

Supply Chain Management in Context of Growing Indian Market

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Abstract

The Indian manufacturing along with service sector have promised increasing growth, especially with the make in India initiative of the Government and user friendly trade policies. In the last two decades, this tremendous increase has been noticed due to the economic liberalization, starting from the early 1990's. India has become a famous manufacturing hub at the global market level. Increasing competition, due to globalization is making inevitable for the Indian industries to provide cost effective quality output with stringent delivery schedules. Issues in supply of inferior quality, delayed supply, unwarranted cost escalation etc. would adversely impact the credibility and business potential of the Indian industry. Indian manufacturers faced challenge of supply chain disruption which can result in large tangible and non-tangible losses.

The analysis of challenges and complexities of Supply Chain Management (SCM) practices that are catering the industry needs to be urgently addressed; in-order to understand the trends that will shape the futuristic supply chain management (SCM) practices. This paper seeks to analyse the status as well as futuristic view of complexities and challenges that affects the SCM practices. It is our best hope that this study will provide an understanding which will help in adopting good SCM practices in industry and lead to various competitive advantages.

Keywords: Supply Chain Management (SCM), SCM Practices, SCM Challenges, Indian Industry Growth

Introduction

In the current growing and competitive environment of Indian market, SCM is an important topic which calls for research and study because in such a volatile environment, companies need to take care of fluctuating customer

need as well as controlling the associated cost. To do so, businesses must search out which parts of their supply-chain processes are not competitive, understand which customer needs are not being met and rapidly implement necessary improvements. Supply Chain Management is the management of a network of interconnected businesses involved in the ultimate provision of product and service packages required by end customers.

Supply chain is a network of firms to deliver product or service to the final customer, linking flow from raw material supply to final delivery, as has been shown (Bhardwaj and Jawalkar, 2015). Supply Chain Management can be understood as a network of organisations (Small, Medium and OEMs) connected in a hierarchy allowing exchange or flow of materials, information and money. These all kinds of flow or exchange may be facilitated with some real time information systems.

A complex layout of SCM system, as has been represented in the figure 1 below:

SCM definitions by various researchers are illustrated in Table 1.

Table 1: SCM Definitions

<i>Authors</i>	<i>Definition of SCM</i>
Ellram (1991)	A network of firms interacting to deliver product or service to the end customer, linking flow from raw material supply to final delivery.
Berry et al. (1994)	SCM aims at building trust, exchanging information on market needs, developing new products and reducing the supplier base to a particular OEM so as to release management resources for developing meaningful.
Kopczak (1997)	The set of entities, including suppliers, logistics services providers, manufacturers, distributors and retailers, through which materials, products and information flow.

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(Source- Supply Chain Management Scenario in India, (Hosmani, 2014))

Figure 1: SCM Layout Along with associated Processes

Authors	Definition of SCM
L e e and Ng (1997)	A network of entities that starts with the suppliers supply and ends with the customer's custom for the production and delivery of goods and services.
T a n et al. (1998)	SCM encompasses materials/supply management from the supply of raw materials to final product it focuses on how firms utilize their suppliers processes, technology and capability to enhance advantage. It is a management philosophy that extends traditional intra-enterprise activities by bringing trading partners together with common goal of optimization and efficiency.

With aid of the various management systems in the end, some product or service can be assumed to get delivered to end customer. The Supply Chain Management includes new product development, marketing, operation, distribution, finance, customer service and other function that relates to serving customer request, as has been shown (Chopra and Meindl, 2007). The effective Supply Chain Management is very necessary to cope up day to day obstacles which keep on dragging back the supply and demand processes.

In this study, we tried to analyse the current status and complexities and challenges of the Supply Chain Management services in reference to Indian market. In the end, some conclusions have been drawn based on the study that will help to cope up the challenges in SCM and to adapt sustainability in the tough phase of competition.

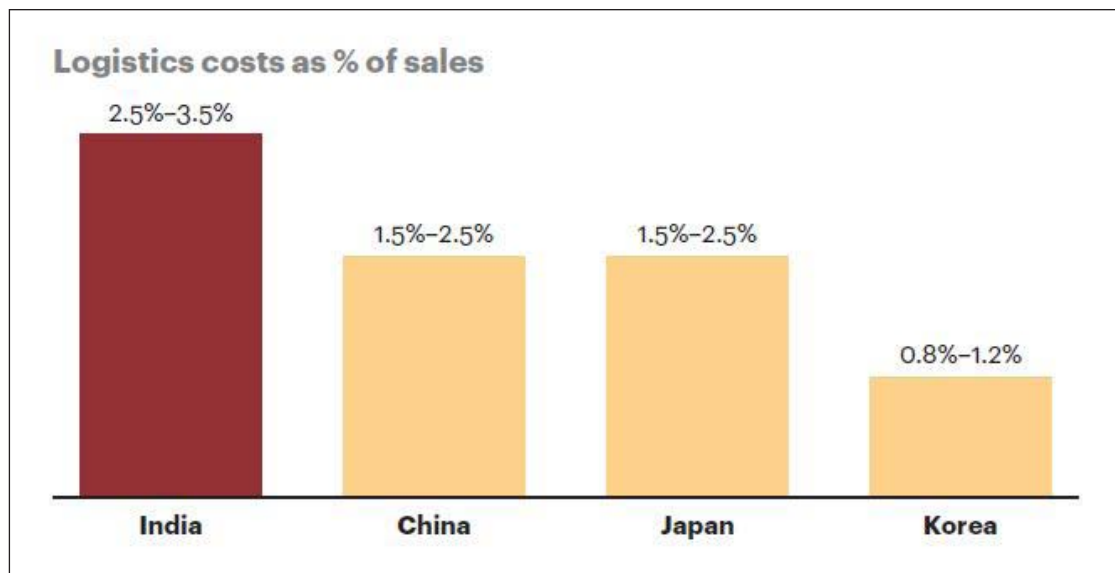
Literature Survey

The traditional protective economic, industrial and organizational boundaries have been demolished. To compete successfully in today's marketplace, organizations need concurrently to manage effectively and efficiently the activities of design, manufacturing, distribution, service and recycling of their products and services to customers. SCM is the collection and interaction of these elements that impact system-level qualities, properties, characteristics, functions, behaviour, and performance (Cloutier *et al.*, 2010).

Enterprises create and deliver products and services through increasingly global and complex supply chains as have been shown (Binder and Clegg, 2007; Basole and Rouse, 2008).

Industry here in India spend approximately 14% of GDP on logistics as compared to 10-11% that in Europe and 9% in United States of America (Sunil Giri *et al.*, 2014). Thus, it is implied that there exists a great scope towards betterment for SCM in India.

Experts maintain that global supply chains are more difficult to manage than domestic supply chains as has been demonstrated (Mac Carthy and Atthirawong, 2003). Thus it says that Indian market or industry should be ready for the coming challenges in the futuristic global era of time.



Source: A.T Kearney Analysis

Figure 2: Logistics cost as % of sales.

Studies on Indian auto component industry highlighted the influence of qualitative performance parameters in cost estimation. These non-financial indicators include business environmental factors, buyer–supplier relationships, technological advancement, quality management system, employees’ skills and capabilities, well planned scheduling techniques, system flexibility, and sourcing and delivery decisions (Romano, 2002; Gurusurthy and Kodali, 2008; Zhao and White, 2010; Singh, 2010; Singh *et al.*, 2010; Nayak and Ray, 2010).

Effective Supply Chain Management and Logistics contributes to competitive advantage to organizations. To achieve this improved performance, organizations should focus on applying techniques which offer a strategic opportunity for companies to gain an increase in revenue. This is possible by refocusing on integrating IT with supply chain management and Logistics. The desired technology platform can capture enterprise-level data and deliver information to support the specific needs of their global manufacturing or distribution. Organizations must realize that they must harness the power of IT to collaborate with their business alliances (M. Reddy, 2012).

Thus by observing the above literatures, it can be implied that Indian SCM has a long way ahead in the coming volatile phase of competitive market to move, to change, to adapt in order to achieve the level of global standards.

Current Status of Indian SCM

Indian SCM has been growing with a tremendous growth since early 90’s. This has been made possible as a result of expanding customer population, living standard of people in country. As per lead analyst, Software and services research, IDC India, the total SCM market has been growing at 7.6% as has been shown (Arora *et al.*, 2014). The current status of SCM has been discussed below.

Logistics Infrastructure

This aspect is currently in the phase of development in the country. Road, Rail and Air transportation are suffering with poor infrastructure and seeking renovation and development. Due to poor facility, the logistics cost in India is much higher as shown in figure 2.

Customer-Supplier Integration

The supply chain integration strategy to corporate competitiveness is increasingly becoming relevant. It is critical to realize, however, that those firms which seek to lead the race to integrate the supply chain must become exhaustively conscious of their own power and effectively manage this power to support their integration strategy.

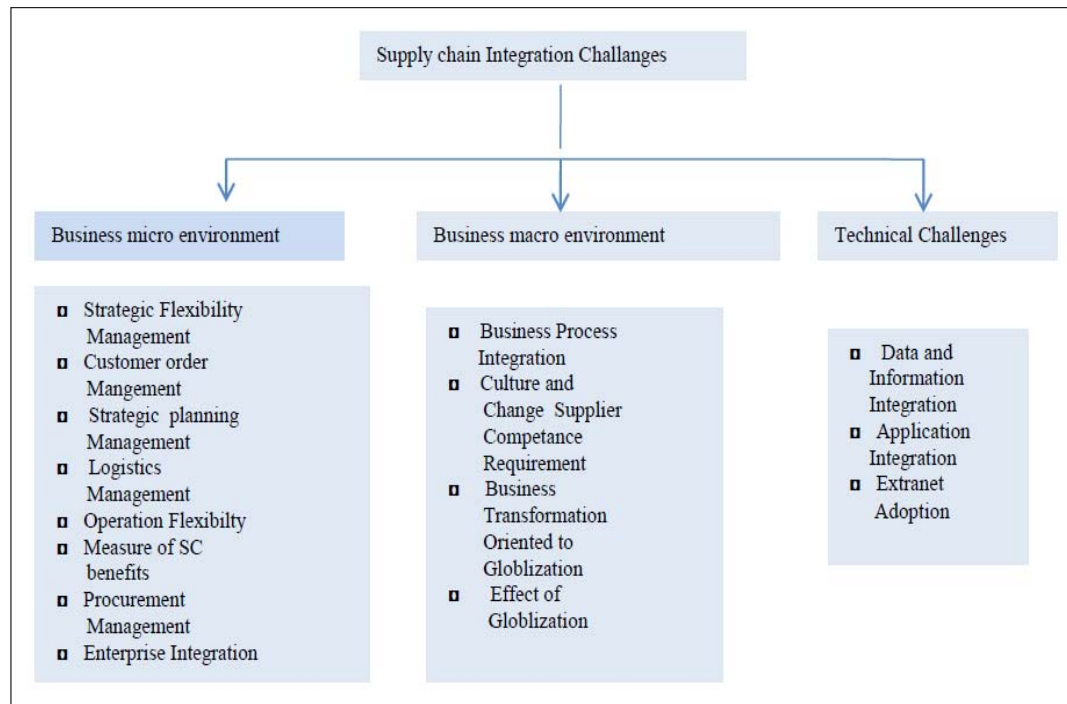


Figure 3: Supply Chain Management Integration Challenges (Kiran Bala, 2014).

This concept is still in the initial phase in India as compared to other developed countries. Because it prerequisites the fulfilment of challenges as shown in figure3.

Since all above mentioned management preparation is not up to the level in the country, so there is still time required in order to adapt this integration.

Time Punctuality

This is supposed to be the main reason for the delay in logistics function and hence in the Supply chain management. Since India already lagging in infrastructure, proper forecasting and also because of variation in demand from customer side, this functional aspect of SCM is just at the foot level.

Information Technology (It) Adaptation within SCM

Before, 1980s the information flow between functional areas within an organization and between supply chain member organizations were paper based. This was very slow process. IT infrastructure capabilities provide a competitive positioning of business initiatives like cycle time reduction, implementation, implementing redesigned

cross-functional processes. IT collaboration with SCM results in various advantages and also as a whole response of the SCM can be improved significantly.

Various IT tools that can be used in SCM practices can be shown by figure 4.

ERP- Enterprise Resource Planning, SRM- Supplier Relation Management, CRM- Customer Relation Management.

Figure 4 shows the tools that are being known to the most of the world but technology has gone so far now and it can make SCM practices so easy and perfect, if tried. IT and SCM collaboration in future can help the organisation in handling multiple function effectively as shown in Figure 5.

Scarcity of SCM Professionals

Though, we are heading in the terms of growth in the market globally but still Indian market face crisis in terms of professionals and skilled workers in the associated field.

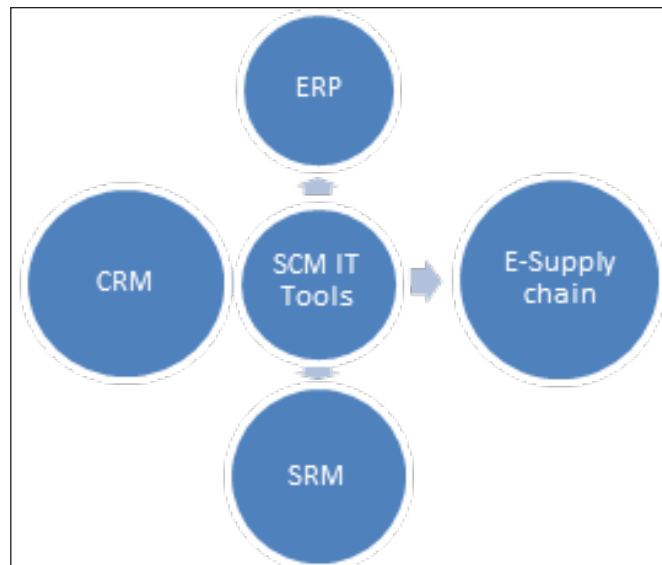
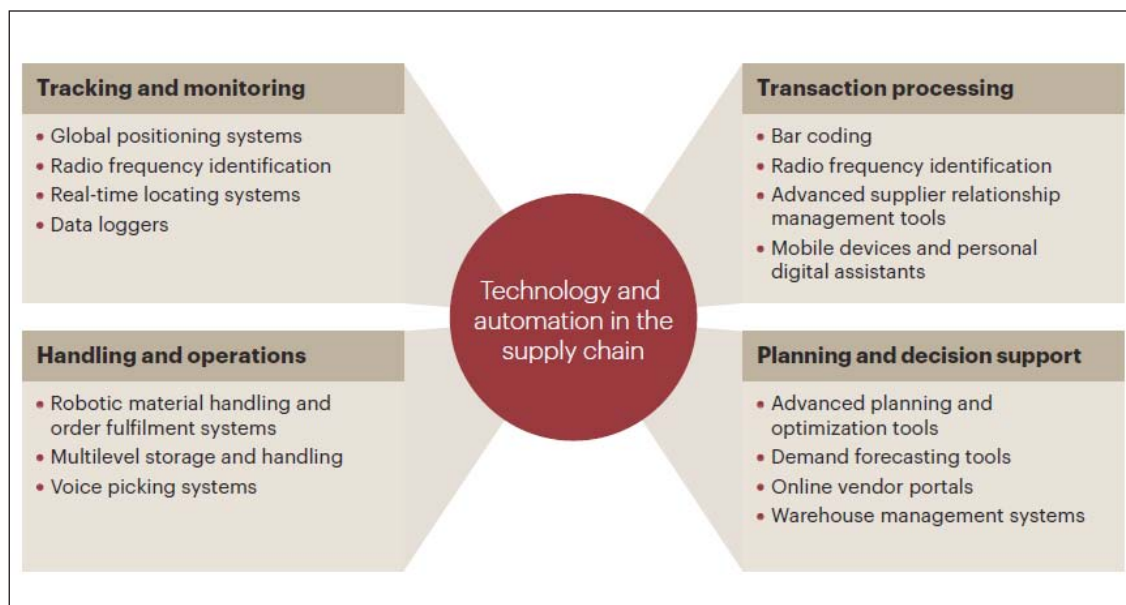


Figure 4: Various SCM IT Tools (M. Reddy, 2012).



(Source: A.T Kearney Analysis)

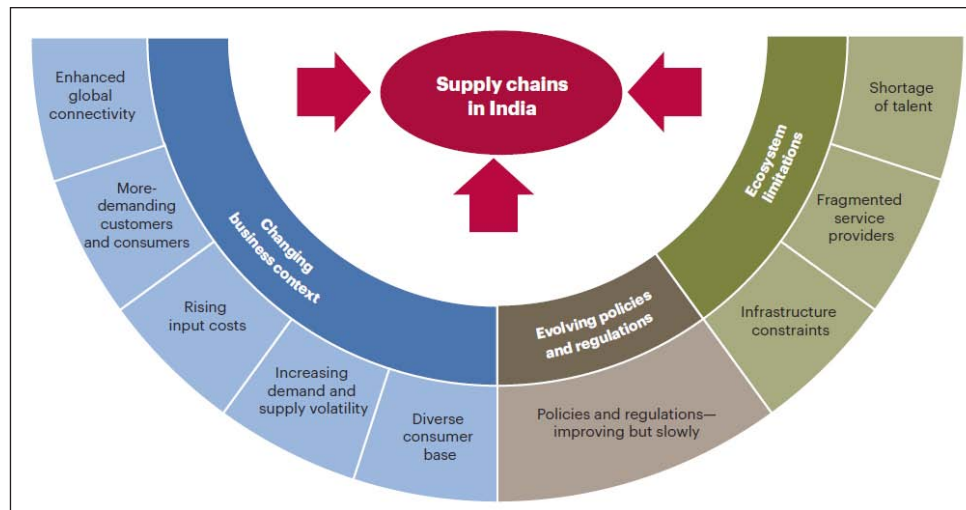
Figure 5: Future SCM and IT Collaboration Possibility

Supply Chain Management (SCM), Complexities and Challenges in Context of Indian Industry/Market

Observing the ups and downs of the growing Indian Automotive market which it will be facing in the coming time era, it can be said that Indian SCM should be prepared in advance for the coming challenges and complexities in order to cope up and to meet the demand

and supply. Since Indian SCM is not up to the mark from infrastructure point of view; but now GOI is also making moves towards improving the same, so there is a need to understand these complexities and to prepare an action plan.

SCM practices in India faces a lot of challenges. These challenges affect SCM as a whole but particularly Inventory management. The top five challenges to SCM in India are- Visibility, Cost Involvement, Risk Involvement



(Source A.T Kearney Analysis)

Figure 6: Supply Chain and Associated Current and Future Challenges in India

and its management, Increasing customer base and in the end the globalization (IBM, 2009). As per the study of A. T. Kearney some Challenges has been presented in Figure 6.

Conclusion

After observing and understanding the above analysis and study, it might not be wrong to say that the Indian industry or market is already very volatile and seeing the growth forecast in future, furthermore it is expected to be more and more volatile, lack of demand and supply meet and hence the operating environment conditions for SCM to operate are going to more unfriendly. . Also India is suffering from lack of infrastructure which will take time to improve. The Indian industry yet to achieve the level of working as in developed countries as has been shown (Chang and Klenow, 2009). There exists a good potential for the national level SCM integration (Park D et al., 2012). The Indian Auto Industry should try to adapt or improve the under mentioned steps in order to get set ready for the existing and coming challenge.

- Collaborate in order to Integrate the Value Chain (Industrial collaboration for SCM facilities)
- Replace 'One way for all' with Fragmented approach (Different SC for different category product)
- Proactively manage complexity
- Implement new Information Technology systems and automations

- Demand – Supply meet strategy
- Inclusion of third Party Logistics.

World class supply chain practices are essential source for competitive advantages. The impact of such SCM can be felt not only in containing the traditional items of logistics, warehousing and administrative cost but also in minimizing the cost of inventory holding, lost sales and obsolescence.

India's dynamic business environment requires a smart, agile supply chain that can become a real differentiator in the market place. This evolution has already started. Players that lead the way will act on the imperatives identified in this research paper to accelerate the development of a world class SCM system in India.

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