New Approaches to Measuring Enterprise Performance

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Abstract The paper describes a strategic shift in the implementation of the business strategy of the company in the modern marketing environment, which is based on abandoning the traditional concept of measuring the performance of the company and applying new (modern) standards. In this regard, the strategic advantages of new multidimensional approaches to measuring enterprise performance are highlighted. Particularly considered is the application of the Balance ScoreCard as a powerful modern tool that helps businesses change their top-down access to information flow.

Keywords: strategy, enterprise performance, financial measures, non-financial measures, marketing environment.

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1 Introduction

In today's marketing environment, a management system based on the dimension of accounting performance metrics is becoming outdated. Modern enterprises where intangible assets are a major source of competitive advantage require a new management system, or new performance metrics, that will allow the effects of investing in intangible assets to be seen.[1]

The basic aspiration of modern organizations is to harmonize key performance indicators with modified business conditions, which is as the same time the basis for their improvement.[2] In order for an organization to achieve a positive business result, it is very important to select the right key success indicators and take care of their improvement.

Many well-established models can be found in the literature as well as in practice that provide guidance for the development of performance measurement systems. They look at performance measurement issues from different perspectives. In addition to seeking to link operations and processes to the strategic goals of the enterprise, they integrate financial and non-financial performance measures, while also placing customer requirements at the heart of all business activities.

2 The traditional concept of measuring enterprise performance

The traditional concept of performance measurement is linearly structured and statically oriented. This includes setting targets at the beginning of the year and presenting them to the employees responsible for achieving them. [3]Consequently, the management of the company monitors the work in relation to the set goals during the year and gives its estimates at the end of the year, when it is time for annual performance appraisals. In the performance appraisal document, the manager makes his/her conclusions about the employee's quality of work against the standards. If the result is below expectations, the manager works with the employee to develop a performance improvement plan. Often, the manager decides

[1]Backović, N., Jovanović, G. (2017). Upravljanje performansama preduzeća u savremenim uslovima poslovanja- strategijski pristup, *Ekonomist*, Leposavić, pg.2.
[2]Kojić, N, Dajić, M., Vučković, N. (2017), Merenje i unapređenje indikatora ključnih performansi u savremenoj organizaciji, *Ekonomski signali*, 12(2): 001-009, pg. 1
[3]https://managementhelp.org/performancemanagement/state-of-the-art.htm

the compensation for the coming year based on the employee's performance for the previous year.

The lack of a traditional concept of performance measurement is reflected in the traditional approach to budgeting. Budgeting is the financial planning for the future based on the set business goals and is the controlling mechanism of the company in the course of business performance. Efficient budgeting presupposes the implementation of realistically achievable goals, which would encourage management and other employees to make efforts towards achieving them.

The disadvantages of this traditional control tool can generally be represented as follows: [4]

1. Traditional budgeting reinforces a certain vertical, command-and-control model of management, thus blocking some initiatives and limiting to some extent the flexibility and responsiveness of businesses.
2. The budget does not sufficiently take into account the real carriers of enterprise performance - intellectual resources. Well-known brands, educated and skilled employees, competent management, strong leadership, customer satisfaction and loyalty are resources that do not adequately appear in traditional accounting.
3. Traditional budgeting can block synergies between strategic business units and the units within them. Budgets stimulate work on achieving their own goals, because reports and rewards are based on the realization of those goals. Thus, budgets do not sufficiently respect the required cross-functional collaboration and knowledge sharing through one complex (networked) organization.

In today's business environment, it is increasingly evident that traditional budgeting is no longer appropriate, especially for businesses where intellectual resources dominate over "tangible" fixed assets. Microsoft Corporation is one obvious example, with over 90% of its value in the form of intellectual capital, that is, the knowledge and skills of employees.

Although modern practice points to the detachment of many leading enterprises from traditional budgeting systems, it is pointed out that in most companies the practice of budgeting is still present and will continue to exist for a long time. The

[4]Backović, N., Jovanović, G. (2017). Upravljanje performansama preduzeća u savremenim uslovima poslovanja-strategijski pristup, *Ekonomist*, Leposavić, pg. 3

main reason is that the budget, as a management tool with a long tradition, has gained a remarkable position in the asset management set. More recently, due to the dynamic changes in the marketing environment, some new conceptual budgeting frameworks such as: activity-based budgeting, human capital budget, innovation-based budget are increasingly emphasized. Such efforts are seen in the implementation of short-term quarterly forecasting, activity-based management, Balanced Scorecard or BSC models, performance prisms, etc.[5]

3 Advantages of modern performance measures

Complex and dynamic changes in the marketing environment require a balance of financial and non-financial measures when designing modern enterprise performance measurement models, as well as their flexibility as a result of the need to adapt to a turbulent environment. The essence of newer approaches to performance measurement is that they not only explain the new way of measuring, but also enable the development of new performance measures that were not used at all or were not used extensively in the previous period. Some of these are: owner value, satisfaction index, economic value added, human capital value and many more. Newer performance measurement models focus on measuring fewer key management variables, then linking measures to key success factors, across all organizational levels and all aspects of business activity, and capturing all significant resources.

Modern measurement approaches, proclaimed as measurement systems, are integrated sets of key performance measures (financial and non-financial) in the enterprise performance management process, which help to manage different levels of enterprise complex organizational structures, with an adequate, timely and objective business decision-making process. Modern performance measurement systems, in particular, reinforce the link with strategy. In advancing the measurement system, companies are trying to disaggregate financial metrics (from aggregate to partial, from primary to secondary) from the top of the organization to the bottom of the organization, while a set of non-financial measures typically is chosen in the opposite manner, starting from lower levels of the organization going to higher levels of organizations. When selecting new measures, it is important to start with

[5]Milićević, V., Ilić B. (2009). Ekonomika poslovanja, Fakultet organizacionih nauka, Beograd, str. 124

information that is not the result of measurements based on existing measures.[6] Table 1 shows some potential financial and non-financial measures.

[6]Stojković, N. (2014). Savremeni okviri merenja poslovnih performansi, *Ekonomika*, Vol.60, No.2

Table 1: Some possible financial and non-financial measures

Financial Measures	**Non-financial measures**		
	Sample Customer Measures	Internal Process Measures	Employee Learning and Growth Measures
• Rentability • Profitability • Total assets • Total assets per employee • Profit •Profit per employee • Market value • Cash flow • Share price • Capital structure • Total costs • Revenue • Gross margin • Credit rating • Debt •Shareholder loyalty •Return on equity (ROE)	•Number of customers •Market share •Annual sales per customer • Customers lost •Customers per employee •Customer satisfaction •Customer loyalty •Customer visits to the company •Customer service expense per customer •Brand recognition •Customer visits to the company •Marketing cost •Customer acquisition rates •Percent of revenue from new customers •Sales volume •Number of proposals made	•Average cost per transaction •Cycle time improvement •Space utilization •Administrative cost per employee •On-time delivery •Defect percentage •New products introduced •Capacity utilization •Flexibility of equipment • Defect ratio •Customer complaints •Supplier performances •Number of patents •Research and development expense •Investments in IT	•Average years of service •Percentage of employees with advanced degrees • Absenteeism •Employee suggestions •Employee satisfaction •Participation in stock ownership plans •Empowerment index (number of managers) •Training investment •Training hours per employee •Quality of work environment •Internal communication rating

Source: Niven, P., „Balanscorecard Step by Step-Minimizing Performance and Maintaining Results, John Wikey and Sons, Inc 2002, pp. 151.

4 Contemporary business performance measurement frameworks

Modern business performance measurement frameworks include, but are not limited to: business performance measurement according to the Balanced Scorecard concept; measuring business performance based on strategy features; measuring business performance in enterprises with process-oriented management; measuring business performance according to the SCOR model.[7]

Balanced Scorecard was proposed in 1992 by Kaplan and Norton as a system for measuring business performance, with the characteristics of an innovated system, balanced and integral, in the sense that it proposes to incorporate non-financial measures and to monitor with the set of chosen measures the relationship with key dimensions of business activities and key stakeholder groups. The authors of this system noted that it was not enough for managers to pursue financial goals alone (ROCE, EBITDA, etc.). Other fields (customers, employees, processes) and goals in these fields should be monitored. Norton and Kaplan split the goals into four main areas (the original term is perspective): financial perspective, customer perspective, learning & development and internal processes.[8]

The chosen system of measuring business performance based on the recommendations, i.e. on the idea Balanced Scorecard should serve to control the performance of the company, its parts and the performance of managers and other employees. In this way, the set of measures, in fact, serves to control the enterprise strategy, business unit strategy and business function strategy (departments) within the enterprise (with a simple functional structure) or within business units (in companies with divisional organizational or so-called strategic business units design).[9]

Unlike the classic BS model, the Strategy Based System (SBS) concept has new (more comprehensive) content in terms of management and control dimensions (perspectives). Nicolau et al. (2005) consider the application of the SBS model

[7]Grimaldi, S., Rafele, C., (2007). Current applications of a reference framework for the supply chain performance measurement, *International Journal of Business performance Management*, Vol. 9, No. 2.
[8]http://mcb.rs/recnik/bsc-balanced-scorecard/
[9]Wade, D., Recardo, R., (2011).Corporate Performance Management, Butterworth Heinemann.

through several stages and present it as follows[10]: 1. Scanning of the current state and performance of the company, 2. Formulating the vision, mission and system of fundamental values of the company, 3. Defining the strategic goals of the company and structuring it through the four starting BS perspectives (financial, consumer perspectives, internal processes and learning and growth), 4. Integrating these perspectives into the economic trend of sustainable development and supplementing it with the environmental and social dimension of sustainable development, 5. Identifying a system of measures for all three sustainable development directions - economic, environmental and social.

A strategy-based measurement system (Slater, Olson, & Readdy, 1997) indicates the need to adapt the choice of performance measures to an existing enterprise strategy. A critical success factor in the process of developing and implementing a marketing strategy is the departure from the expressed but also "hidden" needs and values preferred by the consumer.

Slater, in developing this concept, has highlighted several types of strategies for which he provides a recommended framework of measures to control its implementation and its overall effects. At its core, the concept is very close to the Balanced Scorecard concept, especially in the basic idea that key performance measures are chosen according to strategy, which will serve for strategic control. This Slater concept came about after the Balanced Scorecard, so it represents one innovative and necessary attempt against traditional performance measurement systems. According to Slater, "brand champion" strategies and "closeness to the consumer" emphasize the consumer perspective - understanding the consumer and increasing satisfaction with the value delivered. The flagship product strategy emphasizes an innovative perspective/learning and growth perspective, while the starting point of the strategy is "operational excellence" - an internal perspective, i.e. efficiency.[11]

[10]Krstić et al./Ekonomske teme, 52 (1): 63-79 65 (prema:Nicolau, M, Teodorescu, M., Constantin, L., Teodorescu, C., (2005) “Balanced Scorecard and Sustainable Enterprise Strategy”, Project title: Integrated Support for Sustainable Development of Chemical Industry Companies, through Implementation of Eco-Efficiency Principles - INTEGR-IT)

[11]Slater, F. S., Olson, M.E., Readdy, K.V.(2007). Strategy-based Performance Measurement, *Business Horizons*, July-August, pp. 37-43.

Since, in reality, an enterprise strategy is mainly a combination of the above strategies, the dominant strategy among these strategies should be identified and the recommended measures for that strategy should be applied. But for an effective measurement system this is not enough. A relatively broader set of measures is needed to guide and direct strategic change. Therefore, it is recommended to construct a trend line (change) of these performance measures over three to five years, as well as to use other statistical techniques (regression, correlation analysis, for example) to evaluate the correlation of different performance across key dimensions identified.[12]

Business process performance management is not possible without measuring these performances. Business process performances can be defined as the output, effect or result of a business process or activity within that process, which can be expressed in some qualitative or quantitative magnitude.[13]

Taking into the account the fact that the process is a complex control object, consisting of activities, operations and tasks, then the conceptual framework of business process performance incorporates: the performance of an activity of a business process, the performance of operations within the activities of a single business process, as well as the performance of tasks within the operations (activities) of the business process.

The conceptual framework of process performance measures requires the identification of different dimensions of business process performances, such as: 1) process inputs and outputs measures and activities within process, 2) process quality performance measures (reliability, security, durability, statistical stability), 3) process quantity performance measures (activity scope, service volume, value flows), 4) time performance measures (activity execution rate, delivery time, tasks and operations execution time), 5) value performance measures (activity costs, output price, etc.), 6) performance measures of adaptability (flexibility) of processes and activities, 7) measures of effective achievement of target levels of performance of processes and

[12]Bogdanović, M., Šestović, L.(2002) Ekonomija od A do Z: leksikon ekonomskih pojmova, Beograd: Beogradska otvorena škola, Margo-art, str 154
[13]Stojkovic N.(2014), Savremeni okviri merenja poslovnih performansi, *Ekonomika*, april jun, str 171

activities within them, 8) measures of process efficiency and activities performed within the process.[14]

Performance measures of business processes and activities (tasks) within them are generally of a non-financial nature. There are three basic approaches to developing and selecting process measures or process measures: process maps, activity graphs, and task analysis.

Non-financial measures are more suitable for processes because on this basis the responsible person for the business process and the process teams will be able to better, easier and faster perceive the functioning of the process and the realization of activities and operations within that process. Also, the responsible person for the business process will be able to make decisions and take appropriate measures to improve and correct problematic (inefficient) processes and activities. Financial performance metrics for processes and activities are mainly used to express the investment of resources required to complete the process, in the form of business process costs or activity costs within individual processes.

In modern enterprises, process orientations, the financial system of performance measurement cannot be useful for management purposes. The goal of using non-financial measures is to identify relevant performance areas through them, which ultimately reflect the performance of the company as measured by financial indicators - profit and rentability. In this way, through improvements in non-financial process measures, positive effects are achieved in the overall efficiency of the company, which is usually measured by the rate of return on total assets.

5 Conclusion

In modern organizations, measuring business performance cannot be based solely on financial metrics because of the many shortcomings of the same. The modern marketing environment, as highly dynamic, unpredictable, heterogeneous and largely complex, simply imposes the need for non-financial measures.

[14]Sibbet, D. (2018).75 Years of Management Ideas and Practice, *Harvard Business Review*. Vol. 75 Issue 5, Supplement, page 33.

Through non-financial performance, i.e. through non-financial measures, the area of the so-called "intangible" values, such as, among others, investment in research and development, investment in employee training, investment in brand products, etc., which can foretell prospects for future development. The non-financial aspects of measurement are emphasized by newer, modern concepts of business performance measurement, which are multidimensional, focused on key stakeholders, focused not only on organizational units and departments, but more and more on processes, as well as on activities within those processes. Modern performance measurement systems provide better and more comprehensive information for management decision making in new business conditions.

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