The Status of Corporate Social Responsibility in Operations Strategy: A Focused Literature Review

Jorge Ayala-Cruz, PhD *^{1a} Edda Martínez Ramos, PhD (Candidate) ^{2b}

1 Graduate School of Business Administration University of Puerto Rico, San Juan, Puerto Rico 2 IEN Business School Universidad del Este Carolina, Puerto Rico

a. Full Professor, jayala@operdynamics.com b. Associate Professor, martineze3@suagm.edu

* Contact author

Abstract

During the last two decades, organizations have been under mounting pressure [directly and indirectly] to integrate corporate social responsibility (CSR) performance measures into their operations strategies. CSR has become a huge buzzword in today's competitive landscape and is established on the reciprocal dependence between an organization's competitiveness and the well-being of society. CSR issues in operations management are being discussed in the context of product and process aspects as they could affect human safety conditions, welfare and community development and involvement. The mandate is to pay more attention to the societal and environmental consequences of producing and delivering goods and services. These circumstances have triggered new challenges in the design, management, interactions, and control of key operational strategic resources. At the organizational level, it requires that these resources support triple-bottom-line (economic, environmental, and social dimensions) initiatives and comply with regulatory policies. The purpose of this paper is to present several issues related to CSR in the context of operations strategy (OS), also known as sustainable operations strategy (SOS.) The authors performed a systematic literature review methodology that allows for the minimization of researcher bias, maximization of reliability, and replicability, and presents focal inferences of selected studies on key issues of SOS.

Keywords: Operations strategy; corporate social responsibility; sustainable operations management

1. Introduction

Recent discussions in both academia and practice have corroborated an increase concern on the impact of OS in social and environmental issues (Gimenez, Sierra & Rodon, 2012; Nunes, Bennett & Shaw, 2013.) The main discussion centered on the indispensable strategic alignment

of operational resources with CSR performances, and how the organization could balance its competitive initiatives with their impacts on various society and environment concerns beyond its legal obligations. At the core was the idea that social and environmental imperatives should be as important as economic performance, giving risen to the concept of triple-bottom-line (de Jong, Paulraj & Blome, 2014; Ralston et al., 2014.) Although organizations are being driven to heighten their sustainability performance, little has been considered on the strategic sustainable role of operations management (Drake & Spinler, 2013). Therefore, there is a need to articulate and communicated operational strategic actions, policies, and practices that reflect business responsibility for the wider societal good.

There are various CSR management practices that support an organization's distinctive competence in terms of operations objectives such as highest quality, lowest cost, best dependability, and improved flexibility (Gupta, 1995.) These practices provide a competitive advantage and develop new links between OS and the corporate strategy (e.g. cost leadership and product differentiation). Figure 1 shows four of the main OS' concepts that have a direct bearing in CSR performances. While most scholars and practitioners prefer presenting or discussing each as separates practices, in fact they are highly correlated.

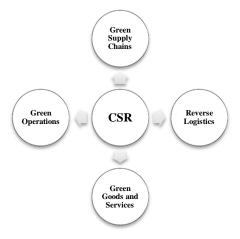


Figure 1. OS practices and CSR

Many best-in-class organizations understand the strategic importance of developing, producing and delivering environmental friendly goods and services as their competitive and image standing rest upon excelling in these areas. Consumer product choices reflect not only price and quality preferences but also social and moral values, as witnessed in the remarkable growth of the global market for green goods and services, such as organic and environmentally friendly goods, and the increase of green mobile networks in information technology (D'Souza et al., 2006; Mazar & Zhong, 2010; Wang, 2012.)

Green operations can be considered as those practices that contribute to the enhancement of environmental performance through environmental friendly processes, manufacturing, logistics, and after-sales operations. Many organizations had implemented to some degree green operations practices. However, given the complexity and barriers for their adoptions, there are complications to determine in what part of the supply chain or active processes should be implemented to have the greatest overall operational performance impact (Darnall, Jolley & Handfield, 2008; Nunes, 2011; Nunes & Bennett, 2010.)

Green supply chain designs are integral activities developed and performed in order for an organization to accomplish its products flows sustainability goals. Choosing to partner with suppliers who have policies supporting an organization's management systems is critical to effectively implementing a sustainability strategy (Andersen & Skjoett-Larsen, 2009.) Supply chain network structure can help support such strategies, which tend to be characterized as emphasizing non-power based relationships and inter-firm coordination as well as the informal social systems that are linked through a network of relations. As shown in Figure 2, ISO standards and guidelines as well as other propositions are intended to achieve a full integration of environmental management and enable companies and their supply chains to take a more

proactive approach towards managing environmental issues. Although some ISO standards and guidelines (ISO 22301, ISO 28000, and ISO26000) are aligned to risk management (ISO31000 guidelines) and business continuity, their assumptions and suggestions take into account many key CSR concerns.

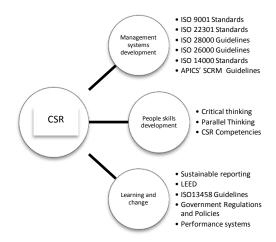


Figure 2. Guidelines, standards and propositions toward CSR excellence

2. Objective

Many scholars and practitioners agreed on that organization have to choose among competitive priorities; not all organizations are prepared to compete in all areas at once. Once the competitive priority has been chosen, the OS framework developed to deploy the strategy should encompass CSR constructs. Therefore, the main objectives of this paper are to;

- a. provide a systematic and focus literature review on OS, CSR and SOS, and
- explain significant relationship between perceived environmental dimensions and operations strategy.

As stated earlier, there are several studies that relate CSR to business strategy. Conversely, direct empirical evidence of a similar relationship between the CSR and OS is less extensive. Most studies mainly focused on mature industries characterized by rather predictable

and stable environment. Based on this evidence on models relating CSR, OS and performance, the authors also present some frameworks.

3. Methodology

For a systematic literature review the authors defined boundaries to delimitate the research and established a protocol for identifying, selecting and reviewing literature relevant to the specific question. This form of review incorporated a three planning stages: identify research objectives, conducting relevant literature review and analysis, and ratifying the findings. Structured literature reviews within the operations management discipline illustrated the objective nature of this approach in establishing key themes or dimensions, and the benefits that can be provided to improve future research. Similar to reviewing "content" in the standard literature review process, this approach investigates the underlying results structure of the selected papers.

Once it was established that a systematic and objective review on OS, CSR and SOS was to be undertaken, a set of search criteria were applied to identify the most relevant papers. However, recognizing the interdisciplinary nature of the subject areas, along with the fact that these topics are rapidly evolving, it was deemed important to include relevant journals which fell outside this scope, to ensure that all the most current and relevant research was included. As the subject of sustainability is expansive, the search was focused on sustainability in relation to SCM and OS, or SOS.

4. Literature Review

An initial search in Global ProQuest was made using the term SOS in all search fields and this produced a combined results list of 6,317 hits. The same term was then restricted to article title or keyword and substantially reduced the number of hits to 91. Allowing for

duplication of hits and calls for papers across the database and identifying those papers which specifically related to sustainable supply chain management this number was reduced to 12 articles from peer reviewed journals. A search for sustainability and supply chain management in all fields produced 1,981 results, while a focus on title and/or keywords reduced it to 26 hits. This smaller number allowed for the abstract of each paper to be reviewed to establish its relevance to the research question and provided a further six papers to the overall review.

"Green supply chains" and CSR as search terms used in both title and keyword produced 898 combined results. Using peer reviewed journals and removing calls for papers this number was reduced to 23 papers. This process was repeated with other key search terms that related to the whole supply chain and which align with sustainability. All search terms were used in conjunction with the additional terms of supply chains and supply chain management for both title and keyword. Through this process and the restricted search criteria a total of 22 articles were selected for review.

4.1 Corporate Social Responsibility

CSR is an important component of an organization's overall corporate strategy. More importantly, the corporate social responsibility practices can be inconsistent as it relates to profits and social and environmental goals. For example, companies in the tobacco industry sell a product that is addictive and potentially deadly. Additionally, auto and oil companies emit pollutants and environmental toxins that can not only harm individuals but also other species (Heal, 2005). Thus, the goal of corporate social responsibility is to heighten the awareness of social, environmental and human issues and put pressure on organizations to adopt policies and procedures that focus on the importance of minimizing or eliminating practices that are harmful in the aforementioned segments.

Beyond ethical considerations, deficiencies in adequate CRS initiatives through operations can be extremely detrimental to corporate profitability and market share. Organizations should anticipate future CSR issues in their operations and integrate SOS initiatives [through its OS] into daily operations (Crane et al., 2008; Lockett, Moon, & Visser, 2006.) Despite a vast and growing body of literature on CSR and related concepts, defining CSR is not an easy task due to its complexity and overlapping with other concepts of business-society relations (Matten & Crane, 2005), and it has clearly been a dynamic phenomenon. ISO 26000 guidance standard on social responsibility defines it as "...the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large." Kumar (2013) used a survey to understand the key reasons why organizations implemented CSR. These were:

- Great recruiting and retention mechanism for employees.
- Helps remove waste in manufacturing processes.
- Customers have an improved view of your brand and reputation.
- Good for long term financial results.

Other suggested reasons were,

- The increasing growths of private business have created a push for social responsibility.
- The inability of governments to resolve some social problems have increased expectation of organizations to resolve those problems.
- The increase of organizations that supports transparency via the Internet and other global communications.

Regardless of the reasons, CSR initiatives represent an excellent mechanism for addressing these challenges across the business enterprise. Nonetheless, there is a widespread agreement that CSR initiatives and performances must be coupled strategically to core business functions, particularly operations management, to obtain its full benefits.

Nonetheless, there are some strong criticisms on the social legitimacy of arguments against CSR. Porter and Kramer (2006) have shown CSR initiatives were mostly generic, rather than strategic. These issues are likely to be a direct consequence of the lack of a framework that translates the theory of sustainable operations strategy into practice. From the standpoint of governance, Rosam & Peddle (2004) suggested several dimensions that have to be mastered toward achieving CSR excellence, which are frequently neglected by organizations. Bansal, Gao & Qureshi (2014) found that organizations tend to moved towards at least a moderate level of CSC practices over time, and tended to fade away in the extent to which they concentrate in other pressing issues over time. Also, some researchers question whether the triple-bottom-line chronicles actually provide information relevant to accessing corporate responsibility and enforcing social sustainability (Adams, 2002; Brown, Dillard & Marshall, 2006; Gray, 2001.)

4.2 Operations Strategy

Skinner (1969) is considered the pioneer in defining operations strategy as an academic discipline and competitive differentiator in organizations. In his seminal work, he pointed out the missing link between operations management and corporate strategy in manufacturing organizations in the United States. He recognized that manufacturing activities could contribute a great deal to business performance, if use strategically (Sun & Hong, 2002), and criticizes the absence of manufacturing elements and concerns in the strategic planning process of most manufacturing organizations. His main suggestions were the need for a manufacturing strategy to

exploit precise actions and distinctiveness of the manufacturing function, and the need to converge all functional efforts to support a single competitive priority (cost, dependability, quality, flexibility, and speed or product differentiation) to achieve a competitive advantage. Skinner emphasized the need to 'link' manufacturing decisions with overall organizations, centered on the concept of internal and external consistency (Sun and Hong 2002; Boyer, Swink, and Rosenzweig, 2005).

Until late 1960s, business and corporate strategies were primarily based on marketing and financial priorities. The goal of the operations management function was to develop and implement all necessary systems and processes to meet competitive priorities and restraining production costs. Operations management - particularly in manufacturing - was thought in terms of a century old paradigm that emphasized mass markets, stable productions lines, standard designs, and mass production (Hayes & Pisano, 1994).

During the 80s, Upton et al. (2004) and others scholars redefined manufacturing strategy as "...the deployment and development of manufacturing capabilities in total alignment with the firm's goals and strategies." From that moment on, most definitions agree on the content or process driven rationale of the relatively new field. At this point in time, most of the work ponders on (1) the trade-off of competitive priorities, (2) delineation of order-winner and qualifiers, and (3) core competencies identification and development (Hill & Hill, 2009).

At the beginning of the 90's, a new breed of practitioners and researchers started to integrate an array of new theories, methodologies and concepts into the field of manufacturing strategy, and the service sector started to mandate specialized tools and frameworks to deal with the operational aspects of organizations in this sector. This gave birth to OS as a distinct and idiosyncratic professional and academic discipline.

The important result of research related to competing views has been that the idea of the possible multiple positive impact of a given practice has become generally acceptable. Distinction between the trade-off and cumulative approach, after all, has not been as large as it might have seemed. Therefore the actual question is not whether a trade-off or a cumulative approach is the right one, but with what activities and to these operations performance objectives (e.g., quality, speed, and dependability), underpin much of the work on performance measurement that has been undertaken subsequently by members of the operations management community. There are several points to note about these performance objectives. The first is that they are all multidimensional. Quality has two sides: conformance to specification (the supplier view) and conformance to expectation (the customer side). On the latter, a variety of particularities (e.g., features, aesthetics, serviceability, and value for money) "smashup" to conform [or not] to the customer expectations. Similarly, "speed" can refer to the time taken to generate quotes, delivery speed, delivery frequency, production speed, and developing [new products] speed. Dependability can refer to the general ability to meet promises.

Nowadays, some competitive priorities are now being considered as synergistic and simultaneously attainable, i.e., improving the performance in one enhances the performance in another. Also, there seems to be a general agreement that the main concern of OS is the reconciliation of key market requirements with operations strategic decisions (capacity, supply network, process technology, and structure). Therefore, OS has to do with the whole transformation process, philosophy, long-term, and aggregate capabilities of the organizations (Jayanthi et al., 2009). An important framework on the topic of reconciliation is the one developed by Slack & Lewis, shown in Figure 3 (Slack, Lewis & Bates, 2004.) The figure

identifies the major dynamic interactions that drives strategic operational considerations and defines the general reconciliation model.

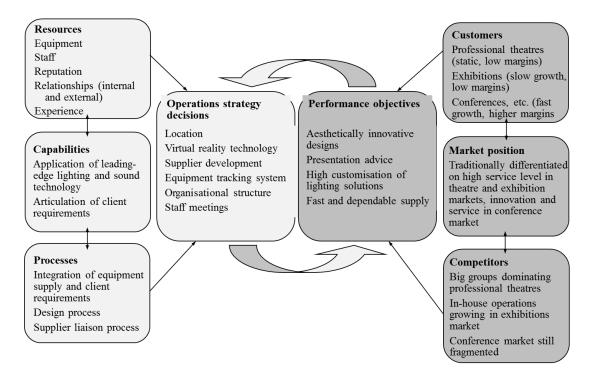


Figure 3: Operations strategy reconciles the requirements of the market with the capabilities of operations resources

Based on Slack, N., Chambers, S., & Johnston, R. (2010). Operations management. Pearson Education.

4.3 Social Operations Management

Traditionally, environmental issues have attracted the attention of researchers in various areas of operations management. The scope of research ranges from studying operational problems such as green product and process development, lean and green operations management, to remanufacturing and closed-loop supply chains (Bai and Sarkis, 2010; Corbett and Klassen, 2006; Kleindorfer, Singhal & Van Wassenhove, 2005). Environmental perspectives on operations lead to different terminologies with varying scope. One term emerging from the literature is "green operations." It relates to all aspects related to product manufacturing, usage, handling, logistics and waste management once the design has been finalized (Srivastava, 2007). In summary, strategic decisions in SOM require a broader set of

categories than the traditional operations strategy categories of decision. Figure 4 depicts the most basic tools, or resources, the activities in the operations value chain, based on the Supply Chain Operations Reference (SCOR) model version 11, where they can occur, and the top-level capabilities they can create (Estampe et al., 2013.)

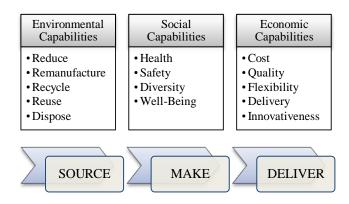


Figure 4. Resources and Capabilities for Sustainable Operations

OS decisions deals with the fundamental capabilities operation managers should develop in order to cope with the performance objectives they have set for the competitive dimensions of operations. Based on prior studies, Gavronski et al. (2011) presented a classification of categories of decision in operations that links environmental decisions and OS. They showed that environmental capabilities have a systemic impact in the formulation of sustainable strategies. Table 1 shows excerpts from the research agenda proposed by different authors (Ahmed, Montagno Firenze, 1998; Curkovic & Sroufe, 2011; Gallear, Ghobadian & Chen, 2012; Gunasekaran & Ngai, 2012.)

Table 1. Research Propositions for SOS Strategy Decisions

Decision Category	Decision Category
Facilities	End-of-pipe pollution control technologies are favored as a facility matures in its life cycle.
Process technology	 a. Perform regular independent audits of commercial and environmental integrity. b. Development of appropriate monitoring practices to ensure compliance with ethical policies. c. Environmental improvement is increasingly costly or offers fewer competitive benefits as process investment declines and capital intensity increases.
Capacity	Type and amount of capacity is related to environmental impact.
Vertical Integration	As waste management becomes increasingly costly, operations tend to forward integrate.
Suppliers	 a. Using accreditation to ISO14000 Series (Environmental Management Systems Standard) to distinguish preferred supplier status. b. Incorporating findings of independent audits or monitoring practices within training programs with partners, and ethical and environmental standards within partnering strategies. c. Operations with more centralized purchasing are more likely to consider the life-cycle environmental implications of material and supplier choices.
New Products	 a. Greener product design is most likely to offer competitive advantage when operations when operations compete based on innovation and quality. b. Regularly involve suppliers in new product/service development c. Engage extensively in two way exchange of important/technical information with key suppliers
Workforce	 a. Inclusion of environmental criteria in the performance evaluation of operations managers improves environmental performance and increases the use of environmental protection. b. Designation of a senior manager with accountability for commercial values and ethics. c. Publicizing ethical and environmental statements to stakeholders.
Quality Management	Increasing use of recycled materials increases process variability, thereby lowering conformance quality.
Planning and control systems	As environmental audits become increasingly sophisticated, more opportunities for cost-effective improvements are implemented.

Source: adapted from Gavronski et al. (2011)

Some SOS frameworks try to reconcile environmental, economic and operational performance objective at a holistic level. Williams (2007) give an example of such a framework in the automobile industry. Car manufacturers are trying to implement SOS processes and customers seem to be willing to drive greener cars, but green features play a minimal role in their purchasing decisions. Based on his study he developed a linear model which summarizes the efficiency gains using SOS constructs (refer to Figure 5.)



Figure 5: The increase in overall environmental impact due to efficiency gains

In general, frameworks for maximizing the benefits of CSR activities includes benchmarking performance indicators, deploying adequate management systems, disseminating achievements and non-achievements, and monitoring feedback to measure achievement and failures. Additionally, they could also include the following critical success factors for OS execution: creating a culture that recognizes the value of CSR, communication channels that are open and honest, and alignment of CSR efforts with the organization's beliefs and practices. Thus, CSR includes a model herein that considers an ongoing process of identification, assessment, response planning, and monitoring and control of pertaining OS initiatives.

5. Conclusion

This paper presents various concepts that correlate the significance of CSR with the organization's OS. CSR practices have to be considered in each organization's functional strategy [particularly OS] as it incorporates lead initiatives to lag performance measures as profit, social and environmental goals. The goal of CSR is to heighten the awareness of social, environmental and human issues and put pressure on organizations to adopt policies and procedures that focus on the importance of minimizing or eliminating practices that are harmful in the aforementioned segments. In this respect, this focused review shows various approaches to CSR related to OS, linking responsibility to core business processes and procedures which improves execution by expanding strategic awareness of practices that are related to economic, environmental, financial and social issues, a joint effort coined SOS. Specific benefits related to executing a SOS model include financial gains, improved company image, proactive strategy for identifying and handling risks and developing a culture for implementing ethical practices and behaviors. Although operations managers are bound to the regulatory system for most activities performed inside their plants, such as environment, health, and safety procedures, altogether

these activities have different approaches to incorporate CSR considerations: Impairment avoidance approaches and proactive approaches. The former aims to minimize any negative economic impact, bad labor conditions, dishonesty, human rights abuse, and environmental degradations into the operations, and calls for compliance with intentionally accepted norms, guidelines, and standards and control of social and environmental risks, liability, and any negative impact. The latter strives to create added value for the entity as well as the stakeholders.

References

- Adams, C.A. (2002). Factors influencing corporate social and ethical reporting: moving on from extant theories. *Accounting, Auditing & Accountability Journal*, 15(2), 223-50.
- Ahmed, N. U., Montagno, R. V., & Firenze, R. J. (1998). Organizational performance and environmental consciousness: an empirical study. *Management Decision*, 36(2), 57-62.
- Andersen, M., & Skjoett-Larsen, T. (2009). Corporate social responsibility in global supply chains. *Supply Chain Management: An International Journal*, *14*(2), 75-86.
- Bai, C., & Sarkis, J. (2010). Green supplier development: analytical evaluation using rough set theory. *Journal of Cleaner Production*, 18(12), 1200-1210.
- Bansal, P., Gao, J., & Qureshi, I. (2014). The Extensiveness of Corporate Social and Environmental Commitment across Firms over Time. *Organization Studies*, 18(3), 302-318.
- Boyer, K. K., Swink, M., & Rosenzweig, E. D. (2005). Operations strategy research in the POMS journal. *Production and Operations Management*, *14*(4), 442-449.
- Brown, D., Dillard, J., & Marshall, R. S. (2006). *Triple bottom line: a business metaphor for a social construct*. Universitat Autònoma de Barcelona. Departament d'Economia de l'Empresa.
- Crane, A., McWilliams, A., Matten, D., Moon, J., & Siegel (2008). The corporate social responsibility agenda. *The Oxford handbook of corporate social responsibility*. Oxford, UK: Oxford University Press.
- Curkovic, S., & Sroufe, R. (2011). Using ISO 14001 to promote a sustainable supply chain strategy. *Business Strategy and the Environment*, 20(2), 71-93.
- Darnall, N., Jolley, G. J., & Handfield, R. (2008). Environmental management systems and green supply chain management: complements for sustainability? *Business Strategy and the Environment*, 17(1), 30-45.
- de Jong, P., Paulraj, A., & Blome, C. (2014). The Financial Impact of ISO 14001 Certification: Top-Line, Bottom-Line, or Both? *Journal of Business Ethics*, 119(1), 131-149.
- D'Souza, C., Taghian, M., Lamb, P., & Peretiatkos, R. (2006). Green products and corporate strategy: an empirical investigation. *Society and Business Review*, 1(2), 144-157.
- Drake, D. F., & Spinler, S. (2013). OM Forum-Sustainable Operations Management: An Enduring Stream or a Passing Fancy? *Manufacturing & Service Operations Management*, 15(4), 689-700.
- Estampe, D., Lamouri, S., Paris, J. L., & Brahim-Djelloul, S. (2013). A framework for analyzing supply chain performance evaluation models. *International Journal of Production Economics*, 142(2), 247-258.

Gallear, D., Ghobadian, A., & Chen, W. (2012). Corporate responsibility, supply chain partnership and performance: An empirical examination. *International Journal of Production Economics*, *140*(1), 83-91.

Gimenez, C., Sierra, V., & Rodon, J. (2012). Sustainable operations: Their impact on the triple bottom line. *International Journal of Production Economics*, 140(1), 149-159.

Gavronski, I., R. D. Klassen, S. Vachon, and L. F. M. d. Nascimento (2011). A resource-based view of green supply management. *Transportation Research Part E: Logistics and Transportation Review*, 46(6), 872-885.

Gray, R. (2001). Thirty years of social accounting, reporting and auditing: what (if anything) have we learnt? *Business Ethics: A European Review, 10*(1), 9-15.

Gunasekaran, A., & Ngai, E. W. (2012). The future of operations management: an outlook and analysis. *International Journal of Production Economics*, 135(2), 687-701.

Gupta, M. C. (1995). Environmental management and its impact on the operations function. *International Journal of Operations & Production Management*, *15*(8), 34-51.

Hayes, R., & Pisano, G. (1994). Beyond world-class: The new manufacturing strategy. *Harvard Business Review* 72, 77-84.

Heal, G. (2005). Corporate social responsibility: An economic and financial framework. *The Geneva papers on risk and insurance-Issues and practice*, *30*(3), 387-409.

Jayanthi, S., Roth, A. V., Kristal, M. M., & Venu, L. C. R. (2009). Strategic resource dynamics of manufacturing firms. *Management Science*, 55(6), 1060-1076.

Kleindorfer, P.R., Singhal, K. and Van Wassenhove, L.N. (2005). "Sustainable Operations Management", *Production and Operations Management*, 14(4), 482–492.

Kumar, A. G. (2013). Balanced scorecard and corporate social responsibility. *International Journal of Management Research and Review*, *3*(7), 3178-3183.

Lockett, A., Moon, J., & Visser, W. (2006). Corporate Social Responsibility in Management Research: Focus, Nature, Salience and Sources of Influence. *Journal of management studies*, 43(1), 115-136.

Matten, D., & Crane, A. (2005). Corporate citizenship: Toward an extended theoretical conceptualization. *Academy of Management review*, *30*(1), 166-179.

Mazar, N., & Zhong, C. B. (2010). Do green products make us better people? *Psychological science*, 21(4), 494-498.

Miller, J. G., & Roth, A. V. (1994). A taxonomy of manufacturing strategies. *Management Science*, 40(3), 285-304.

Nunes, B., Bennett, D., & Shaw, D. (2013). Building a competitive advantage through sustainable operations strategy.

Nunes, B. (2011). *Greening operations: an investigation of environmental decision making* (Doctoral dissertation, Aston University).

Nunes, B., & Bennett, D. (2010). The contribution of modularity to green operations practices. *Brazilian Journal of Operations & Production Management*, *5*(2), 93-108.

Porter, M. E., & Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), 78-92.

Ralston, D. A., Egri, C. P., Karam, C. M., Naoumova, I., Srinivasan, N., Casado, T. & Alas, R. (2014). The triple-bottom-line of corporate responsibility: Assessing the attitudes of present and future business professionals across the BRICs. *Asia Pacific Journal of Management*, 1-35.

Rosam, I., & Peddle, R. (2004). *Implementing effective corporate social responsibility and corporate governance: a guide*. BSI British Standards Institution.

Slack, N., Lewis, M., & Bates, H. (2004). The two worlds of operations management research and practice: Can they meet, should they meet? *International Journal of Operations & Production Management*, 18(4), 372-387.

Skinner, W. (1969). Manufacturing-Missing link in corporate strategy. *Harvard Business Review*, 47(3), 136-145.

Sun, H., & Hong, C. (2002). The alignment between manufacturing and business strategies: its influence on business performance. *Technovation*, 22(11), 699-705.

Upton, D., Hayes, R., Pisano, G., & Wheelwright, S. (2004). *Operations, strategy and technology: pursuing the competitive edge*. John Wiley and Sons.

Wang, X., Vasilakos, A. V., Chen, M., Liu, Y., & Kwon, T. T. (2012). A survey of green mobile networks: Opportunities and challenges. *Mobile Networks and Applications*, 17(1), 4-20.

Williams, A. (2007). Product service systems in the automobile industry: contribution to systems innovation? *Journal of Cleaner Production*, 15(11/12), 1093-103.