Péter BAJNAI,
Péter POPOVICS
Faculty of Economics and Business, University of Debrecen, Debrecen, Hungary

PRACTICAL APPLICATION OF THE BALANCED SCORECARD MODEL, A BALANCED STRATEGIC INDICATOR SYSTEM

Review Article

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Abstract

The operating environment of business organizations has clearly changed currently. Given the complex context marked by globalization, intensifying competition, and rapidly changing consumer demands, it is not enough for managers to focus solely on the financial performance of businesses. The Balanced Scorecard model, as a multi-perspective, comprehensive, balanced indicator system helps implement multidisciplinary corporate management. The following analysis focuses on the corporate controlling function, its development and tasks and then on the Balanced Scorecard, which is closely related to controlling. The model aims to capture the operation of organizations from financial, customer, internal business and learning and growth perspectives and to link their strategy map to causally related indicators. The paper also looks into a possible way of developing the model in practice using a fictitious companyas an example. A balanced system of indicators can be developed after defining its central strategy, making a thorough analysis of its external and internal environment and establishing strategic sub-objectives. With the help of the Balanced Scorecard, the quantified directions needed to achieve a strategic goal can be determined based on understandable, interrelating indicators.

INTRODUCTION

Decades ago, companies competed in a more stable environment than they do today, satisfying the needs of customers mainly with standardized goods. The innovation of products and services was slow as consumer demands also changed slowly, so companies almost exclusively had to pay attention to producing goods at the lowest possible cost. Managers focused almost entirely on costs, prices, profits or financial ratios. However, circumstances began to change. Businesses today operate in a less predictable, dynamic environment: in a globalized economy, the number and power of competitors have increased, consumers are often dissatisfied with mass products, and everyone wants something unique immediately. Managers of firms have realized that they can easily lag behind in competition if they do not develop and keep sticking to their usual, traditional approach (Böcskei, 2013b). It is essential to move away from the world of numbers produced, cash flows, material and labour costs, that is, to broaden their horizons.

Controlling is the most suitable corporate function for developing and maintaining a new approach. Controllers are experts in the operation of the company, management consultants, analysts of profit and performance, who have a proper insight into the processes behind each financial indicator and what should be changed to improve them. Creating a causal relationship between the financial results and other corporate processes, quantifying and measuring their performance are not easy tasks (Böcskei & Hágen, 2017). There are tools which can help managers and controllers in this work: such an instrument is the so-called Balanced Scorecard model (BSC). The following sections introduce the above-mentioned model and present a possible practical way of its application through the example of a fictitious company.

Controlling

In order to accurately understand the purpose and operation of the BSC, it is worth briefly reviewing what controlling is and what tasks it performs. The term, which is of French origin and initially referred to a kind of treasury function, reached its present form in the United States within the framework of the rapidly developing capitalist market economy from the 19th century onwards. At the time of the ongoing industrial revolution, the already anglicized term "controller" was interpreted as the name of the employees and managers who supervised the financial management of individual companies (Körmendi & Tóth, 2007). By the beginning of the 20th century, the so-called Management Control System term was formed and used to refer to the controlling method as one of the subsystems of management. It was nurtured and promoted by an organization called Controller's Institute of America, founded in 1931. At that time, controlling was already considered as a kind of management theory, the aim of which being to plan and regulate the operation of the system and to create a balance with its environment (Kondorosiné & Hágen, 2011).

Modern controlling or as currently referred to 'management controlling' can be linked to Robert N. Anthony. He said that "management control should be a process in which managers influence members of the organization to implement strategic objectives". He already considers control to be a strictly managerial activity, the task of which is to connect the individual areas of the company with the achievement of these objectives (Kondorosiné & Hágen, 2011).

It was generally accepted that controlling needs to go beyond traditional financial and management accounting. Financial indicators and profits should still need to be given priority, but with the strategy in mind, managerial work should be supported by a multidisciplinary approach (Böcskei, 2013a). The balanced scorecard system, the BSC, grew from this perception which this paper presents after summarizing the requirements and tasks of controlling.

Based on the work of Kondorosiné & Hágen (2011), Borsós & Hágen (2015) and Fenyves & Tarnóczi (2019), the controller and the controlling system must meet the following basic requirements:

- ensuring that an appropriate amount and composition of information relevant to managers is collected and recorded;
- processing information according to management needs;
- fast and timely provision of information to decision-makers;
- assisting management in setting objectives;
- keeping in mind successfulness, efficiency and future orientation.

With the above requirements in mind, the controlling activity should perform the following specific tasks: 1. Planning: helping to set corporate objectives, analysing the environment, performance planning, cost planning, profit planning, financial planning, etc. (Kondorosiné & Hágen, 2011). 2. Analysis: monitoring the company's financial performance in the framework of financial analysisand examining the relationship between the company's areas and their role in value-creating processes within the scope of process analysis (Bragg & Roehl-Anderson, 2005). The relationship between the planning and the analytic task is based on the concept of plan-fact comparison. 3. Provision of information: Information obtained during the analysis should be passed on to decision-makers, highlighting their relevant details. 4.

Operation of the controlling system: this includes organization of the work (employing trained staff, providing tools), managing the system, and measuring system performance (Bragg & Roehl-Anderson, 2005).
5. Implementing the principle of goal congruence: the company is effective if its controlling is integrated into all organizational units, its employees' way of thinking is positive and progressive, and if the corporate goals are embraced by everyone. The goal is to formulate a strategy that continuously shows everyone the way to follow (Körmendi & Tóth, 2007). According to Szóka, as seen from controlling trends, controlling is intertwined with the entire corporate system, and its specific approach and functionality play a prominent role in the planning and goal setting phase. Thus, one of its main goals is to support the management effectively and at the same time, to meet the current business challenges (Szóka, 2015).

The Balanced Scorecard

In 1990, David Norton, president of KPMG's research institute, and Robert Kaplan, a professor at Harvard Business School, began preparing a case study involving several companies. Their primary assumption was that the exclusive use of financial indicators limits the value-creating ability of organizations. In one case, a new, so-called corporate scorecard came to the fore that included indicators related to order fulfilment, transit time, and product development, among others. Expanding upon the above issue, the research led to the creation of the BSC, which classified profit indicators and performance indicators into four categories:financial, customer, internal business, and learning and growth (Kaplan & Norton, 2004). As its name suggests, the model strikes a balance between short- and long-term, financial and non-financial, retrospective and forecast indicators (Fónagy-Árva, 2007; Musinszki & Süveges, 2019).
Another issue is that it is difficult to measure the implementation of a strategy, although this implies some type of measurement. By means of the measurement and its results, managers can examine the effectiveness of past decisions and, at the same time, determine the expected trajectory of the future performance of the company. The design and operation of this measurement system have become a managerial task. Also, many non-financial areas need to be examined and there are no - more precisely much less - objective indicators (Szóka, 2012).
Norton and colleagues demonstrated that 20 to 25 indicators of the four aspects are sufficient to lead to a complete strategy and help implement it. It is crucial that these indicators are not independent of each other, but are "linked through a series of causal relationships" (Kaplan & Norton, 2004). However, the BSC is not the goal but a tool to help achieve it, which links the strategy to the indicators so that they become systematic (Báthor, 2018). Even parallels can be drawn: the manager is the strategy - it is also the task of the manager to develop it - while the controller is the BSC - the helper, the navigator who supports the leader in the implementation of the strategy (Fenyves, 2019).

Financial perspective

The first step in developing a BSC is to determine financial goals and indicators in line with the strategy. These indicators provide essential summarized information about past events and indicate whether a company's strategy contributes to its profitability. Their definition is of paramount importance, as each indicator of the other perspectives of the BSC needs to be linked to financial objectives (Kaplan & Norton, 2004). The indicators of the perspective are mostly related to the reduction of costs and the increase of revenues, productivity and the level of asset utilization (Kondorosiné & Hágen, 2011; Musinszki, 2014).
Such indicators may include the following: changes in the percentage of sales of new products; change in the percentage of sales from a new segment; reduction in unit costs; reduction in operating costs; improving the profitability of specific customers and product lines; increase revenue per employee; improving the working capital ratio, etc.

Customer perspective

Through the customer perspective, the company can align its financial objectives with its goals for consumer segments so that it can communicate them to members of the organization. The customer performance indicators also help define goals for marketing, logistics, and product development processes (Kaplan & Norton, 2004). The customer perspective points out which are the targeted customer segments to achieve financial goals and what targeted customers value the most (Hársvölgyi, Bokor & Csillag, 2002).
According to Kaplan and Atkinson (2003), the following primary groups of indicators are generally applicable to all organizations: market share, customer behaviour and loyalty, acquisition of new customers, customer satisfaction, and customer profitability.
Additional indicators can be those that determine the value provided to customers. Three categories can be distinguished here: product and service characteristics, customer relationship, image and reputation. Also, experience shows that scorecards should also address indicators related to the time, quality and price of customer-oriented processes (Szívós, 2007).

Internal business perspective

When examining the perspective of operational or internal processes, the aim is to determine which perspectives play a critical role in achieving the already set financial and customer objectives (Kondorosiné & Hágen, 2011). Traditional tools aim to monitor and improve existing processes, whereas the BSC can also highlight processes that do not yet exist by the cause and effect concept but are strategically important (Kaplan & Norton, 2004).

A further innovation of the model is that it highlights three of the value-creating processes and incorporates them into its perspective. 1. *Innovation*: research and development are treated by the BSC not only as supporting activities but as key internal processes. It is a strategic goal for the company to explore relevant consumer needs, thereby initiating the development of new products and services (Kaplan & Norton, 2004). 2. *Production process*: the focus is on the production and delivery of existing products and services to customers. 3. *After-sales services*: the company cannot leave its products at the point of sale - after-sales services further increase value and can also increase customer satisfaction (Szívós, 2007). Examples of indicators used in this perspective include lead time, inventory time, product yield, productivity, repair speed, cost of after-sales service, etc.

Learning and growth perspective

The perspective defines the internal factors that a company needs to focus on for long-term improvement and success. The perspective examines three areas: people, systems, and organization procedures.

Satisfaction, fluctuation, productivity, retraining, development of skills (Volkán, 2007) are among the indicators used in measurements involving people. Nowadays, in addition to employees, the corporate information system is also of crucial importance - it is essential for managers to constantly monitor its accuracy, speed and modernity. As for organizational procedures, managers should measure and analyze the extent to which individual goals align with the strategic objectives of the organization, the effectiveness of teamwork, and the extent to which employee suggestions are taken into consideration and implemented (e.g., number of initiatives per employee) (Kaplan & Norton, 2004).

The causal relationship among indicators

Figure 1 shows the visual framework formed by the four perspectives of the BSC. The perspectives stem from the mission and strategy, which enable managers to establish indicators.

There is a goal associated with each indicator - what is the strategic objective that we want to measure with the indicator? Then comes the expectation - what value should a given indicator take in the future? Finally, the intervention - what needs to be done to achieve the expected value?

Example of BSC design

For a deeper understanding of the model, here is an example of a possible practical design of the BSC. The chosen organization is the Hungarian subsidiary of a fictitious multinational company operating in the eyeglass lens manufacturing industry.

Figure 2, based on Fónagy-Árva’s paper (2007), illustrates what tasks an organization has to perform in order to develop its strategy, which it can then detail and break down with the help of a BSC.

Above all, it is necessary to set strategic goals derived from the company’s vision and mission, taking into account internal and external environmental conditions. Based on this, the BSC assists the executive manager in defining plans, comparing plan-facts and providing feedback by defining performance indicators and outcome indicators and exploring their causal relationships.

Supposing a company has been a domestic market leader in a given industry for many years, to maintain this position, the company needs continuous innovation and technological modernization. Accordingly, its strategy should be to show a direction for the industry as the market leader.

This can be followed by an analysis of the environment of the organization. For this purpose, several strategic planning tools are available to the company, such as PEST or PESTEL analysis, SWOT analysis that includes external and internal factors in a matrix, or even a BCG matrix comparing the company's business branches and products. The examined company uses the latter two in the planning process, and also performs a competitive environment analysis for some key indicators, comparing itself to its most important domestic competitors.

The SWOT analysis reveals that the company’s strengths are: its market-leading position, its constantly improving financial performance, its outstanding, market-leading production technology, and the high awareness of its brands. As its *weaknesses*, it identifies a lack of exports to emerging regions, lower productivity and wages of its employees compared to competitors, and low loyalty to the products of certain consumer age groups. Its *opportunities* include the dynamic expansion of the market for its products (Koncsek, 2018), growing demand due to social and demographic trends, increasing demand in emerging markets, and an expandable product range. The possible future merger of competitors and the rising price of the products in the sector are among the threats. In addition, by creating a BCG matrix, the company explores which products in its portfolio are worth producing with increased intensity, levying, or removing from the market based on their market growth and share. The central strategic basis for innovation and market leadership must be kept in mind throughout the analyses.

Based on the results, the company can develop detailed strategy objectives, which appear as goals to be achieved in each perspective of the BSC. The main financial goals of the scorecard may be to increase sales, efficiency and profitability of the company, to reduce the cost of its products manufactured through market-leading technology, increase the share of the revenue from neglected emerging markets, and increase the share of at least two innovative products with a still low market share. Indicators are related to the listed objectives: net sales revenue, profit after tax, the ROA indicator, unit cost, sales revenue ratio, etc. The expectations for the indicators are short- or medium-term so they can be redesigned on demand and can be derived from the values of previous periods and the figures achieved by the main competitor - which is realistic but challenging.

Measures taken for financial goals are closely linked to the objectives of the customer perspective. To achieve individual goals, companies need to serve consumers quickly, increase their satisfaction (especially in the targeted new segments), increase the brand loyalty of the revealed age groups, increase the production of innovative products and reduce their price. Related indicators can be the proportion of products delivered in a certain period, the number of complaints per certain amount of products, the repurchase rate, the production capacity and price of innovative products, the number of new customers, etc. The above mentioned issues also apply as far as expectations are concerned.

The goals of operational processes are related to the measures needed to achieve customer goals; thus, maintaining causal relationships is essential. Reducing production costs, improving production efficiency and speed, reducing the cost of manufacturing innovative products, and related new investments may appear in this perspective. Possible indicators are the unit cost of priority products, output indicators, per capita productivity, the cost of innovative products, investment rate, etc.

The learning and growth perspective represents the lowest level: it deals with the innermost, most elementary level of the company. The achievement of each financial, customer and operational goal is directly or indirectly related to the goals defined here: employee productivity, satisfaction, salary, fluctuation, involvement in processes, skills related to the production of innovative products. Possible indicators are revenue per capita, the proportion of leaving employees, average wage compared to competitors, number of employee initiatives, the number of employees participating in the training courses, etc. Basically, all measures will be related to the development of the organization: improvement of the work environment, development of technology, employees and wages, improvement of the organizational culture will ultimately all serve the achievement of the central strategy of the company.

CONCLUSIONS

In the dynamically changing environment of our age, at a time of increasing competition and increased consumer and employee demands, it is imperative that a business organization is aware of all aspects of its operations. Exclusive concentration on financial performance can lead to a company’s inability to improve its customer relationships, internal processes, and the efficiency of its organization, which is a competitive disadvantage.

Kaplan and Norton’s model, the Balanced Scorecard, developed in the ’90s can be a tool for multi-perspective strategy planning, performance measurement, and corporate governance. With the help of the model, the management of the company can get a comprehensive picture of its operation, systematize its strategic objectives, assign transparent indicators to them, view its performance from different perspectives, and explore the causal relationships between each area and function. Based on the derived example, it can be seen that the promises of the BSC are real, the strategy of an organization can be mapped with the help of the model, and corporate value creation processes can be captured with relatively few indicators of 5-6 per perspective.

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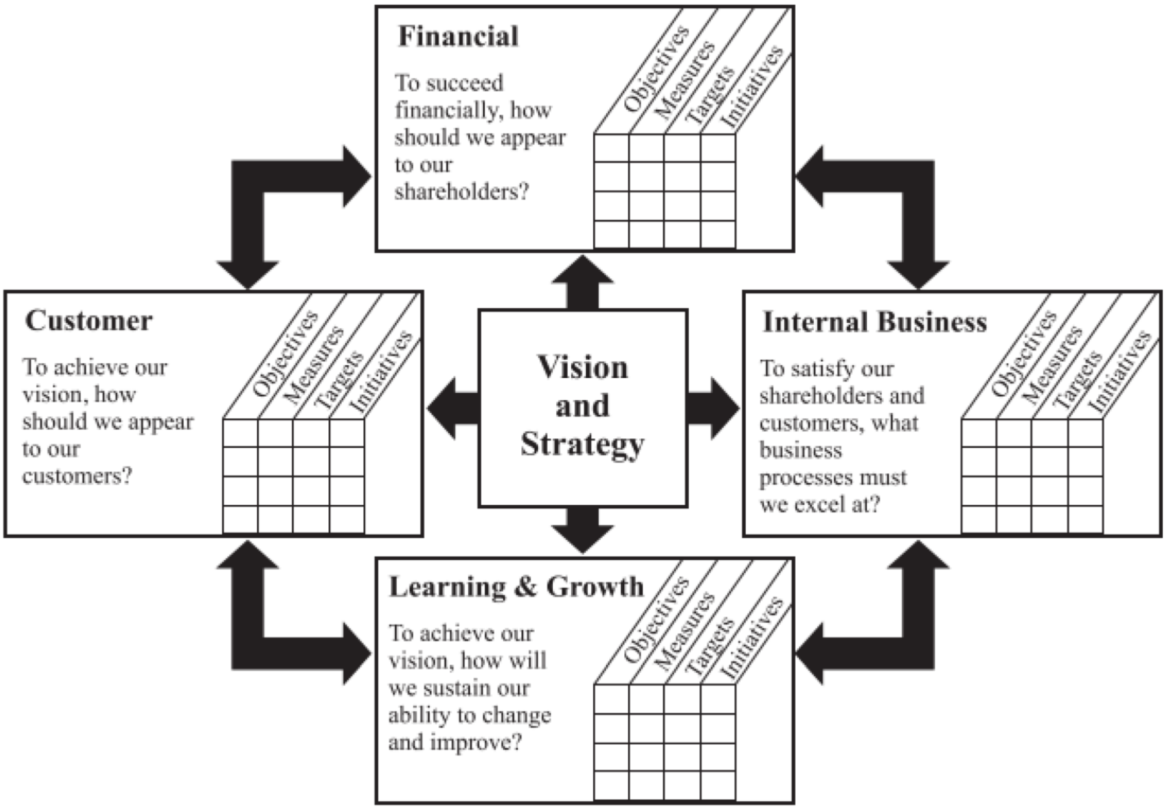

Figure 1
Framework of the Balanced Scorecard
Source: Kaplan & Norton (2004)

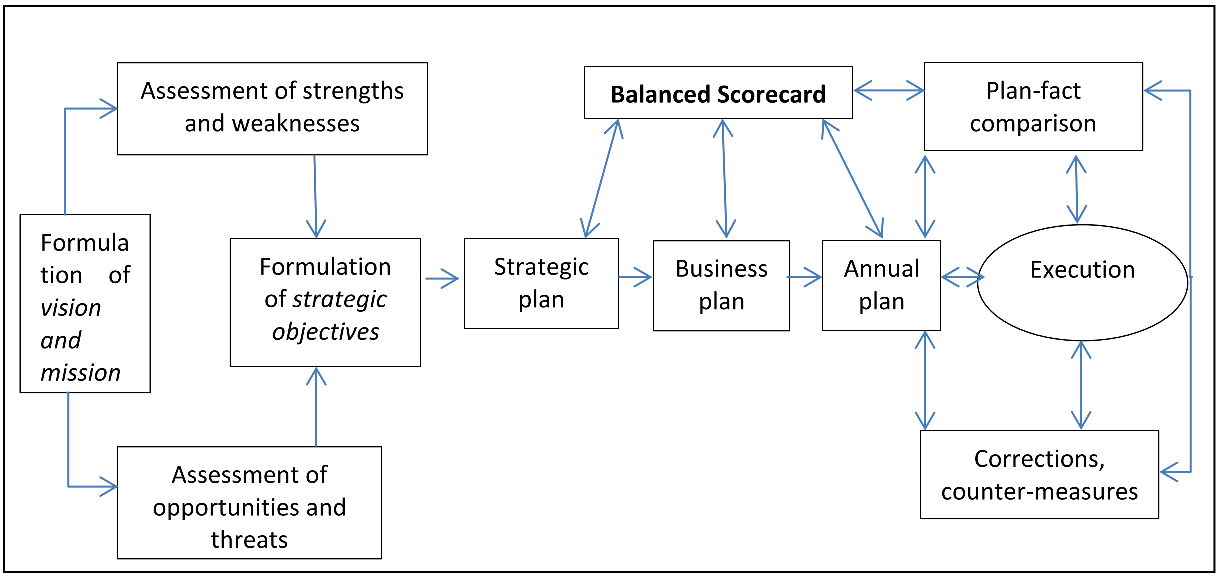

Figure 2
Process of strategic planning and controlling
Source: Own editing based on the work of Fónagy-Árva (2007)