the main stages and directions of analysis of the activities of state-owned enterprises by operational and geographical segments, taking into account the goals and objectives of strategic management. The information base of the empirical study was the data of the official website of JSC “Ukrzaliznytsia” for 2020. The methodological and methodological basis of the study is the National Accounting Regulation (Standard) 29 “Financial reporting by segments” and International Financial Reporting Standards (IFRS) 8 “Operating segments”. The following methodical methods were used in the course of the research, namely: methods as comparison, modelling, time series, structural and dynamic, graphic and coefficient analysis. Based on the proposed methodology, the efficiency of JSC “Ukrzaliznytsia” is analysed and the problematic operating segments of its activities are identified, which reduce the overall financial results of the company. The results of the study are the improvement and systematization of analytical indicators in terms of individual stages and areas of strategic analysis of the effectiveness of state enterprises through the differentiation of performance evaluation of their operating business segments. For this purpose the main stages and directions of the analysis on the following analytical blocks are*

*offered: the analysis of external environment of functioning of a business segment; analytical assessment of the competitiveness and competitive position of the business segment; analysis of resource potential and efficiency of production capacity of the business segment; assessment of innovation and investment activity of the business segment; analysis of the efficiency of the business segment; analysis of the state of execution of budgets of revenues, expenditures, profits; analysis of management efficiency and quality.*

**Keywords:** *state enterprises; operating segments; geographical segments; efficiency of activity; segmental analysis; segment reporting; strategic analysis*

## 1. INTRODUCTION

Transparency of state-owned enterprises and their relations with the government are critical to ensuring proper control over the efficient use of state property and developing measures to improve their activities. Bringing state-owned enterprises to the public will promote transparency and accountability by providing up-to-date, reliable and high-quality reporting on performance, which in turn will build trust between the state-owned enterprise, government, the public and other stakeholders.

Analysis of the effectiveness of management of diversified state-owned enterprises with a wide geography of sales has its own characteristics, as certain areas of business may have different effects on the overall results of their activities. Large state-owned enterprises usually have a complex organizational structure and have many branches, representative offices and subsidiaries in different geographical segments. The contribution to the formation of financial results of these segments can vary significantly, so in order to strategically manage large multispectral companies, the issues of differentiation of performance evaluation of each activity in each geographical segment are relevant.

The purpose of the article is to substantiate the main stages and directions of analysis of the activities of state-owned enterprises by operational and geographical segments, taking into account the goals and objectives of strategic management.

## 2. LITERATURE REVIEW

Such scientists as Gamble, Marcella and Tapp (2007), Kotler (2008), Lambin, Chumpitaz and Schuiling (2010) and others, who substantiated the need for such an analysis for large enterprises with a complex organizational structure and different activities. According to them, accounting for business segments creates the necessary information basis for in-depth

analysis of factors influencing the efficiency of the enterprise as a whole, allows to find reserves to increase profits by abandoning non-profit business segments, strengthens control over their costs, provides information for strategic management for the purpose of optimizing the areas of activity and expanding the geography of business in more attractive geographical segments from the standpoint of business climate.

Unfortunately, this area of research in domestic science is practically out of the focus of Ukrainian scientists. Some issues of segment reporting analysis were considered in the works of such domestic scientists as Ozeran and Vovk (2014) and Lehenchuk (2016). However, their scientific achievements are mainly aimed at the formation and improvement of reporting information by segments. Since state-owned enterprises usually have a complex organizational structure, multi-item production and pursue not only purely economic, but also social goals. Thus, the issues of improving the information support of strategic analysis through the deepening of the segmental analysis of the efficiency of state-owned enterprises that are objects of public interest remain relevant and require further research.

Determining the role of reporting information by segments in the analytical support of large corporate governance, American researchers Paul and Largay (2005) emphasize the need to increase the transparency of such reporting and unify the disclosure of information for different companies for comparative analysis.

French scientists Barnettoa and Ouvrardb (2015) explored the information capabilities of segment reporting (IFRS 8) for the purpose of forming business models of large companies. According to them, the content of segment reporting can be improved by disclosing cash flows of individual business segments, i.e. using the Cash-Flow approach. As a result, the information support of segment analysis for the purpose of assessing the effectiveness of business models is significantly strengthened and acquires a different perspective with an emphasis on the ability of business segments to generate cash flow and increase the value of the company as a whole.

American scientists Herrmann and Thomas (1996) have shown that the quality of segmental analysis and its direction depends on the completeness of information disclosure in segment reporting, which is determined by the level of detail of financial statements, including information on operating and geographical segments of income, expenses, profit, assets. Based on regression analysis, they argued that the quality of segment reporting is influenced by factors

such as company size, type of activity (industry), country of operation of the company, listing on the stock exchange.

Despite the growing attention of foreign and domestic scientists to these issues, it should be noted that the problems of accounting and analytical support of strategic management of state enterprises through the substantiation of priority areas of their development in terms of individual activities and geographically, require additional research.

### **3. DATA AND METHODOLOGY**

The information base of the empirical study was the data of the official website of JSC “Ukrzaliznytsia” for 2020.

The methodical and methodological base of the study is the National Accounting Regulation (Standard) 29 “Financial reporting by segments” and IFRS 8 “Operating segments”. The following methodical methods were used in the course of the research such methods as comparison, modelling, time series, structural and dynamic, graphic and coefficient analysis.

Comparative analysis was used in the comparative analysis of the efficiency of individual business segments of JSC “Ukrzaliznytsia”.

Coefficient analysis was used to substantiate the system of relative performance indicators. Graphic technique was used to visualize the results of the analysis of the activities of individual business segments. When forming a system of evaluation indicators for individual stages of analysis, the method of modelling was used.

### **4. RESULTS AND DISCUSSIONS**

The formation of accounting and analytical information about the reporting segments is an integral part of the financial statements of the enterprise and its management. Segment information mainly contains characteristics that correspond to the principle of economic relevance. This focus of accounting and analytical information provides an opportunity for external users (including regulatory authorities) to assess the effectiveness of the entity and assess the primary factors that are formed in certain segments of the state enterprise and affect the overall performance of the enterprise as a whole.

Typically, segment analysis includes a set of segmentation procedures, evaluating the effectiveness of business segments and their positioning for strategic management of the organization. The advantages of segmental business analysis is that it forms an expanded

information base on the effectiveness of a particular area of operations, which creates competitive advantages for companies and ensures a stable competitive position in the market in the long run. In turn, the analysis of activities by geographical segments.

To assess the effectiveness of management of state-owned enterprises by segments of activity, we propose to group analytical procedures into the following stages:

- definition of segmentation criteria depending on management objectives;
- conducting segmentation of activities according to selected criteria on the basis of the norms defined by the National Accounting Regulation (Standard) 29 “Financial reporting by segments” and IFRS 8 “Operating segments”;
- formation of a system of analytical indicators and development of methods for analysing the effectiveness of individual business segments;
- analysis of the effectiveness of individual business segments on the basis of coefficient and matrix methods, identification of the most promising and unattractive from the standpoint of efficiency of activities;
- development of strategy for the development of individual segments.

The first stage of segmental analysis is the selection of segmentation criteria depending on the chosen goal, substantiation of the segmentation object and determination of its boundaries. When substantiating the list of segmentation criteria, domestic state-owned enterprises should take into account the target orientation and peculiarities of their activities and be guided by the provisions of the National Accounting Regulation (Standard) 29 “Financial reporting by segments” and IFRS 8 “Operating segments”.

The rules of the National Accounting Regulation (Standard) 29 “Financial reporting by segments” define the methodological principles of forming information about reporting segments and its disclosure in the financial statements. The provisions of this standard are applied by enterprises, organizations and other legal entities regardless of ownership (except for small enterprises, non-profit organizations, banks and budgetary institutions), if the company is required to publish annual financial statements, or the company has a monopoly (dominant) position in the product market (goods, works, services), or if the products (goods, works, services) of the enterprise before the beginning of the reporting year decided on state regulation of prices.

In turn, IFRS 8 “Operating Segments” is mandatory for separate or individual statements of an entity whose consolidated financial statements of a group with a parent: debt or equity instruments that are traded on the open market (on the domestic or foreign stock exchange or on the over-the-counter market, including local and regional markets); who submits or is in the process of submitting its financial statements to a securities commission or other regulatory body for the purpose of issuing instruments of any class on the open market [paragraph 2].

The National Accounting Regulation (Standard) 29 “Financial Reporting by Segments” provides for the separation of economic and geographical segments, information on the results of which should be disclosed in the notes to the financial statements of the enterprise.

Geographical segment is a separate part of the enterprise for the production or sale of a particular type (or group) of products (goods, works, services) in a particular economic environment, which differs from others: economic and political conditions of the geographical region; the relationship between activities in different geographical regions; territorial location of production (works, services) or buyers of products (goods, works, services); activity risks specific to the geographical region; currency control rules and currency risks in such regions.

The economic segment is a separate part of the enterprise's activity of production and / or sale of a certain type (or group) of products (goods, works, services), which differs from others: type of products (goods, works, services); method of income (method of distribution of products, goods, works, services); the nature of the production process; risks specific to this activity; category of buyers.

In International Financial Reporting Standard 8, the term “reporting segment” is replaced by the term “operating segment”, which is engaged in an economic activity and from which it can derive revenue and bear costs (including income and expenses related to transactions with other components of the same entity), the operational results of which are regularly reviewed by the senior manager of the entity's operations to decide on resources to be allocated to the segment and evaluation of its performance, and for which discrete financial information is available.

Segment reporting in accordance with IFRS 8” Operating Segments” is based on a management approach. This means that the formation of information that is reflected in the reporting segments depends on the characteristics of the activities and organizational structure

of the enterprise. The main principle of disclosure of reportable segments in accordance with IFRS 8 is to enable the user of the financial statements of the entity to assess the nature and financial impact of the economic activities in which it operates and the economic conditions under which it operates.

In accordance with paragraph 13 of IFRS 8 “Operating segments”, the entity reflects separately in the reporting information about the operating segment, which meets any of the following quantitative thresholds:

- a) its reported income, including both sales to external customers and cross-segment sales or transfer transactions, is 10% (or more) of the total (internal and external income) of all operating segments;
- b) the absolute value of the reported profit or loss is 10% (or more) greater than the absolute value of the amount: the total reported profit of all operating non-loss segments, and the total reported loss of all operating loss segments;
- c) its assets account for 10% (or more) of the total assets of all operating segments.

Operating segments that do not meet any of the quantitative thresholds may be considered and disclosed separately if management believes that information about that segment will be useful to users of the financial statements.

Information on other economic activities and operating segments that are not reported, aggregated and disclosed in the category “all other segments” separately from other items that require reconciliation, should describe the sources of income included in the category “all other segments” [paragraph 16].

If the total external revenue reported in operating segments is less than 75% of the entity's revenue, additional operating segments should be defined as reportable segments until at least 75% of the entity's revenue is included in the reportable segments [paragraph 17].

It should be noted that the requirements of the two standards for the disclosure of information about reporting segments are virtually indistinguishable and do not contradict each other. However, unlike the National Accounting Regulation (Standard) 29, the application of IFRS 8 is based on the formation of professional judgment on material and non-essential information, and its subsequent disclosure in the financial statements of the entity.



For the purposes of strategic management, segmentation is usually carried out by strategic business units, among which are the following:

- product or group of products (products, types of work, services);
- segments of the external environment of the organization (geographical region, market, consumer group).
- centres of responsibility.

The next step is to verify compliance with the quantitative limits for each business segment in accordance with the requirements of IFRS 8 “Operating Segments” or the National Accounting Regulation (Standard) 29 “Segment Reporting”. In case of non-compliance with the necessary requirements of these standards, aggregation and mergers of small business segments (formed on the basis of previously selected features) should be carried out taking into account the following criteria:

- specific characteristics of the business segment, in particular the features of the production process, purchase of goods, performance of works, provision of services;
- external conditions of business segment development, in particular social and economic conditions of development of a specific region, market conditions;
- specific characteristics of products, goods, works, services;
- legal conditions for carrying out the activity (for example, the need for licensing, taxation);
- special conditions of cooperation with buyers and customers, methods and conditions of sale of products, goods, works, services;
- responsibility of specific individuals for the results of a particular business segment;
- technological and innovation policy of the enterprise as a whole and individual areas of activity;
- information support of segmental analysis on the basis of management accounting by centres of responsibility.

On the other hand, if the selected business segment, on the contrary, is too large, then for in-depth analysis it is recommended to grind certain business segments.

The second stage involves direct segmentation according to certain criteria, i.e. the separation of functional areas for performance analysis and collection of necessary information for individual segments of the enterprise and the enterprise as a whole. Given that the selection of relevant segments and their evaluation is at the discretion of the compiler, it is necessary to take into account a certain element of subjectivity that may affect the final results of the analysis.

Therefore, in addition to the formal criteria for the formation of economic and geographical segments, it is necessary to take into account the goals and objectives of the analyst, the features of the organizational structure of the enterprise, the functional focus of its operation.

An important area of research is the formation of a system of criteria for assessing the effectiveness of individual segments, which primarily depend on their income, expenses and cash flows. The third stage includes the development of methods for analysing the attractiveness of individual business segments and assessing their economic efficiency. The information base of segmental accounting and analysis is management accounting and management reporting.

To assess the effectiveness of enterprise management in terms of relevant operational and geographical segments, it is necessary to substantiate the list of key financial and non-financial indicators that affect the quantitative and qualitative changes in performance relative to the strategic goal of the enterprise as a whole. This aspect is especially relevant for state-owned enterprises, as their goals usually go beyond economic efficiency but also include social functions. The analysis of these indicators is aimed at monitoring changes in performance and should be carried out on the basis of established weights in the context of each functional area.

At this stage, the analysis can be carried out in the following areas:

- development of a system of analytical indicators to assess the attractiveness and efficiency of the functional segment;
- determining the significance of individual functional areas and geographical segments and the formation of weighting factors for individual indicators;
- substantiation of generalizing integral indicators of efficiency of functioning of separate segments and ways of their aggregation.

In order to control the level of costs and operational impact on the indicators of “net profit” and the indicator of “profitability of activities” for state enterprises, we consider it appropriate to replace the indicators of return on assets and profitability to replace the indicator “expenditure per 1 UAH of income”, which should be included in financial plans, assessed for compliance and subject to strict operational control.

This indicator can be calculated both for all operating costs and for some of their components, for example, labour costs of all staff (including the head of the company and other management staff, certain categories of employees, material costs, staff insurance costs, entertainment costs, costs for advertising, etc.

The calculation of the norms of the expenditure limit per 1 UAH of income can be carried out according to the data of the previous period, or in case of unprofitable activity in the previous period it is planned based on the average industry data. For non-profit enterprises that are created to perform socially important functions, the criterion value of this indicator can be set at the level of one, i.e. costs should not exceed income.

Comparative analysis of indicators characterizing the financial efficiency of individual business segments of JSC “Ukrzaliznytsia” is given in Table. 1.

Table 1: Analysis of the efficiency of certain business segments of JSC “Ukrzaliznytsia” for 2020 (UAH million, unless otherwise stated)

Indicators	Freight transportation	Intercity passenger transportation	Suburban passenger transportation	Additional international activity	Other segments	Total
1. Income from sales to external buyers	65330.1	3679.6	453.5	5458.0	843.2	75764.3
2. Income from sales to other segments				1584.4	8861.3	10445.7
<b>3. Total income</b>	65330.1	3679.6	453.5	7042.4	9704.6	86210.0
4. Personnel expenses	26009.8	6172.6	3100.6	5827.0	998.0	42108.0
5. Depreciation	8712.3	1891.8	754.2	918.2	99.4	12375.9
6. Electricity	5777.0	919.4	576.2	1004.0	6903.5	15180.0
7. Fuel	4245.8	469.8	303.4	407.4	38.1	5464.5
8. Materials, repair and maintenance	4760.8	988.0	518.7	310.4	1242.7	7636.5
9. Other operating expenses	4712.8	988.0	576.4	1383.6	189.6	7850.3
10. Costs redistributed between other segments				-3973.9		-3973.9
<b>11. Total segment costs</b>	54218.5	11429.6	5829.5	5876.7	9471.3	86641.3
<b>12. Operational result of the segment</b>	<b>+11111.6</b>	<b>-7565.9</b>	<b>-5375.9</b>	<b>+1165.7</b>	<b>+233.2</b>	<b>-431.3</b>
13. Profitability ratio of sales (ROS), coefficient	0.170	-2.056	-11.854	0.165	0.024	-0.005
14. Total profitability ratio, coefficient.	0.205	-0.673	-0.922	0.198	0.025	-0.005

15. Coefficient "Costs per 1 UAH of income", coefficient.	<b>0.830</b>	<b>3.106</b>	<b>12.854</b>	<b>0.834</b>	<b>0.976</b>	<b>1.005</b>
16. Salary intensity	0.398	1.677	6.837	0.827	0.103	0.488
17. The level of depreciation costs per 1 UAH of income	0.133	0.514	1.663	0.130	0.010	0.144
18. Energy consumption	0.153	0.377	1.939	0.200	0.715	0.239
19. Material consumption	0.073	0.218	1.144	0.044	0.128	0.088
20. The level of other costs per 1 UAH of income	0.072	0.269	1.271	0.196	0.020	0.091

\* Compiled by the author on the basis

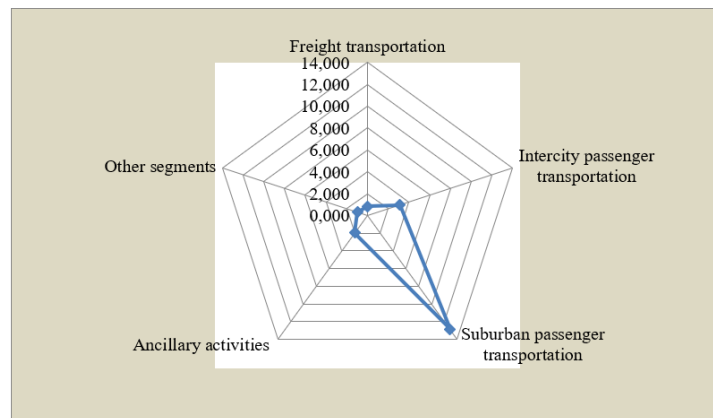


Figure 1: The level of expenses per 1 UAH of income for certain business segments of JSC "Ukrzaliznytsia" in 2020

The conducted analysis of the efficiency of certain business segments of JSC "Ukrzaliznytsia" showed that the greatest efficiency of the activity was illustrated by the segment "Freight transportation", which includes freight services provided by JSC "Ukrzaliznytsia". The rate of return on sales for this segment in 2020 was 17.0%, and the overall rate of return was 20.5%.

Accordingly, the indicator "expenses per 1 UAH of income" was 0.83 UAH, which illustrates the high efficiency of this business segment.

Profit for this segment in 2020 was 11,111.6 million UAH. In the overall revenue structure, this segment occupied a significant share and amounted to 75.8% in 2020.

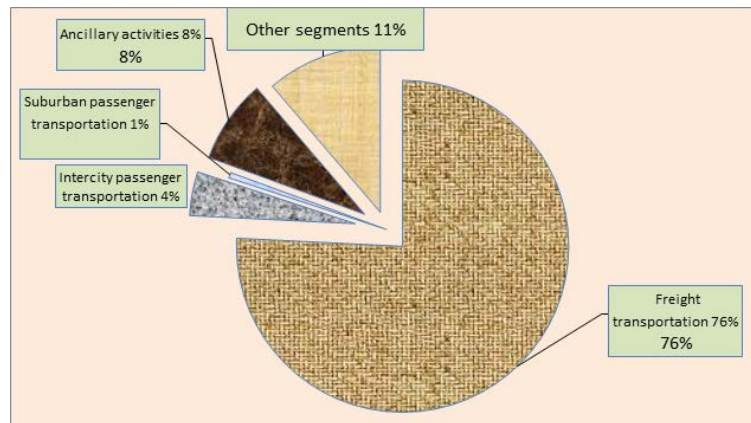


Figure 2: Revenue structure of JSC “Ukrzaliznytsia” by operating segments for 2020

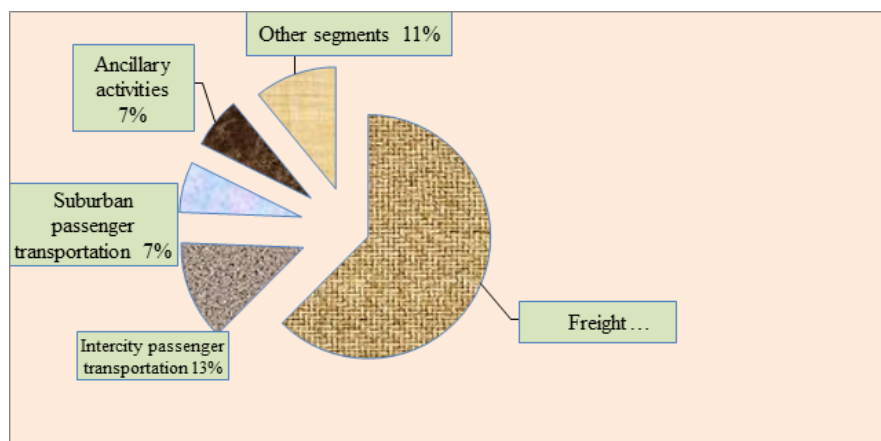


Figure 3: Cost structure of JSC “Ukrzaliznytsia” by operating segments for 2020

The second place in terms of efficiency is occupied by the segment “Ancillary activities”, which generated a profit of 1,165.7 million UAH. Expenditures per 1 UAH of income of this segment were at the level of 0.834 UAH, profitability of sales – 16.5%, total profitability was – 19.8%

The segment “Ancillary activities” includes the activities of certain structural units of regional branches and branches of the Company, which produce products and provide services for their own consumption within the Company, as well as for sale to third parties who are not part of the Joint Stock Company. The segment “Auxiliary Activity” manufactures industrial products and provides services related to freight transportation, suburban passenger transportation, construction, reconstruction and modernization of the railway line and transport infrastructure, repairs and maintenance of various types of railway equipment, etc.

The transfer of products (works, services) between structural units of one branch and between branches within the Company is considered internal turnover and is reflected as a redistribution of costs (line “Costs redistributed between other segments”) without reflection

in income accounts (except for certain transactions) . The segment that receives redistributed costs displays them in the category “Other operating expenses”.

The segment “All other segments” includes enterprises that provide services for the repair and maintenance of rolling stock and other services provided by subsidiaries of the company. In the structure of revenues, this segment took second place and amounted to 11.3% (9,704.6 million UAH) and had a positive financial result of 233.2 million UAH. Relative efficiency indicators had the following values: profitability of sales – 2.4%, total profitability – 2.5%, costs per 1 UAH of income –0.98 UAH, which positively characterizes the cost management system of this segment. However, taking into account the peculiarities of the activities of structural units included in this segment, it should be noted that it is characterized by high energy intensity of services –0.715 UAH per 1 UAH of income, and low specific labour costs – 0.103 UAH per 1 UAH of income (the best figure among all segments).

The Board, as the chief operating decision maker, monitors the operational performance of each unit separately for decision-making purposes on resource allocation and evaluation of the results of their activities. Segment performance is measured on the basis of their operating profit or loss, which is measured in accordance with the estimate of operating profit or loss in management reporting, which differs from consolidated financial statements prepared in accordance with IFRS, as management accounting is based on management indicators.

The most problematic segment was “Suburban passenger transportation” (loss of 5,375.9 million UAH) and “Intercity passenger transportation” segment (loss of 7,565.9 million UAH). At the same time, the relative efficiency of activities, characterized by indicators of profitability of sales and overall profitability was the worst in the segment “Suburban passenger transportation”. In analytical practice, with a negative value of the financial result, usually, the profitability indicators are not calculated, so for comparative analysis, it is advisable to use the indicator “expenses for 1 UAH of income”.

Thus, this indicator for this period for the segment “Suburban passenger transportation” was 12.85 UAH, for the segment “Intercity passenger transportation” – 3.11 UAH, and for the segment “Ancillary activities” – 1.96 UAH. As the segment “Suburban passenger transportation” in the overall revenue structure of JSC “Ukrzaliznytsia” occupies a small share – 0.5%, in the end the most negative impact on the financial result had the segment “Intercity passenger transportation”, the loss of which was 7565.9 thousand UAH, and in the structure of income its share was 4.3%.

In order to find reserves for improving the efficiency of unprofitable segments, a more detailed analysis of the reasons for the significant deviation of their efficiency indicators compared to other segments in terms of individual cost components should be conducted. So, for example, per 1 UAH of income material consumption in this segment was –1.14 UAH, salary – 6.84 UAH, the level of depreciation costs per 1 of income was – 1.66 UAH, energy consumption – 1.94, other costs – 1.27 UAH, which significantly exceeds similar indicators in all other segments.

When analysing the reasons for this state of cost management in this segment, firstly we must examine the factors that negatively affected income. It should be noted that since JSC “Ukrzaliznytsia” is a state-owned enterprise, in addition to economic tasks, this enterprise also performs social functions, in particular, transportation of privileged categories of passengers (pensioners, students, pupils, the disabled, etc.), which leads to lower incomes. However, the results of the “Suburban Passenger Transportation” segment show that the cost management company's policy is extremely inefficient.

Therefore, the main attention of managers should be paid to optimizing the costs of the segment through more efficient loading of trains, streamlining the train schedule, regulation of transport tariffs, control over labour costs of certain categories of workers in certain directions and more.

At the final stage, we propose a strategic analysis of functional business segments, which can be carried out in the following areas:

- analysis of the external environment in which the business segment operates;
- assessment of the competitiveness and competitive position of the business segment;
- analysis of resource potential and production capacity of the business segment;
- assessment of innovation and investment activity of the business segment;
- analysis of the efficiency of the business segment;
- execution of budgets of revenues, expenditures, financial results by business segments;
- the level of development of the components of the management system.

Table 2: System of key benchmarks of strategic analysis of business segment efficiency

Functional sphere	System of indicators
Analysis of the external environment of business segment operation	The level of competition in the industry based on the The Herfindahl-Hirschman Index
	Demand and supply of specific products (services, works) in the geographical segment
	Actual and future market growth rates in this industry and geographic segment,%
	Product life cycle stage (product)
	Market conditions and its stability
	Political and economic stability in the region
Analytical assessment of the competitiveness and competitive position of the business segment	Absolute market share of the business segment
	Relative market share.
	Growth rate of absolute and relative market share,%
	The relative level of efficiency of the business segment in the market in terms of return on assets
	The growth rate of the relative level of efficiency of the business segment
	Summary indicator (coefficient) of competitiveness of the business segment
Analysis of resource potential and efficiency of production capacity of the business segment	Competitive position of the business segment based on matrix analysis
	Fund security of the enterprise and its growth rate
	Return on assets (return on capital) of the segment and its growth rate
	Growth rate of capital intensity (resource intensity)
	Degree of automation of production processes,%
	Coefficient of completeness of use of fixed assets (certain types of equipment) by the degree of involvement in the production process and by time
Assessment of innovation and investment activity of the business segment	Availability of unique types of resources and completeness of their use
	Efficiency of innovations,%
	Coefficient of progressive equipment upgrade
	Coefficient of renewal of new (innovative) products
	R&D expenditure growth rate,%
	Efficiency of innovations,%
	Coefficient of progressive equipment upgrade
	Coefficient of renewal of new (innovative) products
The efficiency of the business segment	Profitability index of innovative projects
	Profitability of sales (rate of return)
	Cost recovery (income-expenditure ratio), %
	Gross profit growth rate,%
	Return on assets (economic return),%
	Costs per 1 UAH of income (consumption capacity),%
Execution of budgets of income, expenses, profit	Asset turnover, times
	Total marginal revenue and the level of budget execution on this indicator,
	Execution of expenditure budget,%
	Execution of revenue budget,%
	Execution of the net profit budget,%
Analysis of management efficiency and quality	Execution of the budget of the level of expenses for 1 UAH of income (expenditure limit)
	The level of digitalization of the management system
	Availability of automated control systems
	Coefficient of reliability of the control system
	Coefficient of duplication of functions



	Coefficient of efficiency of corporate governance
	Staff loyalty

Source: compiled by the author

The proposed system of indicators meets the characteristics of the performance appraisal system of individual business segments through key performance criteria and allows assessing their contribution to achieving strategic goals of state enterprises aimed not only at profit but also at achieving social efficiency and efficiency of state property use.

In the future, it is necessary to establish the significance (weight) of each functional area for the effectiveness of segmental analysis as a whole, as well as the significance of individual indicators within each functional area.

At the final stage, the analysis of the efficiency of state-owned enterprises in individual segments is carried out directly on the basis of certain individual and generalizing indicators, monitoring of their dynamics. In the process of segment analysis, first of all, it is necessary to assess their contribution to the formation of income, expenses and profits of the enterprise as a whole.

Comparative analysis of indicators that characterize the activities of operational and geographical segments and assessment of dynamic changes in such indicators allows us to assess the problems of their operation and risks. Accounting and analytical information in terms of geographical and operational segments satisfies the needs of managers in justifying management decisions aimed at reducing risk situations and improving the effectiveness of strategic management of state-owned enterprises.

## 5. CONCLUSIONS AND RECOMMENDATIONS

The proposed method of analysing the activities of economic entities in certain areas of activity in terms of operational and geographical segments, assessment of dynamic changes in such indicators allows finding “problem areas” of their activities, which should be considered in developing strategies to improve efficiency and minimize entrepreneurial risks.

Accounting and analytical information in terms of geographical and operational segments satisfies the needs of managers in substantiating management decisions aimed at reducing risk situations and improving the effectiveness of strategic management of state-owned enterprises. This approach to assessing the effectiveness of large enterprises contributes to the formation of their competitive advantages in the market by focusing the attention of

managers on those segments of activity that require a radical change in their development strategy.

Thus, the relevance of leasing transactions for public sector entities is not in doubt, as well as the need to bring the accounting of such transactions to modern requirements. IFRS 16 contains objectively the best accounting policies for accounting and reporting.

Of course, this standard has many nuances of a practical nature that remain open, and its individual paragraphs are difficult to interpret unambiguously. However, the IFRS Board and the Interpretations Committee are constantly working to improve them. Therefore, we believe that the basic approaches of IFRS 16 can reasonably be implemented both in International Public Sector Accounting Standards (and such a process is already underway) and taken into account in the reflection of lease transactions by domestic public sector entities.

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