

CONCEPT EXPANSION OF CHAIN MANAGEMENT

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ABSTRACT

SCM is one of the Major topics of the Decision Science. The Chain Management Concept was theoretically developed by Michael Porter in the book of “Competitive Advantage” as a “Value Chain” followed by Supply Chain Management. The Supply Chain Management concept is that the goods are traded from manufacturer to wholesaler, then wholesaler to retailer, and retailer to consumer. This type analysis is called push pattern theory. On the other hand, pull pattern theory is called Demand Chain Management. The flow is from consumer to retailer, retailer to wholesaler, wholesaler to manufacturer. The Famous Toyota Motor’s ”Kanban system” is classified into DCM. This paper tries to explain the chain management concept and incoming new concept of chain management concept by some specified examples.

KEYWORDS

value chain, production chain, supply chain management, demand chain management, trade chain, security chain management, financial SCM,

INTRODUCTION

SCM is one of the major topics of management information systems. This concept is not so new, to analyze from upstream manufacturers flow to downstream retailer or distributors and consumers flows. SCM targets how to decrease cost and increase value opportunities by using Recent Information Technology or network infrastructure. Now the SCM became powerful indispensable management tool. Michael Porter depicted “Competitive strategy” or “Competitive advantage” in the 80’s, and the word “Value Chain” became very popular.

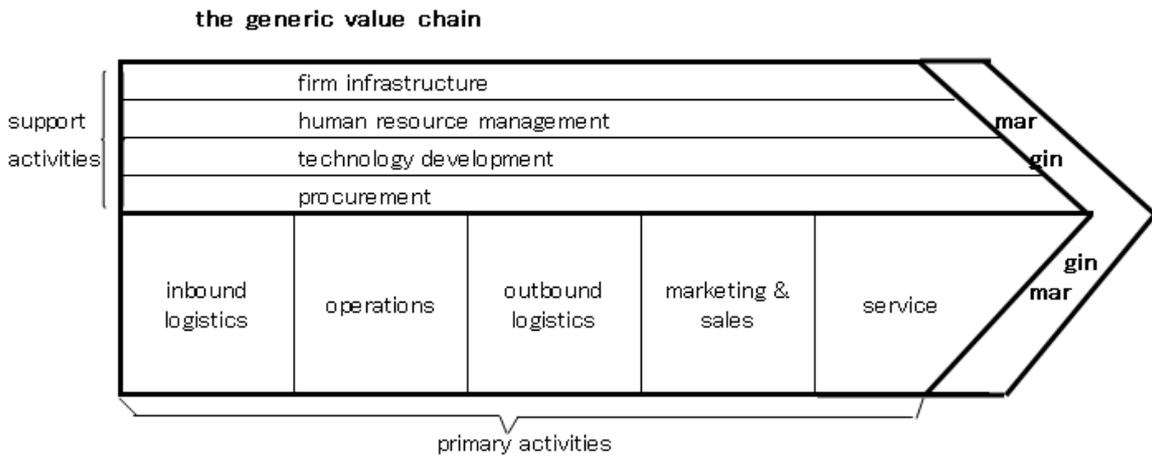
Porter’s Value chain was the first, the next was supply chain management, the third was demand chain management, the fourth was security chain management, the fifth is trade chain management and the sixth is financial supply chain management.

This paper tries to follow the concept expansion of the chain management.

01 VALUE CHAIN MANAGEMENT

“Competitive Strategy” was issued in 1980 by Michael Porter. The book shows techniques for analyzing industries and their competitors. His theories based on the industrial organization. The Industrial Organization theory consists of the three parts of the market structure, the market conduct

and the market performance. He presented the framework to analyze industries and competitors, and 3 fundamental strategies to acquire competitive advantages such as cost leadership, differentiation and concentration. His successive “Competitive Advantage” is the book how to achieve the 3 strategies, and how to attain continuous competitive advantage. Porter cultivated the concept of the value chain and value activities.



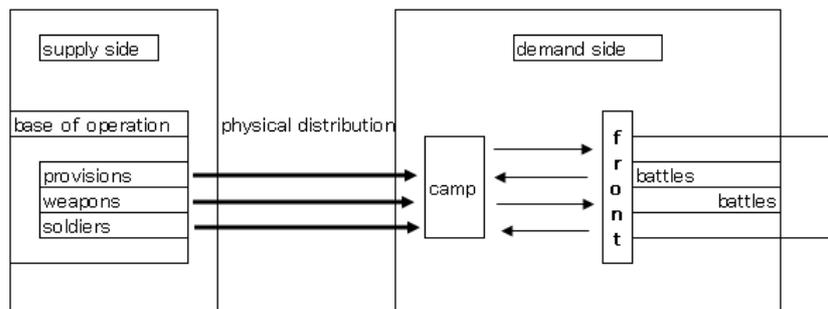
“competitive advantage” michael porter p37

His primary activities are divided into inbound logistics, operations, outbound logistics, marketing & sales and service. Support activities are firm infrastructure, human resource management, technology development and procurement. The final purpose of the value chain concept is how to increase the margin finally. Value activities exist not only inside but also outside firms. His suggestion is how to make value chains by dividing and connecting interrelated value activities to acquire margins.

02 Supply Chain Management: SCM

The word SCM has close relationship with Logistics system in a battle. There is a base of operation in the supply side and battlefield is in the demand side. The role of logistics is to supply provisions, arms or weapons or powder and so on for soldiers to the battle front.

logistics system

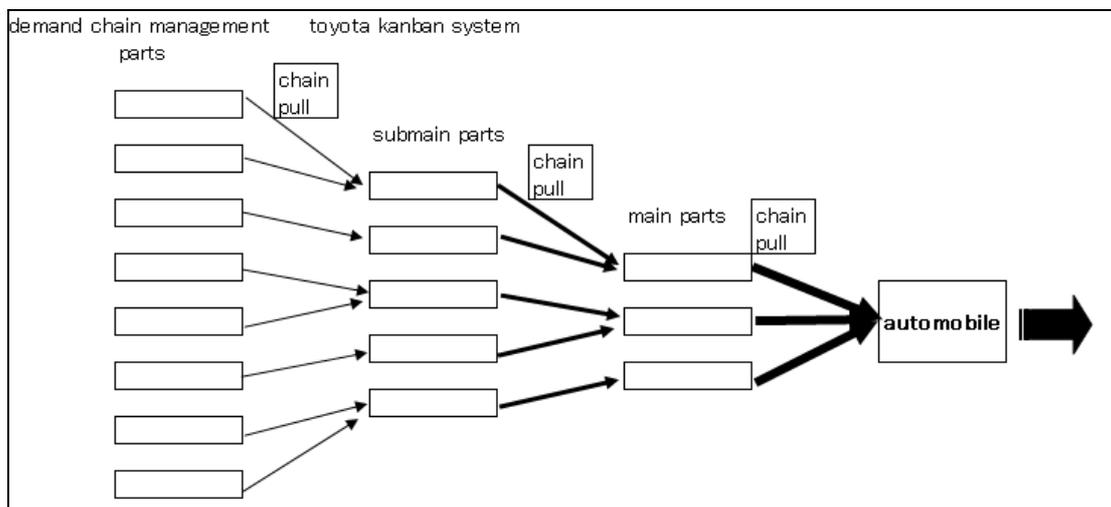


. Timely distributions from the base of operation to the front are critical and very important.

Supply chain management concept is similar to the logistics systems. Base of operation is the manufacturer and the front is the consumer market. The flow is that manufacturers push distributors, distributors push consumers.

03 Demand Chain Management

Toyota motor originated “kanban system”. The idea is the reverse concept of the supply chain management. Final product automobile pulls main parts, main parts pull submain parts, submain parts pull parts with the relay of kanban indexes. The concept is “just in time” of proper parts and proper number arrival to the coordinating place.



If this is the push style, they have to keep so many inventories at each coordinating places mainly by earlier parts arrivals. In the pull style supply side waits until the kanbans arrivals.

Firstly, completed automobile is outbound. Then the arrival of kanban indexes indicates the parts inbound time and numbers. In other word they call this as production chain in auto-industry.

04 Trade Chain Management

International business has two dimensions of regal flows. One is the physical distribution of material flow. Another is the title documents flow. Trade chain is classified into material flow. Original goods are from exporters delivered to the ports agency or customs, and exported to foreign countries. The opposite country receives goods, delivered to warehouse, transporters, and importers. During this trade chain, how to minimize physical distribution costs and leading time is the big subject of the cross border transactions.

message interchange systems among banks. Almost all major financial institutions join SWIFT as members. The SWIFT has annual conference named SIBOS. Last year the SIBOS was held in Singapore. Trade Service Utility was presented in the SIBOS conference. It is one of the e-trade concept named Financial Supply Chain. The agenda were mainly about TSU. In the competition versus collaboration section “model for trade services“ was presented as common messaging infrastructure platform, common set of bank-to-bank standards, collaborative electronic matching and workflow capability and banking community engagement. Under the leadership of SWIFT, the Trade Services Advisory Group was formed and has devised a collaborative trade utility model. By this TSU banks can enter supply chain earlier. SWIFTNet enables trade utility for banks. They are going to start pilot plan from June 2004 and report will be presented October in Atlanta, then actual start is estimated in 2005.

06 Comments

Value chain was presented as increasing margin system. And supply chain came from manufactures supply side analysis. Then demand chain management came from production chain management. Trade chain came from cross border international business of material flow and applied to security chain. Finally, financial SCM came from e-trade documents flow. The chain management concept is expanded and diversified. The chain relationship is becoming credit creation relationship. Recently, Radio Frequency Identification(RFID) system is becoming new technique of physical distribution system. The IC Tug also requires traceability or tracking functions to confirm the transaction by retroacting one by one processes to be safe and correct. Container security initiative(CSI) and Customs Trade Partners Against Terrorism(C-TPAT) are new security chain management for international container cargoes. Thus, the chain management concept has diversified expansions.

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