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SUSTAINABLE SUPPLY CHAIN MANAGEMENT- THE CASE OF TEXTILE AND APPAREL INDUSTRY

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Abstract: Supply Chain Management is a complicated topic in modern industry today. Many companies are implementing SCM in an effort to increase profits and customer satisfaction. The article describes the concept of SCM and the decisions involved in it and the models used to aid in making these decisions. It also describes the new concept of Sustainable Supply Chain as a business imperative. To respond to demands for responsible practices among their supply chain partners, companies must equip their organizations with tools to effectively manage information related to sustainability.

1. THE NEED OF SUPPLY CHAIN MANAGEMENT IN THE TEXTILE AND APPAREL INDUSTRY

A **supply chain** is the system of organizations, people, technology, activities, information and resources involved in moving a product or service from supplier to customer. Supply chain activities transform natural resources, raw materials and components into a finished product that is delivered to the end customer. In sophisticated supply chain systems, used products may re-enter the supply chain at any point where residual value is recyclable. There is often confusion over the terms supply chain and logistics. Supply chain management spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point-of-origin to point-of-consumption. It integrates supply and demand management within and across companies is enabled through efficient communication, ensuring that orders are placed with the appropriate amount of time available to be filled. Logistics is enhanced, keeping the cost of transporting materials as low as possible consistent with safe and reliable delivery. Production can run smoothly as a result of fulfillment and logistics being implemented correctly without delays due to ordering and transportation. The companies flexibility to respond to unforeseen changes in demand and supply is improved. It is now generally accepted that the term logistics applies to activities within one organization whereas the term supply chain also encompasses suppliers and customers and therefore is a much broader focus.

The concept of **supply chain management (SCM)** has been with us for several decades, and even the term itself dates back to the early 1980s (if not earlier). Supply chain management is the term used to describe the management of the flow of materials, information, and funds across the entire supply chain, from suppliers to component producers to final assemblers to distribution (warehouses and retailers), and ultimately to the consumer [1].

It is based on two core ideas. The first is that practically every product that reaches an end user represents the cumulative effort of multiple organizations. These organizations are referred to collectively as the supply chain. The second idea is that while supply chains have existed for a long time, most organizations have only paid attention to what was happening within their “four walls.” The analogy that a chain is only as strong as its weakest link holds here as well. Organizations must first be able to provide quality products or services in a timely, cost-effective manner if they want to tackle broader supply chain issues. Therefore, programs such as Total Quality Management, Just-in-Time manufacturing, concurrent product development, and the like are just as relevant today as they were in the past. In fact, it’s interesting to note that many of the firms that have emerged as SCM leaders had already established their reputations in other areas beforehand. Few businesses understood, much less *managed*, the entire chain of activities that ultimately delivered products to the final customer. The result was disjointed and often ineffective supply chains.

There are several reasons behind the increased interest in the management of supply chains after the 1990s.

Firstly, companies have been moving away from vertical integration, and moving towards specialization, thus having the need to deal with, and rely on, more outside sources. In order to reduce production costs, most clothing firms have already outsourced production of their goods to low-cost countries, and subcontractor companies have taken on some production steps. Thus the structure of clothing supply chains has become even more complex. Not only foreign manufacturing companies, but also a number of different service companies (logistics service providers, textile finishing companies, etc.) are today involved in the clothing supply chains. Furthermore, a worldwide trend to the creation and marketing of complex fashion collections has led to additional organizational difficulties. Many clothing companies have been placed in a position where they must operate within several supply chains at the same time. Different production and delivery activities have to be synchronised and streamlined in highly dynamic supply networks. Any efforts to improve operations and supply chain performance are likely to be inconsequential without the cooperation of other firms. As a result, more companies are putting an emphasis on relationship management. Of all the activities operations and supply chain managers perform, relationship management is perhaps the most difficult, and is therefore the most susceptible to break down. A poor relationship within any link of the supply chain can have disastrous consequences for all other supply chain members. To avoid such problems, firms must manage the relationships with their upstream suppliers as well as their downstream customers [2].

Secondly, increased competition, both nationally and internationally, has resulted in customers having more choices, so it is imperative that a firm is able to deliver high customer service at low costs. The rate of change in markets, products, and technology is increasing, leading to situations where managers must make decisions on shorter notice, with less information, and with higher penalty costs. New competitors are entering into markets that have traditionally been dominated by "domestic" firms. At the same time, customers are demanding quicker delivery, state-of-the-art technology, and products and services better-suited to their individual needs. In the fashion industry, for example, product life cycles are shrinking from years to a matter of two or three months.

SCM is the strategy through which the integration of the various nodes along the supply chain can be achieved. Examples of such nodes include the marketing, distribution, planning, manufacturing and purchasing departments of a firm, as well as those of the firm’s suppliers, their suppliers’ providers, and the firm’s customers, all the way to the end user. Traditionally, each of these nodes would locally optimize their own processes, usually at the expense of the entire chain due to conflicting objectives of each of these nodes along the chain [3]. Companies have realized that self-optimization of each node along the supply chain can lead to less than optimal performance by the chain as a whole.

Early supply chain initiatives include the development of the quick response strategy in the textile and apparel industry by companies such as Zara.

Many supply chain leaders adopt an integrated operating model to successfully balance supply and demand across internal operations and with supply chain partners. With these supply chain innovations, Zara can deliver new styles in three to six weeks, compared to up to five months for competitors. It also helps explain why Zara has experienced 20 percent sales growth for more than a decade, along with consistent, industry-leading 10 percent profit margins [4]. Transformers are also able to promote supply chain change in the organization through value-enhancing innovations. Zara routinely includes store managers and employees in product-design and supply-chain efficiency decisions, thus enhancing buy-in on proposed changes.

Competition among supply chains will accelerate, with a new generation of supply chain transformers poised to challenge leader supremacy. Examples include apparel makers such as Benetton, Gap, H&M and Mango—all of which have emulated Zara by introducing profitable supply chain innovations of their own.

2. THE SUSTAINABLE SUPPLY CHAIN

A new era of supply chain management is unfolding that puts sustainability at the center of the executive agenda. The growing importance of Asia economy, along with rapidly rising fuel prices, have caused some firms to begin to reexamine their manufacturing processes and the configurations of their supply chains.

In relation, the definition of the concept of sustainability is evolving. For many firms and organizations, sustainability refers primarily to environmental stewardship. For other groups, sustainability seems to primarily mean actions related to social responsibility. Many of the managers who have worked on the concept of sustainability in the past have avoided much focus on the financial portion of sustainability and concentrated on the environment and social responsibility.

Few industries today are being led by vertically integrated corporations, where companies control raw materials extraction,
manufacturing operations and distribution channels for products. Today, the supply chains for even "simple" products, such as T-shirts include business partners across diverse geographic locations. External pressure from the investment community, governments, media, business partners, civil society and consumers is shaping the next generation of supply chain management. Companies are expected to ensure that products and services are both more sustainable in their usage and disposal, and are produced, packaged and shipped using more socially and environmentally responsible manufacturing practices. The most serious supply chain risks are child labor, forced labor, product safety and environmental malpractice.

Companies are now required to be transparent about their supply chain practices to respond to stakeholder expectations and to meet increasing regulatory requirements [5] . As a result, companies are developing management approaches and implementing new technologies for their supply chains intended to turn supplier information into a strategic asset. By gaining visibility and control over their supply base, companies are able to align supplier capabilities and performance with their corporate goals.

3. CONCLUSION

Business models for supply chain are evolving. Today, market leaders and new entrants are finding that environmental and social transparency across the supply chain delivers significant value to their firms. That means that a new challenge for the managers is to determine how firms and their supply chains can most likely achieve long lasting success even if their operating environment becomes hostile. Multiple standards and regulations are driving companies to strive for greater visibility over their supply chains. Aligning the supply chain with regulations, international standards and various internal and external initiatives is complex, but offers an opportunity to differentiate in the marketplace and build competitive advantage. As regulations and international standards proliferate, the best approach to supplier information management is for companies to implement proprietary supplier information repositories that integrate with internal systems and that can also be linked to external collaborative information exchange platforms. As a strategic asset, supplier information allows procurement, sourcing, manufacturing and compliance staff to make better business decisions each day and drive competitiveness for the firm.

4. REFERENCES

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