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MASTER OF BUSINESS ADMINISTRATION

The Determinants of Effective Green Business Process Management Evidence from Malaysian Manufacturing Firms

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Abstract

Environment protection is the buzz word in today's corporate world. Corporations are required to implement pro-environment policies and practices to create and sustain competitiveness. To this end, green business process management (GBPM) is recognized one of the best managerial practice to protect the environment. The fundamental argument of this thesis is that whilst GBPM is contingent upon a corporation's internal practices, the role of upstream suppliers in facilitating effective GBPM is pivotal. Efficient integration of internal and external green business practices could accentuate GBPM. External green business practices here refer to upstream suppliers' green business practices. In essence corporations with GBPM would need to select, monitor and collaborate with suppliers (both upstream and downstream) of green practice nature. A mismatch between green advocating corporation and non-green based suppliers would lead to ineffective GBPM. This research was undertaken with the aim of examining the influence of green supplier selection, green supplier monitoring and green supplier collaboration to effective green business process management amongst Malaysian manufacturing corporations. Using the resource based view theoretical lens, a survey was done on 122 manufacturing corporations in Malaysia. The empirical analysis using the Partial Least Square (PLS) modeling technique revealed that green supplier monitoring and green supplier selection has a significant influence toward effective GBPM in the sample manufacturing corporations. The influence of green supplier collaboration on the other hand is insignificant. Several key policy recommendations are proposed to facilitate and enhance the roles of the three factors toward effective GBPM.

Keyword: Environmental Protection, Green Business Process Management, Green Initiatives, Manufacturing Companies

Declaration

I hereby declare that this research thesis is of my own effort except for the information that has been used from various author's that have been cited accordingly and ethically.

20th November 2012 Subashini Nadarajah

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Chapter 1
INTRODUCTION

1.1 Introduction

This chapter sets the tone of the thesis by discussing the background of the study in Section 1.2. This is ensued by the problem statement discussion in Section 1.3 and the associated research objectives in Section 1.4, The significance of the study in given in Section 1.5 while the study's limitations is highlighted in Section 1.6. The scope of the study and the operational definitions are given in Sections 1.7 and 1.8, respectively.

1.2 Background

The role of corporations in protecting the environment has become pivotal in recent years. The alarming rate of ecosystem disruption has led to increasing concern that current modes of production does not take into consideration long term sustainability and environmental concerns (Millennium Ecosystem Assessment, 2005). Corporations are required to comply with environmental regulations and standards, including reporting wastage release and its management practice (Chen and Sheu, 2009). This is especially true in the context of manufacturing corporations. They are indeed one of the biggest polluters of environment – a fact well acknowledged by governments across the globe. The implementation of policies such as the Toxic Release Inventory (TRI) in the United States, the National Pollutants Release Inventory (NPRI) in Canada and the Registro de Emisiones Transferencias de Contaminantes (RETC) in Mexico shows the importance some countries give to the environment protection role that manufacturing corporations undertake. Such policy adoption forces manufacturing corporations throughout the world not only to reduce their wastage that harms the environment but also to ensure that they are doing so.

Some critics of these requirements contend that this push can drive some plants to outsource polluting activities – the so-called race-to-the-bottom (Wheeler, 2001).

When this happens at either the plant or corporate level, managers are able improve the environmental performance of their operations, but the net gain of the entire manufacturing process across the supply chain is zero (or negative, for example, if transportation emissions are taken into account). For instance, a company can outsource all of its metal surface treatment activities, and the resulting shutdown of the galvanic process lines will reduce its pollutant release levels. However, another plant upstream in the supply chain, perhaps in a country with a less stringent environmental regulation, continues to release the same level of pollutants.

Therefore, this will assure environmental performance across supply chain in the long run. Monitoring the performance of supply chains, while not a current practice, is a strong possibility. In response to a variety of pressures resulting from environmental monitoring, companies could soon be required to submit new environmental reports based on life cycle analysis (LCA) methods (Sarkis, 2001) or other systemic approaches. Given that new requirements are likely to be imposed, managers must be prepared to implement mechanisms at the corporate- and plant-level to assess and improve the environmental performance of their supplier bases. This is important in order to support corporations' internal green business process management

1.3 Problem Statement

The issue of ecosystem disruption, pollution and resource depletion is giving manufacturing industry greater pressure to conform to environmental standards and guidelines as a mean to address environmental sustainability (Chen & Sheu, 2009). Manufacturing companies is known to be one of the highest polluters of the environment (Fiksel, 1996; Eltayeb et al., 2010) through its supply chain activities such as procurement, production and distribution. Manufacturing companies are thus required to implement mechanisms at the corporate and plant level to assess

and reduce environment pollution occurring in its supply chain, including upstream and downstream networks (Wooi & Zailani, 2010).

In lieu of the heavy pollution made by manufacturing industry, effective management of a manufacturing corporation's business processes following green practices is not widely debated in the literature (with exception to Carter & Jennings, 2002; Srivastava, 2007). Green business process management entails managing a manufacturing corporation's supply chain by conforming to green standards and practices. The management of a corporation's green business process also involves management of the corporation's upstream supply chain – which is essentially the management of manufacturing company suppliers' and sub-suppliers. This is because managing internal green processes can become effective if external parties' practices are also green. This ensures alignment of material strategies between two independent but interrelated parties. Another research gap in the literature is that the little available studies provided a cursory perception of green business process management than a detailed process model that can help managers to implement green business process management effectively. This research takes a significant step toward filling this gap by looking at green business process management influencing factors in Malaysian manufacturing industry as one plausible way to tackle environment sustainability in the country.

1.4 Research Objective

The overarching objective of this study is to examine the extent Green Business Process Management (GBPM) is among Malaysian manufacturing industries. The sub-objectives are as follows:

- To examine the impact of Green Supplier Collaboration toward effective green business process management in Malaysian manufacturing companies.

- To examine the impact of Green Supplier Selection toward effective green business process management in Malaysian manufacturing companies.

- To examine the impact of Green Supplier Monitoring toward effective green business process management in Malaysian manufacturing companies.

Definition

Green Suppliers Collaboration refers to any systematic effort, from selecting good suppliers to developing capabilities in the base of suppliers that creates and maintains a competent base of supplier's in line with green business process management practice (Hahn et al., 1990; Wagner & Krause, 2009).

Green Suppliers Selection refers to selection of suppliers strategically, factors beyond price should be considered: a supplier's financial performance, strategic alignment, speed of design, ability to design, and production capacity, among others in context of green business process management (Ellram, 1990; Sarkis & Talluri, 2002).

Green Suppliers Monitoring is defined as the acquisition of knowledge about the strengths and weaknesses of each supplier in context of green business process management (Carr & Pearson, 1999).

1.5 Significance of the study

In taking a step toward filling this gap in the research, there will be three contributions. First, this study operationalized the concept of green business process management in context of a developing country – Malaysia. The existing operationalize has been done for developing nation environment, a nation that would clearly be different in developing country environment. Such localized operationalization could benefit future research. Second, this study will propose a framework for developing GBPM. Because GBPM is a capability that requires more internal effort and external coordination with supplier bases than traditional process management, study propose that companies should first develop a set of external resources such as Green Supply Management in context of suppliers to archive GBPM in their companies. Third, this study will provide empirical evidence that supports the framework for development of GBPM capabilities in terms of suppliers. This evidence could become a small step toward identification of ways to address environment sustainability problem.

1.6 Limitations of the study

The findings of this research should be interrelated with several limitations. First, this study was only focused on particular industry. This could possibly hinder the generalization of the result in whole country. Selection of one industry was done based on the existing resource constrains faced by the researcher.

Secondly, the selection of data is based on key respondent perspective. This again is justified based on the perception of a single person with adequate knowledge would not be reliable.

Due to time constrain only limited number of sample size can be collected which makes it difficult to find significant relationships from the data, as statistical tests normally require a larger sample size.

Analysis technique becomes another limitation of this study. Although this study is conducted on quantitative way, given time and resources limits the number of analysis that can be done.

Chapter 2
LITERATURE REVIEW