Volume : 2 | Issue : 9 | September 2013 • ISSN No 2277 - 8179

Research Paper

Supply Chain Management – Key to Business Success: A review

Management

KEYWORDS : Supply Chain Management, customer satisfaction, competitors, and business.

Dr.Padma Charan Sahu — Professor, Department of Commerce & Management, Administrative Management College, Bangalore - 560083

Dr.P.Srinivas Rao — Director (ID) & Principal, Administrative Management College, Bangalore - 560083

ABSTRACT

Supply Chain Management is management of material, money, men, and information within and across the supply chain to maximize customer satisfaction and to get an edge over competitors. As a result Supply Chain Management (SCM) has become a vital issue for manufacturers, business personnel, professionals and researchers. There is any lacuna than the entire related business activities shall remain standstill. Systematic supply chain activities can only satisfy the end users which inter alia provide scope for sustaining the business for a longer period in the market. It is felt that to manage the supply chain effectively the understanding of entire structure of supply chain is essential. This paper attempts to present a complete picture of supply chain management and its importance for carry out business activities through a systematic literature review.

Introduction

The world is changing and growing at rates and in ways unrivaled throughout history. These changes will test how far humans can push the Earth's limits. Businesses and their supply chains may similarly struggle under the strain of skyrocketing demand and erratic supply.

Supply chain management are necessary cornerstones of competitive strategy, increased market share and shareholders' value for more organization and it is a fundamental concept that has evolved to facilitate organizations to improve their competence and effectiveness in the global and highly competitive environment of the 21st century. Organizations espouse copious business upgrading methodologies to improve the business performance. Manufacturers and researchers have noted a number of tribulations regarding supply chain activities in their research and practice (Sridharan et al., 2005). It is observed that usually either a system (Integrated approach) or a subcomponent in supply chain (Disintegrated approach) is focused and discussed in the literature but fails to answer the rational (why, what, how) behind supply chain activities (Spens & Bask, 2002). With the help of structured literature review we will try to project that how supply chain management is the nerves system of business.

Supply Chain Management (SCM)

SCM is the management of an interconnected or interlinked between network, channel and node businesses involved in the provision of product and service packages required by the end customers in a supply chain (David, 2009). Supply chain management spans the movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption. In other words supply Chain Management is management of material, money, men, and information within and across the supply chain to maximize customer satisfaction and to get an edge over competitors.

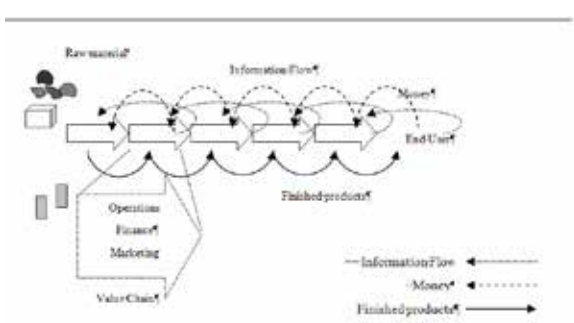


Figure 1: Supply Chain (New and Payne, 1995)

Components of Supply Chain

A supply chain consists of a variety of components depending on the business model selected by a firm. A typical supply chain consists of the following components –

- Customers
- Distributors
- Manufacturers
- Suppliers

Supply Chain Management Objectives:

The main reason and objective of SCM is to provide a strategic weapon to build up and enhance sustainable competitive advantage by cost reduction without compromising customer/end users' satisfaction (Mentzer et al. 2001). Moreover, the ability to understand the environment pressures that drive the SCM and clearly note the barriers and implement solutions or bridges enables supply chain performance to maintain competitive advantage (Fawcett et al, 2008, 37). The main goal and important aspect of SC is leveraging the expertise, experience, skills and capabilities of the SCP who comprise this competitive network (Mentzer et al., 2001).

Importance of SCM

Organizations increasingly find that they must rely on effective supply chains, or networks, to compete in the global market and networked economy. In Peter Drucker's (1998) new management paradigms, this concept of business relationships extends beyond traditional enterprise boundaries and seeks to organize entire business processes throughout a value chain of multiple companies.

In recent decades, globalization, outsourcing, and information technology have enabled many organizations, such as Dell and Hewlett Packard, to successfully operate collaborative supply networks in which each specialized business partner focuses on only a few key strategic activities (Scott, 1993). This inter-organizational supply network can be acknowledged as a new form of organization. From a systems perspective, a complex network structure can be decomposed into individual component firms (Zhang and Dilts, 2004). Traditionally, companies in a supply network concentrate on the inputs and outputs of the processes, with little concern for the internal management working of other individual players. Therefore, the choice of an internal management control structure is known to impact local firm performance (Mintzberg, 1979).

Definitions and key ideas of SCM: Researchers found that the lack of commonly accepted definition of supply chain management and the problems associated with supply chain activities makes the understanding of supply chain management difficult (Simon Crooma et al (2000).

Volume : 2 | Issue : 9 | September 2013 • ISSN No 2277 - 8179

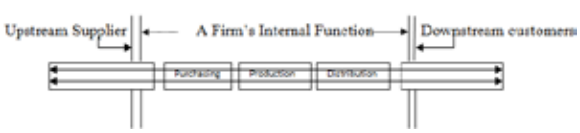
SCM encompasses the entire value chain and addresses materials and supply management from the extraction of raw materials to the end of useful life.

Review of Literature:
Supply Chain Management is a network of facilities for business that produce raw materials, transform them into intermediate goods and then final products, and deliver the products to customers through a distribution system. It spans procurement, manufacturing and distribution (Lee & Billington 1995) the basic objective of supply chain management is to "optimize performance of the chain to add as much value as possible for the least cost possible". Adoption of Supply chain management practices in industries has steadily increased since the 1980s. A number of definitions are proposed and the concept and its importance have discussed from many perspectives. However Cousins et al. (2006); Sachan and Datta (2005); Storey et al. (2006) provided excellent review on supply chain management literature.

Gunasekaran and McGaughey (2003) extended the scope of SCM beyond material management, partnership, information technology to the Total Quality Management areas like management commitment, organizational structure, training and behavioral issues. As firms' survival, success, competitiveness lies on integration just life survival on integration process of various argons of the body, a good understanding of the integration process is a key aspect in SCM.

It is also observed that research is not limited to hypothesis testing and data analysis, but more advanced techniques like simulation, Artificial Neural Network, and Fuzzy logic are also used for optimization and decision making in SCM. Koh and Tan (2006) used the principles of fuzzy logic for analyzing and monitoring performance of suppliers based on the criteria of product quality and delivery time where as Chiu and Lin (2004) showed how the concepts of collaborative agents and artificial neural networks (ANNs) can work together to enable collaborative supply chain planning (SCP).

Figure:2 SCM Integration Model



Vaart and Pieter (2003) drawn conclusions on the need for an inter-disciplinary approach, combining the technical and relational aspects from the respective fields of system dynamics and collaboration in order to deliver superior order replenishment performance. Gunasekaran and Ngai (2005) indicated that E-Business, product, and service-quality, all have a significant direct effect on customer behavioral intentions to purchase again. Balakrishnan and Cheng (2005) reviewed and update the methodology based on spreadsheet that provided enhanced solutions in complex environments with multiple products and bottleneck situations. Nagarajan and Sosic (2004) reviewed literature dealing with buyer vendor coordination models that have used quantity discount as coordination mechanism under deterministic environment and classified the various models.

SCM – Issues and challenges:
Successful implementation of SCM is seen as closely dependent upon the need for breaking down barriers not only between internal departments and business processes, but also across companies within the whole supply chain (Vollman et al., 1997). Its success is also associated with the challenging development of a new culture based on empowerment and on-going and shared learning and continuous improvement. Another challenging and difficult feature of SCM is linked with the emergence of the network organization, which can lead to a complex web of linkages to be coordinated and managed. This can imply difficulties which include lack of common purpose, multiple and hidden goals, power imbalances, culture and procedures, conflict over autonomy and accountability, over-dependence and a continuing lack of openness and opportunistic behavior (Cox and Townsend, 1998).

SCM Processes
According to the definition given by the Global Supply Chain Forum, SCM is the integration of key business processes from end-user to original suppliers that provides products, services, and information that add value for customers and other stakeholders. There are eight business processes that are carried out across the supply chain. Such as; customer relationship management, customer service management, demand management, customer order fulfillment, manufacturing flow management, procurement management/supplier relationship management, product development and commercialization, and return management. Each of the process consists of set of activities from within various functions of the organizations comprising the supply chain. These functions include marketing, production, finance, research and development, logistics, etc.

Barriers, Bridges and Benefits to effective SCM:
SCM addresses the following problems:
- Distribution network configuration
- Distribution strategy
- Trade-offs in logistical activities
- Information
- Inventory Management
- Cash flow

Supply chain execution means managing and coordinating the movement of materials, information and funds across the supply chain. The flow is bi-directional. Fawcett et al. (2008) reviewed solutions to the SCM barriers proposed in the scientific literature. They noted the following plausible solutions in order of importance; information transparency, CFT/CF collaboration, collaborative planning, IT architecture/internet, formal performance tracking, adopt strategies SCM vision, attention to human factors, supplier certification/reduction, target segmented customers and shared investment/benefits.

Conclusion
Business organizations have multiple objectives like enhanced competitiveness, better customer service and increased profitability etc. To seek these objectives organization employs various defensive as well as offensive business performance improvement approaches. SCM covers all functional areas of business organization. It is the network of customers, suppliers, manufacturers, and distributors concentrating the flows of material, information, and finance through physical and human resources. It is otherwise known as the key to business. Success and unsuccessful of business is mostly depend on the SCM process. Any disturbance in the process of SCM will affect the business. In the present competitive world business cannot be successful without the systematic SCM planning. It is very essential for the part of a manager to understand and have the sufficient knowledge that why to manage, what to manage and how to manage the supply chain. While developing supply chain they will have to analyze the critical factors for external and integration. The totality of SCM would be incomplete without the distribution and return management of goods which is the cream of the business. There are six stages Plan, Analyze, Develop, Integrate, Deliver, and Return. Six stages of managing supply chain management. These stages are to be considered very carefully by a manager for success of his/her business. In this paper we discussed the concept of supply chain management along with the purpose of SCM from business point of view. This provides deeper insights for those managers investigating the concept of supply chain management. In order to explore the realm of supply chain management we have stated that one must examine the nature, interrelations and dependency among business operations. Current trends like outsourcing, information technology adoption and third party logistics presents an opportunity for development of SCM. It is felt that in future all organizations will have to adopt partnership information sharing initiative with suppliers. According to Lambert and Cooper (2000), operating an integrated supply chain requires a continuous information flow. However, in many companies, management has concluded that optimizing product flows cannot be accomplished

without implementing a process approach. The key supply chain processes stated by Lambert (2004) for successful business are Customer relationship management, Customer service management, Demand management style, Order fulfillment, Manufacturing flow management, Supplier relationship management, Product development and commercialization, and Returns management. Hence, the researcher concludes that the supply chain management is key to the organizational success.

REFERENCE

• Ben-Daya M.,Hariga M. and Khursheed S. N., "Economic production quantity model with a shifting production | • Coase, R.H., 1937. The nature of the firm. Economica 4, 396—405. | • Cooper et al., 1997; Lambert et al.,1996; Turnbull, 1990 | • Cooper, M.C., Lambert, D.M., & Pagh, J. (1997) Supply Chain Management: More Than a New Name for Logistics. The International Journal of Logistics Management Vol 8, Iss 1, pp 1–14 | • Cousins, P.D., Lawson, B;,l Squire, B;, 2006. Supply Chain Management: theory and practice - the emergence of an academic discipline. International Journal of Operations and Production Management, 26(7,pp 697-702. | • Cox.A., 1997, Business Success. Earlsgate Press, Midsomer Norton, Bath | • David Jacoby, 2009, Guide to Supply Chain Management: How Getting it Right Boosts Corporate Performance (The Economist Books), Bloomberg Press; 1st edition, ISBN 978-1576603451. Chapter 10, Organising, training and developing staff | • Drucker, 1998; Tapscott, 1996; Dilts, 1999 | • Ellram, L.M., 1991. Supply chain management: the industrial organization perspective. International Journal of Physical Distribution and Logistics Management 21 (1), 13—22. | • Emiliani, M.L., 2003. The inevitability of conflict between buyers and sellers. Supply Chain Management: An International Journal, 8(2),pp.107-115. | • Gunasekaran, A;, McGaughey, R.E;, 2003.TQM is supply chain management. The TQM Magazine, 15(6),pp.361-363. | • Gunasekaran, A;, Patel, C;l, Tirtiroglu, E;, 2001. Performance measures and metrics in a supply chain environment. International Journal of Operations and Prodn. Management, 21(1/2),pp.71-87. | • Gunasekaran, N., Rathesh,S., Arunachalam,S., Koh,S.C.L., 2006. Optimizing supply chain management using fuzzy approach. Journal of Manufacturing Technology Management, 17(6),pp.737-749 | • Gunasekarana, A., Ngai E. W. T., "Build-to-Order Supply Chain Management: Literature Review and Framework for Development" Journal of Operations Management, (23: 5), 2005, 423-451. | • http://dx.doi.org/10.2307/259056 | • Koh,S.C.L;, Tan,K.H.,2006. Operational intelligence discovery and knowledge-mapping approach in a supply network with uncertainty. Journal of Manufacturing Technology Management, 17(6),pp.687-699. | • Lambert D.M.., Pohlen, T.L., 2004. Supply Chain Metrics The International Journal of Logistics Management, (12(1),pp.1-19(27) | • Lang, J.C.,2001. Managing in knowledge based competition. Journal of Organizational Change Management, 14(6),pp.539-553. | • Lambert, Douglas M.Supply Chain Management: Processes, Partnerships, Performance, 3rd edition, 2008. | • Lamming, R.C., 1993. Beyond Partnership: strategies for innovation and lean supply. Prentice-Hall, Hemel Hempstead. | • Lamming, R.C., 1996. Squaring lean supply with supply chain management: lean production and work organization. International Journal of Operations and Production Management 16 (2),183—197. | • Lee Hau L., and Corey Billington, "The Evolution of Supply- Chain-Management Models and Practice at Hewlett- Packard.Interfaces", 25 pp. 42-63 September- October, 1995 | • Lee, H.L., Billington, C., 1992. Managing supply chain inventory:pitfalls and opportunities. Sloan eManagement Review 33 (3), 65—73. | • Lee, H.L., Billington, C., 1995. The evolution of supply chain management models and practice at Hewlett-Packard. Interfaces 25 (5), 42—63. | • Lee, H.L., Ng, S.M., 1997. Introduction to the special issue on global supply chain management. Production and Operations Manage- ment 6 (3), 191—192. | • Lee, H.L., Padmanabhan, V., Whang, S., 1997. The bullwhip effect in supply chains. Sloan Management Review 38 (3), 93—102. | • MacDuffie and Helper, 1997; Monden, 1993; Womack and Jones, 1996; Gunasekaran, 1999 | • Mentzer, J.T. et al. (2001):Defining Supply Chain Management, in: Journal of Business Logistics, Vol. 22, No. 2, 2001, pp.1–25 | • Nagarajan M. and So i G.,"Stable Far sighted Coalitions in Competitive Markets "Management Science, (53:1), 2004, pp.29-45 | • rate" International Transactions in Operational Research, (15: 1), 2008, pp 87-101 | • Sachan, A., Datta, S., 2005. Review of supply chain management and logistics research International Journal of Physical Distribution & Logistics Management, 35(9), pp. 664-705. | • Scott C. and Westbrook R., "New Strategic Tools for Supply Chain Management, "International Journal of Physical Distribution & Logistics Management, (21: 1), 1991, pp 23-33. | • Scott, C., Westbrook, R., 1991. New strategic tools for supply chain management. International Journal of Physical Distribution and Logistics Management 21 (1), 23—33. | • Simon Crooma et al (2000) European Journal of Purchasing & Supply Management 6 (2000) 67—83 | • Spens, K .M., Bask, .B..,2002. Developing a Framework for Supply Chain Management. The International Journal of Logistics Management, 13(1)pp 73-88. | • Spens, KI.M., Bask, A.B., 2002. Developing a Framework for Supply Chain Management. The International Journal of Logistics Management, 13(1),pp.73-88 | • Sridharan, U.V., Caines, W.R., Patterson,C.C.,2005. Implementation of supply chain management and its impact on the value of firms. Supply chain management: An International Journal, 10(4),pp 313-318. | • Sridharan, U.V., Caines, W.R., Pattersonl,C.C.,2005. Implementation of supply chain management and its impact on the value of firms. Supply Chain Management: An International Journal, 10(4),pp 313-318. | • Stevens, 1989; Ellram and Cooper, 1993; Ellram and Cooper, 1990; Houlihan, 1985 | • Vaart T. V. And Pieter D., "Buyer-focused operations as a supply chain strategy", International Journal of Production and operation Management (26: 1), 2003, pp8-23 | • Zhang and Dilts, 2004 ;Vickery et al., 2003; Hemila, 2002; Christopher, 1998; Joyce et al., 1997; Bowersox and Closs, 1996; Williamson, 1991; Courtright et al., 1989; Hofstede, 1978