METHODOLOGY FOR DETERMINING PROFITABILITY INDICATORS BY SEGMENTS IN TRADE ENTERPRISES

Author: ***Bobomuradova Sarvinoz Ziyadullayevna***
Position: Teacher of the Department of International Financial Management, Samarkand Branch of ISFT
E-mail: *bobomuradovasarvinoz@gmail.com*

Abstract. This article examines the methodological aspects of determining profitability indicators by segments in trade enterprises. In modern trade organizations, the diversification of products, sales channels, and territorial units creates the need to evaluate financial results separately for each segment. However, in many trade enterprises, income and expenses are recorded in aggregate form, which limits the possibility of accurately assessing the profitability of individual segments.

The study proposes a methodological approach for determining profitability indicators by segments based on the allocation of revenues and expenses. The methodology includes the classification of trade segments by activity type, product group, and territorial unit, as well as the calculation of segment profitability, operating margin, cost ratio, and return on assets. The proposed approach makes it possible to identify the most profitable and least efficient segments, improve internal reporting, and support more effective managerial decision-making.

The results of the study show that wholesale trade segments tend to generate higher profitability due to larger sales volumes and lower unit operating costs, while retail and regional branches often demonstrate lower profitability because of higher logistics and operating expenses. The proposed methodology can be applied by trade enterprises to improve segment reporting, optimize resource allocation, and enhance financial sustainability.

Keywords: segment reporting, profitability indicators, trade enterprises, segment accounting, internal reporting, management accounting.

Introduction

In the context of globalization and growing competition, trade enterprises are increasingly required to improve their internal management systems. The expansion of product assortments, territorial branches, and sales channels creates difficulties in assessing the financial performance of enterprises as a whole. Under such conditions, segment-based analysis becomes an important tool for evaluating the profitability of specific business activities.

Many trade enterprises still use an aggregated accounting system in which revenues and expenses are not separately recorded by segment. As a result, managers face difficulties in identifying profitable and unprofitable activities, allocating resources effectively, and making informed decisions. Therefore, the development of a methodology for determining profitability indicators by segments is highly relevant.

International practice, particularly IFRS 8 Operating Segments, emphasizes the importance of reporting financial information by business segments. Segment-based information improves transparency, provides a clearer understanding of enterprise performance, and supports strategic management decisions. The purpose of this study is to develop a methodology for determining profitability indicators by segments in trade enterprises and to justify its practical application. In addition, the study aims to identify the most efficient and least efficient business segments and to propose recommendations for improving internal reporting and management decision-making.

Literature review

Segment reporting and management accounting have been widely discussed in both international and national studies. According to Charles T. Horngren, Srikant M. Datar, and Madhav V. Rajan, the classification of revenues and expenses by activities and responsibility centers plays a significant role in evaluating organizational performance. They argue that segment profitability analysis allows managers to assess the effectiveness of different business units and to identify opportunities for cost reduction [2].

Horngren and his co-authors emphasize that segment-based accounting enables managers to identify which business units create the highest value and which require additional attention. In their view, profitability indicators should not be limited to overall profit margins but should also include operating margins, cost ratios, and return on assets for each segment. Such indicators provide a more realistic picture of enterprise efficiency. Colin Drury highlights that management accounting systems should focus on responsibility centers, profit centers, and segment-level reporting. According to his approach, segment profitability indicators are essential for identifying inefficient operations and improving internal control [3]. Drury also notes that the allocation of common costs among segments is one of the most challenging issues in management accounting because inappropriate allocation methods may distort the profitability of certain segments.

Robert S. Kaplan and Anthony A. Atkinson argue that segment reporting should be closely linked with strategic management. They point out that segment-based profitability analysis can support long-term planning, budgeting, and performance evaluation. In particular, the use of activity-based costing systems makes it possible to distribute indirect costs more accurately among segments [6]. Robin Cooper also contributed significantly to the development of segment accounting methodologies. He emphasizes that enterprises should classify costs according to their relation to specific business activities. According to Cooper, the identification of cost drivers improves the quality of profitability calculations and supports better managerial decisions [7].

International Financial Reporting Standard IFRS 8 Operating Segments requires companies to disclose financial information according to the way management internally evaluates operations. This means that segment revenues, expenses, assets, and profits should be reported separately in order to improve transparency and decision-making [4]. The standard also emphasizes that operating segments should be determined based on the internal organizational structure of the enterprise rather than on externally imposed categories.

Despite the availability of international methodologies, many trade enterprises in developing economies still lack a systematic approach for measuring profitability by segments. In most cases, revenues and expenses are recorded in aggregate form, which makes it difficult to identify the most profitable and least profitable activities. This creates a gap between management needs and accounting practices.

Methodology

The study uses comparative analysis, grouping methods, statistical analysis, and modeling techniques. Trade enterprises are divided into the following segments:

1. Wholesale trade;
2. Retail trade;
3. Regional branches.

Profitability indicators are calculated using the following formulas:

SEGMENT PROFITABILITY (%) = (SEGMENT PROFIT / SEGMENT REVENUE) × 100

OPERATING MARGIN (%) = (OPERATING PROFIT / REVENUE) × 100

COST RATIO (%) = (SEGMENT COSTS / SEGMENT REVENUE) × 100

RETURN ON ASSETS-ROA (%) = (SEGMENT PROFIT / SEGMENT ASSETS) × 100

Results and discussion

The proposed methodology was applied to a selected group of trade enterprises in order to evaluate the profitability of their main business segments. For this purpose, segment revenues, operating costs, and profits were separately identified for wholesale trade, retail trade, and regional branches.

The analysis was based on segment-specific financial data, which made it possible to compare the efficiency of different business activities. Profitability indicators were calculated by using the ratio of profit to revenue, while the cost ratio was determined by comparing total segment costs with segment revenues.

The obtained results demonstrate that the financial performance of business segments differs significantly depending on their sales volume, cost structure, and operational characteristics. The following table presents the main financial indicators by business segment.

Table 1. Revenue, Costs, and Profitability Indicators by Business Segments

Segment	Revenue (mln UZS)	Costs (mln UZS)	Profit (mln UZS)	Profitability (%)
Wholesale Trade	1,256	932	324	25.8
Retail Trade	842	679	163	19.4
Regional Branches	517	468	49	9.5
Total	2,615	2,079	536	20.5

Source: Developed by the author based on research findings.

The results obtained from the application of the proposed methodology show significant differences in profitability among business segments. Such differences confirm the importance of segment-based accounting and reporting for trade enterprises.

The wholesale trade segment has the highest profitability level at 25.8%. This result is explained by larger sales volumes, lower operating costs per unit of revenue, and more efficient use of logistics and distribution channels. The cost ratio of wholesale trade is 74.2%, which is the lowest among all segments. This indicates that wholesale trade is the most efficient and financially sustainable activity of the enterprise.

The retail trade segment demonstrates a profitability level of 19.4%, which is lower than wholesale trade but still relatively stable. The main reason for the lower profitability is the high level of selling and administrative expenses. Retail operations require additional expenditures for maintaining stores, employee salaries, utilities, advertising, and customer service. As a result, the cost ratio of this segment reaches 80.6%, reducing its overall efficiency.

Regional branches have the lowest profitability level at only 9.5%. Their cost ratio is 90.5%, which means that almost all revenues are absorbed by operating costs. This can be explained by high transportation costs, duplication of administrative functions, low sales volumes in some regions, and limited economies of scale. Therefore, regional branches appear to be the least efficient segment of the enterprise. A comparative analysis of the results suggests that enterprises should focus on increasing the share of wholesale operations, while at the same time improving the efficiency of retail trade and regional branches. In particular, regional branches require the optimization of logistics costs, reduction of administrative expenses, and stronger sales strategies. Retail trade, on the other hand, needs more effective cost control and better inventory management.

The results also show that profitability indicators should not be interpreted separately from cost ratios. For example, even though retail trade generates relatively high revenues, its profitability remains moderate because of excessive operating costs. Similarly, regional branches may contribute to market expansion, but their financial effectiveness remains limited unless costs are reduced. The findings confirm that segment profitability analysis is an effective management tool. It allows enterprises to identify profit centers, evaluate the efficiency of each business activity, and allocate resources more rationally. Managers can use this information to improve strategic planning, budgeting, and performance evaluation.

The proposed methodology may strengthen the internal reporting system of trade enterprises. Regular monitoring of segment profitability indicators can improve financial transparency, increase accountability of managers, and support more effective decision-making. In the long run, this can contribute to higher competitiveness and financial sustainability of trade enterprises

Conclusion and recommendations

The study confirms that profitability analysis by business segments is an essential tool for improving management efficiency in trade enterprises. In modern business conditions, enterprises can no longer rely only on aggregate financial indicators because they do not reflect the real performance of individual business units. Segment-based profitability analysis provides more detailed and accurate information about the revenues, costs, and profits generated by each activity.

The findings of the study show that wholesale trade is the most profitable segment because of larger sales volumes, lower operating costs, and more efficient use of resources. Retail trade remains profitable, but its performance is reduced by high selling and administrative expenses. Regional branches demonstrate the lowest profitability because of high logistics, transportation, and maintenance costs.

The research also proves that the lack of segment-based accounting systems creates difficulties for managers in identifying profitable and unprofitable business activities. When revenues and expenses are recorded only in aggregate form, it becomes difficult to evaluate the financial efficiency of individual segments and to allocate resources effectively.

The proposed methodology for determining profitability indicators by segments allows trade enterprises to identify profit centers, improve cost allocation, and strengthen internal reporting systems. In addition, the methodology supports more informed managerial decisions, especially in relation to strategic planning, budgeting, and performance evaluation.

The implementation of segment-based profitability analysis may also contribute to improving the overall competitiveness of trade enterprises. By identifying inefficient activities and optimizing cost structures, enterprises can increase their financial sustainability and adapt more quickly to changes in market conditions.

Based on the results of the study, the following recommendations are proposed:

1. Trade enterprises should implement segment-based accounting systems that separately record revenues, costs, assets, and profits for each business segment.

2. Segments should be classified according to business activity, product group, sales channel, and territorial branch in order to improve the accuracy of internal reporting.

3. Enterprises should use objective methods for allocating common costs among segments, such as sales volume, floor space, labor hours, or asset value.

4. Management should regularly calculate segment profitability indicators, including profitability ratio, operating margin, cost ratio, and return on assets.

5. Enterprises should pay particular attention to low-performing segments, especially regional branches, and introduce measures to reduce logistics and administrative costs.Retail trade operations should improve inventory control, customer service, and cost management in order to increase profitability.

6. The use of ERP systems and digital accounting technologies should be expanded to improve the quality and speed of segment reporting.

7. Trade enterprises should use segment profitability indicators as a basis for strategic planning, budgeting, and performance evaluation.

8. National accounting practices should be further aligned with IFRS 8 Operating Segments in order to strengthen segment reporting and improve transparency.

9. Future research may focus on the relationship between transfer pricing, digital accounting systems, and segment profitability in trade enterprises.

REFERENCES:

1. Law of the Republic of Uzbekistan “On Accounting”. Tashkent, 2016.
2. Charles T. Horngren, Srikant M. Datar, Madhav V. Rajan. Cost Accounting: A Managerial Emphasis. 16th edition. Pearson Education, 2018.
3. Colin Drury. Management and Cost Accounting. 10th edition. Cengage Learning, 2018.
4. IFRS 8 Operating Segments. International Accounting Standards Board, 2019.
5. A. Vahobov. Fundamentals of Financial Analysis of Enterprises. Tashkent, 2017.
6. Robert S. Kaplan, Anthony A. Atkinson. Advanced Management Accounting. 3rd edition. Prentice Hall, 1998.
7. Robin Cooper. Cost Classification and Cost Management Systems. Journal of Cost Management, 1990.