Occupational health and safety within corporate social responsibility context: a balanced scorecard dynamic decision making model

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Abstract: This paper aims at developing a decision making model for assisting managers in incorporating occupational health and safety (OHS) topics within a corporate social responsibility (CSR) context. It is a multi-step decision making model which is based on balanced scorecard and system dynamic thinking. In particular, the model is founded on Carrols’ pyramid and Elkington triple-bottom-line approach for corporate social responsibility (CSR) for developing a corporate CSR-OHS agenda. The next step includes the development of a system dynamic balanced scorecard model with the critical variables of CSR-OHS agenda. Additionally, some scenarios are planned and tested in order to define some main types of managers’ decision making. The results show four major types of managers’ decision: proactive/ethical-driven decision making, proactive/business case-driven decision making, reactive/ethical-driven decision-making and reactive/business case decision making.

Keywords: corporate strategic management; corporate decision making; health and safety; corporate sustainability.


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1 Introduction

Today, the concept of corporate social responsibility (CSR) has gained great momentum from a range of international institutions (e.g., UN, EU, NGOs, and ISO). Many institutional guidelines have been launched to assist managers/owners of firms in introducing CSR concerns into their strategic management. Some well-known documents regarding CSR are the United Nations Global Compact, the European Commission directive (EU, 2001), Global Reporting Initiative, the Sullivan principles and SA 8000 of Social Accountability International. These institutions and documents offer various principles for improving working conditions, and civilising human rights of employees within a company setting. The institutional documents have also put emphasis on environmental and economic issues in the context of sustainable development.

There are many definitions to describe CSR concept with emphasis on ethical and social aspects such as working conditions and human rights, local society rights, transparency topics, and anticorruption issues. Dahlsrud (2008) analyses 37 definitions of CSR and identifies that much prominence has been given to the stakeholder aspect. van Marrewijk (2003) examines the reasons which lead firms to adopt CSR programs on a voluntary basis and identifies five types of firms which are driven form:

a state legislation and regulations (compliance-driven)
b profit incentives (profit-driven)
c environmental concerns (environmental-driven)
d sustainability callings to address simultaneously environmental, economic and social issues (sustainability-driven)
e holistic approach (holistic driven).

Similarly, the European Union (EU, 2001a) describes CSR as the firms’ strategy to go beyond the law regarding environmental, social and economic concerns.

Regardless of the extensive concerns that are included in the recent institutional document/guidelines of CSR, some of them offer instructions for occupational health and safety (OHS) topics. Many scholars try firstly to clarify the context in which the concepts of CSR and OHS could be integrated and secondly how the current CSR guides have addressed OHS issues (Asif et al., 2013; Koskela, 2014). The relative academic debate highlights two general facets, the strategic view of a firm and the ethical view of a firm. The first facet focuses on the view that a firm implements OHS topics under CSR strategy in order to eliminate the risks which might be associated with potential work problems (e.g., accidents in the workplace) or to improve firms’ reputation (Smallman and John, 2001; Asif et al., 2013). The second facet explains the adoption of OHS programs as an effect of ethical incentives of firms to manage employees issues for their intrinsic value to leave and not only as a crucial variable for improving their firms’ financial position (Montero et al., 2009).

This paper aims at developing a system dynamic model which is based on CSR strategy and balanced scorecard to assist managers in enhancing their understanding and preparing better OHS programs for their firms. The idea focuses on the first facet which recognises OHS strategy as an essential tool for advancing operation and improving corporate financial performance. The model is based on the business case. The model stems from Carroll’s CSR pyramid and Elkington triple-bottom-line approach, system
dynamic theory and balanced scorecard. The crucial variables are combined in the model proposed through system dynamic Stella software. Finally, some scenarios are conducted to test the model.

The rest of the paper involves four sections. The first section includes the theoretical background regarding current CSR and OHS literature. The second section describes the methodological framework which is designed in order to develop a model to assist managers in incorporating OHS concerns into their strategic management. The third section includes some examples which are based on certain scenarios and, finally, the fourth section describes the conclusions of the paper.

2 Theoretical background

A number of firms and governments have pointed out that OHS issues are very important due to financial cost of work related injuries (e.g., 1% of America GDP, 2.6% of British GDP) and the loss of many working hours (Smallman and John, 2001). The EU (2001b) estimates that over 4 million accidents occur in the work place every year within EU members states which leads to the loss of millions of work hours. The majority of governments have enacted relative legislations to convince firms to adopt compulsory OHS practices so as to be protected from potential injuries, to ameliorate the quality of working conditions and care for employees. Some indicative examples are the EU directives for working time (EU, 2003), fixed term work and part time work (EU, 2003).

Similarly, many self-regulated OHS systems are adopted voluntarily (e.g., ILO-OSH 2001, BS OHSAS 18001, SA 8000, ISO/PS 283). Some of these systems are criticised. For example, Vinodkumar and Bhasi (2011) consider that OHSAS 18000 is essentially a bureaucratic tool since firms, in order to adopt it, should design and prepare ten technical reports (BS8800, Draft LRQA SMS 8800, SGS and ISMOL ISA 2000). OHSAS 18000 certified firms have also put emphasis on the top management commitment, employee training programs, worker engagement in safety programs, guidelines for safety procedures, policies for safety promotion and certain behaviour. Indeed, an emphasis has been put on training programs and employees participation in safety programs (Kristensen, 2011; Frick, 2011).

Lately, many interesting topics of OHS have been encompassed by CSR agenda such as human resources, balance between work time and leisure and worker’ rights. The majority of present CSR tools focus mainly on examining OHS topics within the requirements of existing norms and laws and on improving the dialogue of firms with their stakeholders concerning OHS topics (Montero et al., 2009). The integration of OHS topics into the CSR agenda has been aimed to reach ethical goals, certain public requirements and strategic goals. Holmqvist (2009) supports that the promotion of OHS topics would be associated with managers pure sentiments to structure essential conditions for employees to advance their health and wellbeing regardless of the basic financial objectives of firms. Additionally, he believes that some managers alter OHS topics within the CSR agenda mainly to accomplish core business goals such as competitiveness and productivity.

A number of large firms attempt to overcome this gap with self-regulated CSR and OHS strategies. Hart (2010) points out that the voluntarily introduction of certain OHS
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topics into CSR agenda mainly tend to facilitate firms to achieve win-win solutions. The benefit for firms is to improve their reputation by adopting OHS topics beyond the law as well as where the law lags. To this end, Hart (2010) proposes the introduction of topics regarding workplace equality and safety into the CSR agenda. Koskelä (2014) examines OHS aspects by evaluating a sample of three CSR reports through GRI guidelines. Specifically, he identifies that CSR reports emphasises primarily on ability to work, occupational healthcare, health studies, healthy living and retirement. Holmqvist (2009) identifies that the CSR agenda has introduced topics relative to OHS issues such as staff sleeping, eating habits, physical activities and wellness programs.

Voluntary strategies eliminate reputational risks of firms with their stakeholders such as consumers, staff and capital markets. Similarly, Montero et al. (2009) supports that voluntary OHS practices and management systems could assist firms in improving their reputation since they would be able to guarantee health and safety within the work place and attract high-skilled employees. Actually, this trend is focus on business case in which firms seek to undertake strategies for exploiting new opportunities suitable for improving their financial position. Fernández-Muniz et al. (2009) classify the benefits firms gain from adopting measures in two categories. The first is associated with Health and Safety Performance benefits such as lower insurance costs, accident reduction, avoidance of regulatory risks, absenteeism elimination, and reduced medical charges. The other includes company performance as better productivity, improved quality, enhanced company’s image and new innovations. Robson et al. (2007) identify that voluntary adoption of OHS assists in eliminating injury rate and worker’s compensation costs.

Other scholars support that the implementation of voluntary OHS strategies might facilitate firms to build a strong competitive advantage (Smallman and John, 2001). The strategy is moving from commitment with the regulation (reactive action) to internal efficiency and external competitiveness (proactive action). Bottani et al. (2009) identify that the firms which adopt voluntarily OHS management systems, in relation to conventional firms, gain a competitive advantage by achieving better security goals and developing sophisticated communication channels with employees, improving risk analysis and developing staff training programs. Rechenthin (2004) identifies that safety management projects could deliver sustainable advantage to firms which vary among sectors in which they operate and the perception of their clients to safety risks. It is subjective how clients understand corporate safety risks. Thus, the good organisation and economic optimisation of safety programs might facilitate firms to build a sustainable competitive advantage.

However, the propensity of firms to adopt safety programs on a voluntary basis has received many criticisms by scholars in relation to the minimised influence of the legislation on firms OHS management and the reduction in safety security in favour of a false perception of safety protection of employees through a voluntary OHS management system (Robson et al., 2007). Hart (2010) sets out some critiques for OSH management systems regarding its failure to introduce new concerns of professions and outsourcing fashion of modern liberal economy. In spite of the benefits of OHS management systems for both improving working conditions and safety culture of workers, a great weakness is the limited auditing of psychological parameters of workers personality (Fernández-Muniz et al., 2009).

Similarly, Frick (2011) criticises voluntary OHS management systems due to the lack of independent supervision systems and loose internal auditing systems of firms for the safety procedures which workers are accountable for. Another criticism is the inadequacy
of the systems to encompass OHS topics which generally place greater emphasis on work accidents rather than on protecting workers from hazardous procedures in the workplace. Gallagher et al. (2003) presents weaknesses of voluntary OHS management systems such as the lack of certain requirements (there is a safety system but not real occupational safety), the absence of management commitment and the inability of current systems both to provide effective audit systems and to facilitate small- and medium-sized enterprises (SMEs) to adopt such systems.

3 Methodology

This section describes the basic steps of methodology of this paper. The first step includes the research structure of the methodology proposed through a diagrammatic illustration. The second step describes a combination of CSR agenda and OHS issues by using Carroll’s pyramid, Elkington triple-bottom-line approach and OHS literature. The third step introduces the CSR-OHS agenda into a balanced scorecard idea. The next step describes a system dynamic decision making model by using balanced scorecard CSR-OHS issues. The final step outlines three basic scenarios (as examples).

3.1 Research structure

This section provides a concise description of the fundamental steps of the methodology for developing a dynamic model to assist decision making of managers/owners of firms in designing OHS strategies within a CSR context. Figure 1 indicates five basic steps of the methodology. The first step (Figure 1: S1) includes a short definitional review of CSR and OHS topics. This step aims to connect these literature streams in a new CSR-OHS agenda. Specifically, two general CSR models will be discussed Carrols’ pyramid and the triple-bottom-line approach (Pedersen, 2010; Carroll and Shabana, 2010) as well as OHS topics through the health and safety literature (Hsu et al., 2012). It also provides a combination between these types of literature by outlining a new research agenda including critical parameters regarding CSR-OHS topics. The second step (Figure 1: S2) aims to bring together the critical parameters of the CSR-OHS agenda developed with a balanced scorecard in order to assist managers/owner in improving the decision-making regarding occupational safety issues within a CSR context. The balanced scorecard is considered a suitable tool to join qualitative and quantitative information as well as financial and non-financial information (Kaplan and Norton, 1996).

The third step shifts from a static to a dynamic version of the balanced scorecard. In particular, a system dynamic model is developed which is based on CSR-OHS balanced scorecard. The fourth step provides three different scenarios to examine what will happen (‘what if’) if some critical parameters of the CSR-OHS agenda will change (Borjeson et al., 2006). Finally, the final step tries to develop some types of decision making.
3.2 CSR-OHS agenda

Recently there has been an intense debate concerning the CSR concept. Many different terms are utilised for CSR such as corporate sustainability, corporate citizenship, sustainable entrepreneurship, triple-bottom-line, stakeholder firm, and ethical firm (van Marrewijk, 2003) with different dimensional focus on either social and stakeholder or environmental aspects (Dahlsrud, 2008). Many scholars consider CSR a luminous and useful concept for strengthening the relationships between firms and society, nevertheless scholars define the meaning of CSR differently (Okoye, 2009). Garriga and Mele (2004) portray various theoretical backgrounds where CSR are built on economic-based theories, political-based theories, social-based theories and ethical-based-theories. The most popular terms are CSR and corporate sustainability (CS). Some scholars consider the concept of CSR different from the concept of CS (Hahn and Scheermesser, 2006; Dahlsrud, 2008). The former emphasises mainly on social and ethical facets, while the latter focus primarily on protection of the natural environment. Lately these terms have been considered to encompass identical content and largely working within triple-bottom-line approach (Elkinjton, 1998; EC, 2001).
For the purpose of the methodology, firms should incorporate OHS topics in CSR agenda by using a combination of triple-bottom-line approach and Carroll’s pyramid for CSR. This approach is based on the business case where CSR is a strategic tool which assists managers in designing and taking advanced decisions for CSR practices and corporate financial position (Weber, 2008). Figure 2 shows the reasonable and sequential steps for defining a new CSR-OHS agenda. In particular, the first square encompasses the procedures of a combination of triple-bottom-line approach and Carroll’s pyramid model. Actually, pyramid of Carroll encompasses topics regarding three pillars of sustainability such as economic, environment and social aspects. The CSR models facilitate the assessment of existing CSR tools and guidelines for emerging OHS topics within the triple-bottom-line approach and CSR pyramid. These are combined to form a new CSR-OHS agenda.

3.3 CSR-OHS balanced scorecard

This step describes a modified balanced scorecard to incorporate certain topics of CSR-OHS agenda. The option of a balanced scorecard is derived from both the suitability and popularity of this tool for corporate strategic management and its capability to bring together financial and non-financial information (Kaplan and Norton, 1996) which is necessary in order to manage CSR-OHS topics. A balanced scorecard has four
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perspectives which assist managers in managing, designing, measuring and changing their firms’ performance.

The first perspective named the financial perspective, embraces decisions of managers regarding revenue growth, improvement and asset utilisation. In the case of CSR-OHS agenda, this perspective is associated mainly with costs and revenues which are associated with the CSR-OHS agenda. The second perspective deals with customers from many different aspects such as customer satisfaction, customer retention, new customer acquisition, customer profitability (Kaplan and Norton, 1996). This could be translated under CSR-OHS agenda as customer retention thanks to the adoption CSR-OHS topics, to attract sensitive customers for CSR-OHS topics, and higher profitability of customers who demand CSR-OHS topics. However, Kaplan and Norton (1996) support that the customers’ value might be associated with three factors, product/service attributes (e.g., quality and price), customer relationship (e.g., brand equity) and image and reputation (e.g., trust). Consequently, a critical question is how these factors affect and are affected by CSR-OHS topics? In the case of CSR, Tsalis et al. (2015) suggest the customer perspective should be expanded by incorporating many other stakeholder groups since the relative literature recommends shifting from one group (e.g., shareholders) to many groups (e.g., customers, employees, local community) (Steurer et al., 2005; Munilla and Miles, 2005). For the purpose of the model proposed in this paper, this perspective includes two main groups: customers and employees.

The third perspective deals with the internal business process which focuses on the generic value chain which consists of three sequential parts innovation cycle, operation cycle, and service cycle. This perspective might be translated in the language of CSR-OHS agenda as incorporate the incorporation of topics regarding CSR and OHS into innovation, operation and service cycle. The Final perspective is learning and growth where firms seek to identify specific ways to cover gaps regarding the outdated capabilities of employees, improve information channels among different stakeholder groups and provide equal opportunities for employees. This shows the needs that many OSH topics to be introduced into corporate learning and growth strategy.

3.4 CSR-OHS balanced scorecard system dynamic model

The current strategic management tools provide a dynamic picture of the situation examined by using feedback loops to monitor the performance and efficiency of policy implementation. The balanced scorecard is an efficient tool for designing and achieving both short and long-run corporate strategic management goals. Despite the assurances of the architects of the balanced scorecard regarding its capability to link lagging and leading indicators (Kaplan and Norton, 1992), many scholars support that long-run decision making and feedback loops between lagging and leading indicators will be better achieved by dynamic advance of indicators through a system dynamic software (Akkermans and van Oorschot, 2005; Nielsen and Nielsen, 2008; Barnabè, 2011). Similarly, some scholars focus on system dynamic balanced scorecard in the field of corporate sustainability, CSR and OHS (Liu et al., 2015; Tsalis et al., 2015; Nikolaou et al., 2015).

Figure 3 illustrates a system dynamic balanced scorecard for CSR-OHS agenda. Firstly, the central parameter of financial perspective is consisted of two fundamental parameters such as the cash flow of firm and the cost reduction rates which is related to adoption of CSR-OHS practices. This implies that an improvement in CSR-OHS
performance might be positively associated with corporate market share and turnover growth. There are evidence that firms which adopt CSR and OHS practices seem to draw reputational benefits and attract consumers since there is a strengthening of consumers loyalty and trust. Additionally, well-designed CSR and OHS strategies might lead firms to reduce operational and production costs. The stakeholder perspective includes customer satisfaction, customer acquisition, customer retention and market share. This shows that better reputational risks may influence customers’ preference for product from firms with better CSR-OHS agenda. It also includes parameters in relation to OHS which affect employees expectations (e.g., elimination physiological risk, reduce job accidents). The improvement of the overall picture of firms might play a role in decision of investors who seek to identify safe and sustainable investment. These potential prospects of stakeholders and firms can explain the positive or negative feedbacks of the model presented in Figure 3.

The internal business process includes CSR-OHS performance. This implies the improvement of firms’ performance subsequent to a complete achievement of the CSR-OHS goals. The organisation learning and growth perspective is translated as CSR-OHS costs and investment R&D. Actually, it encompasses the budget expenditures of firms for CSR-OHS investment in training programs to make employees able to face potential H&S risks.

Figure 3 The CSR-OHS model (designed in Stella software version 10.0.6) (see online version for colours)

3.5 Scenarios development

The recent harsh and risky economic changes which have come about, have brought scenarios planning to the forefront. A set of definitions and tools have been identified in the current literature regarding scenarios planning such as thinking, analysis, learning, institutive logic, probabilistic modified trends and the La Prospective methodologies (Bradfield et al., 2005). Scholars identify two major categories of scenarios, exploratory which utilise historical data to predict the future and normative which is based on
intuitive logic and alternative visions to describe future events (Godet and Roubelat, 1996; Godet, 2000). Postma and Liebl (2005) support that scenario methodologies follow two essential principles:

a. consistency

b. causality.

A normative scenario technique is followed which is arisen primarily from data in the CSR and OHS literature. Two main criteria are utilised to design scenarios. One if which is the proactive/reactive incentive of firms to adopt a CSR-OHS agenda. A proactive move of firms might be the result of the existing inclination of managers to voluntarily adopt CSR and OHS strategies in order to moderate potential new legislative (OHS) requirements or to improve their reputation and profitability (Smallman and John, 2001; Montero et al., 2009). A reactive character of firms might be a passive reaction towards legal requirements by incorporating OHS issues into a firms operation without an organised plan to reap financial and reputational benefits. The second criterion is related to ethical or business case. The former considers that OHS issues are adopted by managers as a result of their ethical values, norms and beliefs, while the latter shows that managers shift to CSR-OHS topics merely to exploit economic benefits.

Based on these criteria, four scenarios will be designed. The critical parameters of the first scenario are the investment R&D, cost reduction rate and reputation (proactive character – business case). The second scenario hypothesises changes in CSR-OHS cost and reputational risk (proactive character – ethical case). The third scenario affects CSR-OHS cost (reactive character – business case). The last scenario influences CSR-OHS cost and reputational risk (reactive character – ethical aspect).

4 Scenarios tests – typology of decision making

This section has two tasks. The first task is to illustrate the results of the four scenarios as emerging from system dynamic Stella software. The second task is to develop a typology for the decision making of managers.

4.1 Proactive character – business case

As aforementioned, the first scenario examines the trends of some significant figures (reputation, CSR-OHS performance and cash flow) in the case where some vital factors have gradually changed (investment R&D, cost reduction rate and improvement in reputation. Empirical findings indicate that managers voluntarily employ CSR--OHS topics in order to improve their reputation and eliminate cash flow expenditures. The results of the model show that firms raise Cash Flow and simultaneously improve CSR-OHS performance and reputation.

The rationality of this finding is that managers shift voluntarily to adopt an innovative CSR-OHS agenda mostly to go beyond the law and to exploit y new market opportunities. Many scholars maintain that under certain conditions voluntary strategies will encourage firms to identify win-win solutions (Porter and van der Linde, 1995). This discussion is common in the corporate environmental management and CSR literature (Buysse and Verbeke, 2003).
4.2 Proactive character – ethical case

The ethical case of voluntary strategy refers to voluntarily adopted CSR-OHS strategies by firms which intend to contribute to societal issues rather than to exploit economic benefits. The bond between ethical issues and social responsibility seems dominated by SMEs and mainly small family firms where owners are closer to local communities and the legal and financial structure of these firms does not dictate the participation of many shareholders. These cases outline new social and cultural values between owners and society (non-economic values) (Fassin et al., 2011). Thus, firms invest in the CSR-OHS agenda by enhancing the CSR-OHS cost and reducing the perceived reputational risk of societies. This is translated as constant reputation, improved CSR-OHS performance and enhanced cash flow.
4.3 Reactive character – business case

The majority of firms implement CSR-OHS issues due to their duty to comply with legal requirements. This is considered a passive reaction of firms to only satisfy the basic requirements of laws regarding CSR and OHS (Aalders and Wilthagen, 2005). There are many voices which have lately supported the mandatory character of CSR (Vandekerckhove and Commers, 2005). This scenario supposes that only the cost of CSR-OHS is changed. This leads to an increase in cash flow, CSR-OHS performance and a decrease in reputation. The fall of corporate reputation might be due to the lack of necessary promotion of CSR-OHS performance since firms adopt these strategies only as regulatory requirements and not as a proactive strategy which offers benefits.

Figure 6 Reactive – business case trend (see online version for colours)

4.4 Reactive character – ethical case

The sense behind this scenario is that firms implement reactively CSR-OHS strategies within an ethical context. Namely, the differentiation of this scenario from the previous one is that firms always comply with the law and respond to each requirement. It is well-known that firms confront many dilemmas in their every day operation. In the business case firms implement strategies only to address the requirements of laws, while the second option, the ethical case, is the capability of choice firms to avoid (temporarily or permanently) all or part of the requirements of laws (Khanna and Anton, 2002). This scenario assumes an increase in CSR-OHS cost (to satisfy every requirement of the law) and zero reputational risk given that firms encompass the entire aspects of the law and unexpected or extreme events may be unlikely to occur. This scenario has been differentiated from the previous only in the trends of reputation. Specifically, the Reputation has a steady route seeing as consumers recognise the efforts of firms to be honest by complying with the legal requirements in contrast to the previous scenario where society is aware of the unethical operation of firms. However, of course, consumers do not reward firms only because of their compliance with the law. Additionally, it is obvious that the CSR-OHS performance and cash flow will increase.
4.5 A typology of decision making

The scenarios analysis indicates some basic types of decision making and strategy of firms in their effort to address the necessities of modern economy. Figure 8 illustrates four types of corporate decision making-strategy. The horizontal axis outlines a root from ethical case to business case, while the vertical axis evaluates data from reactive to proactive actions of firms. The first quadrant (the opening square in the bottom) includes the types of managers who are both ethically and reactively-driven to adopt CSR-OHS topics. Under these circumstances, the hypothetical scenario is based on increasing CSR-OHS costs and the elimination of reputational risk (tend to zero). The findings indicate that cash flow and CSR-OHS performance have increasing trend, while reputation has a straight line progress. The second quadrant (the next square in the horizontal axis) indicates that managers focus on the business case and reactively-driven to adopt CSR-OHS topics. In this scenario, managers strive to adopt CSR-OHS topics with the aim of aligning a firms’ operation with the requirements of law. To attain this aim, firms increase CSR-OHS costs. The results show that cash flows and CSR-OHS performance could be increased, but reputation may negatively slope.

The third quadrant (the second in the horizontal axis) refers to managers who are proactively and ethically-driven to adopt topics from the CSR-OHS agenda. The hypothetical scenario conjectures that the CSR cost increases and reputational risk is tended to zero. These strategies of firms might lead to a rise in cash flow and CSR-OHS performance and a steady trend of reputation. The final quadrant (diatonically to the top) indicates managers who proactively invest in CSR-OHS topics so as to exploit financial benefits. It is hypothesised that investment R&D, cost reduction rate and reputation will increase. The results show that critical parameters (cash flow, CSR-OHS performance and reputation) will progress positively.
5 Conclusions

This paper develops a multi-step decision making model to assist managers in introducing CSR-OHS topics into their strategic management and in facing OHS problems. This model creates four contributions to the current literature. The first contribution is related to a new framework developed to make the option of OHS topics within CSR context straightforward and unbiased. This framework offers guarantees to managers for selecting OHS topics both as a result to regulation and self-regulation. The Carroll’s pyramid and Elkington’s triple-bottom-line approach are two fundamental CSR models which structure the starting point of selection the critical OHS topics.

The second contribution concerns the transformation of a strategic management tool from corporate wide-ranging needs for OHS design. Thus, a strategic balanced scorecard is developed for CSR-OHS topics. This translates the OHS topics into four perspectives of balanced scorecard, financial, costumers, learning and growth and internal processes. This contributes to strategic management in CSR-OHS agenda and facilitates managers to design essential and adequate strategies to face potential risks (Gallagher et al., 2003).

The third contribution focuses on developing a system dynamic model which is based on a balanced scorecard framework. The dynamically relationships of OHS variables and general management of firms seem to be required by many scholars (Frick, 2011). The final contribution concentrates on the development of four normative scenarios regarding the future trends of some basic variables (cash flow, CSR-OHS performance and reputation) under certain strategic conditions (e.g., increasing R&D Investment and CSR-OHS costs).
The findings explain that the proactive implementation of CSR-OHS by firms might offer many benefits such as increasing cash flow, CSR-OHS performance and reputation. The reactive response of firms to CSR-OHS topics seems to offer benefits on CSR-OHS performance and cash flow, nevertheless reputation remains constant. Some interesting differentiations are identified between the cases where managers are motivated by ethical criteria or by economic criteria (business case). The latter case seems to offer more benefits for managers and firms.

References


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