

## **PRODUCT ENTRANCE-EXIT STRATEGIES AND SUPPLY CHAIN STRATEGIES**

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### **ABSTRACT**

There are many strategies that companies use to manage their supply chain. This paper suggests that you take into account your product's lifecycle and your market entrance and market exit strategies when developing your supply chain strategy. The paper presents a review and overview of the development of supply chain strategies. The strategy development occurs as you include manufacturing strategies, entrance-exit strategies and the product life cycle to the supply chain strategy. This paper gives a basis for the building of a research model that includes these issues.

### **I. Supply Chain Strategies**

There has been considerable amount of research done on the strategies that companies undertake to manage their supply chains. Underlying this research is the idea that companies would be advised to undertake different types of strategies depending on their product's production needs and the needs of their customer [1]. One of the better known strategies for managing supply chains is given in Hau Lee's uncertainty matrix. In this case the strategies are classified by the uncertainty contained in the supply of the product as well as the uncertainty contained in the demand for the product.

This yields four types of strategies for supply chain management. The first is an Efficient supply chain structure. The products would have with low uncertainty in both supply and demand. The products delivered in this type of supply chain would be functional products with a very well known and stable process. This would include products such as food and beverages. The second strategy classification would be the Responsive supply chain which would include innovative products made on a stable process such as fashion apparel and computers. The third supply chain strategy classification would be Risk Hedging supply chains. The product in this case is functional, but its production process is evolving and not well known. Examples of products in this classification would be ethanol production and other evolving green energy production types. The last classification would be an Agile supply chain. In this case the process of production is evolving and the product is highly innovative. Products in this classification would include telecom and high end computers and semiconductors.

The Hau Lee uncertainty framework is an example of how supply chains can be classified based on the type of strategy that is necessary for the better management of the supply chain process. In a similar fashion this paper highlights how the supply chain strategies that are chosen for managing the supply chain can vary depending on the strategies a company holds for its product life cycle and the entrance-exit strategy that it uses for its products. This research works to incorporate the product development field of research with the emerging study of supply chain management strategies [2].

## **II. Product Lifecycles and Entrance-Exit Strategies**

Competitive issues change as a product moves through its life cycle. There are three distinct marketing strategies relative to the phases of the product life cycle that affect the company's corporate strategy with regard to planning for the marketing of each product. The rest of this section describes these three basic strategies.

### **a.) Enter Early and Exit Early**

As a product enters the market place there are no real competitors. The product is unique and is sought after by early adopters of such products. The company has the ability in this first phase to develop marketing plans that exploit these issues. The product will be highly sought after and will allow the company to charge a premium price. Most market benefits will come to the company because of the product being new and innovative. In this strategy the amount of competition from other producers is low or nonexistent.

### **b.) Enter Late and Exit Late**

In this strategy the company will enter the market place after most of the initial product development has been complete. When entering late the products will have become more rationalized in design and the customers are more certain about which and how much of each products they want. The product has "caught on in the marketplace" and the demand is becoming very large as compared to the early phase of the product lifecycle. The market benefits to the company working in this part of the product life cycle will be in capturing large sales volumes in a more certain marketplace. They do run the risk of having other competitors striving to capture a portion of their market.

### **c.) Enter Early and Exit Late**

In this strategy the company will enter the market early, during the new product development phase. The strategy would have the company continue to produce the product after both the production process and customer demand has become stable. The product's production would end when the product eventually becomes obsolete and vanishes from the market place. The company choosing this market strategy will gain benefits from being an early entrant into the marketplace developing market share and then exploiting the marketplace that is known and well understood. The strategy requires low production costs that will allow the company to profit even in a marketplace with many competitors and significant price competition.

## **III. Product Life cycles, Entrance-Exit Strategies and Manufacturing Strategies**

The company's choice of an Entrance-Exit strategy will affect the type of production process that would be used in the production of their product. The correct choice of a production process or more precisely the match of the production process to the product's marketing strategy is capable of greatly increasing the competitiveness of the company within the market space it chooses to compete. This section summarizes what are typical strategies for each of the product life cycles' entrance-exit strategies with regard to their manufacturing process and need for the delivering of specific competitive priorities.

### **a.) Enter Early and Exit Early**

In this strategy the company is focusing on first to market highly innovative products. These types of products will entail many design changes as they move through the introductory phases. In addition they will most likely experience uncertainty in sales volumes, but most likely will have a significant period of

time that has low sale volumes. These marketing characteristics will lead the company to strategically employ flexible manufacturing as well as general purpose machines that will allow flexibility in facilitating multiple and changing production designs. Since the product is going through its initial market exposure the amount of Research and Development in product design used in this product's development will be extremely high. Once higher volumes are reached the company will move away from this product with the purpose of creating and developing new innovative products.

b.) Enter Late and Exit Late

This strategy will lead a company to produce high volumes of similar products. The product's design will be set and only a few changes will be needed. The focus on production will be a reduction of cost and the production of a high volume of consistent and high quality products. The types of production equipment will be less flexible, highly automated, and highly specialized in the types of products that the production system will produce. The technology used under this strategy will be that of a follower of other competitors in this industry.

c.) Enter Early and Exit Late

In this strategy the companies will need to invest in the transition from a low volume flexible production processes to that of a high automated flow shop. The necessary production machines will change from that of being general in nature to very specific in nature. In order to perform under this type of manufacturing strategy a company will have to invest heavily in both product and process Research and Development. The company will have to compete in both the innovative new product development including its production as well as a production system that includes low costs, delivery, quality, and high production volumes. This requires the organization to be flexible enough to span from a focus on product development to that of a focus on process development.

#### **IV. Product Lifecycles, Entrance-Exit Strategies and Supply Chain Strategies**

This section extends the idea of the product life cycle strategy into the area of supply chain management. There are other research papers that look at supply chain strategies and the product life cycle [3] [4]. Similar to the need to have a different marketing and manufacturing strategy for each entrance-exit strategy, a need for a different supply chain strategy is proposed. The supply chain in this instance is the collaborative and cooperative relationships with a company's suppliers and customers. As more of the product's final value is added through outsourcing of production to suppliers, the more there is a need to implement a product and process strategy in the supply chain.

a.) Enter Early and Exit Early

In the enter early and exit early stage an emphasis is placed on production process's product and volume flexibility. In addition importance is put on a supplier's research and development skills in the new product design activities. Companies would strive to find supply chain partners that possess a high level of security with regard to confidential information and contain high quality production resources. In this strategy cost would not be a major consideration. To achieve this level of supply chain security and effectiveness firms would strive to develop long term relationships that include a high degree of cooperation and collaboration in product and process development. The supply chain partnership would have a long term focus and includes the development of firm spanning technologies.

b.) Enter Late and Exit Late

In the enter late and exit late marketing strategy phase the supply chain would have a focus on low cost production and reliable delivery. In this strategy supply chains members would be looking for firm's that compete on cost, using types of technology relating to more efficient material handling for cost reductions and better transparency of the location of inventory in the supply chain. Partnerships would be focused on operational issues such as inventory placement and planning for the use of more efficient transportation modes. Longer term partnerships would not be as highly valued as in the enter early and exit early strategy.

c.) Enter Early and Exit Late

In the enter early and exit late marketing strategy firms would be looking to enter into transitional types of supply chain relationships. This would require supply chain partners that are more able to handle changes in production strategies or a portfolio of suppliers for use at the most opportune times depending on which stage of the product life cycle the product is currently. The company would have to transcend from one supplier with a given set of skills to another supplier with another set of skills. The supply chain strategy of these types of companies would necessarily need to easily handle these types of transitions. A highly agile supply chain would be preferred and probably required to follow this type of strategy.

- [1] Fisher, M., "What is the Right Supply Chain for Your Product?" *Harvard Business Review*, Mar-Apr, 1997, 75, 105–116.
- [2] Lee, Hau, "Aligning Supply Chain Strategies with Product Uncertainties," *California Management Review*, Spring 2002, 44(3), 105-119.
- [3] Harris, Gregory A., Compton, Paul J., and Farrington, Phillip A., "An Exploration of Fisher's Framework for the Alignment of Supply Chain Strategy With Product Characteristics", *Engineering Management Journal*; Dec2010, 22(4), 31-42.
- [4] Aitken, James, Childerhouse, Paul and Towill, Denis, 2003. "The Impact of Product Life Cycle on Supply Chain Strategy," *International Journal of Production Economics*, August 2003, vol. 85(2), 127-140.