# Case study of british consolidated agricultural machinery co ltd business essay



## Introduction

Supply chain is a complex system of procedures and choices, which links obtaining of raw-materials with manufacturing and to the end consumer. Supply chain management is "primarily concerned with the efficient integration of suppliers factories, warehouses and stores so that merchandise is produced and distributed in the right quantities to the right locations at the right time in damage-free conditions and so as to minimize the total System cost of a company subject to satisfying service requirements" Crocker (2011a) slide 8. BCAM supply chain was organized on a functional basis (Christopher, 1998).

# **Organizational structure:**

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Source: Business process orientation (2009) "The Traditional Functional Structure of Firms"

BCAM had a traditional rigid organizational structure that is problematic to change rapidly. This kind of organizations are doubtful to achieve competitive advantage of integrated logistics management since it did not identify the need for change and development, by following its old out dated organization values. (Christopher, 1998).

BCAM traditional Supply Chain Structure: (Crocker, 2011)

C: UserssoloDesktoptraditional supply chain. jpgSource: Crocker (2011a) slide 18.

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BCAM had individual tasks who try to minimize their own costs but it revolved out to be at the expenditure of significantly increased inventory across the system as a whole. It has no advance warning of supplies and they are forced to make forecasts and as a result they obtain needless safety stocks. Also the supplier is often faced with unforeseen short term demands for products which lead to frequent fluctuations to their production and distribution plans and thus additional costs. Therefore the customer service suffers as there is always high level of stock and stock-outs (Christopher, 1998).

BCAM principally focused on push supply chain. "Push system is where products are manufactured or assembled in batches in anticipation of demand and are positioned in the supply chain as buffers between the various functions and entities" (Christopher, 1998)pp. 179 Physical flow of goods in BCAM was under Bullwhip effect as Lee et al. (1997a) states that the difference of orders may be higher than that of sales and the distortion have a tendency to to rise as one moves upstream in the chain of supply. Lee et al. (1997b) assertion that the information transmitted is likely to to be distorted and can misguide upstream associates in their manufacture and inventory choices causing distortion of flow in supply chain functions like mentioned in the above diagram. This occurrence is called as bullwhip effect. BCAM has disintegrated information management "By making use of local information to make demand forecasts and passing them onto downstream partners, information distortion is created" Crocker (2011a) slide 18. Purchasing decisions of raw materials and equipment are currently dispersed across the different business units, determined by engineers and production

staff's and the purchasing department has relatively lesser importance. There was a problem of cost transparency where the costs relating to the flows of material across the functional areas were difficult to measure. Thus the real costs to serve different customers with different products mix are rarely revealed. The costing systems are designed to monitor functional or input costs rather than flow or output costs. Logically the ideal way to manage the process is a complete system and not by fragmenting it into silos. But in BCAM it was conventional and it was starting to loose its effectiveness and competiveness. The time taken to process orders is extended due to the paperwork, checking and rechecking that is generated by conventional systems. Since organizations grow organically they tend to add to existing process in a patchwork manner rather than taking a clean piece of paper approach. Thus the systems used by BCAM tend to owe more to history than to any concept for a holistic management (Christopher, 1998).

Forrester effect

BCAM supply chain competes with competitors supply chain

Lots of non-value added activities

Large purchase: economies of scale Crocker, B (2011b)

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Source: (Christopher, 1998) " push versus pull in the logistics" pp. 180

BCAM currently adopted a push strategy which stressed out the sales department to sell the obsolete machineries; this could decrease the motivation of employees besides its tremendous lack of supply chain effectiveness and efficiency. This results in the need to adopt push supply chain strategy. The managers were rigid to the organizational culture and unable to adjust themselves from their familiar surroundings and to see a wider scope but they instead tried to improve their own departments which caused various understanding. It brings low customer service level by do not projecting a single face to the customer. (Christopher, 1998).

### **Conclusion**

Analysing the case of BCAM it has been understood that the company still lacks far behind achieving effective and efficient supply chain strategy. It was mainly traditional system of inventory management with high stock, no information sharing and most importantly it uses a push strategy to sell its products, which was an out dated approach to supply chain management. The aim now is to move from the traditional push system based on forecasts and batches to a pull type where real demand triggers a response of just the required quantity.

## **Answer 2:**

# Introduction

Supply chain management as a theory is at the present well recognized and its implementation has assisted many businesses to achieve economical edge. It is comparatively a new awareness that is in progress from just 30 years earlier. The case of BCAM will highlight the improved SCM approach

that will enhance the supply chain and procurement structural flexibility. There is constant restructuring of supply chain concept as modern business environment is rapidly changing. Most supply chains lack the ability to adapt quickly to changing market and environmental conditions. This is due to the primary objective of efficiency rather than flexibility. Thus efficiency is no longer the best practice to supply chain and firms are becoming more aware of an increasing need to implement adaptive supply chain in BCAM (Christopher and Holweg, 2011). " Effective management of the supply chain can lead to up to 5% cost decrease that has the same impact on profit as 30% increase in sales" Crocker (2011a) slide 67. " For organizations reassessing their supply chain strategies, a clear and comprehensive picture of the current competitive landscape is essential. This picture should include an understanding of customer and supplier market changes as well as a competitive benchmark of current supply chain performance levels, capabilities and practices" Archstone consulting (2011). BCAM must "initially adopt collaboration where, it must join forces not just about evolving closer relationship or integrating process between supply chains: marketingcommercial (for promotions of new product service introductions, (Ireland and Bruce, 2000) and Research and development activities" (Ellinger, 2002)

Source: Barratt, (2004), "the scope of collaboration" pp. 34

# Lean approach theory: model applicable to BCAM

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Source: Crocker, B (2011b) slide. 7

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BCAM produce capital equipment that are high in demand and cost and had

low variety of products which makes it suitable to adopt a lean supply chain

strategy.

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Source: Crocker, B (2011b) " leagile" slide 9

It is crucial to locate the entire value stream for each product. Value stream

is defined by Womack & Jones, (1996) as "the set of all the specific actions

required to bring a specific product (whether a good, a service, or,

increasingly, a combination of the two) through the three critical

management tasks of any business: the problem-solving task running from

concept through detailed design and engineering to product launch, the

information management task running from order-taking through detailed

scheduling to delivery, and the physical transformation task proceeding from

raw materials to finished product in the hands of the customer".

Francis, M (2011) mentioned the five lean principles that is to be adopted by

BCAM:

Specification value by the product

Identification of value stream

Facilitating flow of product

At the pull of the purchaser

In chase of excellence

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### **Focus on value added:**

It is rare to find an individual through which only a single value stream flows.

At any point in time individuals may be observed conducting one of the three types of activity groupings indicated below:

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Source: Francis, M (2011) "three workplace activities grouping" pp. 18

Value Stream Activity: It adds value right away

Direct Support Activity: Directly assists one or additional value streams. For instance: accelerating (fast track), inquiry and problem resolving or handling value stream mailing.

Displacement Activity: This does not have association to any of the value streams. For instance, handling common mail, interpretation of the paper, email checking or conversation.

Identification of value stream alongside with acknowledgment and prioritizing of the above activity groups must be the principal phases of any development agenda. Tidd, J (2004) states that "By using the map we can begin to see where such problems occur and where waste -due to queues, waiting time, incompatible scheduling, over-long transportation, etc.- is built up" each stage in value stream delivers an emphasis for combined issue resolving undertakings of numerous types.

# **Pull supply chain:**

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Source: Car Industry. Crocker (2011a) slide 46

Lean supply is the process where the produce of an operational approach that distinguishes the cost related with any departure from seamless implementation of the responsibilities essential to provide long-term consumer satisfaction, thus attaining entire suppression of those additional costs. But in practical it is impossible to accomplish absolute leanness but can be minimised (Lamming, 1996) "Lean represents efficiency and eliminating waste by enhancing the flow between source and user to satisfy a known and predictable demand; for example, using MRP and JIT in a car manufacturing, where suppliers are selected for product quality and reliability as well as cost" (Emmett, and Crocker, 2010) The case of BCAM is similar to car industry where there is more focus on pushing the stock. Therefore it is relevant to focus on lean approach as uncertainty in equipment demand can be perceived. Since the machineries need not have rapid customer response like fast food, agile approach becomes irrelevant in BCAM strategy.

BCAM currently have high inventory level which fits the primary purpose of stock possessions to buffer the purchaser from time intervals and therefore to bring about better level of customer service, as the products can be traded straightforward from the storage. It is unattractive to have a stock out position, as the buyer will be averted somewhere else which will result in loss

of market share. Consequently the inventory has to be sufficient to shield the lead time (Disney, Naim and Towill,(1997).

It can be noted that the quantity of stock that is desirable to achieve a customer service level is reliant on on the choice that is used to restock the stock holding as well as the doubts in both lead times and demand.

A flexible supply chain structure consists of substitute sources of raw material and major machineries supply and sharing of physical assets like factories, transport, distribution centres with other companies and even with competitors to reach economies of scale. There should be Separating 'base' from 'surge' demand: the product categories must have a base level for anticipated demand for which can be scheduled. The demand beyond the base level 'surge' can be accomplished by method of postponement. Postponement: it is practiced "by holding the base materials, subassemblies, and modules as strategic inventory and assembling or configuring the product against actual orders" (Christopher and Holweg, 2011). The standard product is transported, before it is transformed into personalized products at nearby location of the end customer.

Flexible labour arrangements: " by application of annual hour agreements so that the work force can be acquainted – with little or no cost penalty – to meet periodic demand swings throughout the year, as well as changes in demand over the product life cycle" (Christopher and Holweg, 2011).

Rapid manufacture: "by using new technology to qualify the economic manufacture of products in small groups in relatively small services, thus permitting distributed manufacturing" (Christopher and Holweg, 2011). https://assignbuster.com/case-study-of-british-consolidated-agricultural-machinery-co-ltd-business-essay/

Outsourcing: to "outside providers, such as contract manufacturers and third-party logistics firms, to gain right of entry to capability when required and change fixed costs into variable costs" (Christopher and Holweg, 2011). BCAM can work with numerous equipment manufacturers to create combined aftermarket logistics systems that share common warehousing facilities and transport like trucks, ships etc.

Just in time: there must be closest likely connection between the customer and the supplier in regard to sharing information and co-ordinating strategies. Rather than one supplier making a series of JIT deliveries in small quantities to a customer, the orders from a number of suppliers are combined to single delivery. Third party services can be used to manage the pick-up of materials and components form suppliers on a milk round basis, using a central hub for re-sorting and consolidating for inbound delivery. This will also add value in areas such as quality control, kitting, sequencing and final finishing (Christopher, 1998).

Benefits of lean supply chain: Crocker (2011a)

C: UserssoloDesktopsupply chain flows. jpg

Source: Crocker, B (2011a) "Flows in supply chain" slide 6

Lean thinking enables specification of customer's perception of value. It identifies the steps across the value chain with the ability to act smooth flow and eliminate waste. It makes what the customer wants at the time they wanted the product. This concept also generates the culture of continuous improvement (Crocker, 2011b).

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There will be increased visibility and reliability with some ways to see an aggregated view across the constituents of the Supply Chain. Companies have greater visibility into inventories (including supplier's inventories). Visibility combined with coordination and synchronization is the basic enabler to supply chain implementation. Companies can make accurate promises of availability to their customers. They can fulfil on those promises to get the goods into customer's hands fast and at the lowest cost. Inefficiencies will be reduced through the efficient matching of supply and demand; one reduces obsolete or unwanted inventories deriving savings, energy savings, and reduced pollution. It will bring increasing of the velocity of the business as Information flows faster through the extended supply chain enabling faster response lead times inducing faster response time to customer requirements thus bringing cost saving and increasing revenues. It will enable the suppliers of BCAM to adopt: (Crocker, 2011b).

Order status tracking: receiving and associating suppliers' offers, given that dynamic pricing (negotiations and sellers' bids) for acquired items, conveying orders to suppliers and tracking/tracing supply orders on the dealer side and providing online tailored customer service (where clients can design the product within the limits stated by the plant), providing dynamic pricing proposes to potential purchasers, virtual order entry, and the option to check delivery status of their instructions on the client side (Thun, 2010)

JIT: "JIT is a pull concept where demand at the end of the pipeline pulls products towards the market and behind those products the flow of components is also determined by the same demand "(Christopher, 1998)pp.

179. It results in manufacture of top consistent quality goods with little https://assignbuster.com/case-study-of-british-consolidated-agricultural-machinery-co-ltd-business-essay/

inventories, short lead times and determined by focus on customer service. It improves information sharing and combined solving of problem. Quick reaction logistics will help development of information technology and in specific the rise of electronic data interchange (EDI) systems like bar coding, electronic point of sale (EPOS) systems. It becomes essentially becomes a replacement of inventory for information. Thus there will be great fixed costs but the incremental costs of service improvements come to be relatively low. Logistics information systems (ERP) is likely to convert supply chain into demand chains in the sense that the system can now respond to recognized demand rather than having to lag behind the demand through forecast. It also enables least stock to be carried in the stores and yet transport costs are limited through the principles of partnership. The linking of outlet and point of manufacture through EDI reduces surge effect as well (Christopher, 1998)

VMI: Inventory levels can be significantly reduced while the risk of stock-outs diminishes. Furthermore it is often the case that the customer does not pay for the inventory until after it has been sold or used so there is considerable cash flow benefit. The advantage to the supplier is that they have direct access to information on real demand, usually transmitted through EDI they can much better plan and schedule production and distribution thus improving capacity utilization and at the same time the requirement for safety stock is considerably reduced (Christopher, 1998). Each individual line/product/stock-keeping unit SKU will be possible to be examined on the dependent demand as well as the non-dependent demand. (Emmet, 2005)

# TQM:

Total Quality Management (TQM) is a critical constituent of manufacturing approach for many companies. TQM make every effort for continuously improving products and processes by connecting management, workforce, suppliers and customers, in order to meet and surpass customers' needs. It can be theorized as a collection of values that reflect the values of TQM (HUANG, GATTIKER & SCHROEDER, 2008).

### **Conclusion**

The case study of BCAM indicated a traditional system of supply chain that was non-integrated having a Forrester effect, its supply chain competes with competitors supply chain with Lots of non-value added activities and there was large purchase with high cost of staff and storage. Use of ICT was hardly evident that slows down the entire company information flow. However it was recommended that a collaborative approach would solve the current supply chain structure and hence adopting a lean thinking supply chain strategy since BCAM deals with expensive mechanical engines and supplier characteristics had long lead time. The benefits that BCAM will reap are low cost of storage, just in time supply, high and rapid information exchange with extensive forecasting.