

# GESTIÓN ESTRATÉGICA EN LA EMPRESA. UN ANÁLISIS DE LA EVOLUCIÓN DEL ENFOQUE DEL CUADRO DE MANDO.

M<sup>a</sup> de los Ángeles Sandoval Pérez, [sandoval@uvigo.es](mailto:sandoval@uvigo.es), Universidad de Vigo

Fernando Comesaña Benavides, [fercoben@uvigo.es](mailto:fercoben@uvigo.es), Universidad de Vigo

Paloma Bernal Turnes, [paloma.bernal@urjc.es](mailto:paloma.bernal@urjc.es), Universidad Rey Juan Carlos

## RESUMEN

El *Cuadro de Mando Integral* fue desarrollado por Kaplan y Norton (1992, 1993) como una forma innovadora de facilitar e impulsar la integración de las medidas financieras y no financieras dentro de la gestión empresarial en un entorno empresarial en cambio permanente. Su premisa fundamental era que el acceso a una información mejorada permitiría a los decisores de la empresa mejorar la eficiencia estratégica de sus organizaciones. Desde entonces, ha surgido un enorme interés en este campo emergente, centrado en la búsqueda de maneras de proporcionar a los usuarios de la empresa acceso directo y en el momento adecuado a información relevante. La inteligencia de negocio es reconocida por los líderes empresariales como una herramienta vital para ayudar a las organizaciones a alcanzar objetivos estratégicos, mejorar su rendimiento empresarial y la toma de decisiones. En este contexto, el *Cuadro de Mando Integral* ha ganado una amplia aceptación en los ámbitos académicos y también en el mundo de los negocios, habiendo sido adoptado por una gran cantidad de empresas y organizaciones, incluyendo el sector público y el privado, tanto para las empresas con o sin ánimo de lucro. Este documento describe las características básicas del *Cuadro de Mando Integral* como herramienta de gestión estratégica, revisando sus desarrollos alcanzados, las cuestiones a tener en cuenta en su implementación, así como los potenciales determinantes que influyen en el éxito de su aplicación, especialmente en las PyMES.

## ABSTRACT

The *Balanced Scorecard Approach* was developed by Kaplan and Norton (1992, 1993) as an innovative approach to encourage and facilitate the integration of financial and non-financial measures into management in a fast-changing business environment. Their premise was that access to better information would allow managers to improve strategic performance in their organizations. Since then, a flood of interest in finding ways to give business users direct and timely access to relevant information has appeared and this emerging field, called Business Intelligence, is recognized by business leaders as a vital tool for helping organizations to achieve strategic objectives, optimize performance and improve decisions. In that context, *Balanced Scorecard Approach* has gained wide acceptance in both the academic, and in the business world, having been adopted in a large number of industries and organizations, including the private sector and public the sector, for-profit and non-for-profit enterprises. This paper describes the primary features of *the Balanced Scorecard* as a strategic management tool, paying attention to its developments, the issues that must be addressed in its implementation, as well, as the potential determinants influencing the successful application of this concept, especially in SMEs.

## INTRODUCTION

A review of the available literature shows that the *Balanced Scorecard Approach* has developed from the initial idea of measurement of organizational performance in non-financial terms to strategic implementation (Kaplan and Norton, 1996b & 1997) and toward a comprehensive strategic management tool (Kaplan and Norton, 2001).

Furthermore, the concept has been undertaken from many different management perspectives: The focus on accountancy aspects has been widely applied (Beischel, M. & Smith, K., 1991; Newing, 1994; Corrigan, 1995; Hussain, 1996 Norreklit, H. 2000); the performance measurement capability has received much interest and attention (Birchard, 1995; Lingle and Schiemann, 1996; Sanger, 1998); and, the approach has been embraced by human resources administrators to measure the performance of employees (Shaw, D. & Schneier, C., 1995; Hagood, W. & Friedman, L., 2002). In the Knowledge Economy, several studies have approached it as an important tool to measure and manage strategic intellectual capital (Businessline, 2002; Andriessen, 2004; Kaplan & Norton, 2004a,b). Finally, the Corporate Social Responsibility (CSR) movement has been gaining impulse the last years and this growth has risen that Balanced Scorecard is considered a management tool well positioned to support a knowledge-building effort to help organizations integrate sustainability strategies with corporate objectives (Crawford, D. & Scaletta, T., 1995).

Certainly, in their papers, Kaplan and Norton do not provide a definition that clearly explains what a balanced scorecard is. Instead, they focus on how it can be useful to improve the organizational performance or how it could be a powerful tool in communicating priorities within organizations.

However, for more than a decade now, several documents have been published dealing with this concept and several organizations around the world have used it to achieve performance breakthroughs through well-formulated and implemented strategies. Some of these applications are described in the following case studies: "The Pepsi Dashboard" (Jensen & Gerr, 1994/95), "Implementation in Finland of a campus-wide management information system" (Kettunen, J. & Kantola, I., 2005), "The case of car dealerships in Taiwan" (Wu, 2005) and "The F&R Technoconsult Scorecard" (Sandoval, 2006). "Strategy revitalization in academe: a balanced scorecard approach" (McDevitt, Giapponi & Solomon, 2008). From the analysis of these texts and experiences it is possible to draw some ideas which throw some light into this managerial tool.

*The Balanced Scorecard* is a concept tightly coupled to strategic planning and the pursuit of organizational goals. Thus, Nanni, Dixon and Vollman (1992) indicate that this approach scorecard links performance measures and operational actions to the business strategy in order to motivate employees to achieve the organizational objectives. Kaplan and Norton state that this approach translates mission and strategy of an organization into a comprehensive set of performance measures and provides the framework for strategic measurement and management (Kaplan and Norton, 1996b). The same idea is documented in a later article by these authors where they explain that strategic-focussed organizations understand well the importance of engaging and aligning their employees to the strategy. Hence, it is crucial that the strategy be communicated adequately in order to create a shared understanding of the efforts and steps needed to translate the strategy into action (Kaplan & Norton, 2001, p.213).

Having gone through these considerations, we can state that strategy is central to the concept since it determines what is to be measured. *The Balanced Scorecard* is an effective means of describing and implementing strategy and, later, for monitoring the progress towards achievement of objectives. At the very heart of this model is the realization that no single performance indicator could capture all the complexity that characterizes the performance of an organization (Epstein and Manzoni, 1998). At the same time, this conceptual framework results from the consensus that the traditionally defined financial performance measures, such as return on investment models, are insufficient to evaluate an competitive position of an organization and understand “how we are doing” in an increasingly complex environment (Stalk *et al.* 1992; Kaplan & Norton 1992, 1993, 1996a). On the basis of these ideas, the model is introduced for designating, evaluating and measuring multiple factors that drive performance and reflect the attempt to provide a balanced presentation of both traditional financial measures, viewed as lagging (historical) indicators of performance, and non-financial measures, which are leading (predictive) indicators and serve to drive future performance. Objectives and measures should not be considered in isolation. On the contrary, they are more than a collection of success factors. They are selected to show cause and effect in the implementation of the company's mission and organizational strategy (Kaplan & Norton, 2001).

Upon considering the key business areas, identifying and taking advantage of the linkages that deliver success, one sees the value of *The Balanced Scorecard*. This approach allows leaders to look at the organization in a more holistic way and to produce better performance as a result of more informed management decision making. Hoffecker and Goldenberg point to the impact of a decision made in one area above other areas, even before the decision is implemented. Such awareness offers more strategic management visibility than would normally be expected (Hoffecker & Goldenberg, 1994). On the contrary, when built independent from each other, the Scorecards silos “undermine an organization’s ability to get a single picture of what’s going on in the enterprise” (Ekerson, 2006, p. 21)

### **THE STRUCTURE AND CHARACTERISTICS OF A BALANCED SCORECARD**

*The Balanced Scorecard* divides the organization into four key business areas, even though additional areas can be included if necessary.

The customer perspective refers to the customer and market segments targeted for competition and it identifies the ability of the organization to provide quality goods and services, customer service and satisfaction in these segments. The dimension of the internal business process is based on the concept of the chain value, representing the critical processes needed to deliver the value propositions that will attract and retain customers, as well as satisfy shareholder expectations. This process focuses on internal business results that lead to financial success and satisfied customers. The financial performance perspective uses traditional accounting measures, since they summarize the economic consequences of plans and of implementation initiatives, and evaluates the extent to which organizational strategy, implementation and execution are contributing to profit improvement. It shows the consequences of the strategic decision made in the rest of perspectives. The learning and growth view points to the fact that companies need to constantly improve their capabilities for delivering value to customers and shareholders. This improvement can come from three main sources: employee training, improving information

and communication systems, and aligning organizational procedures. By measuring different human resources, as well as focused effects and learning systems, this perspective indicates the infrastructure that should be developed and built in order to create long-term growth and improvement.

Some authors (e.g. Chia-Ling & Sun-Quae, 2007) analysed the relative weights placed on the four perspectives of measurements in a BSC framework.

The *Scorecard*, applied at different levels, i.e., total organization, strategic business unit, individual operational units, and even individuals, translates mission and strategy into objectives and measures for each of the four perspectives. Consequently, the resulting measures are aligned with the strategic direction of the firm. This coherency with strategic goals is expected to be applied across all functional areas within the organization (Hoffecker and Goldenberg, 1994), as well as through existing hierarchical levels (Beischel and Smith, 1991).

“Each measure of balanced scorecard becomes embedded in a chain of cause-and-effect logic that connects the desired outcomes from the strategy with the drivers that will lead to the strategic outcomes” (Kaplan and Norton, 2001, p. 69), and “every measure selected for a balanced scorecard should be an element in a chain of cause-and-effect relationships that communicates the meaning of the business unit's strategy to the organization” (Kaplan and Norton 1996b, p. 31).

Hence, on the basis of an adequate description of the strategy that belongs to the organization through its perspectives, *The Balanced Scorecard Team* has to identify the measures and choose those that may help the organization to execute its strategy. This selection should include predictors of future behaviour and performance, as well as offer comments on the past. Nevertheless, the adequate choice of the measures, also called Key Performance Indicators, is far from simple. In fact, it is considered a key to success with *The Balanced Scorecard Approach*.

By combining the four perspectives above, the balanced scorecard represents the shared vision of an organization, focusing on critical issues relating to the link between short-term operational control and long-term strategy of the firm, and, on the appropriate strategic direction for everyone's efforts (Olve *et al.*, 1999). In doing so, this model becomes more than a tool for measurement and communication, a strategic management system enabling organizations that use it to manage their strategy over the long term. This is done using *The Scorecard Approach* for the following critical management processes (Kaplan and Norton, 1996b): to describe and translate vision and strategy, communicate and link strategic objectives and measures, plan, set targets, and align strategic initiatives, enhance strategic feedback and learning, and link measures with rewards.

On the basis of *The Balanced Scorecard* results, each employee will know their contribution to the designed strategy and the managers will access information reporting actual accomplishment for a given period easily and quickly, without having to call a meeting or request a dossier. *The Scorecard* should include useful presentation of results as a key component. The data should be presented in a simple, coherent way in order to allow users to

focus on the important issues. The data should isolate the most transcendental aspects and help in assessing priorities.

The essential data are collected from different levels of the organization and aggregated to create an integrated database which facilitates rapid responses to decision makers in their information requests. Thus, the introduction of the strategy can be continuously monitored by everyone in the organization. The trends and development of operations can be supervised and evaluated in order to make necessary changes in order to correct the path of the organization in order to achieve the desired strategic objectives.

## **FUTURE TRENDS**

The concept of *Balanced Scorecard* has delivered a totally new approach to business management that became popular during the early 1990's. Since then, changes have been made in the definition, characteristics, processes and tools used to create this management framework within organizations.

In general, the literature settles the utility of the approach. In this sense, Malina and Selto (2001) reveal that the balanced scorecard has a positive impact on organizational outcomes by creating positive motivation for employees who need to achieve organizational objectives. Blooinquist, & Yeager, (2008, p. 27) state that "having been through the process and seeing the power of a Balanced Scorecard that is linked to the strategic plan and performance monitoring systems, we know it is well worth doing".

Nevertheless, other researchers (e.g. Eagleson and Waldersee, 2000; Kennerley and Neely, 2000) detect some weaknesses in the initial design proposition, and recommend different improvements. Thus, Voelpel *et al.*, (2006, p. 17) state that the balanced scorecard "has become a tyrannical concept and instrument that is rooted in twentieth century economic and strategy paradigms" and propose an alternative systemic approach alleged to be more appropriate for dealing with today's networked corporate world in the innovation economy.

In any case, the evolution of the balanced scorecard model was driven by empirical evidence of weaknesses in the devices created for different companies, rather than by the original idea. In fact, despite the well-publicized success in implementing the model, including Kaplan & Norton's establishment of a *Balanced Scorecard Hall of Fame* to feature the companies that have successfully implemented new strategies with the aid of this framework, a certain number of weaknesses have been discovered, taking into account that not all organizations that have implemented Scorecards have succeeded. In some cases, organizations have been dazzled by eye-catching graphical interfaces and have failed to build a solid strategic management and learning system by implementing appropriate business intelligence and data integration technologies and processes.

Most criticism is related to the effort involved in the implementation of the approach. Certainly, developing a BSC can be an arduous task, as it was stated by Newing (1994) when it was suggested that one of the main weaknesses was the complexity and the time involved in its development.

Modern technology provides the ability to facilitate both the implementation and maintenance of a *Balanced Scorecard* by IT professionals. In fact, there are different tools that made access to information, analysis and data by modelling a relatively clear-cut task for the IT department. But, providing the necessary flexibility and simplicity demanded by end users to reduce the time taken to deploy and customize data analysis projects remains a challenge. As Vesset, D. & McDonough, B. (2006) state, “much of the problem with BI tools lies in the inability of IT departments to provide the necessary flexibility required by decision makers performing ad hoc analysis. As the demand for BI support rises, IT departments will increasingly come under pressure to support constant changes to end-user requirements”.

The key to facing this problem could be the availability of software tools that allows query, reporting and analyzing data directly by end users, making it easier to create front-end data views without having to change any back end structures. One of these BI software tools is QlikView, ([www.qlikview.com](http://www.qlikview.com)) the flagship product of QlikTech. Based on a patented in-memory associative data model, QlikView covers high-speed query engine and all types of multidimensional analysis and reporting needs for all organisations, allowing end users to develop complete scorecards without the difficulties of pre-built cube data models.

In summary, all these developments and lessons learned from the deployment of scorecards in different companies have been the mainstay of the evolution of *The Balanced Scorecard Approach* and origination of new balanced scorecard designs that are substantial improvements on original ideas. Nevertheless, at present some issues are still being debated and there is still room for improvement. Some of them are summarized in Lawrie, G. & Cobbold, I., (2004).

#### **APPLICATION IN SMALL-TO-MEDIUM-LEVEL ENTERPRISES (SMEs)**

During the past several years, many software vendors have shipped BI solutions and the Balanced Scorecard approach has quickly become familiar in the business world. Companies of all sizes around the world need to incorporate BI technologies in their business as a vital tool for helping them achieve strategic objectives, optimize performance and improve decisions. Consequently, executives are increasing BI budgets to provide employees with timely and relevant information.

If we talk about Small and Medium Enterprises, we can say that in general, their innovative technological development involves a SME’s effort not only from a financial point of view, but also for adaptation, knowledge acquisition and organizational changes.

Many of these organizations create scorecards using familiar applications as Microsoft Excel, and advanced charting packages that usually provide a partial view of data and limited analytical capabilities to show users the root cause of problems highlighted in the critical indicators. In fact, BI users require high-speed query engine, interactive reports, analysis or calculation and visualization capabilities than can not be reached by only downloading relevant data into a spreadsheet.

To succeed in this effort, executive leadership must face implementation, maintenance and user acceptance challenges that in many cases can result in abandoning the project.

Based on that premise, a multidisciplinary project called PROPYME was recently performed as a team effort between the University of Vigo (Galicia, Spain) and the autonomous government foundation, FEUGA (Enterprise-Galician University Foundation). The first phase of this project consisted of the design and development of a Web portal ([www.procesospropyme.com](http://www.procesospropyme.com)) with a demonstration multimedia tool (text, graphics, animations, audio and video) for technology and knowledge transfer in industrial and business processes (Sandoval, 2006). Executives and Managers from Galician SMEs can log in the platform to learn about fifteen processes (including BSC) based on diverse technologies frequently used for companies: importance and value provided by Information Technologies to different business processes, advantages and drawbacks using those technologies, estimated resources, difficulties, costs and teaching needs facing organizational changes, risks and trade-offs, university capabilities and IT's enterprises that give the needed know-how for implementing process, etc. The information is shown to the user in a standardized way for all processes with the aim to make the use of the tool easy and reduce the time to get the required information.

The multimedia PROPYME tool includes complete information about BSC, which is very important for professionals in the field of the BI. The user can get information about the aims, main application fields, methodology for implementation, technologies used, components, requirements, development process, cost, application examples and bibliography.

## **CONCLUSION**

*The Balanced Scorecard* is considered a very useful tool for increasing the understanding of efforts and steps needed to achieve strategic goals and improving the efficiency of a company.

Nevertheless, despite the increasing reputation of this new measurement approach, its implementation is quite complex and presents a set of critical issues and challenges. As the number of organizations implementing this model continues to grow, new materials are being produced that deserve future consideration and research in this field. Moreover, a comprehensive understanding of the new philosophy and the mechanics of the concept is required to ensure successful implementation. It also requires an important commitment towards assuming and making the necessary changes.

The balanced scorecard is not an end in itself: it is developed to show the way for future action. Therefore, it requires the ability to retrieve data and the interpretation and analysis of the results, identifying what is important, and where the energy and attention should be focused, what is well-done, and what needs improvement. To facilitate the interpretation, the data can be presented in a variety of ways, including standard graphic formats and visual measures (thermometers, speedometers, etc.). In order to facilitate the analysis, the users need to have the ability to investigate the data interactively from a variety of perspectives, by a few simple mouse clicks.

Finally, it is of the utmost importance for managers to be empowered to make use of the information available in order to support their decisions. The ultimate objective of *The Balanced Scorecard Approach* is to enable users to make better informed decisions, taking into account that a good diagnosis is absolutely necessary to produce an appropriate prescription.

## REFERENCES

- Ampuero, M., Goransson, J. & Scott, J. (1998). Solving the measurement puzzle: how EVA and the balanced scorecard fit together. *Perspectives on Business Innovation*. 2. Ernst & Young Center for Business Innovation, Capgemini, New York, NY.
- Andriessen, D. (2004). Intellectual capital valuation and measurement: classifying the state-of-the-art. *Journal of Intellectual Capital*. 5(2). Pp.230-242.
- Beischel, M. & Smith, K. (1991). Linking the shop floor to the top floor", *Management Accounting*. Pp.25-29.
- Birchard, B. (1995). Making it count. *CFO the Magazine for Senior Financial Executives*. Pp.42-51.
- Blooinquist, P.; Yeager, J. (2008). Using Balanced Scorecards to Align Organizational Strategies *Healthcare Executive*. Jan/Feb2008, Vol. 23 Issue 1, p24-28.
- Businessline (2002). *How to manage intellectual capital*. February 11.
- Corrigan, J. (1995). The balanced scorecard: the new approach to performance measurement. *Australian Accountant*. Pp.47-48.
- Crawford, D. & Scaletta, T. (1995). The Balanced Scorecard and corporate social responsibility: aligning values for profit. *CMA Management*. October.
- Chia-Ling, L. & Sun-Quae L. (2007). Performance measurement systems for knowledge management in high technology industries: a balanced scorecard framework. *International Journal of Technology Management*. Volume 39, Number 1-2. Pp.: 158-176.
- Eagleson, G. & Waldersee, R. (2000). Monitoring the strategically important: assessing and improving strategic tracking systems. *Proceedings of the 2nd International Conference on Performance Measurement and Management*. Cambridge. July.
- Epstein, M. & Manzoni, J-F. (1998). Implementing corporate strategy: from tableaux de bord to balanced scorecards. *European Management Journal*. 16(2). Pp.190-203.
- Hagood, W. & Friedman, L. (2002). Using the Balanced Scorecard to measure the performance of your HR information system. *Public Personnel Management*. 31(4). Pp.543-557.
- Hoffecker, J.& Goldenberg, C. (1994). Using the balanced scorecard to develop company-wide performance measures. *Cost Management*. Pp.5-17.
- Hussain, A. (1996). How do you measure performance?. *Certified Accountant*. Pp.48-50.
- Jensen, B. & Gerr, G. (1994/95). Seismic shifts in HR management: a case study in mapping radical change at Pepsi. *Employment relations today*. Pp. 407-417.
- Kaplan, R. & Norton, D. (1992), The balanced scorecard: measures that drive performance. *Harvard Business Review*, 70(1), 71-79.

- Kaplan, R. & Norton, D. (1993), "Putting the balanced scorecard to work", *Harvard Business Review*. 71(5).134-147.
- Kaplan, R. & Norton, D. (1996a). Using the balanced scorecard as strategic management system. *The Harvard Business Review*. 74. Pp. 75–85.
- Kaplan, R. & Norton, D. (1996b). *The Balanced Scorecard – Translating Strategy into Action*. Harvard Business School Press. Boston, MA.
- Kaplan, R. & Norton, D. (1997), Why does business need a balanced scorecard. *Journal of Cost Management*. 11(3). Pp.5-10.
- Kaplan, R. & Norton, D. (2001). *The Strategy-focused Organization*, Harvard Business School Press. Boston, MA.
- Kaplan, R. & Norton, D. (2004a). *Strategy Maps: Converting Intangible Assets into Tangible Outcomes*. Harvard Business School Press. Boston, MA .
- Kaplan, R. & Norton, D. (2004b). Measuring the strategic readiness of intangible assets. *Harvard Business Review*. 82(2). Pp.52-63.
- Kennerley, M. & Neely, A. (2000). Performance measurement frameworks – a review. *Proceedings of the 2nd International Conference on Performance Measurement and Management*. Cambridge. July.
- Kettunen, J. & Kantola, I. (2005). Management information system based on the balanced scorecard. *Campus-Wide Information systems*. 22(5). Pp. 263-274.
- Lawrie, G. & Cobbold, I., (2004). Third-generation balanced scorecard: evolution of an effective strategic control tool. *International Journal of Productivity and Performance Management*. 53(7). Pp. 611-623.
- Lingle, J. & Schiemann, A. (1996), From balanced scorecard to strategic gauges, is measurement worth it?. *American Management Association*. Pp.56-61.
- Malina, M.A. & Selto, F.H. (2001), Communicating and controlling strategy: an empirical study of the effectiveness of the balanced scorecard. *Journal of Management Accounting Research*. 13. Pp.47-90.
- McDevitt, R.; Giapponi, C. & Solomon, N. (2008). Strategy revitalization in academe: a balanced scorecard approach. *International Journal of Educational Management*. Volume: 22 Issue: 1. Pp. 32 – 47.
- Nanni, A.J.; Dixon, J.R. & Vollman, T.E. (1992). Integrated performance measurement: management accounting to support the new manufacturing realities. *Journal of Management Accounting Research*. 4. Pp.1-19.
- Newing, R. (1994). Benefits of a balanced scorecard. *Accountancy*. Pp.52-53.
- Norreklit, H. (2000). The balance on the balanced scorecard – a critical analysis of some of its assumptions. *Management Accounting Research*. 11(1). Pp.65.
- Olve, N., Roy J. & Wetter. M (1999). *Performance Drivers: A Practical Guide to Using the Balanced Scorecard*. John Wiley & Sons. Chichester.
- Sandoval, A. (2006). Technology and Knowledge Transfer in industrial and business processes at Galician Enterprises: Propyme Project. *The limits of the firm social responsibility*. Proceedings of the 15<sup>th</sup> International Conference of the European Academy of Management and Business Economics. Buenos Aires, September.
- Sanger, M. (1998). Supporting the Balanced Scorecard. *Work Study*. 47(6). Pp. 197-200.
- Shaw, D. & Schneier, C. (1995). Team measurement and rewards: how some companies are getting it right. *Human Resource Planning*. 18(3). Pp.34-49.

- Stalk, G., Evans, P. & Shulman, L. (1992). Competing on capabilities: the new rules of corporate strategy. *Harvard Business Review*. 70. Pp. 57–69.
- Vesset, D. & McDonough, B. (2006). Qlik Tech's Approach to Business Intelligence: Keep It Simple and Flexible. White paper IDC Review. P.1.
- Voelpel, S., Leibold, M., & Eckhoff, R. (2006). The tyranny of the Balanced Scorecard in the innovation economy. *Journal of Intellectual Capital*. 7(1). Pp.: 43-46.
- Wu, A. (2005). The integration between Balanced Scorecard and intellectual capital. *Journal of Intellectual Capital*. 6(2). Pp.: 267-284.