

MANAGING CHANGE FOR ENVIRONMENTAL SUSTAINABILITY IN QUEENSLAND MANUFACTURING SMEs: AN OVERVIEW

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ABSTRACT

This is an overview of research proposal in studying small and medium sized enterprises (SMEs) that significantly contribute to the economic development of most countries and they are vitally important for a healthy dynamic market economy. An increase in awareness of environmental issues and improvements has influenced the demand for and development of environmentally friendly business practices. The main objective of the research is to explore the environmental change management process within Queensland manufacturing SME environmental sustainability (ES) champions. The study attempts to address a gap in the literature regarding ES change management in manufacturing SMEs and tries to fill a practical gap in the manufacturing SME sector by providing some ES strategies for SMEs. Outcomes are expected to contribute to research by improving practical understanding of how to optimise organisational change capabilities in relation to sustainability within the context of manufacturing SMEs. This research is designed to adopt an interpretive paradigm using qualitative methodology in order to examine the change management processes.

Keywords: SMEs, ES, environmental sustainability champions, change management.

INTRODUCTION

“A global agenda for change”

Our Common Future Chairman’s Foreword (Brundtland 1987).

The Report of the World Commission on Environment and Development titled ‘Our Common Future’ was officially launched at the General Assembly of the United Nations in 1987 (Chan, 2011; Lee, 2009; Roxas & Chadee, 2012). This was an urgent call made during the assembly which set a landmark for our future direction of global development that emphasise on environmental considerations. Also known as The Brundtland Report (Roxas & Chadee, 2012), it recognises the co-existence elements between the environment and development as where we all live and what we all do in attempting to improve our living condition within our environment. The term is recognised as “sustainable development” (Stoughton & Ludema, 2012 and Thomas et al., 2012) that defined for “meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland 1987, p. 24).

It was clear from the observation made by the Commission during their course of action that attitudes and organisational of society need major changes. In addition, it also stated that economic growth in this new era must be in tandem with policies that supports sustainability as well as environmental resource base expandability. Arising

from this urgent call, there has been an increasing awareness among national governments and multilateral institutions to acknowledge that development matters cannot exclude environmental issues. It is imperative to note that economic activity has multiplied to create a \$13 trillion world economy and could grow further five to tenfold in the coming half century (Brundtland 1987). Considering the facts given, more and more resources will be utilised in order to fulfill growing human population needs and this could potentially damage our environment. As a result, the urgent calls made by the United Nations for changes must be answered immediately and it must involve all sort of humanity before it is too late. Therefore, this study investigates how ES champions in Queensland manufacturing SMEs manage change for ES in relation to the above problem.

ENVIRONMENTAL SUSTAINABILITY CHANGE MANAGEMENT IN MANUFACTURING SMEs

Overview

Small and Medium Sized Enterprises (SMEs) have been identified to assume a key role in economic development whereby their importance is a global phenomenon brought about by market forces, technological advances, personal career aspirations and underlying demographic changes of the population (Poole, 2009). Therefore, it is critical for SMEs to be competitive and resilient in order to achieve sustainable economic growth in order to contribute to a nation's economic development. However, there are many challenges faced by SMEs which could limit their achievements arising from factors such as globalisation, increasing customer expectations, technological advances, and increased competition (Banham, 2005).

Environmental issues awareness, environmental legislations and concern from many stakeholders have raised the demand for responsible business management practices to adopt a triple bottom line approach that includes the traditional economic function, but also ES and consideration of social impacts and public welfare (Ciasullo & Troisi, 2013; Elkington 1994; Jamali 2006; Lee 2009; Roxas & Chadee 2012). Gradual increase on public pressure and environmental regulations has prompted businesses to seek the many benefits associated with being “green”. Increasingly, organisations of all sizes are embracing the strategic importance of environmental management practices for business efficiency and cost savings along with competitive advantage (Bell, 2002). Although there is a significant amount of research on the technical side of ES initiatives in general (Wiesner et al., 2012), there is a dearth of research on change management and people side of these initiatives. Within a research context, most studies on the subject of ES change management have focused on the economic and financial aspects of ES of predominantly large firms (Epstein, 2008) while the ES change management experiences of SMEs remains largely unexplored (Wiesner et al., 2012). This is despite the fact that SMEs form a large and vital part of the Australian economy (Poole, 2009). For example, SMEs in Australia make up 97.3% of existing Australian businesses. SMEs also constitute at least eighty per cent of all global enterprises (OECD, 2002), and are responsible for at least 70% of the world’s production (O’Laoire & Welford, 1996), and approximately contribute up to 70% of global pollution (Seidel et al., 2008).

One of the major contributors to this pollution is the manufacturing sector. Manufacturing sector in Australia has undergone significant changes since the mid-1980s as a result of substantial tariff reductions and quantitative restrictions on imports

(Mahmood, 2004). In addition, the author states further that more trade barriers has been removed following the multilateral trade liberalisation endorsed by the World Trade Organization (WTO). As a result, foreign competition drives inefficient domestic producers to exploit scale economies, eliminate waste, adopt best practice technologies or forced to shut down (Mahmood, 2004). The environmental impact of manufacturing companies is significant owing to the employment of activities and processes to transform resources into finished products (Williamson et al., 2006). Moreover, the authors emphasised that manufacturing SMEs contributed to 60% of total carbon dioxide emissions, 60% of commercial waste and 80% of pollution incidents in the UK.

The business context of this study is conducted in Queensland, Australia (Figure 1 shows regions in the Queensland state). Queensland is located in the North-eastern seaboard of Australia covering 23% of Australian total land area or 1,730,648 sq. km (ABS 2010). The justification of undertaking this research is based upon the identification of a theoretical gap on environmental sustainability change management in Queensland manufacturing SMEs, and the lack of studies on this topic area in SMEs.



Figure1: Map of Queensland Regions (<http://www.slq.qld.gov.au>)

This research could also inform good practice and assist other manufacturing SMEs in their ES journeys. Further to this, it could act as an ES blue print that manufacturing SMEs could potentially utilise to not only enhance the successful implementation and management of ES change but also improve their competitive advantage and survival in the global market place, therefore contributing to the state of Queensland and Australia both from an economic and social aspect. In view of the discussion above, there is a particular need for manufacturing SMEs to embrace the triple bottom line approach for the good of the enterprise as well as all organisational stakeholders in an effort to achieve positive environmental sustainability outcomes.

Problem Statement

ES change is distinctive from other organisational changes because it usually involves economic, social and environmental change elements as an integral part of the overall change processes. However, there is a dearth of research about environmental sustainability change management practices in SMEs generally, but in manufacturing SMEs particularly (Chadee et al., 2011). Little is known about how manufacturing SMEs manage its organisational and human resource systems in an effort to achieve positive ES outcomes. Of the scarce amount of existing research on ES management in SMEs, most studies are descriptive focusing mainly on issues such as clean production measurement, awareness of environmental regulations, sources of advice and types of managerial response, or general attitudes to environmental action and regulations (Bansal & Bogner, 2002). Only a few studies of SMEs are from an ES change management perspective (Moore & Manring, 2009; Ronnenberg et al., 2011; Stone, 2006a, 2006b and Wiesner et al., 2011). There is also a particular need for manufacturing SMEs to embrace ES for the good of an enterprise as well as all organisational stakeholders (Epstein, 2008 and Hofmann et al., 2012). However, due to their lack of financial and human resources (Klewitz et al., 2012 and Roxas & Chadee, 2012), SMEs remain less informed of the importance and benefits of ES and its various approaches and tools (Chadee et al., 2011).

In addition, manufacturing SMEs accessibility to financial assistances such as bank loans is critical in order to funding their business activities. However, it was reported that lending to them has been on a decreasing side due to their difficulty in meeting tight lending standards imposed by financial intermediaries (Australian Government, 2011). This is because banks have acknowledged that borrowing firms' environmental impacts can have both financial and reputational consequences on banks. Therefore, they need to integrate Environmental Risk Management into their credit assessment as a counter measure (Xu, 2012). Taking this issue into consideration, it can be argued that ES practice is imperative for manufacturing SMEs' adoption due to their association with higher environmental risks in order to have better access to bank loans.

The question could be asked why manufacturing SMEs cannot rely on organisational change knowledge generated in, developed for and amongst large organisations. SMEs have some unique distinguishing characteristics (Klewitz et al., 2012 and Wiesner & McDonald, 2001). For example, strategic choices of the owner-manager and the choice of employing particular change management practices in an organisation are within the control of owner-manager. Furthermore, in contrast to large organisations, the SME owner-manager has much greater control (Roy et al., 2013 and Torugsa et al., 2012) over the development and utilisation of ES strategies. Resource and financial limitations also place a major restriction on SMEs' abilities to direct appropriate resources to ES initiatives and effective change efforts. Finally, smaller organisations are more likely to operate in an informal and flexible manner, which actually puts them in a better position to leverage their capacity for innovation, learning and change for sustainability (Hyvonen & Tuominen, 2006).

Justification of this Research

Despite the potential for ES change to contribute to innovation as well as transformational forces in generating new processes and products, the literature on this topic area within SMEs is still underdeveloped (Blum-Kusterer & Hussain, 2001; Bos-

Brouwers, 2010 and Wiesner et al., 2012). This study will firstly attempt to address this gap in the literature regarding ES change management. Within a research context, most studies on the subject of ES change management have focused on the economic and financial aspects of ES of predominantly large firms (Epstein, 2008) while the ES change management experiences of SMEs remains largely unexplored. In addition, this study will attempt to fill a practical gap in the manufacturing SME sector. Furthermore, there exists limited literature about ES change management practices in SMEs generally, but manufacturing SMEs particularly (Chadee et al., 2011). Little is known about how manufacturing SMEs manage their organisational and human resource systems in an effort to achieve positive ES outcomes. Wiesner et al. (2011) conducted one of the few studies on ES change management within an Australian context. The authors conducted a study to identify the key processes involved in ES change management processes in Queensland SMEs. Their study culminated in a framework on the main ES change management that are assumed to generally suit SMEs (Wiesner et al., 2011). However, their framework is yet to be tested specifically within the manufacturing industry, the latter being responsible for significant impacts on the environment through waste products, emissions and pollution.

Research on environmental change management remains scarce (Starik & Marcus, 2000). Of the little amount of existing research on SMEs, most studies are descriptive focusing mainly on issues such as clean production measurement, awareness of environmental regulations, sources of advice and types of managerial response, or general attitudes to environmental action and regulations (Bansal & Bogner, 2002). There are only a few studies of SMEs from an ES change management perspective. For example, Worthington and Patton (2005) examined the issue of sustainability intent, Moore and Manring (2009) explored sustainability strategy development, and Stone (2006a) and Stone (2006b) studied sustainability leadership, support communication and involvement. Despite the increased awareness surrounding ES issues and a growing pressure on manufacturing SMEs to adopt ES practices, there is little understanding of the management processes and practices necessary for these SMEs to successfully embark on an implement ES change initiatives. In addition to this, there is a dearth of studies focusing specifically on these issues within the manufacturing sector (Laforet & Tann 2006). A pilot study by Wiesner et al. (2012), has identified four main stages commonly involved in ES change management implementation within a cross section of Queensland SMEs. These stages are (i) design (ii) internalisation, (iii) implementation, and (iv) evaluation. However, the focus of this study is to investigate how the manufacturing sector of SMEs in Queensland pre-implement, internalise, implement and evaluate outcomes in relation to ES initiatives and thus attempt to fill the gap which currently exists within the manufacturing sector of SMEs.

METHODOLOGY AND RESEARCH DESIGN

The research design falls within the phenomenological paradigm that concerns with understanding human responses and behaviour from the participants own frame of reference (Hussey, 1997). This study also employs an interpretive paradigm using a qualitative methodology since the field of sustainability does not have a single, rigid methodology, and the use of interpretive methods are welcomed (Carroll, 1994). This approach facilitates a more in-depth understanding of the complex nature of change management since the sustainability change management field is still in an exploratory phase (Conger, 1998).

The research will be conducted using an emergent framework due to the lack of research on ES change management within the context of manufacturing SMEs. Case study methodology will be used in this research. Multiple-mini case studies will be carried out where each mini-case is considered as an independent experiment (Yin 2004) in generating the necessary information for the purposes of analysis. Interview data will be derived from semi-structured face-to-face interviews with a selected group of ES manufacturing SME champions in Queensland in order to generate a deeper understanding on how manufacturing SMEs manage ES change. The sampling frame in this study comprises a cross section of manufacturing SME ES champions in Queensland, Australia that have either won awards or have been publically recognised for their ES initiatives and achievements. Small enterprises are defined according to the Australian Bureau of Statistics classification as having 20 employees or less and medium businesses as having between 21-199 employees (Australian Government 2011).

Purposive sampling (Higginbottom 2004) is employed to select appropriate manufacturing SMEs for the study. The choice of an appropriate sample size will be guided by Baum (2003), that small sample size ranging between 12 and 20 is deemed acceptable when the aim is to study the topic of inquiry in depth and detail (Huberman & Miles 1994; Patton 2002). The CEOs of all the manufacturing SMEs on the list are contacted through formal letters to invite them and other relevant individual environmental champions to participate after explaining the purpose and scope of the study. Other firm-specific secondary company and sustainability documents as well as any publically available data on the sustainability efforts of manufacturing SMEs will also be collected for analysis purposes. All interviews will be voice recorded with the consent of interviewees and then will be transcribed. A thematic content analysis will be performed on interview data and secondary data using NVivo qualitative analysis software. Since the focus of this study is on Queensland SMEs, generalisations to the wider Australian context would be limited.

CONCLUSION

This study attempts to address a gap in the literature regarding ES change management in manufacturing SMEs. Secondly, this study also tries to fill a practical gap in the manufacturing SME sector by providing some ES strategies for SMEs. Outcomes are expected to contribute to research by improving practical understanding of how to optimise organisational change capabilities in relation to sustainability within the context of manufacturing SMEs. It may help SMEs meet growing expectations in relation to sustainability achievements. Furthermore, by providing guidelines to other manufacturing SMEs about integrating sustainability into their competitive strategy, and thereby obtaining greater profitability for SMEs through adoption of intentional environmental strategies, might help them to optimise their rate of change for sustainability. By focusing on manufacturing SME environmental sustainability champions, this study has the potential and ability to develop the internal strategic capabilities of manufacturing SMEs. A focus on experiences of manufacturing SME ES champions is new in the Australian context. Therefore, this research will assist by providing valuable learning experiences in relation to change management within an ES context for manufacturing SMEs.

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