

# Balanced Scorecard Concepts, Technology, and Applications

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## INTRODUCTION

The balanced scorecard (BSC) harnesses the potential of checking and verifying the status of a company by evaluating and carefully assessing strategic aspects beyond the purely financial indicators. The significant impact of the BSC from a business standpoint has brought critical mass in use and the emergence of a number of technologies that will make a technology-supported BSC a reality. This article presents an overview of the concept and its history, evolution, major applications, and implications with a particular emphasis in decision making and decision support technologies.

## BACKGROUND

The current business climate demands a high rate of change in which companies must adapt in a flexible and extremely agile manner. Hence, the need of relying on precise information, not necessarily narrowed to the financial, supporting the decision-based process in a business environment unveils itself as one of the key assets in modern organization management. The use of strictly financial criteria to establish the situation of a particular organization may lead to different management mistakes that must be avoided. Focusing on short-term results is probably the worst of these mistakes. Isolating both financial and nonfinancial components that enable organizational performance evaluation and, with that, setting up correcting criteria for deviations are not particularly groundbreaking and novel ideas. Earlier attempts in the BSC direction can be found from the 20<sup>th</sup> century in the dashboards that many followers of Scientific Management, established

by Frederick W. Taylor (1911), adopted for business management and, more recently, the French Tableau de Bord of the 60s. The similarities of the French approach with BSC have been studied by a number of authors (e.g., Epstein & Manzoni, 1998; Lebas, 1994) and additionally, the Performance Measurement Pyramid has been identified as a first ancestor of the BSC (Lynch & Cross, 1995).

Apart from claims about its originality, the BSC is an overall control management tool that has deeply impacted organizations since its appearance in 1992. The BSC foundational work proposed by Kaplan and Norton (1992) has become the performance management model with more acceptance in its application to organizations despite the growing number of similar tools integrating intangible management, such as the del Intangible Asset Monitor developed by Karl Sveiby (1997) and the Skandia Navigator depicted by Edvinsson and Malone (1997). A more exhaustive report on tools for performance management can be found in Marr, Schiuma, and Neely (2004).

The ever-growing popularity of BSC has implied the appearance of a number of studies and surveys where it is analyzed and applied to various aspects of business, encompassing key areas such as human resources and IT management. As a proof of concept of the impact in academia, a particular report about business performance management (Marr & Schiuma, 2003) tools provides a survey of more than 301 papers with 4,464 citations. In the report, Kaplan and Norton are respectively the first and second most cited authors, and their book, *The Balance Scorecard* (1996), is the most referenced and cited book.

## BALANCED SCORECARD

### General Concepts

In 1992 Robert S. Kaplan of the Harvard School of Business and consultant David Norton developed BSC. The tool and its upcoming improved versions have become one of the key assets of day-to-day business management and can be defined as a multidimensional framework for describing, implementing, and managing strategy at all levels of an enterprise by linking, through a logical structure, objectives, initiatives, and measures to an organization's strategy (Kaplan & Norton, 1996). The result of its application in a particular company implies the creation of a framework depicting the different aspects that will determine the performance of an organization, encompassing the traditional financial signals with some others linked to customers, internal processes, and learning and growth. To summarize, the BSC is a conceptual framework for translating an organization's vision into a set of performance indicators distributed among four perspectives (see Figure 1): financial, customer, internal business processes, and learning and growth. These four perspectives provide answers to four basic questions.

- How do customers see us? (customer perspective)
- What must we excel at? (internal perspective)

- Can we continue to improve and create value? (learning and growth perspective)
- How do we look to shareholders? (financial perspective)

The four perspectives of the BSC are detailed in the following.

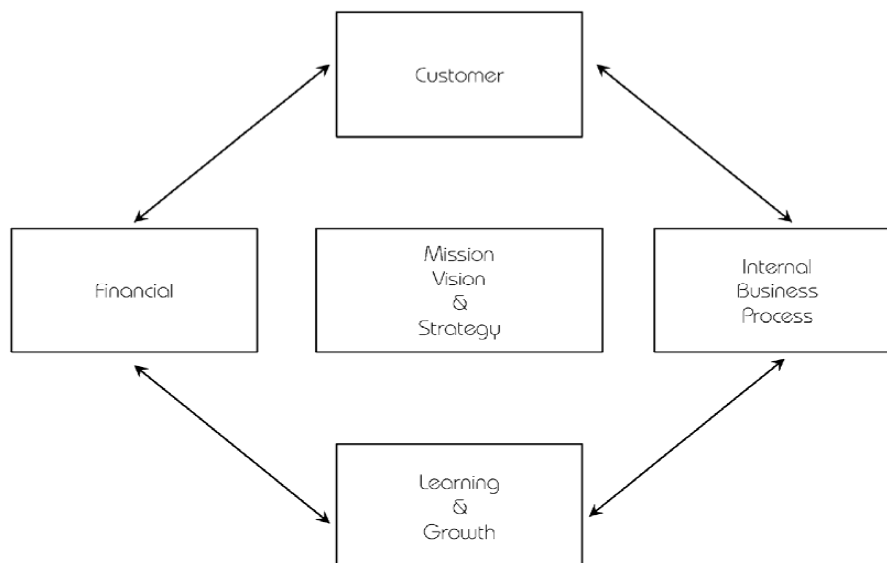
The financial perspective describes the tangible outcomes of the strategy in traditional financial terms, such as return on investment (ROI), shareholder value, return on capital, economic added value, profitability, revenue growth, and lower unit costs.

The customer perspective defines the drivers of revenue growth. It includes generic customer outcomes, such as satisfaction, acquisition, retention, and growth, as well as the differentiating value proposition the organization intends to offer to generate sales and loyalty from targeted customers.

The internal business process perspective focuses on the internal processes that will have the greatest impact on customer satisfaction, on achieving an organization's financial objectives, and on improving the quality and productivity of operating processes.

The learning and growth perspective identifies the infrastructure the organization has to build and manage to create long-term growth and improvement through people (human capital), IT systems (information capital), and organizational procedures and climate (organization capital).

Figure 1. BSC four visions



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