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EVALUATION OF MANAGEMENT EFFICIENCY BASED ON BUDGETING IN ENERGY ENTERPRISES (A FACTOR ANALYSIS CASE OF “HUDUDGAZTA’MINOT” JSC)

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Abstract: This article analyzes the importance of the strategic management system in ensuring the sustainable development of enterprises in a modern competitive environment and the role of budgeting in it. In particular, on the example of “Hududgaztaminot” JSC, the differences between the planned and actual results of the budget indicators for 2024 were studied based on a factor approach. The study assessed the effectiveness of budgeting in terms of financial, management and strategic criteria, and analyzed the level of reserve policy, financial stability and resource utilization through a system of indicators. Based on the results, it was determined that the enterprise achieved positive financial results through cost optimization.

Keywords: budgeting, strategic management, factor analysis, financial efficiency, energy enterprise, reserve policy, financial stability, management efficiency.

Annotatsiya: Mazkur maqolada zamonaviy raqobatbardosh muhitda korxonalarning barqaror rivojlanishini ta'minlashda strategik boshqaruv tizimining ahamiyati va unda budjetlashtirishning o'rni tahlil qilingan. Xususan, “Hududgazta'minot” AJ misolida 2024-yil uchun budjet ko'rsatkichlarining reja va haqiqiy natijalari o'rtasidagi tafovutlar omilli yondashuv asosida o'rganilgan. Tadqiqotda moliyaviy, menejment va strategik mezonlar kesimida budjetlashtirish samaradorligi baholanib, zaxira siyosati, moliyaviy barqarorlik va resurslardan foydalanish darajasi ko'rsatkichlar tizimi orqali tahlil qilingan. Natijalar asosida korxonada xarajatlarni optimallashtirish orqali ijobiy moliyaviy natijalarga erishilganligi aniqlangan.

Kalit so'zlar: budjetlashtirish, strategik boshqaruv, omilli tahlil, moliyaviy samaradorlik, energetika korxonasi, zaxira siyosati, moliyaviy barqarorlik, boshqaruv samaradorligi.

Аннотация: В данной статье анализируется значение системы стратегического управления для обеспечения устойчивого развития предприятий в современной конкурентной среде и роль бюджетирования в ней. В частности, на примере АО «Худудгазтаминот» на основе факторного подхода изучены различия между плановыми и фактическими результатами бюджетных показателей на 2024 год. В исследовании оценивалась эффективность бюджетирования по финансовым, управленческим и стратегическим критериям, а также анализировался уровень резервной политики, финансовой стабильности и использования ресурсов с помощью системы показателей. На основе полученных результатов установлено, что предприятие достигло положительных финансовых результатов за счет оптимизации затрат.

Ключевые слова: бюджетирование, стратегическое управление, факторный анализ, финансовая эффективность, энергетическое предприятие, резервная политика, финансовая стабильность, эффективность управления.

INTRODUCTION

In the context of the modern global economy, the intensification of competition, volatility of resource prices, and uncertainties in the external environment necessitate further improvement of enterprise management systems. This process is particularly relevant for enterprises operating in the energy sector, as they must not only ensure internal production efficiency but also rapidly adapt to fluctuations in energy market prices, government regulatory policies, and changing consumer demand. In this regard, the effective organization

of the strategic management system is a key factor in ensuring the long-term sustainable development of an enterprise.

Budgeting, as one of the important instruments of strategic management, plays a special role. It serves not only as a financial planning tool but also as a mechanism for translating strategic goals into measurable indicators, optimally allocating resources, and controlling their efficient use. In this way, budgeting becomes one of the primary sources of information for managerial decision-making within an enterprise.

However, practice shows that in many enterprises, the budgeting system is used merely as a planning tool, while its integration with strategic management remains insufficient. As a result, significant discrepancies arise between planned and actual performance indicators, leading to a decline in resource utilization efficiency. Therefore, assessing the alignment of the budgeting process with the requirements of strategic management, determining its contribution to enterprise performance, and conducting a comprehensive analysis of its effectiveness constitute an important scientific and practical task.

The relevance of this study lies in its in-depth analysis of evaluating management efficiency through the budgeting system in energy enterprises. The joint-stock company "Hududgaztaminot" has been selected as the object of the study, and based on this enterprise, discrepancies between planned and actual budget indicators are examined using a factor-based approach.

The main objective of the research is to determine the impact of the budgeting system on management efficiency, evaluate the key factors influencing financial performance, and analyze the level of resource utilization. To achieve this objective, a comprehensive analysis is conducted, including budget execution indicators, cost structure, profit dynamics, and a system of indicators reflecting financial stability.

REVIEW OF LITERATURE ON THE SUBJECT

Budgeting, strategic, and corporate governance issues in enterprises have been extensively studied by a number of local and foreign scholars, and their scientific views form the theoretical foundation of this article.

In the textbook *"Fundamentals of Management Theory"* by D. S. Qosimova and A. A. Sobirov, the fundamental principles, functions, and methods of management are systematically explained. The authors interpret the management process through stages such as planning, organizing, motivating, and controlling, emphasizing the significant role of budgeting within the planning function. This source serves as an important theoretical basis for interpreting budgeting as an integral component of the management system.

In the work *"Fundamentals of Corporate Governance"* by Sh. N. Zaynutdinov, corporate governance mechanisms, management systems in joint-stock companies, and financial control issues are analyzed in depth. The author particularly highlights the role of budgeting in ensuring efficient resource utilization, accountability, and transparency within corporate structures. This approach is especially relevant for evaluating management efficiency in energy enterprises.

Foreign researchers have also extensively examined the practical aspects of budgeting systems and their impact on efficiency. For instance, S. V. Grishkovskaya considers adaptive budgeting as a tool for improving enterprise management efficiency. According to the author, unlike traditional static budgets, adaptive budgeting allows for rapid adjustment to changes in the external environment, thereby stabilizing financial performance. This approach is particularly relevant for energy enterprises operating under conditions of volatile resource prices.

E. Y. Alekseeva analyzes budgeting as an important tool for improving management in machine-building enterprises. The study demonstrates that the implementation of budgeting can optimize costs, improve financial performance, and enhance the validity of managerial decisions. The author also emphasizes the necessity of integrating budgeting with strategic management.

Overall, the reviewed scientific sources confirm the role of budgeting in enterprise management, its strategic importance, and its contribution to improving management efficiency. At the same time, these studies are primarily conducted at a general level or within specific industries, while the issue of factor-based analysis of management efficiency in energy enterprises based on budgeting has not been sufficiently explored.

RESEARCH METHODOLOGY

In the course of the study, modern methods of economic analysis were applied, including factor analysis, comparative analysis, analysis of relative indicators, and a systematic approach. In evaluating budget execution, discrepancies between planned and actual indicators were identified, and their causes were examined by components. In addition, the following key system of indicators was used to assess the financial condition of the enterprise:

- the share of inventories in total assets;

- the share of attracted funds in total assets;
- financial independence and financial dependence coefficients;
- the level of inventory financing.

Through these indicators, the effectiveness of the budgeting system, the level of resource utilization, and the economic efficiency of management decisions were comprehensively assessed.

ANALYSIS AND RESULTS

In a modern competitive environment, ensuring the sustainable development of an enterprise depends on the effective functioning of the strategic management system, in which budgeting serves as the main tool for expressing strategic goals in financial terms in response to changes in the environment. From this perspective, assessing the extent to which the budgeting process aligns with the requirements of strategic management and contributes to it is a relevant issue.

The need arises to theoretically distinguish efficiency criteria in budgeting across financial, managerial, and strategic dimensions and to support them with practical analysis.

Studying efficiency criteria in budgeting across financial, managerial, and strategic dimensions represents a systematic approach aimed at comprehensively evaluating enterprise performance. This process is not limited to a simple comparison of planned and actual budget indicators but also allows for identifying the underlying management decisions, resource allocation, and their connection with strategic objectives.

Within the financial dimension, the effectiveness of budgeting is assessed through indicators such as revenues, costs, profit, and profitability. At this stage, discrepancies between planned and actual results are identified, and their causes are analyzed. For example, it is determined what factors contributed to an increase in revenues or a rise in costs. This makes it possible to evaluate the financial performance of the enterprise and the level of budget discipline.

The next stage is the managerial dimension, where the impact of budgeting on management processes is examined. The main focus here is on the efficiency of resource utilization, cost control, optimization of internal processes, and the validity of management decisions. In other words, the analysis evaluates how effectively management has exercised control through the budgeting system and what results have been achieved in reducing or optimizing costs.

The third dimension is the strategic approach, which involves assessing the alignment of budgeting with the long-term objectives of the enterprise. At this stage, it is determined how well budget indicators contribute to the enterprise's development strategy, investment policy, and strengthening of its market position. If the budget is focused only on short-term results, it cannot ensure strategic effectiveness. Therefore, budgeting must be carried out in alignment with strategic planning.

By analyzing these three dimensions together, it becomes possible to determine the true effectiveness of the budgeting process. Practical analysis allows testing these theoretical criteria based on real data. As a result, existing problems, weaknesses, and development opportunities within the enterprise are identified, creating a foundation for further improvement of management decisions. From this perspective, the following table analyzes, using a factor-based approach, the discrepancies between planned and actual budget indicators in the case of "Hududgaztaminot" JSC, highlighting the actual state of budget execution and the level of management efficiency.

Table 1 below presents the "factor-plan" analysis of "Hududgaztaminot" JSC based on its business plan data (Table 1).

Table 1. Factor-plan analysis of "Hududgaztaminot" JSC (2024)¹

Indicator (million UZS)	Plan	Actual	Plan / Actual	Change, %
Net revenue (excluding VAT/excise)	15,388,597	18,801,462	+3,412,865	+22.2%
Total costs	15,114,061	18,607,959	+3,493,898	+23.1%
– Cost of production	13,052,585	16,851,235	+3,798,650	+29.1%
– including: raw materials (gas purchase)	11,007,579	15,211,900	+4,204,321	+38.2%
Period expenses	1,522,360	1,171,373	-350,987	-23.1%
Financial activity expenses	539,116	351,585	-187,531	-34.8%
Profit before tax	274,536	244,140	-30,396	-11.1%
Net profit (loss)	177,147	180,621	+3,474	+2.0%

¹ Source: Author's elaboration

The table reflects the differences between the planned (budgeted) and actual indicators of “Hududgaztaminot” JSC for 2024, allowing for an assessment of the company’s financial performance and management efficiency.

According to the analysis results, the company’s net revenue increased by 22.2 percent compared to the plan, rising from 15,388,597 million UZS to 18,801,462 million UZS. This growth can be explained by increased demand for gas supply services, expansion of sales volumes, and favorable market conditions. This indicates that the enterprise performed effectively in generating revenue. However, alongside revenue growth, costs also increased significantly. In particular, total costs rose by 23.1 percent, from 15,114,061 million UZS to 18,607,959 million UZS. Notably, the growth rate of costs exceeded that of revenue, which may negatively affect the company’s profitability.

Within the cost structure, the largest share is attributed to the cost of production, which increased by 29.1 percent. The main reason for this growth is the sharp rise in expenditures on raw materials, namely natural gas purchases. Specifically, gas procurement costs increased by 38.2 percent, from 11,007,579 million UZS to 15,211,900 million UZS. This indicates that the primary cost pressure in the company is associated with resource procurement. This situation can be explained both by rising gas prices and by an increase in consumption volumes.

At the same time, positive changes were observed in period expenses and financial activity expenses. Period expenses decreased by 23.1 percent, while financial expenses were reduced by 34.8 percent. This indicates that effective measures were taken to optimize administrative and management costs, as well as to reduce expenses related to debt obligations.

Profit before tax decreased by 11.1 percent, primarily due to the sharp increase in production costs. In other words, despite revenue growth, cost pressures led to a decline in profit. However, due to cost optimization, net profit maintained a positive trend and increased by 2 percent, rising from 177,147 million UZS to 180,621 million UZS.

The analysis of the budget plan and its actual execution for 2024 at “Hududgaztaminot” JSC reveals several important aspects. First, the company’s net revenue exceeded the plan by 22.2 percent, reflecting increased income from gas supply and growing market demand.

At the same time, costs also increased significantly. In particular, the cost of production rose by 29.1 percent compared to the plan, with the largest share attributable to raw materials—namely natural gas purchases. The actual cost of gas procurement exceeded the plan by 38.2 percent, becoming the main pressure point in the company’s cost structure. This situation is associated with both rising gas prices and increased volumes of resource procurement.

On the other hand, due to the optimization of period expenses and financial activity costs, these were significantly reduced compared to the plan. Period expenses decreased by 23.1 percent, while financial expenses declined by 34.8 percent. This indicates that management has effectively established internal cost control mechanisms. Although profit before tax decreased by 11.1 percent compared to the plan, the company’s net profit exceeded the planned indicator due to cost reductions, recording a 2 percent increase.

The ongoing reforms in Uzbekistan’s energy sector are creating the need to enhance management efficiency, ensure the rational use of financial resources, and strengthen budget discipline in enterprises. From this perspective, the economic evaluation of factors influencing management efficiency based on budgeting in energy enterprises holds significant scientific importance. The system of indicators applied in this process not only evaluates various aspects of enterprise performance but also helps determine the economic effectiveness of managerial decisions. One such indicator is the share of inventories in total assets, which reflects the portion of enterprise resources tied up in inventories.

A high value of this indicator suggests that a significant portion of assets is immobilized in storage, leading to slower circulation of working capital and reduced efficiency in the use of budget resources. A lower level may indicate relatively efficient use of funds; however, excessively low levels may create the risk of insufficient inventories necessary for uninterrupted production. Therefore, this indicator serves as an important economic criterion for assessing the relationship between inventory policy rationality, budgeting quality, and management efficiency in energy enterprises.

The key derived indicators used to analyze the above processes are as follows:

1. Share of inventories in total assets

$$K_1 = (1);$$

Y- volume of inventories of the joint-stock company;

x_1 - total assets.

This indicator is highly important in budgeting as it evaluates the rationality of inventory policy. Excessive allocation of funds to inventories leads to inefficiency in budget management.

2. Share of attracted funds in total assets

$$K_2 = (2);$$

x_2 - volume of attracted (borrowed) funds.

This indicator is one of the key measures for assessing budget stability, debt burden, financial risk, and the structure of resource sources.

3. Volume of own funds (conditional)

$$X_3 = X_2 - X_1 \quad (3)$$

x_3 - enterprise's own funds or conditional net financing base.

By subtracting attracted funds from total assets, the portion formed by the enterprise's own resources is determined.

4. Financial independence coefficient

$$K_3 = \quad (4);$$

This indicator is essential for determining the optimal ratio between internal and external funding sources in improving the budgeting mechanism.

5. Financial dependence coefficient

$$K_3 = \quad (5);$$

This makes it possible to analyze the acceptable level of external financing in budget-based enterprise management.

6. Share of inventories in attracted funds

$$K_3 = *100 \quad (6);$$

This shows what portion of borrowed funds is tied up in inventories.

7. Inventory coverage ratio by own funds

$$K_3 = \quad (7);$$

This indicator evaluates budget security, the quality of inventory financing, and the stability of working capital.

Thus, although revenue exceeded the planned level, the concentration of resources in gas procurement increased cost pressure. Nevertheless, through cost optimization, management succeeded in maintaining overall financial performance at a positive level. In the future, the primary task is to manage risks associated with raw material purchase prices and to diversify costs.

The above system of indicators represents an important analytical tool for comprehensively evaluating management efficiency based on budgeting in energy enterprises. Through these formulas, the structure of financial resources, their sources of formation, and the level of their utilization are analyzed in an interconnected manner.

In particular, the share of inventories in total assets shows what proportion of enterprise resources is allocated to production inventories, thereby enabling the assessment of resource utilization efficiency. The share of attracted funds, in turn, determines the degree of the enterprise's dependence on external financing and serves to evaluate financial risks. At the same time, the volume of own funds and the financial independence coefficient reflect the internal financial stability of the enterprise.

The financial dependence coefficient and the share of inventories in attracted funds allow assessing how effectively borrowed resources are utilized. If a significant portion of attracted funds is tied up in inventories, this may lead to slower turnover of funds and potential liquidity problems. The inventory coverage ratio by own funds, in turn, evaluates the budget security of the enterprise, that is, the extent to which inventories are financed by internal sources.

CONCLUSIONS AND SUGGESTIONS

The results of the study indicate that although revenues at "Hududgaztaminot" JSC in 2024 significantly exceeded the planned indicators, the main cost pressure was associated with raw materials, namely natural gas procurement. This led to a sharp increase in production costs. At the same time, by reducing period and financial expenses, management ensured effective cost control, which helped maintain net profit at a positive level. This demonstrates that the budgeting system in the enterprise is functioning effectively to a certain extent.

In the future, the main strategic tasks for the enterprise include managing risks associated with fluctuations in raw material prices, diversifying costs, and optimizing inventory policy. This will further strengthen the role of the budgeting system in strategic management.

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