Online Publication Date: 15th August 2012
Publisher: Asian Economic and Social Society

The Effects of Logistics Leverage in Marketing Systems

G.N. Okeudo (Transport Management Technology Federal University of Technology, Owerri)

Citation: G.N. Okeudo (2012) "The Effects of Logistics Leverage in Marketing Systems" International Journal of Asian Social Science Vol. 2, No. 8, pp. 1300-1306.

International Journal of Asian Social Science, 2(8), pp. 1300-1306.

The Effects of Logistics Leverage in Marketing Systems

Author(s)

G.N. Okeudo
Transport Management Technology Federal University of Technology, Owerri
E-mail: okeudogeraldine@yahoo.com

Abstract

An effective logistics system when incorporated into marketing can strengthen its operations and further give the firm a competitive edge. To design a marketing system which must maintain its market share, a firm must consider the effects of logistics and how its integration into marketing can produce several points of leverage. It is the purpose of this paper to highlight the leverage points available in any logistics units and to further analyze how marketing managers can work in sync with logistics managers to effectively utilize the points of leverage to gain competitive advantage in their industry.

Introduction

Most recent researches into both business and management has been devoted to the importance of inter-functional coordination (Crittenden, 1992; Deshpande and Webster, 1989; Kahn and Mentzer, 1994; Litchtenthal and Wilson, 1992; O'Reilly, 1991; Rucket and Walker, 1987; St. John, 1991). Two areas that have received particular scrutiny have been marketing and logistics (Granzin, 1980; Granzin and Bahn, 1989; Mentzer, 1993; Rinehart, Cooper and Wagenheim, 1989; Yoorhees and Coppett, 1986). This paper seeks to examine the interfaces between marketing and logistics. This examination proceeds in three parts. In the first part, the interaction between marketing and logistics is analyzed around the four P's of marketing. In the next section, the competitive advantage of logistics is projected with a highlight of its areas of strength in marketing. Finally, conclusion for marketing and logistics managers and academic researchers are presented.

Logistics Leverage in Marketing

Logistics is sometimes referred to as the other half of marketing. The rational for this definition is that the physical distribution or outbound side of the firm's logistics system is responsible for the physical movement and storage of goods for customers and thus plays an important role in selling the product. In some instances, physical distribution and order fulfillment may be the key variables in selling a product; that is, your ability to provide the product at the right time and in the right quantities may be the critical element in making a sale (Coyle, Bardi and Langley, 2003).

Logistics Interfaces with Marketing

The logistics definition that has been discussed by earlier writers indicates activities for which the logistics manager may be responsible. These include;

- Traffic and Transportation
- Warehouse and Storage
- Material handling
- Inventory control
- Industrial packaging
- Order fulfillment
- Demand forecasting
- Plant and warehouse site location
- Production planning
- Return goods handling
- Purchasing
- Parts and service support
- Customer service levels
- Salvage and scrap disposal

This list is quite comprehensive. Sometimes, companies with well organized logistics areas may not place responsibility for all of these activities within the logistics area. For example, companies having a physical distribution focus may not include procurement in their logistics organization. This section briefly discusses the interfaces between logistics and marketing activities in each principal area of the marketing mix, with an emphasis on how the leverage of logistics affects the four P's of marketing – Price, Product, Promotion and Placement.

Price

Carrier pricing: From a logistics perspective, adjusting quantity prices to conform to shipment sizes appropriate for transportation companies may be quite important. In the USA, Rail roads for example, publish minimum weight requirements for car load lots – for instance 20,000 dollars. Motor carriers typically publish four or five rates that will apply to the same commodity shipped between two points depending upon the size (weight) of shipment. The larger the size, the lower the unit rate charged. In other words, a price discount schedule for shipping larger volumes at one time applies because the transportation company experiences economy if the customer sends larger shipments.

Matching schedules: Companies selling products also typically provide a discount schedule for larger purchase quantities. If such discount schedules relate to transportation rate discount schedules in terms of weight, then the company may be able to save itself some money or save money for customers, depending on the sale terms. For example, if a company sells on a delivered-price basis (price includes transportation charges) and if its price schedule matches the transportation shipment requirements on a weight basis, the company should be able to get lower rates with larger purchases and thus save money.

So when the company calculates the number of units that it wants to sell to a customer for a particular price, it should see how the weight of that number of units compares with the rate requirement for a transportation rate. In many instances, increasing the quantity purchased in order to produce a total shipment weight that will qualify for a lower per unit transportation weight becomes advantageous. Even if the firm were selling goods on a Free-On-Board (FOB) point-of-origin basis (transportation charges paid by the buyer), this approach would enable the firms customers to qualify for the lower rate and thus save money.

Although it is not always possible to adjust prices to meet rate breaks and to have a quantity convenient to deal with, organizations should investigate such alternatives. In some organizations where entire pricing schedules conform to various quantities, the company can ship by motor and rail road or by other modes of transportation. Under the Robinson-Patman Act and related legislation, transportation cost savings are a valid reason for offering price discount.

Volume relationships: In addition, the logistics manager may be interested in the volume sold under different price schedules because this will affect inventory requirements, replacement times and other aspects of customer service. Although this is somewhat difficult to analyze, a firm may consider a logistics managers ability to provide sufficient volumes within an attractive price schedule. Such a situation may be particularly true when price specials generate extra sales at particular times of the year. The logistics manager must be apprised of such specials so that he or she can adjust inventory requirements to meet projected demand.

Product

Another decision frequently made in the marketing area concerns the products, particularly their physical attributes. New products come into the market each year, world over including Nigeria. Their size, shape, weight, packaging and other physical dimensions affect the ability of the logistics system to move and store the products. Therefore, the logistics manager should offer input when marketing is deciding upon the physical dimensions of new products. The logistics manager can supply appropriate information about the movement and storage of the new products. In addition to new products, firms frequently refurbish old products in one way or another to improve and maintain sales. Very often, such changes may take the form of a new package design and perhaps different package sizes. The physical dimensions of products affect the use of storage and movement systems. They affect the carriers that a firm can use, equipment needed, damage rates, storage ability, use of material-handling equipment such as conveyors, pallets, exterior packaging and many other logistics aspects.

It is very difficult to convey the frustration that some logistics managers experience when discovering a change in a product package that makes the use of standard sized pallets uneconomical or that uses trailer or box-car space inefficiently or in a way that could damage products. For example, when Gillette first introduced the daisy razor, the logistics did not learn until late in the game that they had to deal with light and bulky floor stand displays, with consequent low weight density. Not only would the floor stand displays not fit on the ware house conveyors, but they had to be shipped at a rate that was 150% higher than the existing rate for the product itself. Gillette eventually corrected the situation but it was an expensive lesson. These things often seem mundane and somewhat trivial to people concerned about making sales to customers, but they greatly affect an organizations overall success and profitability in the long run. No magic formulas can spell out what firms should do in these cases, but we can keep in mind that interaction can allow the logistics manager to provide input about the possibly negative aspects of decisions. It may well be that logistics can do nothing and that the sale is important, but often the logistics manager can recommend small changes that make the product much more amenable to a logistics systems movement and storage aspect while having no real effect upon the sales of the product itself.

Consumer packaging: Another marketing area that affects logistics is consumer packaging. The marketing manager often regards consumer packaging as a "silent" sales person. At the retail level, the package may be a determining factor in influencing sales. The marketing manager will be concerned about package appearance, information provided and other related aspects; for a customer comparing several products on a retailer's shelf, the consumer package may make the sale. The consumer package is important to the logistics manager for several reasons. The consumer package usually has to fit into what is called the industrial package or the external package. The size, shape, and other dimensions of the consumer package will affect the use of the industrial packages. The protection the consumer package offers also concerns the logistics manager. The physical dimension and protection aspects of consumer packages affects the logistics system in the areas of transportation, materials handling and warehousing Coyle, Langley and Bardi, 2003.

Promotion

Promotion is a marketing area that receives much attention in an organization. Firms often spend hundreds of thousands or even millions of naira on national advertising campaigns and other promotional practices to improve sales position. An organization making a promotional effort to stimulate sales should inform its logistics manager so that sufficient inventory quantities will be available for distribution to the customer. It is important to note that even when the logistics department is informed, problems can still occur.

For instance, during the introduction of gillette's disposable twin-blade good news razor, the company had plans for three consecutive promotions. The national launch promotion was to achieve sales of twenty million units. A following trade deal promotion was to net ten million in sales and Gillette expected a third promotional campaign to net an additional twenty million - for a total of fifty million in sales. As it turned out, the first promotion sold thirty five million – seventy percent over the plan. Needless to say that this placed quite a burden on the logistics group as they tried to meet the demand.

Push Versus Pull

We should look beyond the simple relationship between in creasing sales and analyzing basic promotion strategies to see how they affect the logistics department. Marketing managers often classify their promotion strategies in two basic categories; push or pull. What this implies is that they can try to either "push" the product through the distribution channel to the consumer or "pull" it through.

Channel competition: Producers frequently compete to get distribution channels to give their products the sales effort they feel their products deserve. For example, a cereal producer may want to ensure sufficient space for its product on the retailers shelf or ensure that wholesaler's hold product quantities sufficient to satisfy retailers, believing that ultimately, the final consumer demand for the product will influence the retailer and the wholesaler. By selling popular products, they improve their profitability. The higher the product turn over, the more likely they are to make a profit, the happier they are with the particular product, the more willing they are to give it space and a better position in the store.

Pull strategy: Companies attempt to improve their sales by pulling their product through the distribution channel with national advertising. Promotional advertising attempts to create or stimulate sales to customers and to get customers into a retail store asking for a product they have seen advertised in a magazine, have heard advertised on a radio or more likely have seen advertised on the television. The purchases will likely influence the retailer, and the retailer will influence the wholesaler, if any, from whom the retailer purchases. Some companies feel that the best approach in promoting a product is to pull it through the distribution channels by directly stimulating demand at the consumer level.

Push strategy: The other basic approach is the push method. Implied in the push approach is cooperation with the channels of distribution to stimulate customer sales – in other words, producers may pay part of local advertising costs or provide special store displays to stimulate sales. In cooperating with the wholesaler, a manufacturer may be able to offer retailers a special price at a particular time to stimulate product demand. The emphasis is upon having the distribution channel work with the company. This contrasts with the pull approach wherein the company stimulates sales somewhat independently of the retailer by national advertising or by advertising a product on a broad regional scale.

Logistics Impact

We can offer argument both for and against the two approaches. In fact, some companies combine the two in their promotion efforts. From the logistics managers point of view however, push and pull are often different as far as logistics systems requirement are concerned. The pull approach is more likely to generate erratic demand that is difficult to predict and that may place emergency demands upon the logistics system.

Broad scale national advertising has the potential to be extremely successful, but predicting consumer response to new products is often difficult. Such advertising may also strain transportation rates. Frequent stock-outs may also occur, requiring additional inventory. The Gillette situation is an example of such a case. On the other hand the push approach may have a more orderly demand pattern. Cooperation with the retailer allows the manufacturer to fill the "pipeline" somewhat in advance of the stimulated sales rather than quickly, on an almost emergency basis, as retailers and consumers clamor for some successfully promoted new product.

Place

Wholesalers versus retailers

The place decision refers to the distribution channel decision and this involves both transactional and physical distribution channel decisions. Marketers typically become involved in making decisions about marketing transactions and in deciding such things as whether to sell a product to wholesalers or to deal directly with retailers. From the logistics manager's point of view, such decisions may significantly affect logistics systems requirements. For example, companies dealing only with wholesalers will probably have fewer logistics problems than with companies dealing directly with retailers. Wholesalers on the average tend to purchase in larger quantities than do retailers and to place their orders and manage their inventories more predictably and consistently, thereby making the logistics manager's job easier. Retailing establishments particularly small retailers often order in small quantities and do not often give adequate lead time for replenishment before stock outs. Consequently, manufacturers may need to purchase time-sensitive transportation service at a premium price to meet delivery needs.

Recent trends

Perhaps, the most significant trend is that marketers have begun to recognize the strategic value of place in the marketing mix and the increased revenue and customer satisfaction that may result from high quality logistical services. As a result, many firms have recognized customer service as the interface activity between marketing and logistics and have aggressively and effectively promoted customer services as a key element of the marketing mix. Firms in industries such as food, chemicals and pharmaceuticals have reported considerable success along these lines; Coyle, Langley and Bardi (2003).

Competitive Advantage of Logistics

Frequently, competition is narrowly interpreted only in forms of price competition. While the price issue is certainly important, in many markets, customer service can be a very important form of competition. For example, if a company can reliably provide customers with its products in a relatively short time period, then its customers can often minimize inventory cost. A company should consider minimizing buyer inventory costs to be just as important as keeping product prices low, since minimizing such costs will contribute to more profit or enable the seller to be more competitive, Coyle, Langley and Bardi (2003). Therefore, customer service is of great importance to the logistics area which is also a core competence in marketing. Other areas of logistics which can also be harnessed to increase its leverage in marketing includes;

Order Cycle

That order cycle length directly affects inventory requirement is a well-accepted principle of logistics management. Stated another way, the shorter the cycle, the less inventory is required. Order cycle can be defined as the time it takes for a customer to receive an order once he or she has decided to place it. It includes elements such as order transmittal time, order preparation time, order transportation time, Coyle, Bardi and Langley (2003). A graph of units of inventory against order cycle shows that longer order cycles usually require higher inventories. Therefore, if a firm can improve customer service by shortening customer order cycles, its customers should be able to operate with less inventory. It follows then that such a cost reduction could be as important as a price reduction, which reflects as a competitive edge for the marketer.

Substitutability

The nature of a product (if it is substitutable) very often affects the importance of customer service. In other words, if a product is similar to other products, consumers may be willing to substitute a competitive product if stock out occurs. Therefore, customer service is more important for highly substitutable products than for products that customers may be willing to wait for or back order. This is one reason firms spend so much advertising money making customers conscious of their brands. They want customers to ask for their brands and if their brands are temporarily not available they will like customers to wait until they are.

Product suitability varies greatly. Usually, the more substitutable a product, the higher the customer service level required. As far as a logistics manager is concerned, a firm wishing to reduce its lost sales cost, which is a measure of customers service and suitability can either spend more on inventory or spend more on transportation.

Inventory Effect

When inventory cost is considered against cost of lost sales, it shows that by increasing inventory costs (either by increasing the inventory level or by increasing re-order points), firms can usually reduce the cost of lost sales. In other words, an inverse relationship exists between the cost of lost sales and inventory cost. However, firms are generally willing to increase the inventory cost until total cost starts to go up. They are typically willing to spend increasing amounts on inventory to decrease lost sales cost by larger amounts i.e. up to the point at which the marginal savings from reducing lost sales cost equal the marginal cost of carrying added inventory.

Transportation Effect

A similar relationship exists with transportation, companies can usually trade off increased transportation costs against decreased lost sales cost. For transportation, this additional expenditure involves buying a better service, for example; switching from water to rail, or rail to motor, or motor to air. The higher transportation cost also could result from shipping more frequently in smaller quantities at higher rates. Therefore, since the cost of lost sales can run to infinity both for the short and long run, firms can check or reduce the cost of lost sales by spending more on transportation service to improve customer service. Once again most firms willingly do this only up to the point where the marginal savings in lost sales cost equal to the marginal increment associated with the increased transportation cost.

Although showing inventory cost and transportation cost separately is convenient here, companies often spend more for inventory and for transportation almost simultaneously to reduce the cost of lost sales. In fact, improved transportation will usually result in lower inventory cost (the lower inventory cost stems from smaller carrying capacity and faster transit times). The situation is much more interactive and coordinated than is indicated here.

Conclusion

Logistics adds place and time value to products and enhances the form and possession value added by manufacturing and marketing. Logistics has an important relationship to marketing and interfaces with marketing systems along the four P’s of marketing; Price, Product, Promotion and Place. The relationship between marketing and logistics systems have often been treated independently and managed separately but this paper has examined its interacting points. Also, the positional advantage form which an effective logistics system can confer on a marketing system has been investigated, thus highlighting the core competence of leveraging logistics. Logistics leverage has to be consciously created through the actions of marketing and logistics managers within the firm. Key logistics angles that should be resolved include length of order cycle, the level of customer service for substitutable products, inventory effect and transportation effect. Once these areas are addressed with optimality, the firm will be positioned to effectively compete favourably in its industry.

Future research and management issues are very much related to the effort to consolidate logistics leverage. Managers and researchers alike need to become more concerned with the buyer behavior implications in the marketing logistics customer service package. Buyer attitudes and behavior can be expected to change with integrated marketing logistics efforts; Meltzer, Bienstock and Kahn (1993). Whether this altered behavior will be for the good or detriment of the company and in what degree lies within the realm of buyer behavior and service quality research – both applied and academic.

Measurement issues should continue to occupy the attention of researchers. Without valid models and predictions of logistics impact on sales, costs and profits, it is difficult to successfully plot the most meaningful role for logistics in the strategic thrust of a firm. More effective models are needed at two levels; within the channel and at the point of sales to the consumer. Logistics service (in-stock levels which is related to inventory carried and order cycle time which is related to transportation effect etc.) interacts with a variety of other marketing variables (price, product, promotion, place etc.) to determine the customers satisfaction. It is necessary to expand research efforts to measure these interactions and isolate the specific effect of each variable. Once these effects are better understood, marketing decision making will be better positioned to make more effective decisions regarding the strategic positioning of logistics services within the overall marketing offering.

Effective logistics competency may also be enhanced through the utilization of independent suppliers of a wide array of value added logistics services. The role of third party logistics suppliers is an area of increasing importance. Research grounded in the transaction cost analysis paradigm to evaluate the efficiency and effectiveness of outsourcing logistics functions would help develop the dimensions of how logistics can contribute to maximum strategic impact by leveraging.

By outsourcing some logistics functions e.g. warehousing, a firm may gain cost and service advantages not available from internal performance, but incur additional transaction specific investments. As a result, the enhanced level of performance may create a leverage point that otherwise would not have existed, but come at the cost of an increased dependence upon a third party. Being aware that optimized performance level is possible at a trade off which increases dependence allows decision makers to more effectively assess the contributions of logistics to overall success of marketing systems.

References

Bowersox D.J., Mentzer J.T., Speh T.W. (2010) "Logistics leverage; journal of business strategies" Vol 25, No.2, pp.85 – 99.

Coyle, Bardi and Langley (2003) "The management of business logistics; a supply chain perspective" 7th edition, pp.37 – 52.

Day G. S and Wesley R. (1988) "Assessing advantage; a framework for diagnosing competitive superiority": Journal of Marketing, 52 (April), pp.1 – 20.

Granzin K.L. and Bahn K.D. (1989) Consumer logistics; conceptualization, pertinent issues and a proposed program for research. Journal of academy of marketing science. 17 (Winter) pp.91 – 102.