SUPPLY CHAIN MANAGEMENT PRACTICES AND SUPPLY CHAIN PERFORMANCE OF APPAREL INDUSTRY OF CHINA IN THE PRESENCE OF EMERGING TECHNOLOGIES.

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Abstract

In today's age, most of the companies are not working as an independent structure but as the share of multi-company, multi-echelon networks, i.e. supply chains, delivering goods and services to the final customer (Lambert and Cooper, 2000). According to the literature of Supply chain management (SCM), the combined command of all the multi-company network proves beneficial in many aspects (e.g. Norek and Pohlen, 2001). For managing all the networks between the companies, the imperative requirement is the proper usage of information technology (IT) and it is also favorable for improving the efficiency of the supply chain (e.g. White and Pearson, 2001). Although the importance of IT for efficient SCM is widely acknowledged, empirical research assessing how IT is in practice used for SCM is narrow. Additionally, most of the research is concentrated either on modeling the importance of inter-organizational information technologies and the sharing of information or on evaluating the effectiveness of certain technologies on the efficiency of the supply chain.

Keyword: Supply Chain, Management, Green Supply Chain, Supply Chain Performance.

1.INTRODUCTION

In today's age, most of the companies are not working as an independent structure but as the share of multi-company, multi-echelon networks, i.e. supply chains, delivering goods and services to the final customer (Lambert and Cooper, 2000). According to the literature of Supply chain management (SCM), the combined command of all the multi-company network proves beneficial in many aspects (e.g. Norek and Pohlen, 2001). For managing all the networks between the companies, the imperative requirement is the proper usage of information technology (IT) and it is also favorable for improving the efficiency of the supply chain (e.g. White and Pearson, 2001). Although the importance of IT for efficient SCM is widely acknowledged, empirical research assessing how IT is in practice used for SCM is narrow. Additionally, most of the research is concentrated either on modeling the importance of inter-organizational information technologies and the sharing of information or on evaluating the effectiveness of certain technologies on the efficiency of the supply chain**.**

As a result, the main reason for the usage of IT in supply chain management and other particular ways remains uncertain. Just because of these unknown limitations in the literature we focus on the following research problem: "How and for what purposes do companies use information technology in supply chain management?" This paper is organized in the following way. First, the preceding literature work which was focused on the usage of IT in SCM is evaluated. Then at a second stage, the presentation is made based on all the findings of the study with an aim to present the research design. In the last two sections, all the outcomes are sum upped, considered and final remarks are drawn.

2.LITERATURE REVIEW

In the world of business and trade, the main element is the supply chain. However, for the proper and efficient working, it is important to understand all the elements and role performed by every function involved in a supply chain. (Janvier-James, 2012). To enhance the competitive advantages, organizations are paying attention to their supply chain as it is recognized as the strategic and orderly partnership of traditional activities of a business.

(Flynn, Hou, & Zhao, 2010). In this 21st century, SCM proved beneficial as it lessens the cost but with this advantage, it focusses more on improving the quality, enhancing the consumer's service and increase competitiveness (Tan, Lyman, & Wisner, 2002). The attention of scholars is grabbed by the supply chain and SCM in recent years as it has played a vital role in the productivity and effectiveness of a firm (Janvier-James, 2012). Other than the scholars, SCM also got recognition from practitioners and this is one of its contributions.

The main idea of SCM originates from the logistical notion since 1950 and then it gets fully developed in1970 (Habib & Jungthirapanich, 2008). The logistical concept is slowly evolving into the SCM concept and initiated the SCM concept since 1980, and the first publication took place in 1982 (Habib & Jungthirapanich, 2008). In the manufacturing industry, the idea of SCM hits in 1985 (Habib & Jungthirapanich, 2008). At the start of the 1990s, agile manufacturing was of main attention for scholars and industry practitioners (Huan et al., 2004; Cooper, 2006). Then the service industry followed this, by initiating the SCM to operate their business in 1995 (Habib & Jungthirapanich, 2008). In the last decade, the progress and evolution of SCM are remarkable as it also received a lot of attention from academics and practitioner's bodies since 2000. (Chan & Qi, 2003). Then in 2007, SCM entered the educational industry (Habib & Jungthirapanich, 2008).

For improving the organizational competitiveness, the most important tool of the twenty-first century is the SCM. There is a difference of philosophical significance in both agile manufacturing and SCM but both work for improving competitiveness. Agile manufacturing is focused on partnerships for obtaining the speed and flexibility in manufacturing the goods. Whereas, SCM is paying attention to all the elements such as classification, pace, flexibility, market price, and asset management. In SCM, an amalgam of suppliers and customers is an important factor for obtaining great values (Gunasekaran, Lai, & Cheng, 2008)

3.PRIOR RESEARCH

There is a lot of work done that focuses on the use of IT in SCM. The recent literature survey done by Gunasekaran and Ngai (2004), contains almost hundreds of journal articles that highlight the importance and use of IT in the integration and management of the supply chain. This literature work aims to debate the main contributions and results of three approaches of research such as analytical research, empirical studies, and classification frameworks by following the topic.

4.IT AND SUPPLY CHAIN MANAGEMENT

The research work arranges the chain relationships into three proportions such as operational, tactical, and strategic (Shah et al. 2002). The behavior of information sharing between supply chain firms characterized these three levels. (Rai et al. 2006). The first level i.e. operational level supply chain relationships exchange the business-based data between the organizations with the help of inter-organizational information sharing technologies such as EDI or extended ERP. Other than this transaction-cost reduction programs such as Vendor Managed Inventory (VMI) is also used. While talking about the tactical level, it doesn't only support the information sharing facility between two organizations but it also focusses on multiple divisions and serviceable departments present within a firm or across firms. To enhance productivity and booming goals, the sharing of information goes above the transactional planning. Collaborative Planning, Forecasting, and Replenishment (CPFR), Continuous Replenishment (CRP), or sharing of Point-of-Sale (POS) demand information are the few examples of SCM initiatives at the tactical level. The gathering and sharing of competitive observation and involving the functionality of decision support of IT applications is a part of the strategic level in supply chain relationships (Akkermans et al. 2003). Despite various focuses of

information sharing, the SC relationships can be highly collaborative or can involve one party dominating the information sharing processes with another party (Malhotra et al. 2005). For improving the SC processes and performance of an organization, the research on IT impacts in the context of SCM has investigated the importance of various technologies and transformations such as EDI, CRP, and RFID. Srinivasan et al. (1994) suggest a way for better delivery performance by finding that the suppliers having EDI for supporting manufacturing in Just-in-Time (JIT) context has great performance concerning the level of shipment discrepancies. The constant replenishment enabled by CRP is useful for both manufacturers and participating retailers according to Raghunathan and Yeh (2001). By the increment in customer value perceptions, a firm can change its premises of competition from an efficiency-oriented plan to reinforcing customer loyalty. Lee et al. (2008) suggest that an organization can use RFID to achieve this. Supply chain IT can enhance the efficiencies of the supply chain by lowering the uncertainties that are linked with the unavailability of information, misrepresentation, and incompletion.

5.EMERGING TECHNOLOGIES THAT WILL AFFECT THE SUPPLY CHAIN

In technologies, Radio Frequency Identification (RFID) is the most important as its tags are primarily barcoded on the steroids. Bar-codes only have the ability to identify the products whereas RFID tags contain all the information about the product such as its minor details, location, expiry dates, and all other data which is encoded into the bar-codes. For the generation of all the information regarding the location of cases, cartons, pallets, totes and separate items present in the supply chain, RFID technology will prove useful in this case. It has an ability to create a bundle of information regarding where and when the stock is formed, collected, packed and shipped. It is great in creating the numbers having information about the expiration dates of their stock. These numbers will have to be saved and transmitted in the real-time domain and then it is shared with the warehouse management, inventory management, financial and other ventures. In a nutshell, it will have an enormous effect in the field of business. RFID tags can easily read automatically by electronic readers and this is another gain of RFIDs as bar-codes are unable to perform this. Consider a truck entering a shipping terminal in the chain with a container filled with widgets. If RFID tags are filled into the container and the terminal contains an RFID sensor network, then the whereabouts of the container can be simply sent to a customer even without slow downing the truck. This is because of its ability to introduce a considerable quantity of visibility into the broader supply chain. But with all such benefits, the biggest hurdles to spread the adoption of RFID are the cost of forming the infrastructure and the insufficiency of agreed-upon industry standards.

6.CONCLUSION

A complex network of providers, customers, and distributors formed an effective supply chain in which they carefully share and manage all the data related to demands, decisions and who consider that success for one part of the supply chain means success for all. It is also described as a set of approaches used to integrate the manufacturers, warehouses, suppliers, and stores to produce the stock of the right quantity, delivered at the correct place in exact time to satisfy the service level requirements and also to minimize the cost. In this era of the global village, the borders and barriers will get vanished. For operating effectively in this market, the global multinational firms have to deal with their philosophy for sustaining in this environment of IT and globalization. In this century we can't ignore the importance of information technology as it has a great impact on globalization. This paper was focused on the impact of IT in SCM. The companies which are following IT are more successful than the companies who are ignoring the importance of IT. This paper highlights certain areas of SCM where IT has helped in improving. This study was done with the help of previous literature and with a limitation that it is based on the secondary data. Whereas, in future primary data will have the power to support the argument that IT and SCM are directly linked with each other.

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