

## STUDY ON NEW METHOD OF MANUFACTURING

ADARSH ADEPPA<sup>1</sup>

Department of Mechanical Engineering, BKIT Bhalki, India

### ABSTRACT

**Supply Chain and Supply chain Management have taken a significant effect in corporate efficiency and have attracted the interest of numerous researchers from the last few years. Researcher's literature review discloses an important spurt in research in practice and theory of Supply Chain (SC). Providing information on Supply Chain, Supply Chain Management and distribution Management characteristics have contributed to the Supply Chain integration.**

**KEYWORDS:** Supply Chain Management , integration

In recent years, the area of supply chain management (SCM) has become very popular. This is evidenced by marked increases in practitioner and academic publications, conferences, professional development programs and university courses in the area. While interest in SCM is immense, it is clear that much of the knowledge about SCM resides in narrow functional silos such as purchasing, logistics, IT and marketing. At least partly as a result of this, there appears to be little consensus on the conceptual and research methodological bases of SCM. This has contributed to the existence of a number of gaps in the knowledge base of the field. Firstly, from a conceptualization perspective, the definition of the term is unclear and the impact of theoretical diversity is such that it is doubtful SCM is based on a coherent theory[SotirisZigiariis, 2000].

### WHAT IS SUPPLY CHAIN MANAGEMENT

#### Supply Chain

The development and functioning of Supply Chains have become important subjects for academician with a resultant increase of definitions and phrases. Definitions that have been investigated for the intention of this thesis are as follows:

#### Supply Chain Management

The connections and nodes in a Supply Chain achieve functions that contribute to the value of the goods transporting through the chain and thus its achievement. Any connection that does not carry out well reduces the overall effectiveness of the whole [Robert B. Handfield, 2003].

#### Supply Chain

The notion of Supply Chain management

as used in many research is usually linked with the globalization of producing and the penchant for manufacturers to source their inputs planetary, which necessitates management of profitable ways of regulating worldwide flows of inputs or outputs. The principal focus of market competition in such situations is not only between goods, but between the Supply Chains delivering the goods.

### DESCRIPTION OF SCM

#### What is the Supply Chain Management (SCM?)

Within the organization, the supply chain refers to a wide range of functional areas. These include Supply Chain Management-related activities such as inbound and outbound transportation, warehousing, and inventory control. Sourcing, procurement, and supply management fall under the supply-chain umbrella, too. Forecasting, production planning and scheduling, order processing, and customer service all are part of the process as well. Importantly, it also embodies the information systems so necessary to monitor all of these activities.

Simply stated, "The supply chain encompasses all of those activities associated with moving goods from the raw-materials stage through to the end user." Advocates for this business process realised that significant productivity increases could only come from managing relationships, information, and material flow across enterprise borders. One of the best definitions of supply-chain management offered to date comes from Bernard J. (Bud) LaLonde, professor emeritus of Supply Chain Management at Ohio State University. LaLonde defines supply-chain management as follows: "The delivery of enhanced customer and economic value through synchronized management of the flow of physical goods and associated information from sourcing to

<sup>1</sup>Corresponding author

consumption. "As the "from sourcing to consumption" part of our last definition suggests, though, achieving the real potential of supply-chain management requires integration--not only of these entities within the organization, but also of the external partners. The latter include the suppliers, distributors, carriers, customers, and even the ultimate consumers. All are central players in what James E. Morehouse of A.T. Kearney calls the extended supply chain. "The goal of the extended enterprise is to do a better job of serving the ultimate consumer," Superior service, he continues, leads to increased market share. Increased share, in turn, brings with it competitive advantages such as lower warehousing and transportation costs, reduced inventory levels, less waste, and lower transaction costs. The customer is the key to both quantifying and communicating the supply chain's value, confirms Shrawan Singh, vice president of integrated supply-chain management at Xerox. "If you can start measuring customer satisfaction associated with what a supply chain can do for a customer and also link customer satisfaction in terms of profit or revenue growth," Singh explains, "then you can attach customer values to profit & loss and to the balance sheet [AsseyMbangJanvier, 2012]."

### **IMPORTANCE OF SCM**

In the olden days there is a slogan that slow and steady running tortoise wins the race. That may have been true in Aesop's time, but in today's demanding business environment, "slow and steady" won't get you out of the starting gate, let alone win any races. Managers these days recognize that getting products to customers faster than the competition will improve a company's competitive position now days the managers are more conscious about their production rate according to the demand in market. To remain competitive and stable in the market, companies must seek and learn new solutions and techniques to important Supply Chain Management issues such as modal analysis, supply chain management, load planning, and route planning and distribution network design. Companies must face corporate challenges that impact Supply Chain Management such as reengineering globalization and outsourcing. Why is it so important for companies to get products to their customers quickly? Faster product availability is key to increasing sales, supply chain management includes the most

important points in moving goods at faster rate to the required places [Charles C. Poirier, 1999].

### **General Supply Chain Model**

The main objective of introducing the General Supply Chain Model (Caddy and H.1999) is to provide and give the complete awareness about complete understanding of supply chains, in terms of both their management and their operation. Supply chain models are needed to be focus on only one specific aspect of the supply chain: organization strategy, information technology and individual factors. While each of these aspects is considered important in its own right, each factor independently does not provide a comprehensive view of supply chains management. Integrating the above said aspects result in the complete development of a general supply chain model, in which each of the aspect provides a disconnected as well as connected combined contribution. The general models represented below integrate into the model the interplay among the three aspects. Diverse effects are generated given the characteristic and level of interplay. Furthermore, the characteristic and level of interplay would be uncertain on organizational culture, the condition in which the organization operates and the features of the supply chains used in the exchanges that happen among organizations.

### **INTEGRATION OF SUPPLY CHAIN**

Integration of Supply Chain gradually increases the strength of managers to state the problems in the chain in order to effect improvements. However, without a trustworthy method to help managers in detecting obstacles along the Supply Chain, it becomes more complicated for managers to acquire the knowledge they want for benefiting fully from Supply Chain integration. Integrating the connections of the Supply Chain into a complete functioning system conceivably improves the flow of goods and information in the organization strongly helps in development of the organization. That implements the more effective Supply Chain. Hence this helps in development of effective supply chain management for working organizations

There are mainly two types of integration, i.e. horizontal and vertical integration. Horizontal integration refers to the incorporation into a single corporate of several corporate involved in the similar level of production and sharing resources at

that level, while vertical integration refers to the incorporation into a single corporate of several corporates involved in all aspects of a good's production from raw materials to distribution. The best view of experts that vertical Supply Chains integration provides greater efficiency [Abu-Suleiman, 2004].

### Supply Chain Management Today

If we consider that Supply Chain Management as a tool for manufacturing then in 1997 Supply Chain Management has a strong control on all aspects of physical distribution and materials management. Many developed organizations adopt the following points for development of their own organization

- Materials handling
- Transportation service procurement
- Inbound transportation
- Inventory management
- Transportation operations management
- Warehousing management
- Product development

In maximum aspects, the Supply Chain Management is expected to increase its responsibilities, most often completing the fulfillment process as one co-ordinate set of activities. Thus the functions said as planning to include in the Supply Chain Management department are:

- Customer service performance monitoring
- Order processing/customer service
- Supply Chain Management budget forecasting

### Supply Chain Management Tomorrow

The future for Supply Chain Management looks successful. It will become most important part of any successful organization which leading the market and becomes necessary tool of the upcoming companies

## OBJECTIVES OF SUPPLY CHAIN MANAGEMENT

### Strategic objectives

- reducing working capital,
- taking assets off the balance sheet,
- accelerating cash-to-cash cycles,

- Increasing inventory turns, and so on.

## SUPPLY-CHAIN PRINCIPLES

Most successful leading companies in the market were utilizing the best weapons principles of supply chain, they utilized their best for achievement and successful growth of their companies they are seven principles of supply chain management.

1. **Segment customers based on service needs.** It's a traditional way that Companies have grouped their customers by industry, product, or trade channel and then provided the same level of service to everyone within a segment. Effective supply-chain management, by contrast, groups customers by distinct service needs--regardless of industry--and then tailors services to those particular segments.
2. **Customize the Supply Chain Management network.** In designing their Supply Chain Management network, companies need to focus intensely on the service requirements and profitability of the customer segments identified. The conventional approach of creating a "monolithic" Supply Chain Management network runs counter to successful supply-chain management.
3. **Listen to signals of market demand and plan accordingly.** Sales and operations planning must span the entire chain to detect early warning signals of changing demand in ordering patterns, customer promotions, and so forth. This demand-intensive approach leads to more consistent forecasts and optimal resource allocation.
4. **Differentiate product closer to the customer.** Companies today no longer can afford to stockpile inventory to compensate for possible forecasting errors. Instead, they need to postpone product differentiation in the manufacturing process closer to actual consumer demand.
5. **Strategically manage the sources of supply.** By working closely with their key suppliers to reduce the overall costs of owning materials and services, supply-chain management leaders enhance margins both for themselves and their suppliers. Beating multiple suppliers over the head for the lowest price is out, Andersen advises. "Gain sharing" is in.

6. **Develop a supply-chain-wide technology strategy.** As one of the cornerstones of successful supply-chain management, information technology must support multiple levels of decision making. It also should afford a clear view of the flow of products, services, and information.
7. **Adopt channel-spanning performance measures.** Excellent supply-chain measurement systems do more than just monitor internal functions. They adopt measures that apply to every link in the supply chain. Importantly, these measurement systems embrace both service and financial metrics, such as each account's true profitability [AsseyMbangJanvier, 2012].

## CONCLUSION

Supply Chain Management is a most important part of world trade. For understanding and effectiveness of a Supply Chain to be efficient, it is necessary to understand its objectives, principles, functions as well as the role played by each function in the Supply Chain's overall efficiency. For successful handling of the materials in an industry, completion of products and providing the goods on time.

## REFERENCES

- Supply Chain Management by Sotiris Zigiariis, MSc, BPR engineer, January 2000.
- Introduction to Supply Chain Management -- Robert B. Handfield, Ernest L Jr. Nichols 2003.
- Advanced Supply Chain Management: How to Build a Sustained Competition -- Charles C. Poirier 1999.
- Supply Chain Management: The Basics and Beyond (The St. Lucie Press/Apics Series on Resource Management) ~ William C. Copacino / Published 1997
- A New Introduction to Supply Chains and Supply Chain Management: Definitions and Theories Perspective. AsseyMbangJanvier-James International Business Research Vol. 5, No. 1; January 2012
- Abu-Suleiman, A., Boardman, B., & Priest, J. (2004). A framework for an integrated Supply Chain Performance Management System. *Industrial Engineering Research Conference*. Houston:TX. Refereed Research Article and Presentation.