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ENTERPRISE PERFORMANCE MEASUREMENT SYSTEMS

Abstract

Performance measurement systems are an extremely important part of the control and management actions, because in this way a company can determine its business potential, its market power, potential and current level of business efficiency. The significance of measurement consists in influencing the relationship between the results of reproduction (total volume of production, value of production, total revenue and profit) and investments to achieve these results (factors of production spending and hiring capital) in order to achieve the highest possible quality of the economy. (The relationship between the results of reproduction and investment to achieve them quantitatively determines economic success as the quality of the economy.) Measuring performance allows the identification of the economic resources the company has, so looking at the key factors that affect its performance can help to determine the appropriate course of action.

Keywords: financial ratios, quality, business performance

1. Introduction

Starting from the fact that the overall development and welfare of society is a multidimensional phenomenon and that company performance cannot be measured only on the basis of financial indicators, the new concepts of measurement are based on the assumption of a multitude of specific indicators and the need for measurements through the priority list of indicators. Modern measurement systems retain measurement of financial performances, but also involve measurement of performance in relation to consumers, enterprise performance in managing internal business processes and performance in innovation and new knowledge.

Measure of performance in today's enterprises provides more a balanced perspective instead of only one (financial). In other words, the complexity of business processes has influenced the management to develop performance measurements, while the new information technology was the factor that enabled the "revolution of measurement" and measurement of performance in real time.

The contemporary informatics age changes the basic assumptions of successful operation of enterprises and sets new requirements for the measurement of specific performance and system of management. Competitive success of the enterprise depends on its ability to hire and use effectively its intangible resources, to quickly adapt to constantly changing conditions in the environment and to recognize before others and satisfy the needs and demands of consumers. Modern enterprise can be successful only if it creates the changes. The use of traditional systems to measure the performance and to control the company, primarily based on the financial-accounting system of enterprises, in the contemporary period is no longer able to satisfy these needs of the company. As a result of the need for companies to dispose and use adequate systems to measure their performance that would better respond to modern business conditions and the requirements of successful enterprise management, a whole range of systems that can be labelled as modern systems have been developed to measure the performance of companies.

Modern systems for measurement of company performance typically tend to have comprehensive and complete approaches to the company as to a very complex system, which operates in a complex and changing environment, and whose business needs to satisfy a range of different goals and interests.

2. Economic value added – EVA

There is an added economic value in the criteria that are based on the value (Value Based Measures). These value based standards arose from the shareholder approach, which involves highlighting the interests of capital owners and enterprises. Bearing in mind that the lack of capital is a problem of a large number of companies, they must find ways to gain additional capital and to attract shareholders. The best way to attract new shareholders is to achieve the objectives of the existing shareholders, which is reflected in the desired yield from invested capital. A form of results from which we have direct insight into the company's ability to provide the desired yield for capital owners is the economic value added (Economic Value Added - EVA).

EVA is a composite indicator of financial performance of the company and it has become popular due to commercial activities of the consulting firm Stern Stewart & Co. Specifically, EVA is a trademark of the mentioned consulting firm that invested heavily in promoting the data and also in the entire financial management model based on EVA, through a large number of articles in the literature, use in its consulting work and with the development of a whole range of software to support the implementation of EVA in companies. A simplified representation of economic added value looks like this:

INCOME - Cost of consumed resources (material, labour and general costs) = OPERATING PROFIT BEFORE TAXATION - Tax = OPERATING PROFIT AFTER TAX - Cost of foreign capital - cost of personal capital = ECONOMIC PROFIT (economic value added).

EVA is a customized shape of economic output, and is most easily calculated as the difference between business income adjusted for taxes, on the one hand, and the cost of capital, on the other hand (like residual income).

Stern Stewart & Co. recommends 162 adjustments of accounting data when calculating EVA, so that the original formula is:

> EVA ® = adjusted NOPLAT t, i.e. net operating profit after tax - (Invested Capital custom t-1 x weighted average cost of capital).

There are alternative methods of calculating EVA (McKinsey and Company):

> EVA ® = Adjusted Invested Capital x (adjusted rate of return on invested capital after tax - weighted average cost of capital).

EVA indicator seeks to account for the profit that remains at free disposal to the company after covering all costs, including costs of total invested capital (as borrowed, and equity). The basic strength of EVA concept is to recognize the necessity to consider the total cost of capital, because the owner's capital has its alternative use and in this sense is not free. EVA concept involves not only the measurement of performance with use of EVA indicators, but also:

- rewarding managers and employees according to their contribution to the value or increase of EVA,
- financial management, in which the centre would be the EVA and
- encouragement of organizational culture of the company development so that the realization of value for shareholder promotes as the ultimate goal of full and channelling efforts of all employees in the same direction - towards increasing the value for the owners (shareholders).

Owners (shareholders) are residual stockholders and the achievement of their goals and interests means that the goals and interests of all other stakeholders have already been achieved to a certain degree.

A key feature of the EVA concept is that it measures only the financial success of the company. The financial success of the company is important, and actually represents the end result of all the other aspects of the company performance (in relationships with customers, suppliers, employees, etc.). However, the concept does not provide a good insight into the basic generators (factors) of the achieved financial result, including the understanding of which aspects of the business should be improved and how to influence on the future EVA.

3. Basic elements of the Balanced Scorecard concept

Norton's and Kaplan's Balanced Scorecard model was designed in 1992 as a result of the survey system for performance measurements that has been used in practice and the needs of modern enterprises, given the conditions in the environment. Balanced Scorecard considers overall performance of enterprises from several aspects. (Kaplan, Norton, 1992:71-79)

Financial performance continues to be seen as the most important, but supplementing the consumer perspective, internal business processes and learning and growth perspective, which should provide an understanding of the basic factors that lead to the achievement of certain financial performance of the company. Within each perspective it is necessary to identify key objectives and appropriate indicators of the degree of achievement of these goals and establish interrelationships between objectives and indicators by identifying the network of causal connections and relationships.

The Balanced Scorecard Model measures the overall performance of the enterprise by combining financial and non-financial indicators, grouped under the four perspectives (as proposed in the original model). Indicators in the financial perspective present indicators of results (lagging indicators), while the indicators of other perspectives provide early signals (leading indicators) and indicate the need for corrective action. BSC measurement system comprises a series of measures and objectives through four-dimensional perspective of performance measurement:

- financial perspective,
- the perspective of consumers,
- perspective of internal business processes and learning and growth perspectives.

Financial perspective and the perspective of the consumer are the key perspectives that reflect long-term corporate objectives, as opposed to the internal business processes perspective and the perspective of learning and growth dimension, and they have the function of the key perspectives and represent generators of performance. (Stojanović, 2008:243-245)

The essence of the model is to translate a company's mission and vision into a system of measurable goals and indicators in different perspectives. If the model is properly implemented then it has to show the strategy of the company through goals and their internal relationships. (Kaplan, Norton, 1996:9)

Past performance benchmarks were not balanced. The BSC provides exactly this balance of three grounds:

1. balance between external benchmarks relating to stockholders and consumers, and internal benchmarks relating to the internal business processes and learning and growth;
2. balance between the scale of success, as a result of past actions and scale of future performance;
3. balance between objective measures of success, easy to quantify, and qualitative and subjective measures of performance.

A balance of objectives and performance was the reason that the Balanced Scorecard translates here as a balanced list of goals. (Todorović, Đuričin, Janošević, 2000:65-69).

Over time the BSC model has been further developed and repositioned, and now it is seen as an instrument for implementation of the chosen strategy and strategic management in general.

One of the key shortcomings of the Balanced Scorecard for measurement of company performance is reflected in the lack of performance standards, preventing the company from determining its relative position to leading companies (benchmarking), or from following the development of its results in relation to objective criteria.

4. BSC measures of financial perspective

Financial objectives are the ultimate origin of the goals and indicators of other perspectives of the BSC. "However, even the best financial indicators cannot capture all the dynamics of performance in today's competitive game based on knowledge". (Kaplan, Norton, 2001:25)

Contemporary organizations today use the measure of management based on values such as economic value added (Economic Value Added - EVA), cash flow return on investment (CFROI) and discounted cash flow variations.

Regardless of the measure of financial success, companies are increasing their economic value using two standard approaches: revenue growth and increased productivity.

Kaplan and Norton believe that the financial indicators reflect the short-term behaviour of enterprises neglecting the long-term creation of value in order to achieve short-term performance. However, by insisting only on meeting the needs of consumers or delivering superior quality one might neglect financial effects, which in this case could call into question the long term success of the company.

Productivity growth is achieved by a strategy which is focused on:

- reduction of direct and indirect costs by improving their structure,
- reduction in fixed assets and working capital by improving the efficiency of usage of assets necessary for the operation of the existing business.
- In the short term productivity growth strategy gives better results, in contrast to the strategy of revenue growth, which gives better results in the long term, by providing the prosperity of the company in the future.

5. Integration of the BSC and EVA concepts

The EVA and BSC concepts have become popular during the 1990s and are valuable instruments for effectively focusing the attention of managers on the process of value creation for shareholders. The ability to connect today's two popular concepts in the field of measuring performance is reflected in the use of EVA as a measure of financial performance under the BSC model and the strategic management of the whole enterprise.

Gavin Lawry (2001) suggests that these two approaches are very compatible and they can provide a more perfect model for measuring performance and strategic management of the company. According to this author, the EVA indicator has many advantages over traditional accounting indicators of enterprise performance, but it has certain drawbacks when used for strategic guidance. The BSC concept is a good framework for managing the company, but its usefulness depends on the crucial choice of appropriate indicators in different perspectives of observing the overall success of the company. A hybrid, generated by integrating these two concepts, may be a quality instrument for the implementation of organizational change and improvement of performance.

The ability to connect the EVA and BSC concepts is reflected primarily in the use of indicators of EVA as a key indicator in the financial perspective of the BSC model. The EVA value is calculated using categories of revenues, costs, capital and cost of capital.

Based on these components of EVA it is further possible to define and to make a choice of targets and indicators in the financial perspective, as one of the four perspectives of the original BSC model. Further integration of the EVA in BSC model includes identifying the cause - effect relationships between certain categories of the company and identifying the connection of the EVA components and goals in the other three perspectives. In this way, all employees in a company can see the way that will lead to the achievement of the financial goals (EVA).

Authors from Stern Stewart Company also consider that the concepts of EVA and BSC are highly compatible.

The company Stern Stewart developed a software application - EVA Integrated Scorecard, which includes the following components:

- EVA as a key indicator of the overall success of the company,
- Activity Based Costing - ABC - for proper and accurate evaluation as a basis for making quality decisions,
- Balanced Scorecard as an instrument for implementing the strategy and measuring enterprise performance.

In the centre of the integrated model, according to the authors of Stern Stewart company, should be the EVA and other indicators related to it, with a clear distinction between time dimensions, so that current activities are viewed from the perspective of their contribution to the value of future EVA.

6. Conclusion

Contemporary trends in further development of the system for measuring enterprise performance are reflected precisely in the networking and integration of different systems, leading to an emerging hybrid model. Hybrid models are based on the recognition of the good and bad sides of these models. The aim of linking is to get a perfect model which will highlight good sides of integrated models and eliminate disadvantages, so that newly generated models better fit the needs of modern enterprises.

The ability to connect two of the most popular concepts of today in the field of performance measurement is reflected in the use of EVA as a measure of financial performance under the BSC model and the strategic management of the whole enterprise. Integration of these two concepts is possible with the dominance of EVA indicators and its components in relation to all the other parameters in the BSC model with the use of EVA to develop a reward system.

Modern systems for measuring company performance are trying to meet the current needs of the company management as a whole and to provide more perfect economic instruments for making decisions in an enterprise. Very often modern systems for measuring performance require adjustment of the entire management system in order to achieve optimal results. The significant influence of external factors, primarily the market, on the company performance leads to the emergence of new indicators of enterprise. The aim of their application is to determine how much the company is worth in terms of the market rather than from manager evaluation because the market is the only relevant arbiter of success of business operations.

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Sustavi mjerenja performansi preduzeća

Sažetak

Sustavi mjerenja performansi iznimno su važan dio kontrole i menadžerskog djelovanja, jer se na taj način određuje poslovni potencijal poduzeća, tržišna pozicija, potencijalna i trenutna razina poslovne učinkovitosti. Važnost mjerenja leži u utjecaju na odnos između rezultata reprodukcije (ukupan opseg proizvodnje, vrijednost proizvodnje, ukupan prihod i dobit) i ulaganja potrebnih za postizanje tih rezultata (čimbenici proizvodnih troškova i najma kapitala) kako bi se postigla najveća moguća kvaliteta gospodarstva. (Odnos između rezultata reprodukcije i ulaganja za njihovo postizanje kvantitativno određuje ekonomski uspjeh kao kvalitetu gospodarstva.) Mjerenje performansi omogućuje identifikaciju ekonomskih potencijala koje poduzeće ima, stoga praćenje ključnih čimbenika koji utječu na performanse pomaže da se odredi odgovarajuće buduće djelovanje.

Ključne riječi: financijski pokazatelji, kvaliteta, performanse poduzeća.