

Impact of Information Sharing on Supplier-Buyer Relationship and Supply Chain Performance

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1. Introduction

Supply chain management is defined as the integration of key business processes, from original supplier to end-user, to provide products, services and information. Supply chain management has emphasised the overall and long-term benefit of all parties on the chain through cooperation and information sharing. In the current competitive context, information is a vital factor in any supply chain as a primary driver and it has become a crucial activity in supply chain management [2]. The proper information sharing within a supply chain allows firms to access data across their supply chains, allowing them to collaborate in activities such as sales, production, and logistics and ultimately enhance the supply chain performance through integrated information network [3]. However, the benefits of sharing information among supply chain members are not always the same as they depend on the supply chain structure and its operational characteristics. World leading companies have successfully adapted supply chain management concepts in to practice and have successfully reached to the competitive edge within their own market segments. For instance, Zara, Apple, Proctor & Gamble, Walmart have secured their supply chain through the established information sharing network and strategies based on information sharing and collaboration.

2. Research Objective

In the Sri Lankan context, companies focus on information sharing and integrated information systems. For instances, especially in the apparel industry, they tend towards systematic information sharing through the supply chain across their up-stream and down-stream supply chain members. Research has focused on information sharing and its impacts.

The present study aims at identifying the impact of information sharing in supplier buyer relationship and its impact on supply chain performance on the apparel industry in Sri Lanka. The main objectives of the study are as follows:

1. Identify the Supplier-buyer relationship in the context of information sharing.
2. Identify the Performance Evaluation Criteria in Supply Chain Performance.
3. Identify the Supply chain performance in the context of Information sharing and supplier buyer relationship.

3. Research Methodology

Figure 1 below depicts the conceptual framework adopted in this research to achieve the above mentioned research objectives.

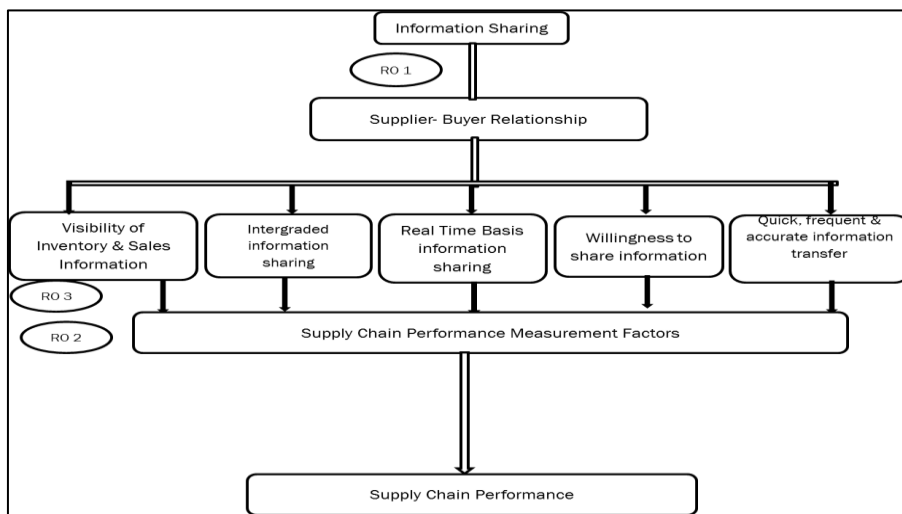


Figure 10 Conceptual Framework

A questionnaire was developed based on the literature survey. Data collection was carried out using two methods: online questionnaire and mail survey. The sample was selected under the non-probabilistic approach. It was important to identify the respondents who were involved in managing suppliers and information relevant to the logistics operations. Qualitative and quantitative approaches were used appropriately to achieve identified objectives of the study: To identify the impact of information sharing over supplier-buyer relationship, a qualitative approach was used, whereas quantitative approach was used to identify impact of those factors on the supply chain performance along with the enhanced supplier buyer relationship due to the proper information sharing. Hence, the questionnaire comprised of both structured questions and open-ended questions. Structured data were collected using Likert Scales and analysed using non-parametric analysis, namely, chi-square analysis. The data collected through open ended questions were analysed using content analysis.

4. Analysis

Based on the analysis, five factors that affect supply chain performance were identified. This includes integrated information sharing, visibility of inventory and sales information, real time basis information sharing, willingness to share information and quick, frequent and accurate information transfer within the supply chain. These factors were ranked based on their importance on supply chain performance. These factors have effect on the following performance measures: profitability, process innovation, lead time, customer responsiveness, on-time delivery, delivery speed and reliability, inventory days, product innovation, productivity and inventory cost. Relationship between the five factors and performance measures were analysed using non-parametric analysis. Accordingly, several hypotheses were tested to measure the relationship. For instance,

H₀: Integrated information system will not impact on improve the company profitability

H₁: Integrated information system will impact on improve the company profitability

Based on the hypothesis analysis it was identified that, out of the five factors, the quality of the information has a strong relationship on the performances of the supply chain in apparel industry. Furthermore, there is a high correlation between integrated information sharing and supply chain profitability. The research found that factors such as quick, frequent and accurate information transfer, process innovation and integrated information system have a significant correlation with lead time reduction of operations.

5. Discussion and Conclusion

The research empirically proves that information sharing impact on supply chain performance. This goes with respect to the integrated information sharing, visibility of inventory and sales information, real time information sharing, willingness to share information and quick, frequent and accurate information transfer within the supply chain. Furthermore, the study proves that information sharing impacts the supplier-buyer relationship; and as a result, many companies heavily invest in information systems to enhance the effective and integrated information sharing along the up-stream and down-stream supply chain for achieving long-term benefit of enhancing the supply chain performance. It is further demonstrated that the information sharing impacts on buyer-supplier relationship either in a positive or negative way. It shows that undue information sharing has negative bearing on the

supplier-buyer relationships; hence, it is vital to share only the essential information to increase the efficiency and effectiveness.

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Keywords: *information, information sharing, supplier-buyer relationship, supply chain performances*