

CHALLENGES AND STRATEGIES OF SUPPLY CHAIN MANAGEMENT IN A COMPETITIVE ENVIRONMENT

Alexandra Ioana FLOREA

*The Bucharest University of Economic Studies, Romania
sandraionescu@hotmail.com*

Abstract

In a world where companies' revenues strive not to decrease and market shares are under constant pressure, managers try to find ways to deliver the value demanded by clients. Supply chain seems to be lately the field where they can find space to act and to deliver performance. This paper intends to discover the challenges that the supply chain practitioners must face in order to implement a good supply chain strategy and which strategy will fit best the needs of each company.

Keywords: Supply chain management, Supply chain strategies, Strategic and tactical planning.

1. INTRODUCTION

The nowadays economic environment is defined by a very strong competition between companies. The Earth has become a big market place, with customers acquiring a big amount of information via internet, with companies selling directly to clients, no matter where they live. We no longer can speak of national markets as people can order directly from China products from clothes to electronic apparel via online stores. These elements are putting a high pressure on price and quality of products delivered.

Even big international companies must strive in order to remain competitive and not lose market share or clients. They must constantly improve their processes in order to deliver to customers what they look for: price and/or value. An organization becomes competitive if it manages to create competences that generate positive effects through innovation (Corboş and Popescu, 2013). This becomes even harder to achieve in fields of business where companies sell functional products (Chase, 2001) and where innovation cannot be used as a competitive advantage. Since its conception as autonomous area of inquiry in the early twentieth century, management has undergone a complex process of extension in applicability, as well as a constant development of concepts, methods and techniques. Moreover, due to the so-called "knowledge revolution" management research has focused on knowledge management (Zamfir, 2013).

Supply chain is one field where big companies can constantly improve processes and develop new strategies, in order to obtain cost cuts and improve the value delivered to customers. The value chain (Kotler, 2004) means not only developing relationships with the customers, but also with the suppliers or resellers. Companies must improve or even innovate all along the value chain in order to provide the value demanded by clients, and thus keep or even improve their market shares. In fact, Deac et al. (2012) consider the value chain analysis, which allows the systematic identification of the sources of competitive advantage of the company and of its activities, as a part of the strategic diagnostic of a company's internal potential.

2. CHALLENGES TO BE MET BY THE SUPPLY CHAIN PROFESSIONALS

While strategies like outsourcing, just-in-time inventory or lean manufacturing can help improve the supply chain activity in a company, they can also increase risk and make the company vulnerable (Bosman, 2006). The disruptions in the supply chain activity may affect the capacity of the company to manufacture the goods, and the goods that are not produced cannot be sold. Thus, the revenues of the company are affected.

The supply chain process includes procurement, manufacturing and distribution. It's a network of facilities that procure raw materials, transform them into products and deliver the products to customers (Lee, 1995).

Supply chain challenges can be related to the supply chain strategy implemented by the company but also can arise from precise activities related to supply chain (Storey, 2006) points out four important challenges related to the strategy chosen by the company. The first challenge is related to the international trends in business, like outsourcing, cross-boundary working, and new organizational forms. The second challenge is characterized by the trend towards outsourcing and the increasing importance of intangibles. Third, there is the trend towards fragmentation and variety in product and service offerings and fourth, globalization enhances attention to logistics and other component elements of supply chain management.

Challenges related to the activities of supply chain can be the following: finding and implementing the right standards for measurement, identifying where to use their expert resources, discovering the performance gaps and what metric to improve, dealing with complex and global networks of suppliers, factories, warehouses, transporters.

Brady (2013) identifies five main challenges that companies face today concerning the supply chain activity. First of all, companies tend to overlook the continued growth of e-commerce as a channel in the industrial sector. Brady gives the example of Amazon that was not present two years before on the market of the industrial products and in 2013, via amazonsupply.com, managed to command already 2% of the channel. Another challenge is the inability to define potential risks and develop mitigation strategies for those risks that have a high probability to appear. The third big challenge is to understand that supply chain management technologies will not fix everything and that the company must have an explicitly stated and shared corporate vision and mission. Another challenge is not to use past sales information in order to predict future sales, as the one certainty about the economic environment is that nothing is certain anymore. The fifth challenge identified is for companies to avoid making the supply chain operations too complex, as there comes a point where they can only increase costs of doing business. The last challenge is the lack of understanding of the full capabilities of suppliers and service partners, as they play an important role in enabling companies to meet customers' demands.

3. STRATEGIES IN SUPPLY CHAIN

Supply chain management means to apply a total systems approach to managing the entire flow of information, materials, and services from raw materials suppliers through factories and warehouses to the end customer (Chase, 2001). The way companies manage the supply chain operations can bring them an important competitive advantage.

3.1. *Models for improving the supply chain*

Strategies that can be applied in order to improve the supply chain operations may vary a lot depending on whether the company already implemented for a long period of time supply chain activities or the firm is just starting to develop them. Big international companies faced the challenge to change the way their supply chain departments work due to globalization or strong competition. IBM is such a company that had to rethink the entire supply chain activity when it had to transform their business model from a regional to a global one (Cooke, 2012). In 1993 the company reorganized the supply chain activity as it was focused on a local or regional way of doing business. By establishing Global Sourcing Councils, IBM managed in about 10 years to establish a single-global supply chain organization, providing strength and stability and standardization of processes. IBM did not stop rethinking the supply chain activity and now the company uses predictive and prescriptive analytical tools to achieve operational improvements.

IBM's example of sourcing councils is given also by Engel (2011) in a paper that analyses ten best practices that the supply chain professionals should implement in their departments. The first suggestion is to establish a governing supply chain council that will give direction and align the supply chain's strategy with the strategy of the entire company. Afterwards, the company must choose correctly the staff for the supply chain activities and select technology solutions that will help them better manage their supply chains. Other suggestions are: establish alliances with key suppliers, implement collaborative strategic sourcing and focus on total cost of ownership, not price. Very important also is to transfer the information about the savings made by the procurement team by putting the contracts under the supply chain function. Companies must also pay attention to inventory at the highest levels and establish appropriate levels of control and minimize risk. Also, it is important to take seriously the green initiatives and social responsibility.

A company very well known for its efficient supply chain management is the American retail leader, Wal-Mart. From their beginning they used innovation in their supply chain management in order to cut inventory costs and to avoid empty shelves in their stores. Several actions were taken by Wal-Mart like the vendor managed inventory or the 'cross docking' (Traub, 2012). The VMI (vendor managed inventory) supposed that the manufacturers became responsible for managing their products in Wal-Mart's warehouses, this leading to a 100 percent order fulfillment on merchandise. The "cross docking" means that the products are not at all stocked in storages, but they are delivered to distribution centers where they are repackaged and distributed by trucks, without sitting in inventory. Also, another important element in the supply chain management implemented by Wal-Mart is technology. Wal-Mart has one of the largest information technology infrastructure among private companies in the world. They also introduced the RFID (radio frequency identification) system in order to improve the inventory management, thus managing to offer consumers an every-day-low-price (Millsap, 2012).

3.2. Integration of the supply chain with the global strategy

Another big company that sets an example concerning the supply chain processes is Hewlett-Packard, who realized at one point that the battle with the competition can be won if the company performs well at filling orders. This is why HP formed the group Strategic Planning and Modeling (SPaM) and charged it with developing and introducing innovations in management science and industrial engineering (Lee, 1995). The work of this group indicated to the managers of the company that supply-chain management is a business fundamental and that is not just a problem for manufacturing or for distribution and that an expanded view of the supply chain can enhance performance as the key suppliers and the customers are included in the supply chain decisions.

The supply chain strategy chosen by one company must be deployed at a tactical and operational level. At a strategic level, decisions must be taken that have a long-lasting effect on the company, like decisions about the number, location and capacities of warehouses and manufacturing plants or the flow of material through the logistics network (Badri, 2012). Managers can use different models in order to design and plan their supply chain, models that can help them take decisions regarding the location of the facilities, whether to open a new location or to add capacity to an existing one, the quantity of products to be produced in each capacity, the quantity of products to be transported from one location to another or to a warehouse, the cost associated with the supply of goods.

Very important for a manager also is to realize the impact between the supply chain processes and the financial results of the company. The supply chain activities can be effectively measured if the performance of the supply chain is linked to the company's financial strategic goals (Elgazzar, 2012). The essence of this decision is not represented only by the financial calculation, but also by the qualitative analysis of the efforts and involved effects (Corboş, 2011). The strategy of the company must be deployed at a tactical level by setting short-term performance objectives that can be measured and monitored. Models like SCOR – Supply Chain Operations Reference can measure reliability, responsiveness, agility, cost and asset management.

Hult et al. (2007) offers a solution to companies that already developed supply chain activities, but with poor results, suggesting that these companies might benefit by building a culture of competitiveness first, and afterwards pursue knowledge development initiatives. The 3M Corporation is a global company, more than 100 years old, known for developing strategies that enhance its core competencies and keep it competitive, building a very strong entrepreneurial culture (Kenney, 2010). 3M strategy is based on innovative products and has always encouraged individual initiative. In the mid-1990s, the company introduced the 'Supply-Chain Excellence' concept, as a challenge to every unit to understand and improve their business process and defined the supply chain as a sequence of business processes and activities from suppliers to customers that provides the flow of products, services, and information that drive customer satisfaction (Lockamy, 2000). Very important in the supply-chain-excellence process is the measurement of the performance of each business unit, as 3M understands that competition is not only fierce but always changing, and the goal is to become more efficient and more responsive to customers than rivals.

3.3. Types of supply chain

As shown by Perez (2013), the supply chain strategy of a company must take into account the following four elements: the industry framework, the unique value proposal, the managerial focus and the internal

processes. The industry framework or the marketplace is characterized by demand variation, market mediation costs, product lifecycle and relevance of the cost of assets. The unique value proposal refers to the way the company understands its competitive positioning, this being translated into the deployment of the internal processes. Between the two stands the managerial focus, which will govern the decision-making process.

Thus, there are two types of supply chain models discovered by Perez (2013), supply chain oriented to efficiency and supply chain oriented to responsiveness. The first type can be found in industries where low cost is important and can have three deployments: the efficient, the fast or the continuous-flow models. The efficient supply chain model can be used in markets where the competition is based on price and perfect order fulfilment, suited for products like cement and steel. The fast supply chain model works well in market where innovation is important and where the companies must develop quickly new products and sell them also very fast. It works in markets where fashion is an important element. The continuous-flow supply chain model is used in markets where a steady flow of information and products are needed, where the needs of the clients are very well known and remain the same during long periods of time. It works well in the fast moving consumer goods industries, like dairy and bread.

The second type of supply chains, those oriented to responsiveness, is used in uncertain environments and can also have three subtypes: the agile, the custom-configured and the flexible supply chains. The agile model is used in 'make to order' markets, where the demand is very different from client to client and uncertain in time. It is employed by manufacturers of intermediary goods, who deliver 'on demand' products to different industries. The second subtype, the custom-configured model works in industries where a lot of elements are used to manufacture a lot of models of the end product, such as the assembly of personalized products, like computers and vehicles. And the last model, the flexible supply chain is suited for industries with high demand peaks and long periods of time without work load, like companies that provide spare parts for industrial customers.

4. CONCLUSIONS

More and more companies, big or small, are interested in implementing or redefining a supply chain strategy that will help them deliver the value that the client wants, whether this means low price or an expected level of quality. Big international companies are facing the challenges of a big market place not only for selling but also for buying and manufacturing. Small companies try to be more competitive and replicate the practices of big companies in order to gain more market share. But they also face the same challenges in what concerns the supply chain.

All companies must understand that all strategies and all tactical and operational practices they choose in terms of supply chain must respond to the need to have the product when and where the client wants it. If the supply chain causes interruptions in supplying the products, that means no revenues and the strategies applied become sources of risk for the company. Thus, one of the most important challenges to deal with is whether to choose outsourcing and to what extent. Another important challenge is to deal with global supply chain elements: locations and warehouses in different parts of the world, products that need to be transported between them and to the client.

In order to respond to these challenges, the companies can implement different supply chain strategies and can take as example big companies like IBM, HP and many others that have managed to have supply chain processes that help the company stay competitive but who also reacted rapidly when those processes no longer did that. The most important thing is to align the supply chain strategy with the financial strategy and with the overall strategy of the company. The supply chain must answer the need to develop a unique value proposal that will help the company gain and retain clients.

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