Chapter 3

Corporate Social Responsibility-Based Supplier Selection Process in Sustainable Supply Chains

Lei Xu

Tianjin University of Technology, China

Xiaoran Shi

Tianjin University of Technology, China

Yu Xie

Tianjin University of Technology, China

Sang-Bing Tsai

University of Electronic Science and Technology of China (Zhongshan Institute), China & Nankai University, China

ABSTRACT

Due to the rising importance of the global interdependence, decisions related to supplier selection rely on not only corporate operation conditions, but also corporate social responsibility (CSR). Under this circumstance, this chapter focuses on a supplier selection problem concerning CSR. Particularly, seven criteria and their corresponding importance for supplier selection are analyzed. Meanwhile, some relevant sub-criteria are included as well. Based on existing literature review and managerial interviews obtained from leaders in the southern region of India, these issues are compared and ranked. In this chapter, Analytical Hierarchy Process (AHP) is conducted to identify the importance of these considered criteria and sub-criteria. Finally, the chapter concludes with a presentation of rankings and priorities of the proposed seven criteria. Given the obtained results and recommendations, it would be helpful to establish a useful method for selecting the best supplier based on CSR.

DOI: 10.4018/978-1-5225-3537-9.ch003

INTRODUCTION

A supply chain is defined as "the management and integration of a set of selected key business processes from end users through original suppliers that provides products, services, and information that add value for customers and other stakeholders through the collaborative efforts of supply chain members" (Schwartz et al., 2008). A company's supply chain, then, more or less complicated, generally starts from the supplier, goes to the manufacturer, and ends with the customer or consumer. From the manufacturer's perspective, which acts as an intermediate link of a supply chain, collection and distribution represent raw or recycled materials arriving from the supplier and finished products moving toward the consumer (or customer), respectively (Choi et al., 2013). Clearly, the purchasing manager of the manufacturer is responsible for conducting an optimal decision of supplier selection, which may help the manufacturer maintain a competitive position (Govindan et al., 2012) and implement an efficient supply chain¹. Considering its importance, we will study a supplier selection problem in this chapter.

Supplier selection has been widely studied for a long time with the consideration of various criteria (e.g., price, quality, delivery, etc.). With the globalization of trade, firms face with more challenges and pressures from their competitors, consumers or even the entire society. Under this circumstance, a rising concept, known as corporate social responsibility (CSR), gains its popularity; and thereby endorsement of CSR practices from NGOs, stakeholders, and customers becomes compulsory (Welford and Frost, 2006; Michael and Brown, 2006; Abreu et al., 2012). Whereas there is no universally agreed-upon definition for CSR (Wafula, 2012), one useful definition is "operating a business in a manner that accounts for the social and environmental impact created by the business" (Payne, 2009).

To be specific, researchers demonstrate that customers expect social responsibility from firms these customers support and consider CSR as a basic quality of any firm (Basil and Weber, 2006; Xu et al., 2013). If a firm or organization is unprogressive or insensitive to CSR issues, it runs the risk of losing its core customers and consumers (Blake and Mansour, 2012). Therefore, to maximize profit and minimize risk and pollution, CSR issues must be integrated with the goals of a company's supply chain (Aliakbaria and Seifbarghy, 2011). A company's handling of CSR issues serves as a prominent factor in comprising the success and image of the company (Khaledabadi and Magnusson, 2008). Moreover, according to Salam (2007), CSR has the ability to increase sales revenue and market share by improving the customer's perception of a company. Given these concerns, we will provide in this chapter a method for ranking or prioritizing some CSR issues in order to select the best supplier.

BACKGROUND

In this section, a review of the prior studies regarding supplier selection is conducted. First of all, the primitive criteria considered in supplier selection and the ways in which rankings were arranged are explained. Second, multi-criteria decision making (MCDM) methodologies for supplier evaluation utilized in these studies are discussed.

Supplier Selection Criteria

Supply chain management (SCM) concepts include collaboration, the preferable selection of suppliers, and the efficient utilization of these suppliers. Establishing supplier selection criteria is a crucial process

16 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/corporate-social-responsibility-based-supplier-selection-process-in-sustainable-supply-chains/192827

Related Content

Reactive and Proactive Dynamic Capabilities: Using the Knowledge Chain Theory of Competitiveness

Clyde W. Holsappleand Jae-Young Oh (2018). *Global Business Expansion: Concepts, Methodologies, Tools, and Applications (pp. 366-385).*

www.irma-international.org/chapter/reactive-and-proactive-dynamic-capabilities/202228

Bayesian Agent Adaptation in Complex Dynamic Systems

Mair Allen-Williamsand Nicholas R. Jennings (2010). *Handbook of Research on Complex Dynamic Process Management: Techniques for Adaptability in Turbulent Environments (pp. 172-208).*www.irma-international.org/chapter/bayesian-agent-adaptation-complex-dynamic/36569

Strengthening the Significance of Data Analytics: Championing Organizational Design

Mambo Governor Mupepiand Patience Taruwinga (2019). *Strategic Collaborative Innovations in Organizational Systems (pp. 31-51).*

www.irma-international.org/chapter/strengthening-the-significance-of-data-analytics/218700

The Role of Information System Within Enterprise Architecture and Their Impact on Business Performance

Kijpokin Kasemsap (2018). Global Business Expansion: Concepts, Methodologies, Tools, and Applications (pp. 1078-1102).

www.irma-international.org/chapter/the-role-of-information-system-within-enterprise-architecture-and-their-impact-on-business-performance/202260

Total Interpretive Structural Modeling of Emotional Intelligence at Workplace

Irameet Kaurand Charu Shri (2015). *International Journal of Applied Management Sciences and Engineering (pp. 1-19).*

www.irma-international.org/article/total-interpretive-structural-modeling-of-emotional-intelligence-at-workplace/138781