

Apparel and Textile Manufacturers' Perspectives on the Impact of Buyers' Purchasing Practices on Environmentally Friendly Operations

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The buyer's concern about the environmental performance of their manufacturer firms is increasing day by day. Zhu and Geng (2001) conducted a survey on large and medium-sized state-owned enterprises (LMSOEs) and found 23 percent of buyers stopped purchasing from the manufacturers having environmental issues. Decisions taken during purchase order impact the operational performances of the supplier firm. For example, if buyers source more woolen fabrics, then the negative environmental impacts associated with wool processing will be more intense (Tortora & Collier, 1997). So, this study investigated the impacts of purchasing practices on the firm-level performance. The purpose of this study was to understand buyers' purchase behaviors, problems and opportunities created by their purchasing practices, and the impact of those practices upon environmentally friendly operations of manufacturing firms.

Research Questions: RQ 1: What initiatives have been taken by manufacturers to improve the environmental friendliness of the production operation? RQ2: What are the drivers of apparel manufacturers' pursuit of environmentally friendly production? RQ 3: What barriers prevent apparel manufacturers' pursuit of environmentally friendly production? RQ 4: What benefits do apparel manufacturers receive from the implementation of environmentally friendly production? RQ 5: How do buyer customers' purchasing decisions impact the environmental performance of the apparel manufacturer? Which operational parameters are influenced?

Theoretical framework: A theoretical framework was developed from the literature review incorporated buyers' purchasing practices, drivers of manufacturers' environmentally friendly initiatives, and benefits and barriers to such initiatives. Previous studies uncovered several positive purchasing practices of buyers including auditing manufacturing sites, focusing on manufacturers' codes of conduct and waste management practices (Kannan & Tan, 2002; Starmanns, 2017). Our framework assumed that such positive purchasing practices would also impact environmentally friendly initiatives of the manufacturing firms. Manufacturers are often pushed by external and internal factors to take environmentally friendly initiatives. Thus, the theoretical framework also included those external and internal drivers of suppliers' environmentally friendly initiatives. Short lead time and cheap price by buyers often compel manufacturers to submit fake timesheets and lie to auditors which hide the actual sustainable performance status of the manufacturing firm (Clean Cloth Campaign, 2008). Because production, compliance, and sustainability are connected with each other our framework assumed that bad purchasing practices would also impact environmentally friendly initiatives of the manufacturing

firms. The framework incorporated the benefits of the environmentally friendly initiatives of the manufacturing firms as previous literature also suggested several benefits such as reduction of waste and lead time as well as increase of stock price and return on asset (Feldman et al., 1997; Lo et al., 2012; Melnyk et al, 2003). As previous literature mentioned several barriers to environmental initiatives such as technical limitations, the challenge of merging new technology, and lack of management support, our theoretical framework also considered such barriers from the context of purchasing practices (Moors et al., 2005; Post & Altma, 1994; Simonsson, 2002). Finally, environmentally friendly initiatives of the manufacturer firms were evaluated by factors adopted from the framework discussed by Chardine-Baumann and Botta-Genoulaz (2014), such as pollution, use of resources and environmental management systems.

Methods: This study took a qualitative research approach to capture manufacturers' views on the relationship of their buyers' purchasing practices on environmentally friendly performance. There were 10 participants in total, among them nine were from companies that were manufacturer members of the Sustainable Apparel Coalition (SAC). Members of SAC were chosen for this study as SAC puts sustainable manufacturers under a common platform emphasizing improved environmental performance. One non-SAC member was chosen due to its significant sustainable initiatives in apparel production. Participants were Sustainability Heads, Purchase Managers, Chief Operating Officers, or Production Managers. Participants were from eight different countries: China, Bangladesh, India, Sri Lanka, South Korea, Spain, Taiwan, and Hong Kong SAR. Data were collected through a one-on-one semi-structured interview. Interviews were recorded, transcribed, and then coded using NVivo qualitative data analysis software. Both inductive and deductive approaches were adopted for the coding of the interview transcripts. Deductive coding themes were adopted from Chardine-Baumann and Botta-Genoulaz (2014). Inductive coding themes were generated by the researchers.

Results: Participant manufacturers had adopted many environmentally friendly initiatives such as advanced technology, pollution control, optimized use of resources, and management related initiatives, as well as participation in compliance and environmental certification programs. Demand from the buyers' sides, manufacturers' own motivations for sustainability, supportive regulations, and scarcity of resources drove manufacturers to take relevant environmentally friendly initiatives. By taking such initiatives manufacturers were benefited by saving costs, gaining reputation and preference from buyers and government, improving operational performance, and bringing betterment for the employees. But it was not easy to implement such initiatives in the existing organizational structures as cost was one of the major barriers in the path of taking such initiatives. Policy, infrastructure, and technological barriers were also mentioned by manufacturers while discussing barriers to their sustainable initiatives. Manufacturers also reported several negative purchasing practices of the buyers which were related to product orders, buyers' lack of knowledge and interest in sustainability, and reluctance to pay the additional cost for manufacturers' environmentally friendly initiatives. Yet, many buyers have started

having several good purchasing practices, such as increased interest in sustainable material selection, sustainable manufacturing, and increased concern about compliance and environmental certificates of the manufacturing firms.

Scope of future research: Future research can take a quantitative approach and conduct surveys to reach more manufacturers. As this study mainly focused on SAC members, future research can reach to non-SAC members and compare their responses with SAC members.

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