

Lean operation and supply chain management textile industry



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There is an increasing concern on lean operation and supply chain management in the textile and apparel industry which has changed significantly over last decades, due to global sourcing and price competition. One of the main reason for the interest in supply chain management caused by apparel industry's unique characteristics, such as fast fashion and short product lifecycle. At present, lean operation and supply chain management played an important role in textile and apparel. This essay illustrates how an apparel company, Zara, achieved a tremendous success by take advantage of the practice of lean operation and supply chain. Lean operation mainly focuses on eliminating waste and minimizing the time between a customer's order and delivery. Lean concept is a much faster, better and less-expensive way of get the right done at the right place. It not only attempts to eliminate material waste, but also the reduce time in order to enhance efficiency and improve processes. In other word, Lean operation allows Zara to get low cost advantage and short lead times over its competitors.

2. Zara's operation management practice

Zara demonstrates clear advantages over its rivals by lean operations. Zara applies the latest software application and unique business strategies to ensure that its overall capabilities are developed to their full potential. This leads Zara's business procedures performing more efficiently throughout all levels of the business. This allows Zara to not only update all relevant information, but also monitor and evaluate information such as sales, returns or pricing. These enhancements mean that efficiency is improved in all aspects of the supply chain. sales can be precisely monitored at POS terminals across all stores allows Zara to recognize when necessary strategic

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decisions need to be made in relation to supply and demand. Such communication between stores and other levels of the supply chain .

This in turn makes sure that the alignment between the demand at store level and the supply at its headquarters is optimal. Therefore stock control is more precise; shipment and replenishment is more efficient and ordering time is minimal.

Zara's success is partly depend on such lean operation and effective communication from customer to store manager, from retail sector to design section and from production to distribution. it takes advantage of lean operation in order to take control of almost every aspect of design, marketing, production, retailing and distribution. A constant cooperation throughout every step of Zara's supply chain provides competitive advantages to Zara's fast fashion strategy, information flow transfer among customers, store managers, marketing employee , designers, production employee, warehouse managers and distributors managers, and so on. Zara has made significantly efforts to ensure each progress is very efficient and information flow transfer easier to facilitate operational procedures, performance assessment, and the location of every store and office layouts. It shows that operation management is one of major activities for Zara to support its fast fashion system. it is effective solution to connect all of Zara's operations worldwide network and automating processes. this lean practices is entirely compatible to Zara's supply chain. Zara use such system to differ substantially from its competitors. Zara invests on prompt lean pratices. To keep up with fast reaction to business procedural changes, supply chain management will probably ensure flexibility and quick response.

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2. 1 Lean operation used in design progress

Today, many people still take a narrow view of lean operation, they view lean operation as cost reduction, mainly in terms of the costs they can save. Cost control is definitely an important part of lean operation. After all, if your rivals can produce their products at a much lower cost, they could easily take over the market. However, some smart company view lean operation as their marketing plan and adding value for their customers. For instance, Zara's design involves in many efficient lean practices^{1/4} which only design products the customer demand. All processes performed just for the sake of creating customer's Value. The lean manufacturer minimizes resources that are not only raw materials but also manpower and time. The lean criteria is that all activities, movement, resources and other input convert into final product efficiently. Zara has applied such lean criteria successfully. Product development is constantly working in order to adapt to new fashion trends . Designers and managers attend high-fashion fairs and exhibitions to obtain fashion information and then convert the latest fashion trends of the season into their designs. Other sources of design inspiration come from TV, Internet, film content or trend spotters. product development teams focus on venues such as university campuses and clubs around the world to capture fashion trends and customer preferences. Zara's product development teams have frequent dialogue via their internal IT system. Zara gave significant autonomy to each store manager in deciding the quantity of product needed by each store. Moreover, the store manager is able to decide which product to display in their stores and which product is to be sold at a reduced price. The manager's responsibility is to make these decision based on market research and sales trends. Moreover, by employing young and

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fashionable member of staff ensures that employees also contribute by helping to report the sales analysis, the product life cycles, and the store trends to the designers.

There are specialized teams in headquarters to analyze feedbacks and information from each store, then design and produce their products. These sales analyses allow the designers to develop the right products to meet consumer Demand.

Design team issues up to approximately 12, 000 new design styles per year. Such a design concept obviously depends on the regular creation of new design. For example, Zara's designer team came up with approximately 40, 000 new designs per year, from which only slightly more than one-quarter of them for production. Zara often follows the fashion trends of the high-fashion houses and offers similar products at much lower prices by using less expensive fabric. It also attempts to offer more colors and larger range of sizes to meet the need of consumers. After a prototype of new design was selected, a computer-aided design system is used to refine colors and textures.

Limited number of new items were produced and presented in certain stores for a trial period and large volumes of the product are produced only if customer's reaction is positive. As a consequence, failure rates on new products is only 1% which is less than the average rate of 10% of other fashion retailers.

2.2 Lean Manufacture

In fashion industry, the demand changes very fast due to new fashion trends and a volatile market situation. This demand is unpredictable and could vary and change completely in a short time, creating high difficulties for supply chain. To establish a lean supply chain is one crucial way for textile and apparel retailing company to enhance its performance and to gain competitive advantages. Zara has adopted lean manufacturing and combined this with practices in supply chain management for fashion retailing. In some extent, the lean manufacturing and supply chain management have become an universal solution in the apparel and textile industry.

Zara has been able to obtain excellent success due to its lean manufacturing by vertical integration and fast fashion business strategies which provide Zara with a competitive advantage over traditional fashion retailers in the industry. Generally speaking, apparel retailers always try to keep lower costs by outsourcing production to developing countries where the lowest labor could reduce its manufacture cost. On the other hand, Zara's subsidiary retailing chain adopted a successful diverse method of doing business through working through the whole value chain by in-house design, production, distribution and retailing. Highly capital intensity and vertical integration is a distinctive feature of Zara's business model.

From the upstream value chain, a subsidiary of Zara company, Comdietel, funnels fabric and other input supplied by external suppliers. More than half of the fabric was undyed which provide maximum flexibility to produce in-season clothes. Comdietel is able to dye and process gray fabric into certain

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pattern within only one week to meet the requirement of downstream value chain.

Zara has 20 fully owned manufacture factories across the Europe. These factories use capital intensive production processes and provide cut garment and semi-manufactured products to approximately 500 in-house workshops. The relevant cutting machines and other systems produce semi-manufactured items and cut garments which will be transited directly into workshops. The progress looks rigmarole, but it is quite efficient because bar codes track the cut pieces through the every production steps. Workshops are located in labor-intensive areas across Europe such as Spain and northern Portugal. These workshops manufacture clothes in small scale to offer specialization in product type. The sewn clothes were sent back from these workshops to various product line under different brands. The center will inspect, iron and fold before sending finished garment to distribution center.

The secret of Zara's success is that vertical integration leads to short turnaround times and great flexibility. By implementing in-house production, zara has obtained high level of variety, quantity and frequency of new styled clothes. Zara adopts market orientation by reducing lead-times and increasing flexibility. Zara is able to upgrade products in its stores within 10 to 15 days from design to stores. Vertical integration decreased Zara's stock to a minimum level and reduced fashion risk. In the mean time, providing small amount of products in a great variety of styles rendered Zara shorter lead times and high level flexibility. As a consequence of offering

fewer amount of product more often, Zara obtains larger percentages of the full price due to in-season sell and thus achieve higher net margins on sales.

By focusing on shorter response times to fashion trends and keeping up with fashion. Zara made efforts to make sure that its stores are able to offer latest fashion items that consumers desired at a given time. Zara can move from coming up a design to having clothes in its stores within 2 weeks. Short lead times is Zara one of the most important competitive advantages over its competitors. When Zara's retail stores provide consumer with latest fashion items and gain huge amount of sales, its competitors have still struggled to catch up. In comparison, H&M's lead time is more than 20 days. Traditional retailers use 4-6 months .

2. 3 Distribution

Excellent supply chain management mainly focus on the understanding and balancing three key dimensions of flexibility, inventory and cost. Zara is obvious example for it by managing these trade-offs efficiently. Zara's supply chains has improved business performance and drive competitive advantage. Improving supply chain management is considered as its the business model which resulted in rapid growth and profitability.

A more systematic approach to inventory distribution is another feature of Zara. Each retail chain has its own centralized distribution system.

Distribution center is located in Arteixo and small satellite centers across the world. In order to keep its stores refreshed with new merchandise every two weeks, the warehouses of Zara is simply a place to transfer merchandise

rather than store them. Under Indetex's distribution system, most of <https://assignbuster.com/lean-operation-and-supply-chain-management-textile-industry/>

merchandise stayed at the distribution centers for only few hours. Products are inspected and shipped immediately in distribution center. Store managers can check lists of items available to be shipped to their stores. Based on their store inventories, they can request quantities and type of products. However, Zara's international expansion required constant adjustment on distribution. Zara schedules the shipment by time zone to make sure distribute effectively. Zara uses this method to gain a competitive advantage by minimizing the lead times.

3. Conclusions

Zara is experiencing significant growth and has great opportunity to continue that growth by its efficient lean practice in design and manufacturing process and effective supply chain management that is completely contrary to the rest of the clothing industry; Zara has possess a competitive advantage for itself in the sense of low prices and quick cycle times, introducing new fashions. For Zara, supply chain management is a strategic differentiator that leads to a competitive edge. Supply chain management is more than a new name for logistic. Lean operation is not just concerned about cost control, Zara views its lean operation and supply chain as key strategy of its business models. The case study on Zara