Abstract

The purpose of this study was to design an international supply chain for a product that can be categorized as functional. The case company is a small Finnish company that is importing teak from Africa. In order to compete in the Finnish wood market, the case company has offered lower price and extra service. However, the operation has not been successful and therefore, this study aimed to find out what is the relationship between business strategy and supply chain design. As the teak is purchased from Africa this study wanted to find out what are the risks that the internationalization of the supply chain brings to a company's operation. Finally, this study sought to design a supply chain for the case company and find out what are the main aspects of the supply chain design when the product in question is functional and competes based on low price.

Fisher (1997) divides products to be either functional or innovative. This categorization is based on product characteristics and demand. Functional products are low cost, standard products with stable demand whereas innovative products are new and trendy with unpredictable demand. Supply chain needs to match the product requirements, and based on this division, the supply chain design needs to be either efficient or responsive. Naturally the degree of efficiency or responsiveness varies, and, in addition to product and demand, the company and the lead time affect this. After determining the right degree of efficiency or responsiveness, the supply chain can be designed using the supply chain drivers. (Chopra & Meindl 2007) The drivers are facilities, inventory, transportation, information, sourcing and price. All of these drivers can increase efficiency or responsiveness and careful analysis of their role needs to be carried out.

This study was conducted by interviewing members of the supply chain. First, the case company described the current supply chain processes. After discovering the problem areas and having suggestions on the improvements, I interviewed potential customers to find out how they would perceive this proposal. After I found out that most of the interviewees did, in fact, support the suggestions, I built a supply chain design for the case company using the drivers presented before. The focus of this supply chain is on the cost-efficiency and all the drivers support that.

As a conclusion of the study it can be seen that in order for the operation to be successful, the company needs to set a clear business strategy and design a supply chain that supports that. These two are very much interrelated and neither of the decisions can be done in isolation. Only after careful analysis of the implications of the business strategy, the supply chain can be designed matching the supply chain drivers to the demands brought by the business strategy.