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Development of a sustainable balanced scorecard framework

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ABSTRACT

The balanced scorecard (BSC) has recently been considered a proper tool for evaluating and designing the objectives of corporate sustainability. On the one hand, the theoretical body of literature provides normative sustainable balanced scorecard (SBSC) frameworks to indicate '*what should be measured*' or '*what should be done*' in order for firms to improve their sustainability performance. On the other hand, the empirical body of literature examines the barriers and the challenges faced by the firms in their endeavor to adopt the proposed normative frameworks. This paper aims at contributing to the theoretical body of literature by developing a new SBSC scoring framework using Global Reporting Initiative (GRI) indicators and scoring–benchmarking techniques to measure the corporate sustainability performance by drawing data from corporate sustainability reports. It also aims at contributing to the empirical body of literature by applying this framework to a sample of Greek firms.

1. Introduction

The business community has recently been considered responsible for a series of environmental, economic and social problems. These problems are faced within the context of sustainable development where firms aim to undertake essential practices to attain the main goals of sustainable development (Szekely and Knirsch, 2005). In order to design, measure and communicate the results of corporate sustainability performance, a range of frameworks have been proposed by many international governmental, non-governmental and intergovernmental organizations such as ISO 14031, the Global Reporting Initiative (GRI), and the Global Compact (Atkinson, 2000; GRI, 2002).

This debate has lately been enriched by SBSC frameworks which may be the tool needed in order for firms to design their management objectives, collect necessary information, and observe the causes and effects of different performance measures (Länsiluoto and Järvenpää, 2010). One body of the SBSC literature provides a range of theoretical normative frameworks to demonstrate '*what should be measured*' or '*what should be done*' by an organization in order to improve its sustainability performance (Epstein and Wisner, 2001; Figge et al., 2002). Epstein and Wisner (2001) proposed a social and environmentally balanced scorecard framework that highlights the key performance factors that could facilitate firms to prepare more effectively the main strategic objectives of their sustainability management. Figge et al. (2002) also provided detailed procedures and steps in order for firms to develop SBSC and to identify relationships between BSC and the sustainability management literature. The other body of literature includes the empirical studies that examine the current status of SBSC and manager's perceptions of SBSC issues. Dias-Sardinha and Reijnders (2005) examined the Portuguese firms' attitudes toward SBSC, while Dias-Sardinha et al. (2002) studied the level of adoption of SBSC in many different industrial sectors.

Hubbard (2009) pointed out that many earlier corporate sustainability measurement systems have presented various weaknesses, such as the lack of connection between economic and enviro-social components of sustainability, the enormous number of theoretical normative works which lack empirical verification, the absence of quantitative data for measuring the proposed SBSC, and the limited amount of necessary sustainability information in order to effectively address the stakeholders' needs. Dias-Sardinha and Reijnders (2005) explained the failures of measurement systems by providing explicit empirical results for corporate sustainability performance as a result of the lack of necessary information. One of the aims of this paper is to overcome the weaknesses of the present theoretical SBSC and the limited number of recent empirical studies by developing a new SBSC scoring framework and by implementing it in a sample of Greek firms. This framework is based on BSC's thematic perspectives, GRI guidelines and scoring–benchmarking techniques. It aims to contribute to the present literature as follows: (a) by designing a reliable and transparent scoring technique to evaluate corporate sustainability performance, (b) by verifying empirically sustainability performance using a sample of Greek firms, (c) by measuring corporate sustainability performance through sustainability reports, and (d) by evaluating the completeness of sustainability strategies of firms.

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The rest of the paper is organized as follows: (a) Section 2 presents the literature review, including a short presentation of the key issues which are mentioned in the literature on sustainability reporting, sustainable scoring–benchmarking techniques, and SBSC; (b) Section 3 illustrates a sustainability scoring framework that combines SBSC, GRI and scoring–benchmarking technique, (c) Section 4 provides an application of this framework in a sample of Greek firms that publish sustainability reports, and (d) Section 5 describes the conclusions and discussions.

2. Background

This section consists of three interfaced literature bodies of corporate sustainability management that are considered necessary in order to build the proposed framework. Specifically, these bodies are the literature on sustainability reporting, corporate sustainability scoring–benchmarking techniques and SBSC.

2.1. Sustainability reporting

Perrini and Tencati (2006) stated that the adoption of properly designed accounting sustainability tools (e.g. SBSC and sustainability reports) would likely bring new challenges for corporate sustainable management. The available information on such accounting tools tends to cover the growing interest of stakeholders in corporate environmental risks. Such risks could be corporate environmental accidents and resultant remediation costs, the Health and Safety (H&S) risks either on the local communities or on the firms' employees, the unexpected costs of environmental legislation on the firms' budgets, the gradual (or sometimes the sharp) deterioration of the creditworthiness and firms' reputation as a result of worsening sustainability performance.

To explain the interests of stakeholders in foregoing risks and to identify how firms classify their priorities to respond to them, the burgeoning literature of sustainability reporting has been based on various social and political theories, such as the stakeholder theory, legitimacy theory, accountability theory and institutional theory. Such theories aim to clarify both the incentives of firms to publish voluntary sustainability reports and the explicit types of information covered by sustainability reports (e.g. '*good*' or '*bad*' news).

The loose and voluntary character of published sustainability information and reports as explained by social-political theories cause various weaknesses in the understanding of sustainability reports and thus in the techniques used to measure corporate sustainability performance. Some examples of such weaknesses are the unclear and limited types of published sustainability information (e.g. economic, environmental and social) and the inaccurate types of measurement units (financial and non-financial (Nikolaou and Evangelions, 2010)). To overcome such weaknesses, many international Non-Governmental Organizations (NGOs) have published guidelines to offer general instructions to facilitate the procedures for firms to record and disclose sustainability information and improve the design of sustainable corporate management following the triple-bottom-line thinking (e.g. GRI, UNEP/Sustainability reports).

To this context, GRI guidelines have gained wide recognition from firms in their attempts to prepare voluntarily sustainability reports. Despite the fact that some authors have emphasized the lack of confidence that various stakeholder groups have in GRI guidelines (Moneva et al., 2006), GRI has been utilized by several authors and firms on the grounds that it provides a standardized, comparable, report on the sustainability performance (Hedberg and von Malmborg, 2003; Guthrie and Farneti, 2008).

2.2. Corporate sustainability scoring–benchmarking techniques

The lack of well-defined measurement units and uniformity of disclosed sustainability information mainly as a result of the absence of a generally accepted guideline for sustainability reports has led a number of authors to develop a range of scoring–benchmarking techniques to homogenize (in some way) their content. Skouloudis et al. (2010) stated that a scoring–benchmarking technique used for evaluating sustainability reports could improve the stakeholder's comprehension of corporate sustainable management in a more simple and systematic manner. Kolk (1999) pointed out that those scoring–benchmarking techniques would also assist not only in quantifying the content of sustainability reports in standard and comparable types of information, but also in improving the reliability, consistency and relevance of their contents. Cooper and Owen (2007) supported that scoring–benchmarking techniques primarily assist in standardizing the published information and also satisfy some of the basic and generally accepted accounting principles (GAAP) such as materiality, completeness and responsiveness.

Several scoring–benchmarking techniques have been proposed (Morhardt, 2001; Skouloudis et al., 2009). Although differentiates among such techniques seems to be subtle, on analysis some significant variations emerge. Some indicative examples of scoring systems are as follows: the Davis-Walling and Batterman scoring–benchmarking technique includes 29 environmental and social topics that are scored in a 3-point scale (Davis-Walling and Batterman, 1997). Morhardt et al. (2002) criticized this technique due to the fact that it measured only what was being reported and not what ought to have been reported with regards to corporate sustainable management. The Sustainability/UNEP (2006) scoring–benchmarking technique includes 50 topics classified in six general categories: management policies and systems, inputs and outputs, finance, stakeholders' relations, sustainable development, and report design and accessibility. Morhardt (2001) and Skouloudis et al. (2009) stated that such techniques share a certain level of subjectivity because the use of scoring scales over 4-points increases the possibility of (different) scholars providing different results for the same firm.

Another important scoring–benchmarking technique is the Deloitte Touche Tohmatsu (2002) which comprises 30 criteria grouped into six parts and uses a 5-point scale. Although, Morhardt (2001) considered this technique to be less subjective than other scoring–benchmarking techniques, Kolk (1999) supported that the main weakness of this technique lies in the fact that it lacks a third party verification of the environmental reports.

To overcome accountability lacuna and identify the necessary types of information that should be reported, various scholars have combined such scoring–benchmarking techniques with some internationally accepted guidelines that provide standard types of information, indicators and criteria (Daub, 2007). Morhardt et al. (2002) proposed GRI and ISO guidelines as they are more detailed, comprehensive and popular which are measured in a 4-point scale. Similarly, Skouloudis et al. (2009) developed an evaluation methodology for triple bottom line reports using GRI guidelines which measure in a 5-point scale.

2.3. SBSC

SBSC has lately been considered as an essential tool for designing and achieving the key objectives of corporate sustainability management, while it could also constitute a suitable context for recording necessary information in relation to corporate sustainability performance by combining financial and non financial information (Länsiluoto and Järvenpää, 2010). Epstein and Wisner (2001) recognized that a well-organized SBSC can assist firms in