THE USE OF ANALYTIC INDICATORS FOR PERFORMANCE MEASUREMENT

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Abstract: The article is dedicated to the use of analytic indicators for performance measurement. If a company wants to build and maintain competitive advantage it needs to evaluate its performance and also applies strategic management system. In the article are described differences between synthetic and analytic indicators and the main part is description of the analytic indicators used in practice, such as pyramidal decomposition and Balanced Scorecard.

Keywords: analytic indicators, company, performance, balanced scorecard, pyramidal decomposition

1 Introduction

While studying the issue of performance measurement we try to find the answer on a question which indicator is the best for measuring and evaluating business performance. The right answer is that the ideal indicator which can combine all requirements asked to obtain this information doesn´t exist. It is not important to find and use general indicator, but to determine for each activity or company specific and suitable indicator. The biggest mistake in finding the right performance indicator is that people go after data that is easy to get rather than what is really needed.

Selection of appropriate performance indicator is a very difficult and responsible task for each company. Indicators and criteria for measuring business performance have passed through progressive development and there are lots of views how we can divide them. Basic division of indicators is based on the level of detail so we meet with synthetic and analytic indicators. Synthetic indicators focus on each side of business performance while analytic indicators always focus on specific side or activity of business performance. Otherwise during evaluation we have to take into consideration both indicators.

The main goal of this article is to define analytic indicators for performance measurement, reasons why it is not enough to use only synthetic indicators and also their use in practice.

2 Analytic indicators

Analytic approach to performance measurement is used not just to define factors influencing business performance. The main task is to critically review performance of the company and generate activities for increasing it. It´s necessary to realize that company departments or activities are not separate parts or isolated factors. They are connected all together and also with its surroundings. Analyzed company activities must be researched in their natural environments not in a man-made one.[1]

Requirements on the information needed from analytic indicators for performance measurement must respect demand of the company management. Hierarchical levels and characteristic of analytic indicators always come out from a user's necessity. Objects of the analytic approach could be company organizational structure, products, processes, customers and so on.

When choosing objectives and indicators, decisions should be guided by the desired impact. There is no fixed method of converting the desired impact into objectives, indicators or targets. The arbitrary element always present in such decisions reflects the policy choices of the company being made. Nevertheless, solid reasoning will enable the links between company goals and desired impacts to become clear.[2]

Analytic indicators for performance measurement should emphasize the reasons which are relevant on results. Sometimes reasons are applied incorrectly or replaced which leads to misunderstandings.

3 Why is not enough to use synthetic indicators for measuring business performance?

Indicators for performance measurement can be divided on synthetic and analytic. When writing about analytic indicators it should be remembered why it is not enough to use only synthetic indicators. There are lots of restrictions connected with the use of synthetic indicators without support of the analytic indicators. These restrictions are for example limited information function of the system for performance measurement, limited possibilities for interpretation of information about business performance, limited predictive potential or limited function for managing company departments.[3]

Use of synthetic indicators limits information function, because of consequences of the wide range of factors influencing business performance. With this comes close limited possibilities for interpretation of information. Synthetic indicators give us answers about actual company performance, but not about reasons of these results. Also limited predictive potential is connected with them. Prediction of the business performance is based only on trend analysis of the future development values of the indicators. If we have only the values from synthetic indicators about the whole company performance it is impossible to identify performance of departments or company activities separately. That is the reason why managing company departments is limited.

4 Analytic indicators in practice

Analytic approach contents many methods and processes for the performance measurement. The most used ones are pyramidal decomposition of profitable indicators and Balanced Scorecard. These methods are further specified in the next sections.

Another widespread analytic approach for the performance measurement is a component analysis of profit which combines structure analysis and factors of profit. Profit analysis is also part of the systematic indicators for performance measurement but deeper analysis contains other points of view.

4.1 Pyramidal decomposition

Pyramidal decomposition of profitable indicators is a traditional and widespread analytic approach for performance measurement. It is the typical approach based on a decomposition of factors influencing business performance. It helps to answer how each factor affect the final value of indicator.[4]

The top performance indicator in the pyramidal decomposition is directly and clearly expressed by an indicator return on asset or return on equity. Users can very well understand connection between them. All analytic indicators included in the pyramidal decomposition are expressed in the same type of metrics.

Pyramidal decomposition combines multiplicative and additive type of analysis, while on the first level of decomposition the multiplicative decomposition is used, the additive decomposition follows on next levels. There are many options for creating

[1] Pavelková D. – Knapková A.:Výkonnost podniku z pohledu finančního manažéra. Praha: LINDE, 2005. 302 p. ISBN 80-86131-63-7

[2] Wagner, J.: Měření výkonnosti – Jak měřiť, vyhodnocovat a využívat informace o podnikové výkonnosti. Praha: GRADA, 2009. 256 p. ISBN 978-80-247-2924-4

[3] Wagnerová, I.: Hodnocení a řízení výkonnosti. 1. Vyd. Praha: Grada, 2008. 128 s. ISBN 978-80-247-2361-7

[4] Petřík T.: Ekonomické a finanční řízení firmy – Manažérske účetnictvi v praxi. Praha: GRADA, 2009. 736 p. ISBN 978-80-247-3024-0

pyramidal decomposition of profit indicators on the first level and the most named is Du Pont´s decomposition. Decomposition of indicator return on equity is shown in figure 1 and another type of decomposition is shown in figure 2.

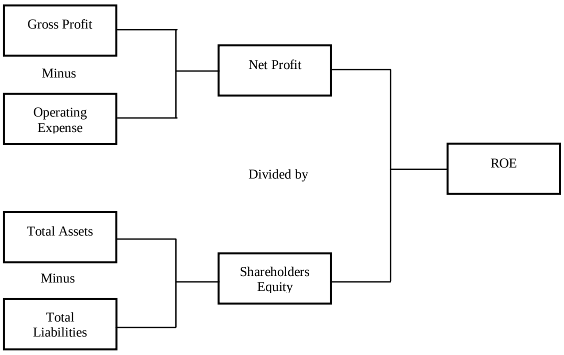

Fig.1 – Decomposition of return on equity. Source: Nickols Fred, Intervention Logic: Linking Action to the Bottom Line, 2012 from: http://www.nickols.us/se_intervention_logic.htm

Return on equity is the indicator of profitability. It is determined by dividing net income for the past 12 months by common shareholders' equity (adjusted for stock splits) and the result is shown as a percentage. Investors use ROE as a measure of how a company is using its money. ROE may be decomposed into return on assets (ROA) multiplied by financial leverage (total assets/total equity).

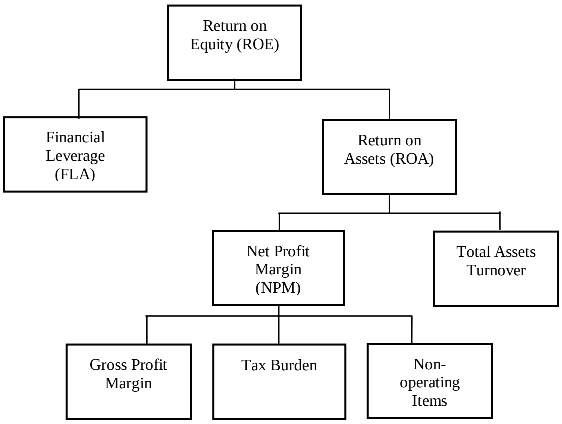

Fig. 2 – Decomposition of return on equity. Source: Wong Joshua, DuPont Analysis, 2009, from: http://amgstr.blogspot.sk/2009/04/dupont-analysis.html

Many analysts consider ROE the single most important financial ratio applying to shareholders and the best indicator for performance measurement by company´s management. Return on equity is calculated by dividing net income after taxes by owners' equity. This is a measure of how well the company is investing the money invested in it. A high return on equity indicates that the company is spending wisely and is likely profitable; a low return on equity indicates the opposite. As a result, high returns on equity lead to higher stock prices. Some analysts believe that return on equity is the single most important indicator for performance measurement.

Pyramidal decomposition gives users deeper information about performance but doesn´t wider. Better value of one factor used in decomposition leads to increased value of the whole company performance. Results of the pyramidal decomposition help managing company departments, because management can determine performance of each department.[5]

[5] Fibírová, J., Šoljaková, L.: Reporting. 3. Vyd. Praha: GRADA, 2010. 221 p. ISBN 978-80-247-2759-2

4.2 Balanced Scorecard

Balanced Scorecard is a multidimensional system allowing definition and realization of organizational strategy on each company´s level to maximize the company value. Application of the system in the company leads to efficient use of company sources in order to permanent increase of shareholders´ value.

BSC was originally developed by Kaplan and Norton in 1992 as a performance measurement tool, the scorecard is now associated increasingly with strategy implementation. It acts as a management framework with the potential to identify and exploit organization's key value drivers to their best strategic advantage. Goals and indicators of BSC are based on company´s vision and strategy, while following performance of the company from four perspectives:[6]

- customer perspective,
- internal perspective,
- learning and growth perspective,
- financial perspective.

Four Perspectives of Balanced Scorecard allow company to achieve a balance between short-term and long-term objectives, between desired outcomes and the drivers of those outcomes and between hard and softer indicators, more subjective indicators. Despite the large number of indicators used in the BSC which can lead to guessing, correctly assembled BSC contains only meaningful data because all indicators are directed towards achieving an integrated strategy.[7]

This system points to a complex economic activity of the company with quantifiable, financial as well as non-quantifiable indicators of quality and supplies the need for the company to be consistently competitive.

Balanced Scorecard expands the set of objectives for the company beyond normal aggregate financial measures. The company management can be measured as company creates value for current and future customers as well as to change the quality of the systems, procedures and human resources that are necessary to improve future performance. Although BSC captures short-term performance through a financial perspective, it also reveals the value-drivers, leading to higher long-term financial performance. Schematic representation of the four perspectives is shown in figure 3.

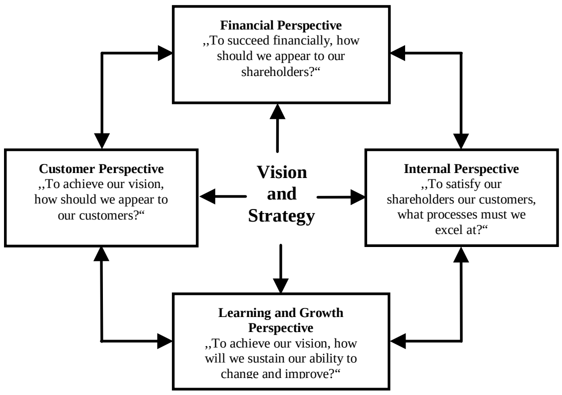

Fig. 3 – Balanced Scorecard – four perspectives Source: Wagner, J.: Měření výkonnosti Praha: GRADA, 2009. s. 232. ISBN 978-80-247-2924-4

The measurement is generally seen as a tool of control and performance evaluation in the past, while the indicators used in the BSC are used to formulate company strategy with adaptation

[6] Marinič, P.: Plánovaní a tvorba hodnoty firmy. Praha: GRADA, 2008. 240 p. ISBN 978-80-247-2432-4

[7] Kaplan, R., Norton, D.: Balanced Scorecard Strategický systém měření výkonnosti podniku. Praha: Management Press, 2007. 267 p. ISBN 978-80-7261-177-5

on individual and business needs and on needs of individual departments to achieve a common goal. BSC should be used not as a controlling system, but as a system of communication and information.[8]

5 Conclusion

Performance is a recurrent theme in the majority of management branches, including strategic management. For a company it is important to find the right indicator or sometimes a group of indicators to use. Measuring performance is very important task and must connect each company´s department.

The purpose of the article was to define analytic indicators for performance measurement, their connection with synthetic indicator and their use in practice.

For performance measurement companies can use synthetic and analytic indicators. Each of these indicators has its advantages and disadvantages and they should be used together while evaluating business performance. Synthetic indicators for performance measurement are not full value solution. Analytic indicators show also reasons not only values of performance. They can include pyramidal decomposition and Balanced Scorecard. Pyramidal decomposition gives deeper information about performance while Balanced Scorecard converts vision and strategy across balanced file of perspectives.

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