Speed-to-Fashion: Managing Global Supply Chain in Zara

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Abstract- The apparel industry is one of the most globalised industries, with 23.6 million workers in over 20 countries. The market characteristics in this industry are short product lifecycles, high volatility, low predictability, and a high level of impulse purchase, making such issues as quick response of paramount importance. This paper will focus on Zara, the largest and the most successful chain of Inditex a renown apparel company based in Spain, to explore it as a successful business model in service innovation.

Keywords – supply chain, Zara, fashion industry

I. INTRODUCTION

A. Seamless seasons in the fashion/apparel industry

The apparel production industry is very fragmented. Generally, there are three market segments in which apparel companies compete. Apparel companies in the first market segment compete on cost advantage. They provide high quality products for the mass market. For example, Giordano produces high quality casual wear prices. Companies in the second market segment provide affordable fashion clothes. What they compete on is not cost but speed. The key to success is providing customers with the most fashionable clothes in the shortest time. For example, if black is the primary color on Paris catwalks, companies in this market segment need to produce clothes in black as soon as possible. Companies that compete in this market are Mango, Tony Wear (Hong Kong), etc. The last market segment is the high-end market, which boasts of luxury designer brands such as Ralph Lauren, Gucci, etc. Companies in this category neither compete on cost nor on speed, but on brand equity. Their clients will buy the clothes not because of the price or because the design, but because of the brandname.

Although companies in the first market segment have the biggest market share, companies in the third market segment have the biggest profit margin, while the plenty niche lies in the mid market. Apparel prices are not too high in the mid-end market, however, fashion trends change quickly. To follow the latest fashion, customers need to constantly buy new clothes, and this contributes to apparel companies' profits. Thus, most firms want to move towards to this mid-end market.

In the fashion industry, the cycle has shifted from four seasons to six seasons and currently to eight seasons (early spring, spring; early summer, summer; early autumn, autumn; early winter, winter). If an apparel company cannot follow the fashion trend in the new season, it will be excluded from the market. Therefore, one of the biggest challenges in this market is to seamlessly follow the fashion trend of every new season.

But why it is difficult for apparel companies to achieve seamlessness in the fashion market? Before explaining the secret to achieving speed-to-fashion goal, let us first look at the model in this industry. To guarantee future sales, apparel companies need to follow fashion trends correctly. Normally, apparel companies will send designers to observe the current fashion trends on the catwalks to seek inspiration. After attending the fashion shows, designers will spend at least one or two months creating designs for a new collection. This process poses three challenges. First, the designs may not satisfy customers' fickle preferences. One characteristic in apparel industry is the big variation in customer's attributes and preferences, even within a region or a country. For example, just within Europe, one study concluded that the British sought out stores based on social affinity, that the French focused on variety/quality, and that Germans were more price-sensitive. Differences between regions were even greater than within regions. Second, conflicting fashion trend will influence the designs. For example, this year's fashion color is red in Asia but black in Milan. Designers find it difficult to choose which fashion to follow, Tokyo, Milan, Madrid or Paris. Lastly, fashion seasons change as quickly as in one or two months. It is very possible that fashion trends

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would have already changed when a new collection is launched.

Traditionally, whether the designs are out of fashion or not, companies will make apparel featured in their latest collection. However, to lower costs, most companies tend to outsource production to developing countries, such as China or India. Other companies may seek help from trading companies, such as Hong Kong's Li & Fung. Trading companies have traditionally played the primary role of orchestrating the physical flow of apparel from factories in exporting countries to retailers in importing countries. Li & Fung, Hong Kong's largest trading company, derives 75% of its turnover from apparel. Generally, almost 90% companies in the fashion industry rely on intermediaries to manufacture and retail their garment. However, with the need to cut costs, the response time has been shortened. Since the manufacturers may be located far away from the apparel companies, any changes in designs may not be responded quickly enough by the manufacturers.

Completed garments will be sent to retail stores locally or globally. Most companies choose sea transportation and set up regional distribution centers to lower costs. However, this process retards response time again. Shipment by sea may take as long as two to three weeks while the distribution process in regional distribution centers may take one or two more days.

Currently, many apparel companies have expanded globally, with hundreds of retail stores around the world. However, without a sophisticated IT system to provide feedback on sales information, the headquarters of apparel companies may not know which items remain popular and which items have become outdated. Moreover, to maintain a universal business concept in all the retail stores globally is another challenge in the traditional business model of the fashion industry.

The traditional apparel industry model works on long lead times, the industry average being around nine months, i.e., about six months for design and three months for manufacturing. As a result, 45-60% of production is committed in the six-month pre-season period, with 80-100% committed by the start of the season. Only the remaining 0-20% is generally manufactured in-season in response to sales patterns. Excess inventory is marked down at the end of the season, and typically accounts for 30-40% of sales. Despite their best efforts, H&M and Gap, still required about five months to produce new clothing lines.

B. Company Background

Inditex (Industria de Diseño Textil) was founded in 1985 in Spain by Amancio Ortega Gaona (Ortega). It was not until 1963 that Ortega began his garment business. Years later in 1975, he opened the first Zara store and made it a success. Now Inditex has developed into a global specialty retailer that designs, manufactures, and sells apparel, footwear, and accessories for women, men, and children through Zara and five other chain stores around the world. By September 2006, Inditex was operating 2,943 stores in Europe, America, Asia-Pacific region, Middle East and Africa.

Zara is Inditex's largest and most successful chain, accounting for over 80% of Inditex's total sales. Zara offers fashion apparel with swift turnover and budget pricing, and this has facilitated her rapid development. In September 2006, there were 934 Zara stores globally, attracting well-heeled customers in luxury shopping districts. Between 1999 and 2003, Zara's sales grew more than 12-fold, from 257 million to 3.2 billion euros , and net profits ballooned 14-fold from 31 million to 447 million euros.

Vertical integration is the core of Inditex's business model. Zara sources fabric, other input as well as finished products from external suppliers with the help of purchasing offices in Barcelona and Hong Kong, as well as the sourcing personnel at headquarters.

Comditel, a 100%-owned subsidiary of Inditex, deals with more than 200 external suppliers of fabrics and other raw materials. In addition, Comditel manages the dyeing, patterning, and finishing of gray fabrics for all of Inditex's chains, including Zara, and supplies finished fabrics to external as well as internal manufacturers. This process means that it takes only one week to finish a fabric.

Approximately 50% of products are manufactured internally. Two-thirds of the remaining items are outsourced to Europe and North Africa and one-third to Asia. The most fashionable items tend to be the riskiest. Therefore, these garments are produced in small lots internally or under contract suppliers who are closely supervised. The basic items, which are more price-sensitive than those that are time-sensitive are outsourced to Asia. While Zara has had long-term relationships with many of the external suppliers, it has nevertheless minimized formal contractual commitments with them.

Of Zara's 20 fully-owned factories for internal manufacturing. 18 are located in and around her headquarters in Arteixo, Spain. Zara's factories are heavily automated, and categorized according to garment type. They focus on the capital-intensive parts of production, such as pattern design and design, as well as on final finishing and inspection.

Even with garments that are manufactured in-house, cut garments are sent out to about 450 workshops which perform the labor-intensive, scale-insensitive activity of sewing. There workshops are generally small operations, with 20-30 employees. As subcontractors, these workshops have long-term relationships with Zara, thus most if not all of their production, is accounted for by Zara which provides them with technology, logistics and financial support, and pays them prearranged rates for each finished garment.

The completed garments are sent back from the workshops to Zara's manufacturing complex, where they are inspected, ironed, folded, bagged, and tagged before being sent to the distribution centers.

Indeed, Zara has improved its speed-to-market performance by collecting the latest fashion information from famous fashion houses in Italy and Paris, and by paying close attention to the fashion preferences of movie stars and the demands of customers. With its in-house design and production facilities, Zara is able to change its displays twice a week throughout the year. The mystery about Zara's fast speed is that the logistics of products are made during shipment, either on flight or on board ship. Zara aims to offer new products with limited quantities so that customers would frequently visit Zara stores and find something new. As Luis Blanc, Inditex director explains:

> *We want our customers to understand that if they like something they must buy it now, because it won't be in the shops the following week. It is all about creating a climate of scarcity and opportunity.*

Compared with its competitors, Zara has a higher global average of 17 visits per customer per year.

Zara adopted three modes of operation in its global expansion drive. A majority of stores were company-owned. The rest were operated as joint ventures (in Japan, Mexico and Germany) and franchises (all outside Spain, in high-risk countries where ownership is impossible or too inconvenient). Once the franchisees began operating successfully, they were likely to be withdrawn by the company. In Singapore Zara is operated as a franchise because Singapore is a small market and serves as a fashion hub for Southeast Asia. Stores get shipments from Spain twice a week. The franchiser keeps constant contact with product managers and provides feedback every day.

Zara stores have visitors inspectors from Spain once or twice a season. They will stay 2 or 3 days to check the quality of stores and to see whether they are in good order or not. Singapore franchiser has 6 product managers: three are respectively in charge of women, children and men's wear; three are for shoes. They are international coordinators, and also head of franchiser.

When product managers come to local stores, they go store by store, section by section. They will go on the floor, wall by wall, table by table, asking store managers what is selling, and what is not selling and also the reasons for not selling. They will see the quality of stores, and whether there are broken sizes or too many last pieces so on and so forth. They try to understand how products sell is the best part.

If there were discrepancies between the order and the products, the product managers would help franchisers to check what was wrong. The experienced product managers are very powerful. Franchisers have to keep good relationships with them so that they can get information about what are finishing and what are continuing in the warehouse. Thus, franchisers will order more successfully. Product managers come down to notice if something is wrong. Franchiser and product manager communicate by telephone, email and coming.

II. METHODOLOGY

We traced information about the organization from various sources, including web-sites, Zara's publications, Business Week, EL Paris magazine Spain, The London Evening Standard, the Inditex Press Dossier, Harvard Business Review, as well as formal and informal interviews. We analyzed the data from interviews, and archives to explore the implications.

III. RESULTS

A. Supply chain management challenges in Zara

The biggest supply chain management challenge in the fashion industry is "seamless responsiveness". How to coordinate the practices in local retail stores with the practices in the headquarters and how to maintain speed-to-market advantage in every store around the world are big challenges for apparel companies like Zara.

Design: At the design stage, the biggest challenges that Zara face are how to respond quickly to fashion trends and how to set a reasonable market price. Zara's target customers are young, fashion-conscious city dwellers. Their taste in clothing changes rapidly, and they are very hard to predict, and also hard to influence. On the other hand, affordability is a major issue for these young customers. Hence, they would only spend a reasonable amount of money on fashionable clothing. In the globalization context, the challenge for Zara at this stage would be how to coordinate the local customers' preferences, the various fashion trends and size requirements with the designs in Spain. For example, most female customers in Asia are comparably small and slim. Even clothes in the Small size in Spain wouldbe too big for them. How to handle the size issue is a big challenge for Zara's local managers.

***Manufacturer**: In Spain* Zara needs to keep production costs as low as possible so that she is able to use more expensive logistics modes such as air transport, to ensure speed. At the same time, she needs to control the whole production process for fashion clothes in case of the need respond to any sudden fashion or design changes. For basic items such as T-shirts, Zara has outsourced production to developing countries, such as China and India. In the globalization context, the challenge at this stage would be the quality and perception issues. Some customers in Singapore have complained that the quality of Zara's clothes is unacceptable. They commented that they would spend more money on luxury brands which are fashionable and of good quality, rather than spend hundreds of dollars on Zara's apparel, which would split at the seams after a few days. How Zara's local manager (in Singapore) would provide feedback on the quality issue to Zara's headquarters in Spain and mitigate the negative impact of the complaints is indeed challenging. Another challenge for Zara's local Singapore managers was the perception issue, i.e., customers did not want to spend hundred of dollars on clothes that were made in China. The General Manager of Zara (Singapore) explains:

> *When customers saw the label "Made in China" or "Made in India", they would say "Em…" and frown. They did not think it was worthwhile to spend so much money on clothes that were made in China. Thus, Zara kept all the production of fashion clothes in Europe.*

***Logistics**:* To compete in terms of speed, Zara used the most expensive form of transportation – air transport - to ship clothes from Spain to retail stores around the world. The distribution center was located in Spain, and consolidated clothing made in different countries and then distributed them to different stores. All the prices tags were attached onto the clothing in the respective local currencies before they were dispatched. In the globalization context, the challenge would be local transportation. Although the air transport fee would be paid by Zara in Spain, local Zara companies needed to bear local transportation costs. Additionally, local Zara companies needed to make sure local transportation would ensure the speed-to-market concept developed by Zara at headquarters.

Retail: In the final stage, the retail stage, the biggest risk for Zara at headquarters is customer retention. Zara does not have any VIP customer scheme. When there is no existing stock in a Zara store, would customers wait for the next batch or would they buy from competitors such as MNG. In the globalization context, the biggest challenge for Zara's local managers would be market expansion. Even in a market as small as Singapore, Zara plans to open 10 stores. How to promote Zara's brandname in a distinctive market is another big challenge for Zara local managers.

In fact, some of Zara's supply chain practices may seem questionable when taken individually. Far from pushing its factories to maximize their output, Zara has intentionally ignored extra capacity. Rather than chase economies of scale, Zara manufactures and distributes products in small batches. Instead of relying on external partners, Zara manages all design, warehousing, distribution, and logistics functions on its own. Zara price tags on all items before they are shipped, rather than at each store. It leaves large empty areas in its expensive retail shops, and tolerates and even occasional stock-outs.

How to integrate those daring practices is the most challenging issue in Zara's supply chain management. Zara's philosophy is "Control what happens to your product until the customer buys it". The CEO of Zara believes that to be successful in such a fast-changing apparel industry, you need to have five fingers touching the factory and five touching the customer. In adhering to this philosophy, Zara has developed a super responsive supply chain.

B. Zara supply chain management practices – in the name of SPEED

To improve "responsiveness" and "speed" in its supply chain, Zara has innovative practices at each stage. In the next section, using Zara stores in Singapore as examples, we will illustrate Zara's overall supply chain practices on the one hand, and the coordination challenges in Zara's local stores on the other side.

Designing: To be responsive to fashion trends, Zara has a creative team, consisting of designers, sourcing specialists, and product development personnel in each product line (Women, Men, and Children). The creative team focuses on careful interpretation of catwalk trends suitable for the mass-market. Zara's designers attend trade fairs and ready-to-wear fashion shows in Paris, New York, London, and Milan, refer to catalogs of luxury brand collections, and work with store managers to develop the initial sketches for a collection close to *nine months* before the start of a season. The sourcing personnel identifies production requirements, and a timeline to ensure that the initial collection arrives in stores at the start of the selling season. Product development personnel play a key role in linking the designers and the stores.

The local preferences did not influence fashion designs in Zara's headquarters. Normally, what in Spain is also popular in other countries, such as Singapore. The problem is about size. In Europe, customers usually chose M size or L size clothes. Few of them buy S size. However, Asian customers were much smaller and slimmer, who needed to buy S size or even XS size clothes. Previously, Zara (Singapore) always had such size problems because very few small size clothes were produced in Spain. But, in recent years, with more Zara stores opening in Asia, Zara's houses also produces more clothes that fit Asian customers.

Although the local preference did not influence clothes designs in Zara, the designs did influence local sales. The clothes design of a collection should tell a story, describing a type of customers that would definitely buy those clothes. For example, the female clothes design of the current collection told a story about those elegant ladies, like Audrey Hepburn in "Breakfast at Tiffany's". However, from the designs of the newest children clothes, Zara store managers did not know what the behind story was. As explained by General Manager of Zara (Singapore):

> *Children's clothes should have a focus and be clear. However, in the current collection, the color are not children's color, they look dull and dark to girls. The designs are a bit disco but on the other hand, a bit classic. You may see a confused girl who is wearing Zara.*

A similar problem happened on male clothes designs as well. Although these days men become as fashion as woman, the newest Zara male collection is too basic and too conservative, which cannot differentiate Zara from other brands. Commented by General Manager of Zara (Singapore):

> *For the men's collection, they change from super-trendy, that is to say, a little gay to too basic. Now we are losing sales because the designs are too plain. Men's shirts are always with boring stripes which does not distinguish from other brands. However, I know a lot of male customers like fashionable Zara.*

Facing such design problems, local managers would give feedbacks to Zara (Spain). If the problem was universal and seriously affected sales volume, Zara designers would make some changes in the next collection.

Manufacturing: Normally, Zara local stores would not be involved into the manufacturing process. Local stores were only responsible for selling produced garments. However, the challenges came from two perspectives: quality issue and perception issue.

Since Zara emphasizes "speed" and "quick turnover", product control is not as important for her. Thus, some defective products are likely to be sent to Zara's local stores. Subsequently, the local store managers would inform the product manager in Spain about the quality defects. The product managers would then contact other stores to check if they also had products with the same quality defects. If there were, then the particular products would be recalled. This process of quality reporting is not efficient, and slows down the speed at which Zara is able to deliver its products.

The other local challenge is the perception issue. The production of fancy fashion clothes is still confined to Europe. On the one hand, with most manufacturers located near Spain, it would be easier to respond to any changes. On the other hand, customers would definitely prefer clothes made in Spain rather than in China. The General Manager of Zara Singapore explains:

> *Singapore is a "price-sensitive" market. If you ask the customers to pay hundreds of dollars to buy a garment which is made in China, they would definitely say "No" because it is not worthwhile. Singaporean customers always prefer to buy clothes that are made in a country which is somehow "superior" to their own.*

Distribution: Zara schedules shipments according to time zones. Shipments from the warehouses are made twice a week to each store via third-party delivery services, with shipment two days a week to one part of the store network and two days a week to the other. Approximately 75% of Zara's merchandise by weight is shipped by truck to stores in Spain, Portugal, France, Belgium, the United Kingdom, and parts of Germany. The remaining 25% is shipped mainly by air via KLM and DHL. Products are typically delivered within 24-36 hours to stores located in Europe and within 24-48 hours to stores located outside Europe.

One challenge in local stores is unpacking the clothing. At headquarters this is done via a conveyer belt system, as the clothes are not systematically packed into boxes for delivery. Although the system of dropping items of clothing into boxes along the conveyer line is an efficient way of organizing the distribution centre, this results in a lot of unpacking work at the local stores. Another local challenge would be the hangers. In order to save space on a shipment, the distribution center in Spain has stopped sending products with hangers, but rather sends hangers and other basic store items via sea freight. However, this has resulted in a shortage of hangers, so that Singapore's Zara stores need to borrow hangers from its other chains. This poses a problem if shipments of store essentials, such as hangers, mannequins, display items, and so on, do not arrive on time with shipments of the apparel. Although apparel may reach the store very quickly, the store is unable to display the items if it has run out of hangers.

Retailing: In Zara, store personnel are unable to check on their inventory balances on any in-store computer. For the new available garments, store managers learn about the new designs by using a handheld computer (PDA) which is connected *each night* to information systems at La Coruña in Spain. Less than 24 hours before each order deadline a digital order form, called “the offer”, is transmitted to all the PDAs of all stores.

Zara’s stores function as both the company’s face to the world and as information sources. The stores are typically located in highly visible locations, often including the premier shopping streets in a local market and upscale shopping centers. Zara’s store managers decided which merchandise to order and which to discontinue and also transmit customer data and their own sense of inflection points to Zara’s design teams. In particular, they provide the creative teams with a sense of latent demand for new products that cannot be captured through an automated sales tracking system.

Each Zara store is a profit center. Store managers need to make orders individually, based on sales in their own stores. With different customers’ preferences, store managers needed to order the most popular items, which may not be the same across stores within a country. On the other hand, since store managers can order whatever they want, they should anticipate future sales.

V. Conclusion

A. Supply chain risk

Staying with the speed- Zara adopts many measures to satisfy the demand for “speed” in the fashion industry. It depends on excellent supply chain management (SCM). In fact, an important factor of SCM is maintaining partnerships that are difficult to build up immediately. That is why it is difficult to duplicate a similar supply chain in China or India. When Zara wants to maintain the speed of present-day rapid global expansion, it must not ignore SCM.

Too speedy?- How fast can Zara satisfy customer’s needs? To maintain “speed”, Zara has to pay the corresponding costs of SCM. When Zara balances costs and speed, whether it is it is too speedy is an issue to be considered.

Cross-market boundaries- There are different customer preferences and perceptions about the fashion industry between countries. Thus it is a big problem to manage a global supply chain to capture the market segment. In this case, SCM does not seem to be a solution for meeting customers’ preferences.

B. Implications

Innovation comes form dialogue between new technology and strategy - Zara’s strategy focuses on “speed”, and adopts suitable IT resources to form processes which enable her to achieve this goal. When new technology emerges, it will form different processes to arrive at the same goal efficiency. Thus, new processes produce new service innovations.

Position of store - Currently, stores do not function merely as sales outlets. Stores need to be information centers in some ways. But there are different operation modes for stores. How to choose a mode for stores to be information centers in different countries is a big problem that needs further exploration.

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