# THE BALANCED SCORECARD: THE NEW PERFORMANCE MANAGEMENT PARADIGM FOR NIGERIAN FIRMS

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### **ABSTRACT**

The aim of this study was to explore how the strategic management performance model called the Balanced Scorecard, has faired among firms that have introduced/adopted the model in Nigeria. This approach provided us with the explanation needed to understand the dynamics of the Balanced Scorecard model and its moderators especially as it relates to the issue of environment and culture that may not have been contemplated in the original model of Balanced Scorecard. We have presented this paper in three major sections. The Introduction outlines the basic framework of Balanced Scorecard, followed by Empirical evidences from literature. We confirm from empirical evidences, that firms that have implemented Balanced Scorecard have indicated recovery from their otherwise abysmal performance conditions and reverted their loss situations too. However, we suggest that the generic four perspectives should be expanded to incorporate the fifth perspective which is environment and culture because of the critical impact environment and culture play in the survival of any organisation. Therefore, it is concluded that for Nigerian organizations to participate in the global economic arena the adoption of Balanced Scorecard is imperative.

**Keywords:** Balanced Scorecard, Strategic Management, perspectives, environment and culture

#### INTRODUCTION

The proponents of the Balanced Scorecard (BSC), Professor Robert S. Kaplan of Harvard University and David P. Norton, a management consultant of Nolan, Norton and Company Inc., a Massachusetts's based information technology consulting firm say "what you measure is what you get" (Kaplan and Norton, 1992). The need to measure the performance of an organisation remains validly imperative at least for one reason: the stakeholders need to know whether or not the organisation is fulfilling its purpose. Obviously, there are many reasons for measuring the performance of an organisation.

Kenny (2010), in his survey of accountants discovered the reasons for performance measurement to include: provision of the element of checks and balances that encourages efficiency in performance, measurement of productivity and improvement, enhancement of management and staff communication, achievement of set targets, ensuring that the right people are deployed to the right places working together to achieve a common known

goal and outcomes, establish what is working and what is not, observe trends in business, and to set apart performers from non-performers for remuneration and reward purpose. During the industrial revolution of 1850-1975 according to Muhammad (2010), performance measurement revolved around the use of purely accounting or financial data to gauge the performance of firms. With the emergence of the information age, in the last decades of the twentieth century, the use of only financial data as the basis for measuring performance has been observed to be inadequate to manage corporate performance of organisations in the face of global economic integration, which is characterised by integrated supply and demand chains (Muhammad, 2010). Financial data have been criticised as being micro-oriented and have inherent lagging characteristic because financial data are compiled from only the financial perspective and use already known events. Therefore, financial data are said to possess very limited predictive ability and considered to be inadequate to position organisations to perform effectively and efficiently and enable them to respond to customer and environmental complexities in the information age (Kaplan and Norton, 1992).

Also, the nature of financial perspective measure, as observed by Johnson and Kaplan (1987), are too late, too aggregated and too distorted to be useful in the information age. The flaws identified with managing performance based only on financial perspective has resulted in the suggestion of several management control tools such as Beyond Budgeting, Activity-Based Costing, Goldratt's Theory of Constraints, Balanced Scorecard, Economic Value Added, Performance Prism, etc (Hope and Fraser 1997; Robin, David and Michael, 2007; Esa, 1998, Muhammad, 2010, Neely, Adams and Kennerley, 2002). Of all the strategic management tools, the Balanced Scorecard appears to be the most celebrated by both management practitioners and the academics in relation to its introduction about 20 years now. This underscores the importance of the Balanced Scorecard (BSC) and the imperatives of this paper in the interest of the Nigerian economy and management scholars.

Performance measurement is a good management control mechanism, but to achieve its benefits, the appropriate measuring criteria must harmonise with objectives and strategies of the firm in order to illicit the obvious and potential benefits and threats to the organisation. Most importantly, as Kaplan (2010) indicates, any model that does not clarify and communicate the strategies of the firm in such a manner as to enable both the middle and frontline managers to understand the corporate strategies and internalize them, would fail to achieve its purpose.

# **BALANCED SCORECARD MODEL**

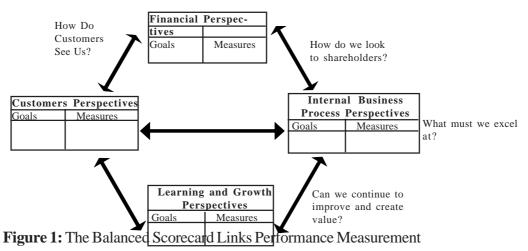
The Balanced Scorecard (BSC) model was introduced in 1992 by Kaplan and Norton in response to their findings from a year-long research study of the performance measurement systems of 12 companies at the leading edge of performance measurement. The model according to Kaplan and Norton (1992) allows managers to look at the business from four important perspectives in order to provide answers to four questions: (i) How do we look to shareholders (financial perspective)? (ii) How do customers see us (customers'

perspective)? (iii) What must we excel at (internal business process perspective)? (iv) Can we continue to improve and create value (learning and growth)? Kaplan and Norton (1992) present the above perspectives in a diagram titled "The Balanced Scorecard Links Performance Measurement". The original version has been amended and improved upon significantly to focus the model on achieving corporate vision, strategies and objectives of the firm (Cobbold and Lawrie, 2002). Kaplan and Norton (1996b) liken the Balanced Scorecard to the dials and the indicators in an airplane cockpit. The pilot needs details about all aspects of the airplane to accomplish the complex task of flying. The inventors say of Balanced Scorecard in the following words:

balanced scorecards tell you the knowledge, skills, and systems that your employees will need (their learning and growth) to innovate and build the right strategic capabilities and the efficiencies (the internal processes) that deliver specific value to the market (the customers) which will eventually lead to higher shareholder value (the financial) (Kaplan and Norton, 2000, p.3)

The creators of Balanced Scorecard do not appear to have provided a standard definition of the model. This has been ascribed to the open-ended and evolving nature of the model giving rise to its redefinition in line with the effluxion of time (Wongkaev, 2007). However, the Balanced Scorecard Institute (BSI), defines BSC as

'As a strategic planning and management system that is used extensively in business and industry, government, and nonprofit organizations worldwide to align business activities to the vision and strategy of the organization, improve internal and external communications, and monitor organization performance against strategic goals



Source: Robert S Kaplan and David P Norton (1992) The Balanced Scorecard: Measures that Drive Performance

Virtanen (2009) also sees Balanced Scorecard as a management system that enables organizations to clarify their vision and strategy and translate them into action. When fully deployed, the Balanced Scorecard transforms strategic planning from an academic exercise into the nerve centre of an enterprise. Many writers have indicated that the Balanced Scorecard (BSC) is the first model that included nonfinancial measures in

assessing corporate performance. Kaplan (2010) notes that the Balanced Scorecard was not original for advocating that nonfinancial measures be used to motivate, measure, and evaluate company performance rather Balanced Scorecard has its link to the performance measurement systems of General Electric that considers financial and nonfinancial variables in corporate performance measurements. Also, in the use of the word 'Scorecard', Kaplan (2010) states that Herb Simon and his colleagues at the Graduate School of Industrial Administration, Carnegie-Mellon University, first used the word 'Scorecard' in their quest to identify the several purposes for accounting information in organisations.

#### THE BALANCED SCORECARD LINKS PERFORMANCE MEASUREMENT

*Financial Perspective:* The financial perspective looks at how the investors or the shareholders see the firm in terms of dividend payout ratio, improvement on the cost structure, profit after tax, return on capital employed (ROCE), and growth in the sales volume.

*Customers Perspective:* Under the customers' perspective the measures include customer relations, quality of products in terms of defective rate, response to customers complains, delivery time, quality of after sales service, market segments to compete in and measure of penetration in those segments, customer profitability, etc.

Internal Business Process: The measures under this perspective include, defect rate, response to customers' complaints, quality of after sales service, internal process bureaucracy, process completion time, quality and skill of staff and their level of motivation. Learning and Growth: Learning and growth consider the flexibility of a firm and its adaptability to change in the business environment, how fast new technology is deployed to counteract change in business environment, total firm capabilities and innovativeness. According to Kaplan and Norton (1992), a company innovative ability, learning and improvement skills tied directly to the company's value and growth.

Figure 2: Balanced Scorecard modified to incorporate environmental and cultural perspectives A cursory look at the pictorial impression of the BSC shows an obvious omission of a very critical moderator of the performance of any organisation and that is culture and environment. This moderator, in our opinion, is too potent to be subsumed under any of the mentioned four perspectives. It should be considered as a separate perspective since the environment and culture can affect the behaviour of an organisation. Atleast institutional/organisational theory posits so (Eisenhardt, 1988). Figure 2 shows that all the other perspectives are moderated by the environment and culture perspective which has the following measures: level of social security for the firm, willingness to provide human capital for the firm, rate of violations of set standards and rules, corporate responsibility rating, social responsibility contribution to the immediate environment, rate of public complaints against the firm, and corporate-community rating index. These measures moderate the performance and behaviour of the other four perspectives and therefore affect the performance of an organisation. For example, a customer may refuse to buy goods from a company that is viewed to support or promote the course of another customer when both are at war. Here, the customer will not buy the goods from that company even if the quality and price

is the best. This behaviour, in our opinion is moderated not by any of the other four perspectives.

## EFFECTIVENESS OF BALANCED SCORECARD

Currently, several thousands of private, public and nonprofit enterprises around the world are reported to have adopted the Balanced Scorecard and there are no indications that managers would soon wean from using BSC in performance management (Kaplan, 2010; Woodley, 2006). Kaplan (2010) indicates that

After publication of the 1992 HBR article, several companies quickly adopted the Balanced Scorecard giving us deeper and broader insights into its power and potential. During the next 15 years, as it was adopted by thousands of private, public, and nonprofit enterprises around the world (p.3)

Balanced Scorecard is well suited to the kind of organization many companies would aspire to become because it puts strategy and vision, not control, at the centre. Goals are set and employees are allowed the flexibility to adopt strategies to achieve the goals because the business environment is dynamic and setting rules of operation will weaken the competitive edge of a firm to respond to competition (Kaplan and Norton, 1992). Although originally, Kaplan and Norton (1992) intended the BSC to apply to big private service and production firms, the model has now been successfully implemented by all shades of organizations including government owned agencies and not-for-profit organisations.

Empirical studies have indicated that BSC is robust and capable of being adapted in all organizations: private, public, profit and nonprofit (Wongkaev, 2007). However, its introduction may lead to the displacement of some systems, corporate structures, and cultures. This calls for the involvement of all managers and the support of the top or executive management to enable it succeed (Behery, 2005). On the implementation horizon, empirical evidences indicate that appreciable length of time is required to successfully implement BSC in all organisations. The actual length of time, however, varies according to the structure and dynamics of an organisation. Pimentel and Major (2009), Burney and Swanson (2010), Malmi (2001), Ong, et al (2010), Behery (2005); Woodley, 2006; Wongkaew, 2007, and Virtanen, 2009) provide an sight into the causes of delay and foot dragging in the implementation process to include organisational power politics, resistance culture of managers to change, fear of failure of the new system to achieved corporate goals, fear of lost of relevance leading to depletion of earlier assigned resources, lack of skilled personnel with knowledge about the translation of Balanced Scorecard, high cost of implementing Balanced Scorecard since its deployment would require investment in Information and Communication Technology and human capital and other systems to drive the process, low level of innovation and competitive drive of firms, cultural differences and fear of dilution of the local corporate cultural settings by the introduction of the model which is seen as supporting the 'western culture, fear of dislocation of priorities and interest blocks that exist in firms, and lack of clear understanding of the vision and strategies of the organisation. According to Business Intelligence (1999) and Muhammad (2010) to succeed,

BSC implementation must ensure that every body in the organisation is clear about the corporate values, cultures and philosophy, understand that the goal is itself a vehicle for getting somewhere and engage all levels of the organization in defining the goals and align the organization behind the goals, and consider the cultural settings in which the organisation operates. To overcome the above challenges, Kaplan and Norton (1993) also suggest eight steps for the effective implementation of BSC.

Step One: Identify the units to implement BSC.

*Step Two:* Carry our first round interview of senior executives of the firm on their understanding of the strategies of the firm and their understanding of BSC model.

Step Three: Hold first round workshop on BSC with only executives of the firm.

**Step Four:** Carry out second interview with executive to consolidate on the gains of the first workshop.

*Step Five:* Undertake second executive workshop, this time include the immediate subordinates to the executives to discuss the model.

*Step Six:* Undertake third workshop to discuss the outcome of the second enlarged workshop and agree on implementation timeliness.

*Step Seven:* Form implementation team to handle the education and communication of the new model to enlist support and employees buy in.

*Step Eight:* Carry out periodic reviews to identify new measures and eliminate those that have become irrelevant based on current situations.

## BENEFITS OF BALANCED SCORECARD

As a strategic management system that considers both tangible (financial indices) and the intangible (nonfinancial) indices, BSC has been said to be capable of enforcing the achievement of corporate strategies especially as there are causal relationship between the performance of the organization and the effective management of the dynamics of the four perspectives (Kaplan and Norton, 2006). 2GC (2008) indicates that the implementation of BSC would result in improved operational performance, increased profit, improved communication among staff, improved long and short term planning process, and better management of intangibles including capabilities and human capital. Also, adoption of BSC influences the allocation of resources, the reward for performance, support innovation and position the organization competitively to function effectively and efficiently in a competitive environment. BSC is said also to help managers to understand the numerous interrelationships and causal effects of internal and external factors that affect the firm in order to manage their operations much more optimally (Huang, 2009). The model is also capable of linking the measures to the reward system of organisations, thereby assisting in promoting hard work among staff (Kaplan and Norton, 1996a). Further, Behery (2005), Woodley (2006) and Wongkaew (2007) in their individual case studies on the translation of Balanced Scorecard in organisations observe that BSC, if well implemented, is a potent model capable of enhancing the performance of the company and does also have the capabilities of adaptation in different cultural settings.

The implementation of BSC does not, however, automatically translate to the

gains enumerated, but rather the benefits can only result when the model is implemented in the appropriate depth, (that is implemented as a company wide performance management model and not as one of the management models) supported by management and staff allowed to operate for some time to outlive the management team that introduced it and consider the impact and support of the environment that hosts the company (Braam and Nijssen, 2004; Yek, Penney and Seow, 2007; and Zingales and Hockerts, 2003).

## THE NIGERIA CONTEXT

The Balanced Scorecard model which has become popular in Europe and America is still at the rudimentary level in Sub-Saharan Africa. Many studies have focused on the implementation of BSC in both private and public organisations in advanced economies with little reference made to the translation dynamics of BSC in developing economies (Pimental and Major, 2009, Woodley, 2006). For instance, as at August, 2011 the website of a major consulting and training outfit on BSC implementation, Rosequeen Consulting (http://www.ubagroup.com) indicates the names of only two Nigerian commercial banks (Diamond Bank Plc and Sterling Bank Plc) and the Central Bank of Nigeria that were said to have attended training program on the use of BSC.

United Bank for Africa (UBA) Plc, however, indicated in its website (http://www.ubagroup.com/careers/genericpage/371), that it may have implemented the BSC. The earlier mentioned implementation challenges may have been responsible for the delay in introducing BSC by firms in Nigeria. There appears to be no significant documentation on the translation of BSC in any Nigerian firm that could serve as a reference point for replication in spite of the success already recorded by companies that have implemented BSC (Kaplan, 2010). It is obvious that BSC is not yet popular among organisations in Nigeria, perhaps because of all or some of the reasons for delay in implementation of BSC earlier mentioned.

# **CONCLUSION**

The globalization of trade and economic cooperations pose significant challenge to firms, both at local and international spheres. This is because the free trade, which is one of the pillars of the global economic cooperations, allows and encourages firms to be efficient and effective to be able to compete internationally. This calls for the adoption of acceptable global business ethics, practices, technology and processes. The Balanced Scorecard is fast becoming an acceptable strategic performance management model which firms, that aspire to remain relevant in the emerging global economic cooperation, must adopt and adapt to quickly. Honestly, organizations in Nigeria do not now seem to have time at their side to delay the use of BSC in performance management. Otherwise, they would soon become incapable of matching with global performance standards and unable to take advantage of the global economic opportunities to increase their worth. This fear has become evidently grave in the face of the multiple economic alliances between Nigeria and other developed countries with strong managerial expertise. These alliances have exposed the Nigerian economy to foreign competition - both in terms of goods and services.

Pretending further not to acknowledge the management developments embraced by companies in the advanced economies we have alliances with, would put us in perpetual lameness and it may not be too long when we shall be faced with managerial and economic re-colonization. Out of the anxiety to quickly catch up with what is obtained in those countries, we may engage the corporate managers of those countries to help us out. The consequence is that our unemployment situation would be more deplorable, youth restiveness would escalate, government would lose revenue and her national integrity eroded. Nigeria would be challenged excessively unless the business sector and managers seek for knowledge pro-actively, embrace strategic innovations and adopt tested managerial innovations and practices that would position our enterprises to operate competitively in the global economy whose boundaries are fast becoming nebulous and fluid. Suffice to state that empirical evidences have confirmed that BSC may be a superior performance management model to the other models that lean heavily towards the financial perspective. As Cameron (2002) puts its, in today's volatile economic climate, many managers use the BSC to help steer their organisations in the right direction. The truth, however, is that to be successful, BSC must be viewed as the tip of the improvement iceberg and be made part of the culture of all members of the staff and not be seen as one of those possible management tools used by the managers to coerce staff to perform their responsibilities against their wish (Braam and Nijssen, 2004).

Nevertheless, organisations in Nigeria should acknowledge the capacity of BSC as a strategic managerial tool, evaluate its usefulness vis-a-vis the ex-ante performance measurement models in use, and take steps to firm up their management skills and capabilities to avoid the potential invasion of our economic space by products from foreign firms that are optimally managed. Organizations in Nigeria should be ready to modify and adapt BSC as the model to suit their peculiarities and environmental dictates and capabilities (Kenny, 2010) in order to remain relevant in the global economic setting.

## **REFERENCES**

- **2GC** (2008). What are the main benefits of a Balanced Scorecard [Online] 2GC Active Management, UK. Available at www.2gc.co.uk/pdf/2GC-FAQ2-080901.pdf. Accessed on 9/1/2012
- **Balanced Scorecard Institute** (2011). Balanced Scorecard Basics (Online), Available at <a href="http://www.balancedscorecard.org/BSCResources/AbouttheBalancedScorecard/tabid/55/Default.aspx">http://www.balancedscorecard.org/BSCResources/AbouttheBalancedScorecard/tabid/55/Default.aspx</a>. Accessed on 20/7/11
- **Behery, M. H.** (2005). Change And Culture: The Balanced Scorecard And The Egyptian Fertilizer Manufacturing Sector A Thesis Submitted In Partial Fulfillment Of The Requirements Of Glasgow University For A Doctoral Degree At The University Of Glasgow, University of Glasgow, November 2005.
- **Braam**, G. J. M. and Nijssen, E. J. (2004). Performance effects of using the Balanced Scorecard: a note on the Dutch experience, Long Range Planning, 37(2004)335-349, Elsevier Ltd.
- **Burney**, L. L. and Swanson, N. J. (2010). The Relationship Between Balanced Scorecard Characteristics and Managers' Job Satisfaction. *Journal of Managerial Issues* Vol. XXII Number 2 Summer 2010, 166-181
- **Business Intelligence** (1999). Building and Implementing a Balanced Scorecard: Case Study: UNUM Corporation (Online) Available at <a href="http://www.exinfm.com/training/pdfiles/">http://www.exinfm.com/training/pdfiles/</a>

- Balanced%20Scorecard%20Cs.pdf. Accessed 20/7/2011
- Cameron, P. (2002). The Balancing Act, CMA Management, February 2002, 28-31
- **Cobbold, I.** and **Lawrie, G.** (2002). The Development of the Balanced Scorecard as a Strategic Management Tool, A Paper Presented at PMA Conference, Boston, USA, May, 2002, 2GC Active Management, UK
- **Eisenhardt, K. M.** (1988). Agency- and Institutional-Theory Explanations: The Case of Retail Sales Compensation, The Academy of Management Journal, Vol. 31, No. 3. (Sep., 1988), 488-511.
- **Esa, M. E.** (1998). Introduction to Economic Value [Online] Available at <a href="http://www.evanomics.com/download/Intro.pdf">http://www.evanomics.com/download/Intro.pdf</a>
- **Hope, J.** and **Fraser, R.** (1997). Beyond budgeting... Breaking through the barrier to 'the third wave'. Management Accounting, 75(11), 20-23.
- **Huang, H.** (2009). Designing a Knowledge-based system for strategic planning: A balanced scorecard perspective [Online], Expert Systems with Application 36, 209-218. Available at *www.sciencedirect.com* Accessed on 3/1/2012
- **Johnson, H. T.** and **Kaplan, R. S.** (1987). Relevance Lost: The Rise and Fall of Management Accounting. Accounting Horizons, 1(4), 110-116
- **Kaplan, R. S.** and **Norton, D. P.** (1992). Balanced Scorecard- Measures that Drive Performance, Havard Business Review, January-February 1992, 70-79
- **Kaplan, R. S.** and **Norton, D. P.** (1993). Putting the Balanced Scorecard to Work, [Online] Harvard Business Review, September-October, 1993. Available at *www.hbr.org* Accessed on 20/10/2011.
- **Kaplan, R. S.** and **Norton, D. P.** (1996a). *Balanced Scorecard*. Harvard: Harvard Business School Press.
- **Kaplan, R. S.** and **Norton, D. P.** (1996b). Using the Balanced Scorecard as a Strategic Management System [Online], Harvard Business Review (January-February 1996): Online version available at <a href="http://miha.ef.uni-lj.si/\_dokumenti3plus2/195123/HBR\_Using\_the\_BSC\_2007.pdf">http://miha.ef.uni-lj.si/\_dokumenti3plus2/195123/HBR\_Using\_the\_BSC\_2007.pdf</a>. Accessed on 20/7/2011
- **Kaplan, R. S.** and **Norton, D. P.** (2006). *Alignment: Using the Balanced Scorecard to Create Corporate Synergies*. Boston, MASS: Harvard Business School Press.
- **Kaplan, R. S.** (2010) Conceptual Foundation of the Balanced Scorecard, Harvard Business School, Working Paper 10-074
- **Kenny, G.** (2010). Ditching the Balanced Scorecard, National Accountant, December/January , 2010, 22-24
- **Malmi, T.** (2001). Balanced scorecards in Finnish companies: A research note (Online), Management Accounting Research, 2001, 12, 207-220
- **Muhammad, A. B.** (2010). Corporate Performance Management & Impact of Balanced Scorecard System, Research Paper: RP-ECBPM/0029[Online], Available at *www.ecbpm.com*, European Centre for Best Practice Management University.
- Neely A.; Adams C. and Kennerley, M. (2002). *The Performance Prism: The Scorecard for Measuring and Managing Business Success.* UK: Pearson Education,
- **Pimentel, L.** and **Major, M. J.** (2009). Management Accounting Change: A Case Study of Balanced Scorecard Implementation in a Portuguese Service Company, ISCTE Business School, Lisbon.
- Robin C., David A. B. and Michael I. P. (2007). Who Wins in a Dynamic World: Theory of

- Constraints Vs. Activity-Based Costing? A paper presented at North American Association for Computational Social and Organizational Science (NAACSOS) Conference, June 2007
- Ong, T. S., Boon H. T, Chee K. L., and Sharon L. S. W. (2010). Adoption And Implementation Of Balanced Scorecard In Malaysia, Asia-Pacific. *Management Accounting Journal*, Volume 5 Issue 1, 21-40, 2010
- **Virtanen, T.** (2009). White Paper: Guidelines for Implementing Balanced Scorecard [Online] QPR Software Plc, Available at www.qpr.com. Accessed on 20/7/2011
- Voelpel S. C., Leibold M., Eckhoff, R. A. and Davenport, T. H. (2005) The Tyranny of the Balanced Scorecard in the Innovation Economy, Paper presented at the 4th International Critical Management Studies Conference, Intellectual Capital Stream, Cambridge University, United Kingdom, July 4-6
- Wongkaew, W. (2007). Managing Multiple Dimensions of Performance: A Field Study of Balanced Scorecard Translation in the Thai Financial Services Organisation. A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Industrial and Business Studies, University of Warwick, UK.
- **Woodley, P. M.** (2006). Culture Management Through The Balanced Scorecard: A Case Study Defence College Of Management And Technology, PhD THESIS submitted to Cranfield University, Cranfield University, UK
- **Yek T. M., Penney D.,** and **Seow A. C. H** (2007). Using Balanced Scorecard to improve Quality and Performance of Vocational Education and Training: A case Study in Singapore. AARE 2007 Conference, November 25-29; Fremantle, Australia.
- **Zingales, F.** and **Hockerts, K.** (2003) Balanced Scorecard and Sustainability: Examples from Literature and Practice, INSEAD Faculty and Research, Working Paper Series, Centre for the Management of Environmental Resources.