

APPLICATION OF THE MEASUREMENT MODEL OF NON-FINANCIAL PERFORMANCE IN RETAIL

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Abstract: The measurement of non-financial business performance in retail represents a significant and growing area of empirical research in disciplines such as accounting, finance, and particularly marketing. The primary objective of this study is to examine the potential for applying contemporary models in the measurement and evaluation of non-financial performance, as well as to assess the extent to which such approaches enhance operational efficiency in retail. For comparative purposes, the study reviews the traditional performance measurement model based on financial information derived from financial statements and conventional financial indicators. However, effective strategic decision-making in the retail sector requires a more complex measurement system for resource utilization, one that incorporates non-financial information. Therefore, in addition to the traditional accounting-based model, a factor-based approach to performance measurement is proposed. Findings suggest that a well conceptualized and effectively implemented model for measuring non-financial performance can serve as a key instrument for initiating strategic change in retail business orientation.

Keywords: *finance, non-financial performance, efficiency, marketing, Balanced Scorecard.*

Field: Social Sciences

1. INTRODUCTION

Performance measurement in retail represents a continuous process within the fields of business finance and management. Contemporary models for measuring non-financial performance in retail establish a specific mode of communication and interdependence between academic disciplines such as finance and marketing. In this way, a systematic approach is established for the analysis and evaluation of business performance, which contributes to greater retail efficiency. The effects of introducing and applying models based on a systemic approach to performance measurement and analysis, primarily non-financial performance, are the subject of this study. The use of non-financial metrics entails specific challenges in the analysis and evaluation of business performance. A short tradition and lack of knowledge regarding appropriate performance levels may lead to distrust in non-financial indicators. In this context, performance measurement systems aim to strike a balance between financial and non-financial metrics. However, there is also a perspective that non-financial indicators are actually leading predictors of financial performance. Based on the defined research objective and scope, this paper operates under the hypothesis that measuring non-financial performance is a necessary condition for the strategic assessment of retail efficiency. However, in order to establish a sufficient condition, broader coverage of both financial and non-financial indicators must be ensured. The paper is structured into two complementary and interrelated segments or perspectives. The first aspect addresses the application of the traditional approach to performance measurement in retail and its corresponding evaluation of efficiency. The second segment illustrates the implementation of a modern, integrated approach to retail performance measurement.

2. METHODOLOGY

The traditional model for measuring efficiency is based on data obtained from financial statements and corresponding financial performance indicators. Therefore, the information derived from financial reports remains the most widespread source of insight into retail business operations and efficiency. In the business analysis literature, financial analysis tools occupy a central position in evaluating corporate performance. Kothari and Barone (2012) identify three primary tools of financial analysis: (1) horizontal analysis (trend analysis), (2) vertical analysis, and (3) financial ratios (p. 268). However, financial analysis does not end with horizontal and vertical tools. As Horne and Wachowich (2007) explain, "To assess the financial condition and performance of a business, a financial analyst must examine various aspects of

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the corporation's health. One frequently used tool during these assessments is a financial ratio or index, which connects two financial data points by dividing one by the other" (p. 132). When analyzing the impact of core factors on corporate performance, increasing attention is being paid to non-financial variables, such as goodwill, research and development costs, brand equity, customer satisfaction, intellectual capital, and knowledge (Marnovita. 2020; Marinković, 2023). This shift highlights the growing influence of intangible assets on business efficiency (Lukić & Nikolić, 2009, p. 943; Kumar, 2006, pp. 7–35). Given the significance of intangible assets as drivers of corporate performance, specialized techniques and methods have been developed to manage both traditional financial metrics and non-financial ones. One such approach is the Balanced Scorecard (BSC) framework, introduced by Kaplan and Norton (1992), which integrates financial and non-financial performance indicators (pp. 71–79). The works cited here, along with other secondary sources, serve as the theoretical and methodological foundation for this paper's empirical research into the complex system of evaluating corporate performance efficiency. Morgan et al. (2022), points to "identifying new perspectives, theories, data sources, and analysis approaches that may be productively employed in future research" (pp 462-481). As they state Katsikeas et al.(2016), "researchers have focused on processes and metrics for marketing performance assessment"

3. TRADITIONAL APPROACH TO MEASURING EFFICINECY

Measuring resource utilization indicators is not merely a technical activity focused on identifying deviations from target levels. It is a complex endeavor that involves developing appropriate methodologies, measurement techniques, and metrics. Implementing measurement processes within a corporation requires theoretical and methodological knowledge in finance and other economic disciplines, along with their application, which entails selecting and constructing suitable analytical models. Efficiency implies achieving selected objectives with minimal use of available resources, i.e., maximizing the rationality of their use (Domanović, 2010, p. 70). The traditional model of measuring efficiency relies on conventional financial statements and financial performance metrics. Therefore, information derived from financial statements represents the most widespread source of information about corporate operations. The informational power of reports is crucial, considering that relevant analyses based on them lead to conclusions about the corporation's profitability, asset, and financial positions. The informational power of financial statements is particularly significant for external information users (primarily investors and creditors). Comparable and transparent financial statements form the basis for deeper and more liquid financial markets and will strengthen investor confidence, thereby enhancing overall financial stability. According to Anđelković and Zubac (2019), our country has adopted the "IASB's International Financial Reporting Standards project" (pp. 128–137). However, although financial statements do not contain all the information users need, they still provide a framework through which users can compare specific information obtained from other sources.

Differentiation of metrics into financial and non-financial is based on two main criteria: first, whether they are expressed monetarily or non-monetarily, and second, the source of information for their derivation—from the accounting system or other information systems. Financial performance metrics are expressed monetarily and originate from the financial accounting information system. Therefore, the term "accounting metrics" is often used for financial metrics. According to Verweire et al. (2004), all financial performance metrics can be divided into two groups: (1) metrics based on accounting data and (2) market-based metrics derived from a combination of accounting data and the market value of corporate shares (p. 77). In the literature on business analysis and corporate efficiency evaluation based on financial statements, horizontal and vertical analyses and financial statements occupy a fundamental place, as mentioned in the methodological section (Kothari & Barone, 2012, p. 269). Indicators of cost-effectiveness, profitability, and investment represent indicators of business success (efficiency). Conversely, activity indicators—turnover ratios—can be considered both security and success indicators. This is because the turnover coefficient of working capital, on the one hand, significantly affects liquidity and financial stability, and on the other hand, directly impacts business profitability (Žager et al., 2008, pp. 244–245). Security and success criteria are typically opposed in the short term. However, in the long term, security conditions success and vice versa. Therefore, the corporation's financial position always reflects its financial structure, manifested as the composition of capital in terms of ownership and maturity (liabilities) and the method of financing specific asset segments (assets) with own or long-term borrowed capital or short-term loans and liabilities. Illustrating the previously mentioned statements, Ranković (2008) further notes regarding the corporation: "if it does not operate profitably, if its own capital does not cover immobilizations, if cash flow (depreciation and net profit) is insufficient to cover due installments of long-term loans, if inventories are not financed with long-term capital, the financial position is unfavorable

and, sooner or later, its existence will be threatened” (p. 22).

Numerous financial indicators are used to assess corporate efficiency. One of the most significant among them is the profitability indicator. Corporations employ a variety of ratios to express profitability. When viewed independently, none of these indicators meet all needs and interests. Therefore, analysts focus on the most relevant ones, aiming to extract the necessary information from their results to assess different aspects of profitability development. Profitability indicators can be partial or global (synthetic). Partial indicators refer to the net operating profit margin, which is assessed exclusively based on periodic income statements. Company owners (shareholders), bondholders, and long-term creditors are primarily interested in long-term profitability and security. This refers to long-term solvency—the corporation’s ability to generate cash to meet its long-term obligations as they become due (Ivkov & Andelković, 2013, p. 261). Corporate cost-effectiveness is analyzed based on the ratio between operating revenues and operating expenses. Efficiency indicators measure the relationship between income and expenses, showing how much revenue can be generated per unit of expense. The ratio of total revenues to total expenses results in the indicator of overall efficiency or the efficiency of total operations. For macro and micro-level analyses, and for a more complex assessment of operations, it is necessary to calculate additional, so-called partial efficiency indicators. This enables an understanding of the impact of partial efficiencies on overall business efficiency. Naturally, a higher efficiency coefficient is preferable. The procedure for calculating overall business efficiency and other efficiency indicators (as well as previously mentioned performance metrics) is presented in the fifth section of the paper, which discusses financial statement analysis tools. In the conventional approach, accounting metrics dominate. The issue with accounting-based measures is that they are designed for budgetary control rather than strategic formulation. As a result, such “reactive” measurement does not adequately reflect the success of business process execution within the corporation. This highlights the importance of a “proactive” approach to measuring corporate resource utilization. This forward-looking approach monitors performance and the development of the corporate structure. To develop a system of performance indicators aligned with contemporary corporate requirements, the focus must shift from control and budgeting to planning and strategy. It is now evident that a performance measurement system dominated by accounting metrics has become outdated. development, and internal organization. In today’s context, value creation and performance measurement have significantly shifted from material resources to knowledge and information. Strategies based on knowledge and information utilize intangible assets such as customer relationships, information systems, databases, employees with entrepreneurial skills, and motivation for success. Under these new conditions, competitive advantage is the result of knowledge, capabilities, and relationships developed by people, rather than investments in fixed assets or control over financial resources.

4. MODERN APPROACH TO PERFORMANCE MANAGEMENT

The successful functioning of a corporation and its full contribution to high-quality strategic decision-making requires a complex approach to modeling a resource utilization measurement system. At the core of such an approach are real determinants that causally influence corporate resource performance. For this reason, in addition to an integrated approach, a factor-based approach to resource utilization measurement is necessary. This involves identifying and measuring the influence, intensity, and direction of various factors and determinants in the corporation’s business activities. Only a properly designed and implemented system for measuring corporate resource utilization indicators, with an emphasis on analyzing relevant factors, can serve as a significant instrument for initiating and accelerating changes in corporate activities. Measuring resource utilization indicators is closely tied to strategy elements. This measurement should eliminate subjectivity from the decision-making process, allowing management to objectively define priorities when selecting resources. A factor-based approach to indicator measurement supports this function. In this context, numerous current corporate demands necessitate the inclusion of both financial and non-financial performance measures. Regarding marketing as a non-financial component, the following points are crucial: 1. Causal linking of specific marketing activities with financial results to assess marketing’s economic impact; 2. Moving away from traditional, balance-sheet-oriented metrics for evaluating marketing actions; 3. Accounting for risks and capital costs invested in marketing; 4. Linking performance evaluations with marketing strategies to determine incentives for long-term success-driven decisions and actions; 5. Ability to differentiate performance by object of observation (e.g., business areas, product-market combinations), to adequately reflect reality in complex, diversified, and multinational enterprises; 6. Strengthening external and competition-oriented perspectives as a result of establishing market-oriented corporate management (Bauer et al., 2006, p. 182). These identified demands clearly indicate the need for a modern performance measurement system (Temitope & Federal, 2024). Continuous

measurement and monitoring of marketing results is essential, especially given the increasing share of marketing costs in overall expenses and the corresponding rise in budgets. Measurable marketing, i.e., marketing whose contribution to corporate success can be quantified represents a paradigm shift in marketing management (Gligorijević & Veljković, 2022; Lovreta et al., 2024). A performance measurement system identifies areas and products with improvement potential, which are the root causes of performance gaps. Understanding the essential functions of marketing performance measurement helps identify critical evaluations of marketing tools and their direct and indirect effects, which is just as important as planning, as it provides valuable information to drive strategic changes and support the learning process.

A modern corporate performance measurement system includes the application of a multidimensional set of performance metrics—both financial and non-financial, that quantify past results and predict future outcomes. More and more corporations are now measuring areas like customer loyalty—non-financial domains with significant influence on business success. In this way, financial reports are complemented by management's deeper insights into ongoing activities before the fiscal year ends. Non-financial metrics should provide more in-depth analyses than financial ones. Their purpose is to identify relevant performance areas that ultimately reflect in financial indicators. By improving non-financial metrics, positive effects can be achieved in aggregate financial measures—such as return on capital. Therefore, it is necessary to thoroughly examine and identify the causal relationship between specific financial and non-financial metrics. Kaplan & Norton (1992) utilized these ideas in a visionary way by developing the Balanced Scorecard (pp. 71–79). Initially, the BSC was a performance measurement tool, based on the assumption that relying solely on accounting or financial metrics leads to strategic short-sightedness. Financial indicators are lagging indicators; they reflect past actions. As such, they fail to communicate drivers of future performance—namely, indicators of value creation opportunities through investments in intangible assets (customers, suppliers, employees, technology, products, innovations). The BSC, however, combines lagging financial indicators with leading indicators of future performance (Djurićin & Janošević, 2007, pp. 65–67). It balances general performance measures (financial consequences of past decisions) with performance drivers (measures of future results indicating value creation through investments in intangible assets).

Kaplan & Norton (1996) developed the Balanced Scorecard as an instrument incorporating both financial and non-financial indicators. They divided the metrics into four perspectives: 1. Financial perspective: Measures related to profitability and market value; 2. Customer perspective: Metrics that contribute to successful customer and market segment handling (e.g., customer satisfaction); 3. Internal process perspective: Metrics that promote optimization of internal processes aligned with corporate goals; 4. Learning and growth perspective: Metrics that create the environment necessary for achieving the previous three perspectives (P. 76). The BSC recognizes that a corporation's ability to mobilize and utilize its intangible assets is crucial for maintaining a competitive edge. Intangible assets enable corporations to develop long-term customer relationships, serve new markets, launch new products, ensure high-quality production at low cost, and drive continuous improvement (Simons, 2000, p. 186). As Domanović (2010) explains, "A financial report that contains these four dimensions is called the Balanced Scorecard. The concept of balance includes the intention to comprehensively cover both financial and non-financial factors that contribute to a business entity's success in achieving strategic goals" (p. 70). This framework offers a more comprehensive analysis of performance than financial information alone.

5. CONCLUSION

It can be concluded that recent literature in the fields of accounting and finance increasingly emphasizes the design of financial statements, the importance of analysis, and the performance measurement systems of corporations. Strategic performance measurement systems that are derived from corporate strategy often require continuous adaptation and improvement. The application of non-financial metrics presents specific challenges in analyzing and evaluating business performance. While on the one hand, strategic performance measurement systems aim to establish a balance between financial and non-financial indicators, on the other hand, there is a view that non-financial metrics should serve as leading indicators of financial performance. Performance measurement systems represent a collection of essential financial and non-financial indicators used by managers to assess corporate efficiency.

From the theoretical and methodological standpoint presented in this paper, it follows that it is necessary to transform the existing traditional performance measurement model into a more complex one that incorporates other non-financial indicators. This implies that, in the design of financial statements, it is essential to include non-financial indicators (annexes) in addition to financial ones. To emphasize the importance of using strategic information, corporate performance reports are increasingly based

on strategic success measures, many of which are non-financial indicators of business performance. This approach supplements conventional financial reporting and financial metrics with drivers of future corporate performance. In doing so, the hypothesis set forth in this paper is confirmed. There is a clear need to strengthen the connection between the marketing and financial functions to create greater value for customers, increase customer satisfaction, and thus improve long-term corporate efficiency.

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