

Chapter 13

Sustainable Supply Chain Management: Literature Review

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ABSTRACT

In the recent years, interest in Sustainable Supply Chain Management has grown as the effects of global warming can be seen through various scientific researches. In a global economy as supply chains are spreading across continents – economic, social and environmental sustainability – commonly referred as triple bottom line (TBL) assumes significance. Focal firms in supply chain are held accountable for their economic performance by shareholders, social and environmental performance by society. Even the actions of members of their extended supply chain come under scrutiny. Growing global supply chains facilitate economic growth, improve standard of living of people and provide business opportunities to distant locations across the world. However, they have unfavorable environmental impact. In order to preserve natural resources for future generations, sustainability needs to be embedded across the supply chains. This literature review - covers different aspects of greening the supply chain. Supply chain is viewed as a system consisting of focal firm, chains of suppliers, distributors, logistics partners, retailers etc. Role of each member of supply chain in sustainability goals is discussed in detail. Extant literature has covered individual parts of supply chain, whereas this paper integrates this knowhow to facilitate learning all interrelated concepts in SSCM. Some of the supply chain companies have already taken proactive steps towards SSCM and have certified in ISO14000. Through extensive literature review, important factors which contribute for better environmental performance for an organization are studied and a model for designing and implementing SSCM strategy is presented.

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INTRODUCTION

Sustainable Supply Chain Management has gained significance in the recent years due to growing concern about environment. Extreme weather, rising temperature, scarcity of natural resources – all these call for a different strategy towards environment. (Winston, 2014). With globalization, growing economies and consumerism supply chains have grown quite big. In order to preserve natural resources for future generations, sustainability needs to be embedded across the supply chains.

As shown in the Figure 1, in addition to profit maximization, social and environmental sustainability are being considered necessary in what we refer as Triple Bottom Line (TBL). (Elkington, 1994). Moving one step further Caradonna (2014), suggests economy as a subset of society and society as a subset of environment. Thinking beyond quarterly profits, business cannot sustain on the planet that fails. (Winston, 2014). Every member of supply chain needs to show concern towards TBL. Incremental investments into sustainability are no longer sufficient. As climate is changing, different long term approach spanning decades and generations will be needed. (Winston, 2014).

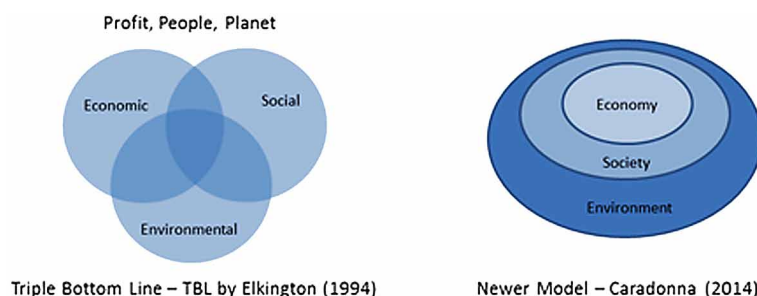
Wu and Dunn (1994) suggest a systems approach to evaluate environmental impact of entire supply chain. This approach sees supply chain as a system and recommends integrated strategy for greening the entire supply chain.

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Research Methodology

Most of the extant literature on Sustainable Supply chain has evolved over last two decades. Extant literature from leading journals around the world was referenced for this study. After review of over 150 articles on Sustainable Supply Chain Management from top journals in the field of Sustainable Supply Chain Management and Operations Management, 100 best and relevant articles were shortlisted in consultation with experts researching in this field. In addition 2 recent books and United Nations landmark report on sustainability “Our common future” were referenced for gaining historical perspective about sustainability. Papers from top journals, corporate websites, videos, website of supply chain professionals were referenced as and when additional information was required.

Figure 1. New paradigm: Corporate, social, and environmental responsibility



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