



Supply chain Management Study in Drug Manufacturing

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Abstract--*Supply Chain Management (SCM) practices can significantly impact one aspect of organizational outcomes, i.e., customer satisfaction of drug manufacturers in the pharmaceutical industry. This study, therefore, seeks to find out the influencing dimensions of SCM practices and examine empirically the conceptual framework of proposed relationships between these dimensions and customer satisfaction. A quantitative survey was carried out among the managers and executives of various drug manufacturers in the pharmaceutical industry of Bangladesh. The results of the study indicate that SCM practices as observed in the industry comprise three dimensions, namely, collaboration and information sharing, logistics design and IT infrastructure, and organizational culture (OC). However, while the first two exert their impact on customer satisfaction, OC does not have any influence on it. Research limitations: The study is performed only in a particular industry and with a questionnaire survey. Future studies could extend the findings covering other industries as well as conducting a qualitative exploration of the pertinent dimensions of SCM practices. The findings of the study have a significant bearing for the managers working in pharmaceutical industry. The dimensions and their constituent items offer a significant insight into the current SCM practices impacting customer satisfaction and room for potential improvements in this regard. Originality/value: Few studies have been done on the influence of SCM practices on customer satisfaction in pharmaceutical industry in the context of a developing country. Besides, there is a dearth of large scale empirical investigation in this particular area.*

1. Introduction:

The paper is structured as follows: following this introduction, a literature review is provided first, on the theories adopted in this study, and then on the dimensions of supply chain management practices and their impact on customer satisfaction demonstrating the theoretical



framework of the study. Next, in the methodology section, instrumentation of the measurement items concerning the SCM practices and customer satisfaction is provided by mentioning the articles that have been reviewed for this purpose. Besides, how data were collected and analyzed is also stated. In the findings section, first, the reliability measures of the pertinent variables are presented. Factor analysis for the dimensions representing the SCM practices is then highlighted. The three hypotheses are tested and illustrated through structural equation modeling technique. This is followed by a discussion of the findings vis-à-vis prior empirical studies and their managerial implications. Finally, concluding remarks and suggestions for possible future works are provided.

1. Supply Chain –

definitions and models The concept of “supply chain” is well established in the literature and is generally referred to as the alignment of firms that bring products or services to market .The supply chain includes manufacturer, suppliers, transporters, warehouses, wholesalers, retailers, other intermediaries and even customers themselves. Any product traded on the consumer goods market, in its evolution from raw material to finished products, undergoes a series of successive transactions on the business to business market. For example, when a final consumer purchases a bottle of Coca Cola, he/she does not buy directly from Coca Cola, but from an intermediary (for example the hypermarket or neighborhood store) and the product goes through several transactions on the business to business market on the circuit Coca-Cola – wholesaler – retailer – final consumer.

2. Business Analytic (BA)

In this study Business Analytics (BA) is defined as applying different analysis techniques on the data to give the answers of the questions or solve the problems related to SCM. BA is not the technology in real it is organizational procedures, tools and approaches to collect information, then analyzing the information and predicting the outcomes of different problems in four spots of SCOR (Plan, Source, Make, and Deliver). The well planned SCM system help organization to success, because financial performance get better the stock turnover improves along with reduced expenditures on sales. These are some basic advantages additional can also be



recognized. In past decades the large investment is made on supply chain systems yet these systems are struggling to get competitive advantage. The worse thing is there is lack to evaluate the business value . Most of the research papers have discussed the initial experience and not the improvement along with the time . Therefore it is an essential to study the effect of BA, factors that help the impact along with areas of supply chain management.

3. Social Capital Theory

Social capital theory focuses on the softer side of organizational issues. Its relevance vis-à-vis supply chain is premised on the fact that since entities in the chain comprise people spanning across firm boundaries, various social aspects, such as, their interrelationships, shared values, trust and confidence among each other in sharing information, etc. impact supply chain performance . In a typical supply chain, the objective of each entity is crafted so as to optimize its own performance at the expense of others resulting into a diminished output for the entire chain. As the business landscape changes to a competition of supply chain versus supply chain, these soft relationships are to be grounded on a solid footing that would yield a competitive edge for the whole supply chain.

2. Critical Review of Supply Chain Management Definitions and Terminology

As we shown in previous section, the supply chain consists of all the activities and process associated with the flow of goods and information from the raw material stage to the end consumer of the product/service. The integration of activities and processes among the members of the supply chain is frequently referred to as Supply Chain Management. The field of Supply Chain Management (SCM) was born to manage the flow of information, products and service across a network of customers, enterprises and supply chain partners, and since its introduction as a concept in the 1980s, supply chain management has undergone significant changes and extensions. Many authors attribute the foundations of SCM to the historical evolution of the logistics function and several consider that SCM and logistics are synonym. Waters states that “Logistics - or supply chain management - is the function responsible for the transport and storage of materials on their journey from original suppliers, through intermediate operations, and to final customers”. Even if SCM consist of logistics management activities, however, there



is a difference between the concept of supply chain management and the traditional concept of logistics. Logistics is the management function responsible for all movement of materials within the boundaries of a single organization while SCM takes a broader view of movement through all related organization that form the supply chain. Supply chain management acknowledges all of traditional logistics and also includes activities such as marketing, new product development, finance and customer service.

Conclusions:

This study is a contribution to the growing research stream trying to clarify the impact of supply chain management on performance. Specifically, we explored the impact of the supply chain management as a multidimensional construct (information sharing, long-term relationship, cooperation and process integration) on different competitive priorities (cost, flexibility, quality and time). The research setting was the emerging Brazilian economy, a less researched environment. More research work has to be conducted to quantify the cost and benefits of collaboration in supply works through the types of cultural enablers and inhibitors described. Some work in areas such as risk pooling measurement, and the value of information sharing has already been done. The framework presented here can help to identify some of the underlying mechanisms at work in SCC, and to point the way for further study of the financial implications of good and bad collaboration.

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