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THE MANAGEMENT OF SUPPLY CHAIN FOR EFFECTIVE RETAIL DISTRIBUTION

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ABSTRACT

This paper presents an overview of management of supply chain for efficient and effective retail distribution. The objective is to measure the performance of supply chain in retail distribution effectively. The special characteristics of retail businesses and the emergence of major retailers in the marketplace have led to specific forms of distribution or channel service. Prior to consumption, the retail product has to be both available and accessible. This requires a supply chain distribution system. A supply chain distribution system is the channel used to bring items to the place of sale or the means by which a retail suppliers gains access to the potential buyers of the product. More recently the efficiencies of supply chain management linked to Information technology have made major differences to the effectiveness of retailers and their overall profitability. There is a major trend to disintermediation which is the bypassing of traditional intermediaries and subsequent selling directly to final buyers. This paper concludes by highlighting the modern Supply chain management can achieve competitive advantage, through shorter lead times for restocking, reduced inventory size and costs, improved management information efficient and effective distribution and greater overall control.

KERWORDS: Channel Flows, Core Competence, Computerized Shelf Management (CSM), Regional Distribution Centre (RDC), Retail Distribution, Total Distribution Concept (TDC), Warehouse Management System (WMS).

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INRODUCTION:

A supply chain distribution system is the channel used to bring items to the place of sale or the means by which a retail suppliers gains access to the potential buyers of the product. More recently the efficiencies of supply chain management linked to Information technology have made major differences to the effectiveness of retailers and their overall profitability. There is a major trend to disintermediation which is the bypassing of traditional intermediaries and subsequent selling directly to final buyers.

For example, DELL computer sells directly to final buyers having eliminated retailers from their marketing channel.

Retailers cannot be divorced from an understanding of the supply chain as the following retail definition from Davis: "The management of resources to supply the product and service needs of the end consumers encompassing the supply chain of any physical products and the exchange process involved".

The supply chain includes all the activities and exchanges involved in the extracting, processing, manufacturing and distributing goods and services from raw materials through to the end consumers. Supply chain management requires a holistic view of these activities and an innovative approach to their organization, in order to meet customer needs with the greater efficiency.

Channels and Channel flows

There are different supply chain structures based upon extended limited direct channels. The discussion of supply chain management here will concentrate on the extended channel of retail distribution, as this is the most prevalent. An extended channel is where the manufacturers, wholesalers and retailer provide a chain of facilitating services in order to sell the right product to the final customers. The limited channel is when a retailer works directly with the producer and therefore can eliminate the wholesaler and the extra costs of this part of the chain. For example, the retailer of furniture, white goods, electrical goods and so on quite often deal directly with the suppliers and create limited supply chain. The final alternative is the direct channel in this case the product is sold directly by either the producer or retailer. By using different direct sales marketing promotions such as direct mailing, internet services, telephone sales techniques, the channel is kept direct and the extra charges and communications are thus eliminated. This allows some of the savings to be passed on to the customers who will purchase on the basis of lower price. It is important to realize that whatever part of the chain is eliminated, some of the functions of that link in the chain have to remain. Even if the retailer were to be dispensed with some of the retail functions have to remain in order to achieve a transaction.

With in any of the different types of channel the flow is not restricted to physical goods alone. Other type of flow of equal importance in ensuring the channel is successful are as follows:

- Physical flow: The movement of goods and methods of transportation, from one point of the chain to another.
- Ownership flow: The transfer of title for ownership or usage from one channel member to another.

- Service flow: If the services are rendered as part of the process or the end product is a service or mainly service based it is necessary to ensure that all the characteristics of the services are fully understood.
- Information flow: There is a need for timely and accurate two way information between all channel members.
- Payment flow: There is a necessity for agreed payment transfer terms based upon services rendered or goods delivered.
- Promotion flows: A floe of communication materials needs to be used to influence both trade partners and consumers. The objectives of the promotion will be to produce a positive attitude and image for the retailers.

Many retailers benefited from the introduction of new logistics systems in the 1980's through increase market share or to increase profitability. Companies which have benefited from such policies are generally those which no longer consider distribution and warehousing as purely a support function or an operations headache. Rather than simply a functional supply line, the use of retail logistics is now a valued management area with its own operational and strategic objectives.

The Supply Channel

The supply chain is the total process by which products reach the end consumers as goods and services. This is a sequence of events that involves strategic decisions over different resources and the maintenance of relationships all focused on delivering optimum value to the end consumers. Supply chain is an arrangement between paired links, where the emphasis has to be on controlling and managing the relationships in order to move parts through the process effectively. This should be based on a strategic marketing and business need for the chain to achieve:

- Reduced inventory and storage investment in the chain.
- Improved end user and customer service benefits through productivity and effectiveness (faster order cycle times, improved on-time shipment, lack of damages/ defects, etc.,)
- Development of strong relational links and hence a strong chain in order to build competitive advantage;
- Lower procurement, transportation and unit costs which can be used to price more competitively and to increase value added benefits.

The channel competitiveness is an important focus for successful retailing. New channel forms and process are emerging which are characterized by the expectations of lower margins and more value for the customers. This means channel success will be based upon the degree to which the supply chain is Improved, regardless of the margins and practices involved.

The manufacturer function: The manufacturer or suppliers processes raw materials into the finished consumable articles. For efficiency of the chain, the manufacturer should not experience overproduction, allow defects, create waitings through shortages or be inefficient in the area of transport and logistics. Manufacturers need to be the implications to the chain of the elements of time and cost related to their part of the process.

The intermediary function: The intermediary, the wholesaler is in effect a distributor of goods from the manufacturer or suppliers to the retailers. Wholesalers have traditionally have been responsible for holding large stock of products, attempting to anticipate demands and seasonal trends, etc.

Growth of channel relationships and partnerships

The number of interrelated power relationships characterizes the UK grocery sector. These range from mutual dependence to alliances based upon secondary suppliers. The relationships are also affected by the concentration of market share in that suppliers are constrained in who they can deal with as the market is dominated by a limited number of multiple retailers. The negotiating strength of retailer has increased and this is even more apparent when own label products are being offered with gross margins higher that manufacturer brands. The power that individual retailer now excert is also compounded by the centralization of decision making, with fewer individuals at head offices being involved in deciding the fate of numerous different suppliers. This has meant that store managers have little input to suppliers choice and are free to concentrate on personnel and services quality functions. Such developments have had the effect of fundamentally restructuring the supply chain.

Driven by competitive pressure to improve efficiency and to deliver added value for customers, major players in supply chain have been changing the way that they do business with each others. Retailers and suppliers have started to recognize the degree of mutuality between each of their own objectives. Traditionally Supply chain relationships have been adversarial, exhibiting a high degree of conflict; during the 1990's there has been recognition that there are benefits in closer working relationships.

However, there is always a potential problem for the large suppliers, which use logistics contractors utilizing their powers; this may lead to a situation founded on fear rather than mutual interdependence. Any trading relationships will include a measure of conflicts and of cooperation. This can be seen as a continuum extending from a single transaction. With a very minimal requirement for trust between the two parties, to a long term supply chain partnership with a very high degree of trust at the other extreme. Conflict impasse additional costs on the trading arrangements. Therefore the aim is to move along the continuum, reducing the level of conflict and increase the cooperation so that costs are reduced and quality improves.

Retail Logistics Distribution and Stock Control

The consumer's central expectation of retail service delivery is one of availability. As a customer, the ultimate measure of a retail service is whether the good or services are available as required. Modern retailing is underpinned by a complex infrastructure that seeks to meet this central customer expectorations. From a management perspective it will be vital deliver the retail service in an efficient manner. This is becoming increasingly important as profit growth cannot be easily achieved when sales growth is not high; such extra profit has to be gained from improvements in productivity.

Logistics of the developed from the systematic planning required when large numbers of troops and their equipment move, to that of the moving of large amounts of goods. Retail logistics is the organized process of managing flow of merchandise from the source of supply to the customers- from the producer/ manufacturer, wholesaler/intermediaries through to the warehouse, transport to the retail units until the merchandise is sold and delivered to the customers. The massive increase in product variety in stores has created a need for improved logistics and sophisticated systems. From the marketing point of view the system has to satisfy the customers based upon the old adage of getting the right product to the right customers in the right place at the right time. This requires a starting point at the place and then working backwards to ensure everything is put in place to provide improved delivery, better service, lower prices through efficient logistics and added value. Retail logistics systems incorporate the following functions:

- Physical movement of goods.
- Holding of these goods in stockholding points.
- Holding of goods in quantities required to meet demand from the end customers.
- Management and administration of the process which is modern complex distribution system is a function in its own right.

All of this is based upon the following aspects of:

- ☞ Order Processing
- ☞ Transport
- ☞ Storage
- ☞ Inventory.

Christopher in 1992 defied logistics: “Logistics is the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory through the organizations and its marketing channels in such a way that current and future profitability are maximized through the cost effective fulfillment of orders”.

Gattorna and Walters in 1996 have added elements of information flow to this understanding but we believe the infrastructure elements supporting availability for customers can be more easily identified as warehousing, transport, inventory and administration. Porter’s value chain analysis in 1985 recognizes that as well as seeking to improve the internal linkages between the activities of the retailer, it will be important to acknowledge the fit with the wider value adding system. Retailer activity should strive to add value for the customers. This will not be realized if. In seeking to pursue efficiency in the supply chain element under the direct control of the retailer, costs are simply pushed on to suppliers. The cost will remain in the system and will ultimately by borne by the customers.

Many retailers' persue distribution strategies which explicitly or implicitly acknowledge the importance of the total distribution concept (TDC). The TDC encourages everyone with company to think in terms of all components of distribution from the moment manufacturer to when, in the case of the retailer goods are sold through the check-out as an integrates liner model.

TDC allows retailers to extend their control over the costs as well as supply of goods to the consumers.

TDC= TC+FC+CC+IC +HC+PC+MC.

Where: TC= Transport costs, FC= Facilities costs, CC= Communication costs, IC= Inventory costs, HC= Handling costs, PC= Packing costs, MC= Management costs.

This requires an understanding of the interaction of all parts of the logistics process. These costs are discussed in the following sections.

Transport Cost:

A transport cost structure includes substantial fixed cost elements, but perhaps include greater scope to adopt capacity to match volume. Centralized retail distribution has had the benefit of dramatically decreasing the number of journeys made with less than full loads, thereby improving efficiency. Computer software how supports route planning, using iterative programs to identify the optimal schedules for each day's deliveries and thereby achieving lower costs.

The market place is changing and additional logistic chains need to be considered given the introduction and growth of e-commerce. If the customer is to be included as a direct form of home delivery in the system then this has to be taken into account in transport planning. This may be based upon agreement between retailers to operate common haulage service to reduce the cost per delivery.

Facilities costs- warehousing:

Retail logistics can be reduced to the areas of warehousing, transport, inventory and administration, each with its associated cost structure. Are taken as the capital and running costs associated with providing warehousing information and inter system to store and pick stock.

A Regional Distribution Centre (RDC) is usually located in a low-cost area. Such a centre can handle a volume in excess of a million cases of product a week as recent advances in information systems have had a huge impact on the efficiency of the operation. It is the application of technology such as Electronic Data Interchange (EDI) that have facilitated a reduction of stock holding at both store and distribution centre level. With on an RDC, communication between the Warehouse Management System (WMS) and each operative is by radio link drastically reducing the amount of travel within the centre.

The Cost and Functions of Inventory:

Due to increasing sophistication in many product categories and this is particularly the case in retailing the costs of holding inventory have increasing. This coupled to the increase concentration in retailing, means that the end consumer currently expects a wider range of products in smaller quantities. Irrespective of the type of inventory system used by retailer and regardless of set service levels, attitude to distribution, etc there will be costs incurred as a result of the maintenance and implementation of inventory. The supply chain has to consider the functions of inventory which are to satisfy demand at a level of optimal efficiency.

Administration Costs:

Communication cost is largely the administrative cost associated with order processing and EDI. Inventory costs include the direct capital costs of buying stock, the opportunity costs of carrying inventory by having capital tied up in stock which could be otherwise invested in the company, insurance charges and in some countries a tax on stock holdings. Handling costs may include the risks costs of damages and spoilages that may be caused by the movement of stock through warehouse and transportation systems. Packaging costs will be incurred by the retailer through the use of pallet boards on which deliveries may be shipped and the use of shrink-wrap and cling-wrap film to secure pallets and roll-cages during transit, management costs refers to those costs which are incurred as a direct result of control systems and mechanisms which are built into the retailers logistics systems such as security systems, temperature monitoring systems, etc. stock management costs, which are essentially the costs of controlling inventory, are not easy to isolate. It may be relatively easy to identify the fixed investment cost of installing an computerized shelf management (CSM), system of inventory control but it is quite another matter to isolate the stock management costs. It is widely believe that computerized inventory management systems have improved efficiency, but it seems equally likely that such systems have increased management costs in achieving that goal.

Out Sourcing:

It is common practice for retailers to contract out some or all of the distribution activity. A strategic argument for this would be to allow management to focus on those parts of the business where the retailer adds value for the customer that is their core competence. It is potentially more flexible and spreads risk.

Managing Retailer-Supplier Relations

Retailers that are not part of contractual channel or corporate channel will probably participate in different channels. Since they will need to acquire merchandise from many suppliers. Predictably, these channels will be either conventional or administered. If retailers want to improve their performance in these channels, they must understand the principal concepts of inter organizational management. It involves a retailer strategically managing its relations with wholesalers and manufactures.

Conclusion:

The movement of goods is a feature of retailing. This movement is becoming of greater importance as a means of creating advantage over competitors. The use of technology, building relationships and driving down costs is important. Each provides an area of focus that a retailer has to consider in relation to their competition. For a company to be successful it has to develop a differential advantage, which will distinguish the company's offer from that of the competition. Only when a company has built an advantage in distribution and other aspects of the marketing mix will it find that store visits increases and profits rise. The advantage may be based upon many aspects of the business but in distribution important considerations are cost reductions in order to create value for money, higher profits, product availability and quality through overall distribution logistics.

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