ZARA

IS3223 Zara Case Study

Zara: IT for Fast Fashion

Case Study Final Report

Group H:

Nah Zheng Xiang Philson	A0067379M
Tan Hong Chuan Julian	A0067407A
Wong Chih Yong	A0075128E
Tan Jian Yue	A0075054J
Ang Ruixian	U096845Y
Chia Joo Leng Jasmine	U097028B

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1. Zara Case Summary

1.1. Company Background

Zara was founded by Amancio Ortega, who saw the need for retailing and manufacturing to work closely in the clothing industry where consumer demands are hard to predict. The first Zara store was opened in La Coruna in 1975. In 1985, Inditex was formed as a holding company atop of Zara, other retail chains and a network of internally owned suppliers. Zara's current CEO, Jose Maria Castellano Rios shared Ortega's belief that the use of Information Technology (IT) was key in enabling the kind of business they wanted to build.

In 2003, there was a debate between Xan Salgado Badas (Head of IT for Inditex) and Bruno Sanchez Ocampo, the technical lead of POS (Point-Of-Sales) system about the need to upgrade Zara's POS system. Salgado thought that the time was right to upgrade the company's POS system as it was still running on outdated DOS technology. Yet, Sanchez argued that the existing POS terminals were working perfectly and that their POS should continue running on DOS.

1.2. Business Model

A. Speed and Decision Making

Ortega and Castellano believed that Zara must be more responsive to demands of target customers as fashion trends and customer's changing tastes were hard to predict and to influence. Hence, Zara aimed to produce and deliver styles on trend rather than relying on marketing campaigns to push sales.

Zara's store managers and Commercials were given great discretion by management to decide on mid-range decisions with minimal instructions from the headquarters (HQ). Besides serving as the contact point for all stores globally, store managers also travelled extensively, controlled clothes traffic between stores and made necessary adjustments to the process through observations of local trends and sales in different regions.

B. Marketing, Merchandising, and Advertising

Zara spent little on advertising and instead focused on opening its stores in prime city locations. Across the world, store layouts and pricing of the garments were also standardized by the HQ in La Coruna, while new layouts were implemented every few years.

Zara intended its clothes to have rather short life spans instead of producing classic clothes. This encouraged customers to buy it on the spot knowing that it might not be available on next visit and patronise the store often for new styles.

C. Financials and Growth

Inditex opened an average of one store per day across the world. However, although there was rapid and profitable growth in company's earning, Inditex's top management believe that there was still room for growth within its existing markets with the support of its current infrastructure.

1.3. Operations

Zara's operations were facilitated by 3 important process that help it to respond efficiently to the ever changing consumer demands, namely, ordering, fulfilment, and design and manufacturing.

A. Order

The store managers placed an order to La Coruna twice a week to replenish their inventory and new items. While replenishment quantities were determined by surveying the store and by talking to salespeople, managers only learnt about information on newly available items via handheld computers that were linked to the information systems at La Coruna every night.

A digital order form was transmitted to all stores' handhelds within a day before each order deadline. The offer displayed information on newly available items, availability of replenishment items. Offers were also developed by Commercials based on garment availability, regional sales pattern and predictions about future sales patterns in individual geographical location. As store managers faced tight deadlines, the order form was often distributed to a few employees to fill up. Once the employees completed the order, it will be transmitted back to the store manager for reviewing and consolidation before sending the completed form back to HQ.

B. Fulfilment

Once the stores had placed their order, another group of Commercials will match supply from distribution centers (DC) to stores' demands by working with two sets of information - total orders placed by all stores and total inventory available in the DC at stock-keeping unit (SKU) level. In the case of insufficient supplies, the inventory will be distributed based on stores' recent product SKU sales result. Otherwise, Commercials will allow the computer to distribute the inventory based on each store order.

Subsequently, these commercials will collaborate with product managers to determine future production for each SKU, and adjust production speed based on the demand required. The efficient order fulfilment process enabled the stores to receive their items one to two days after order placement. Additionally, orders were taken from each section of all Zara stores twice a week with shipments received on different days.

C. Design and Manufacturing

Other than coming up with new design collections at the start of each season, Zara also constantly introduced new items with short lead times throughout the year. This was made possible by its vertically integrated manufacturing operations and efficient production network. Production requirements were also distributed across a network of facilities throughout the supply chains where responsibilities were well segregated. This enabled Zara to conceptualize a new garment design and subsequently display it in its stores for sales within a month. Due to the short lead time, production quantities can be purely based on Commercials' initial estimates and any changes in production can be made easily and rapidly.

1.4. Information Technology (IT)

A. Approaches and Organization

Zara's approach to the organization's utilization of IT was aligned with its preferences for speed and decentralized decision making. There is no chief information officer appointed and no formal processes for setting an IT budget on specific technology investments and projects. Essential

applications were developed in-house as most commercial packages were not suitable for Zara's unique operations.

B. La Coruna

In La Coruna, applications developed internally were used to prepare and distribute the offer globally via the internet, receive orders from all of its stores and aggregate them. When the supply and demand were imbalanced, it will be highlighted and Commercials' decisions on product allocation when demand exceeded supply will be executed. Theoretical inventory of each SKU at each store were managed with a separate application. Though it was not entirely accurate, it was not a great concern since it was only used to facilitate stock allocation decisions.

C. Factories

Simple applications were used in production planning in the factories. These applications generated information on quantities and due dates for all production requests to assist factory managers in their production decisions.

D. Distribution Centers (DCs)

Zara's DCs were heavily automated and computerized to manage bulk quantities of each garment from factories and recombine them into shipments for each store. The development of applications which enabled Zara's DC automation was a joint effort with vendors of the conveyor equipment.

E. Stores

PDAs replaced fax machines for ordering, handling garment returns to DCs and transmitting information from HQ to all stores. Furthermore, each store was equipped with POS terminals and a modem to manage information flow. However, POS terminals and PDAs were not always connected to the HQ or to other stores. Instead, at the end of each business day, one modem-equipped terminal at each store was used to send information to La Coruna after consolidating sales data from other terminals through floppy disk copies. The lack of interconnectivity between POS terminals and PDAs as well as between stores meant that telephone was the only form of communication between stores.

1.5. Conclusion

Salgado and Sanchez were both deeply concerned about exploring the option to implement the latest IT to their stores as there is an underlying risk of compromising the existing robust & scalable infrastructure which had been working well. However, there were risks being the only customer still using DOS, and expanding business operations on top of this increasingly obsolete system may be impacted by the possibility of a sudden loss of support for POS terminals from the hardware vendor. Although the vendor had stated that it had no plans to change the machines and render DOS obsolete, no assurances were specified in Zara's contract with the terminal maker.

The adoption of new technology also brings about substantial benefits. An updated POS application with better peripherals can easily address the store managers' complaints about the PDAs' low performance in transactions and daily routine tasks. Also, modern POS terminals can accommodate more sophisticated capabilities, such as wireless networks within stores which had low installation costs. Wirelessly connected stores eliminate the need to carry around floppy disks to tally up total sales. Most importantly, permanent inter-connectivity between La Coruna and all stores via the Internet ensures the transmission of precise information across different stores and better facilitates inter-store inventory transfers requests.

Ultimately, the approach adopted must be able to assist Zara in its future business developments and enable the firm to fully exploit its overall computing infrastructure across the supply chain.

2. Introduction

The 'Fast Fashion' industry is a highly competitive business area where product life is short and differentiation advantages are built on the ability of the company to react to current and emerging trends in the market as quickly and as effectively as possible. (Wei & Zhou, 2011) Fast fashion firms have replaced traditional designer-push model with an opportunity-pull model, in which retailers respond to emerging trends in the market within a few weeks, versus an industry average of six months. (Turconi & Sull, 2008)

The success of a fast fashion firm depends on its ability to produce a product in a quick and cost efficient way and having an efficient supply chain (SC). (Wei & Zhou, 2011) A company that assures product availability within days is regarded as a market winner. (Nakhala, 2008)

2.1. Zara

Zara is able to maintain full control over its product design, manufacturing and retailing operations with its vertical SC channel integration. Their insightful marketplace demand and trend provided by the stores also allowed Zara to respond quickly to the ever-changing fashion trends globally far ahead of its closest competitor, Hennes and Maurtiz (H&M). (Palladino, 2010)

This report will first talk about Zara's closest competitor SC, H&M, followed by Zara's updates after the case study (Zara: IT for Fast Fashion). After looking at Zara's competitor, H&M and Zara's recent updates, we will discuss possible challenges Zara may face in the fast fashion industry and come up with some recommendations to address these problems.

3. Competitor

3.1. H&M

The business model for Swedish clothing firm H&M, entails innovating around design and distribution; as well as listening closely to their customers. (Daily Crowd Source) The SC of H&M consists of four phases: Design, Production, Distribution and Retail.

A. Design

In the design phase, H&M centralized the planning activities through collaboration with buyers and designers with emphasis on “fashion, quality and price”. Two major apparel collections are introduced annually that mainly highlight past successful products and the upcoming apparel releases. (Cheng & Tsan, 2010)

B. Production

H&M does not own any factories. Production is instead outsourced to independent suppliers, primarily in Asia and Europe, through H&M’s local production offices. (H&M, 2012) 60% of H&M’s production are allocated in Asia while the rest are located in Europe to optimise both time and cost. (Cheng & Tsan, 2010) H&M’s dual SCs are configured in such a way where its SC located in Asia leverages on cheaper labour costs and adopts efficient manufacturing methods to maximise profits. On the other hand, H&M’s European SC primarily focuses on the “Rapid-reaction” for unpredictable fashion items to enable rapid replenishment and short delivery time. (Ye, 2007)

H&M production offices have a mediating function to liaise between their external suppliers and their internal buying departments, to ensure that suppliers abide to H&M’s code of conduct and that goods produced are of the acceptable price and quality. This allows H&M to achieve low cost production without compromising on the quality and adapt to rapid changing market trends. (Databank Consulting, 2004) On the other hand, Zara is unable to optimise overall production cost as efficiently as H&M due to the lack of production outsourcing.

C. Distribution

Distribution is centralized through H&M’s single major warehouse in Germany. The role of the warehouse is to replenish item levels in stores according to selling trends. This large warehouse also serves as a transit terminal where most of the finished goods from global production centers passed through en route to destination countries. (ICMR India, 2008) In turn, the destination country also has its own distribution center (DC) to facilitate H&M operations. While stock management is primarily managed within H&M, transport is contracted to third parties. Logistics is managed centrally from the company's headquarters in Stockholm. (ICMR India, 2008) This results in H&M incurring higher inventory costs due to the possibility of excess inventory in every DC. (Databank Consulting, 2004)

On the other hand, this distribution approach enables H&M to ship daily to the stores from its local DC to restock the store's inventory and increase turnover rate. In comparison, Zara operates with two large DCs located in Spain and this might result in uncertainty to meet the customer's demand on time. (Databank Consulting, 2004) Thus, H&M will more likely be able to satisfy most of its customers' demands as compared to Zara which utilizes the product scarcity approach to drive sales.

D. Retail

By outsourcing labour-intensive production steps (e.g., sewing) to lower-cost labour sources, this results in significantly longer lead time than Zara's but lowers the costs of its products. Thus, this approach allows H&M to achieve significant cost advantage as its products are priced on an average 40% lower. While Zara hardly advertises and instead chose to refurbish its stores more frequently, advertising is a strong communication tool for H&M. Zara prides itself on minimal advertising. The brand is promoted via acquiring of prime store locations and having smart facades, interiors and window displays. The stores are therefore Inditex's and Zara's main communication tool.

Despite having shorter lead time and higher responsiveness to market trends and customers' demands as compared to H&M, Zara still faced some SC challenges such as higher production cost and slower replenishment rate. This may impact Zara's market share negatively in the fast fashion industry. (ICMR India, 2008)

4. Zara SCM Updates after the Case Study

Zara's current CEO, Pablo Isla, is constantly exploring alternatives to refine investment priorities, objectives and improve operational efficiencies. Improvements were mainly targeted at certain components of Zara's SC such as the retailer's work process, distribution network and center, and inventory management.

4.1. Retailer's Work Process

Tasks that were too time-consuming for the stores employees were either shifted to third-party logistics providers or factories, or improved by enhancing the hand held devices. In order to ensure store employees' time was spent wisely, Isla requested the third-party logistics providers to unload the

merchandise and bring it to the selling floor. (Ton, Corsi, & Dessain, 2010) Additionally, the tasks of attaching alarm tags to newly delivered garments had been shifted to the factories. This enabled sales personnel to spend 3% more time serving customers and selling the garments as soon as it arrive at the store instead of missing up to three hours of prime selling time in the past. (Rohwedder & Johnson, 2008)

PDAs that were used by store managers to place orders were also upgraded. The device now shows how each garment rank by sales and enabled clerks to re-order best-sellers in less than an hour that previously required about three hours to process. (Rohwedder & Johnson, 2008) More importantly, the upgraded PDAs enabled store managers to send customer feedback to in-house designers, updating the designers about fast changing trends instantly. This allowed Zara to take note which products are less desirable and thus, reducing obsolescence costs. (Matchette & Lewinski, 2008)

4.2. Distribution Network and Center

Zara consolidated transportation across Zara's different brands to reduce transportation costs. (Ton, Corsi, & Dessain, 2010) By combining shipment of various brands into larger volumes, it allowed Zara to launch twice-weekly air shipments with Air France Cargo-KLM Cargo. Hence, Zara now delivers merchandise and receives raw materials and half-finished clothes more frequently, allowing them to bring new merchandise into the market even faster. (Rohwedder & Johnson, 2008) Furthermore, Zara's DCs are now equipped to handle small scale consumer orders to cater to the introduction of Zara's online store. (AlTai, 2011)

It was noted in the case study that in 2003, Zara only had a website that served as a digital display window showing a few typical garments at any time. However in 2010, Zara launched its online stores to sell garments incrementally, starting by making the site available to Spain, United Kingdom (UK), Portugal, Italy, Germany and France. (Mulligan, 2009)

Unlike many of its competitors such as Forever21, Zara has lagged behind in the e-commerce platform area, citing reasons such as waiting for online demand to build up before launching its online services as well as having sourcing and logistics problems for its online store. (Signature 9) However

in recent years, as more and more customers prefer shopping online as compared to squeezing with the crowd in a brick and mortar store, the need to have an online presence is ever more prevalent for Zara. Moreover, despite recent instability in the global economy, online retail sales is said to be one industry which received minimum impact during this economic crisis. With online stores, retailers can also track sales and indicate new trends within days as compared to the traditional methods which could take up to weeks. (Signature 9) Hence, it was crucial that Zara decided to launch its online stores and its complementary mobile application in 2010 to reciprocate to the built up of the online demand.

4.3. Inventory Management

Since 2006, Zara began using sophisticated operations research models to determine inventory shipments it sends from its two central warehouses to its worldwide stores. Although Zara's old way of determining inventory shipment seems to be work well for them and supports their relatively small distribution network, by 2005, with the recent growth of its global network, Zara realised the need to address several related improvement opportunities, and ultimately design a more scalable shipment process for its warehouses and stores. (Caro, Gallien, Correa, & Calamonte, 2009)

The new process will help Zara compute its weekly store shipments by using the shipment requests from store managers and past historical sales to build demand forecasts. It also uses the forecasts and inventory available in warehouse and store of each article to make shipment decisions to help maximize Zara's global sales. (Caro, Gallien, Correa, & Calamonte, 2009) With the development of this strategy, it was observed that the new process help increased Zara's total sales by approximately three to four percent. The strategy also helps reduced transhipments between stores and increased the time spent by articles on display within their life-cycle. It also help Zara's warehouse inventory allocation team maintain its staffing instead of hiring more staff to cope with their expanding global store network which in turn help keep operating costs low.

5. Challenges

After looking at its close competitor H&M and the updates it made after the case study, we have identified several key challenges we felt Zara should address to stay competitive in the fast fashion industry.

5.1. Limitation of Companywide Interconnectivity

There is a lack of a companywide system to link different business units together for better communication flow. The lack of companywide interconnectivity may prevent the designer to monitor the sales of test garments more closely, instead of relying on manual orders from store managers. Due to manual calculations done, discrepancies between orders and sales can also happen. (123 Help Me, 2012)

From the case study, we know that POS terminals used in store were not interconnected via any in-store network, so employees had to transfer daily sales totals from each terminal onto a floppy disk, and then carry these disks to a modem-equipped terminal to accomplish transition. Furthermore, POS terminals and PDAs could not share information and did not contain information that could be used when one store wanted to know if a nearby one had a particular stock keeping units (SKU) in stock. Store personnel telephoned one another to answer this question.

All the problems meant that store managers would not have comprehensive overview of the store's inventory and sales information to help determine order requirements since it is purely based on human observation and at times, feedback from some customers which could be distorted when conveyed from customer to design team. Information transmission can be slow, inefficient and inaccurate. Moreover, although trends and style can commonly be found global-wide, there are still some distinct variations between different locations and population demographics. Furthermore, sales will have to be tallied manually as is currently the case, since inventory information cannot be made available from any POS terminal in the store. Thus, store employees will need to dedicate more time and energy to administrative work instead of providing to customers' needs. (123 Help Me, 2012) Store operations will also be inefficient as stores are only able to check for stocks from other outlets

via telephone, having to make customer wait to know the stock's availability, creating unhappiness with its customer service.

5.2. Obsolescence and Limitation of Technologies Used

The outdated DOS operating system which Zara has been using to operate its stores' POS for decades is no longer being supported by Microsoft. The underlying concern of using an outdated operating system means that any upgrades on the machines made by Zara's POS terminal vendor would render the existing machines DOS-incompatible. Zara's vendor also did not guarantee that they will not upgrade their system and phase out DOS. This puts Zara's core operations system at risk. Furthermore, the current DOS system has limited capabilities, placing Zara at a disadvantage when compared to other competitors using more advanced software. Moreover, store managers are increasingly complaining about the need to add more features into the POS terminals and PDAs for more in depth functions for analyzing store performance. Moreover, most of the current POS system was written by the internal IT team, particularly the head of IT. Therefore, it put Zara's business continuity at high risk depending on the team's knowledge.

While enhancements had been made to the PDAs used by store managers, it is crucial to note that PDAs are widely becoming obsolete due to the pervasive adoption of smart phones. (Smith & Wempen, 2011) Therefore, if Zara was to continue deploying PDAs in their stores, they may soon be unable to find vendors to supply or service this increasingly outdated piece of hardware. In addition, it could be difficult to hire developers to create applications for the outdated platform. There is also a limitation to the capabilities of PDAs; hence if in the future, Zara's employees find it necessary to add in more capabilities, the PDA might not be able to provide the service.

5.3. Limited Global Reach of Zara's Online Store

Although Zara now has an online store catering to the online market, it is noted that the online store only operated in countries which Zara has a large customer base rather than introducing it to the global market. (Fashion United, 2010) Despite being the largest clothing retailer in the world currently, yet they lagged behind in the online commerce area. It is only in 2010 that online store has

incrementally become a part of Zara's strategy to expand sales as compared to retailers like Gap which has a stronger online global influence. (Kenna, 2011)

As Zara is considered a late entrant in the internet retailing arena and arrives in a crowded and competitive market where other online retailers like Amazon and ASOS have had significant loyal customer bases, it will need to find innovative ways to make use of their expertise in distribution and inventory management to rise above the rest.

6. Recommendations

6.1. Mobile Enterprise Applications

Smart phones such as Blackberry, Android, iPhone and tablet devices are capable of running complete operating system software. They provide a platform for application, or "apps" designed to help the user perform singular or multiple tasks. Some apps provide functions such as control, tracking and messaging that can be very useful for supply chain management (SCM) execution. The range of potential mobile apps is seemingly huge – from basic visibility and traceability via order to warehouse management solutions and transportation management systems. For example, SAP Transport Tendering app allows its users to receive Request for Quotation (RFQ) for freight delivery anywhere, anytime. Users can then process the RFQs directly from their mobile devices. This allows business users to improve customer response times and service while streamlining efficiency. Our recommendation for Zara is to introduce mobile enterprise applications throughout their SC and gradually replace their existing PDAs with smart phones and tablets, in order to support and optimize their operations.

A. Benefits

Mobile Enterprise Applications can bring about many unique advantages to Zara's SC.

(1) Improved Timeliness and Correctness of Data

Discrepancy in data can create confusion amongst users and may result in wrong business decision being made. However, by connecting the mobile app to Zara's main information systems, information like sales data, trends and order history can easily be retrieved and displayed on the app in real time

for employees' usage. This eliminates the possibility of experiencing conflicting or duplicate data entries especially when Zara depends heavily on PDA devices to transfer data such as orders and sales trends. Furthermore, overall business processes can be executed more efficiently.

Employees that use mobile apps are able to capture and enter data faster regardless of location or time. For instance, the delivery driver can use the mobile app to record delivery status, while the system can confirm his entries and delivery time as well as process the data. All the information is immediately made available on their respective platforms and is displayed via the company's information systems. More importantly, all relevant partners in the SC can access it readily. Accurate, real-time data can greatly improve order-to-delivery cycle time and efficiency of strategic business processes.

(2) Improved employee responsiveness

Employees with mobile devices can use them to improve "reachability" and responsiveness. Through the mobile apps, workers can retrieve precise information whenever they need it. This also enables the employees to handle queries from customers and partners more quickly and accurately. For example, store manager can access current store inventory information and commercials at La Coruna can view stores' performance data to determine future production.

(3) Better scalability and ease of updates

Outdated technology like the PDA Zara is currently using in stores will encounter technical support issues gradually as they become obsolete as compared to apps on mobile devices that are relatively easier to acquire and develop apps for. It is also easy to deploy updates on applications for modern mobile operating systems such as iOS and Android. This means that updates for software on the mobile devices can be easily downloaded for use in all their stores globally to fix bugs and introduce new functionalities. All devices in Zara's SC will be constantly kept up to date with the latest version of the app.

B. Feasibility Evaluation

However, there may be possible challenges and concerns with the implementation of mobile enterprise applications. Firstly, the cost of implementation may be high as it was mentioned in the

given case study that Zara's business model cannot be easily addressed by off-the-shelf packages and requires customized apps. This would mean that Zara will need to hire developers to develop specialised apps. Furthermore, it may also be time consuming to train store and warehouse personnel to adopt and utilise the new devices to their full potential. On top of that, the lack of mobile device possession amongst key users may also hinder the success rate of the mobile enterprise application being adopted. However, smart phone penetration is increasing especially in Europe, with Vodafone stating in fourth quarter of 2011 that they are selling an increasing number of the devices in each quarter. (Wireless Intelligence, 2012) This is promising since more key users can adopt the transition to mobile enterprise application.

C. Recommendation Overview

Overall, we feel that in the long run, the benefits of mobile enterprise apps far outweigh the costs involved. Furthermore, Zara can consider a phased approach or run pilot projects by implementing it in a few stores at a time to help mitigate any possible risks to have a more successful implementation.

6.2. Upgrading of DOS-based POS System

Zara should consider gradually upgrading its DOS-based POS system to current POS terminals' hardware and software such as Intuit-HP Retail Solution, an industry-proven software. The Intuit-HP Retail Solution comes complete with: HP's Point of Sale System, monitors, USB keyboard and mouse, Cash Register functionalities, Barcode Scanner, and Intuit POS software, and is a widely deployed and supported POS system. (Weidenbaum, 2007)

A. Benefits

(1) Real-time data benefits

Adopting a modern POS system will allow Zara's commercials to make fairer allocations of items in situations where demand exceeds supply as they can base their decisions on daily real-time sales figures. Also, if all stores have online access to other stores, a particular store manager can either request delivery from other stores, or direct a customer to another local Zara store in case of a stock out. Merging data into one system also enables real-time sharing of sales, ordering and returns information resulting in a more precise measurement of stocks and ensures better decision making. In

addition, if all employees of Zara use the same system, it will be a good way of connecting autonomous stores which allows for better understanding of global trends and developments. With information sharing in real-time, Zara's SC can react faster to sales information and latest market trends, and possibly reduce overall lead time with decisions made at a faster pace.

(2) Company-wide networking capabilities

Currently, store employees have to manually tally daily sales and technologies used in-store does not share data. This inevitably reduces employee productivity as the time could be better spent on other tasks. By implementing modern POS terminal system in the stores, the system can automatically collect and process data. With the implementation of modern POS systems with broadband internet connections, real-time exchange of critical information replaces the need for telephone conversations and manual store canvassing.

(3) Cost savings

Upgrading to a modern and widely supported POS system, will help reduce Zara's reliance on a sole hardware vendor which in turn increases their bargaining power and can lead to possible cost savings. Ultimately, the migration from an increasingly obsolete OS will help to future-proof ZARA's operations.

B. Feasibility Evaluation

To adopt this solution, Zara has to first upgrade its network infrastructure to ensure availability of network connectivity in each of its stores and department. We also are aware that the implementation of a new IT system across a large organisation using a "Big-Bang" adoption approach will be too risky and may be met with problems. Therefore to minimise risks, we recommend that Zara implements the system using a "Pilot" adoption approach, by first introducing the new system to a few stores to assess its stability and suitability before gradually doing a more widespread rollout.

The new system may also be faced with user resistance, as the staff are more accustomed to using the older system and may find the new system harder to setup and troubleshoot. However, proper

organizational support through staff training and empowerment can help reduce the perceived difficulty of adapting to the new system.

C. Recommendation Overview

Although preparing the necessary infrastructure to support the "Pilot" adoption approach of a new POS solution may incur substantial costs, we feel that the need to upgrade from an increasingly obsolete OS is inevitable. Furthermore, the new solution will enable Zara to track customers, manage inventory, and gain valuable business insights, whilst ensuring that their systems are prepared for the unpredictable future.

6.3. Expanding of E-commerce Presence Globally

There is need for Zara to expand their e-commerce presence globally as more and more consumers are open to making purchases over the internet. This can be seen from the rise of e-commerce sales over the years amounted to $43.15 billion in 2012, in contrast to $37.50 billion for the same period in 2011 worldwide. (Stambor, 2012) Therefore, Zara make use of this opportunity and capitalise on this favourable trend to widen its reach and target more online customers.

A. Benefits

(1) Gathering comprehensive data

Although Zara managed to move its business online, they failed to reach out to the international market as they are only able to provide deliveries to neighbouring regions near its DCs. Zara being the fast-fashion leader in brick and mortar retailing is losing out in the lucrative e-commerce market and this might place Zara behind its competitors. If Zara can expand its online retailing internationally, they can acquire substantial knowledge on the demographics and market penetration of the business.

Internet retailing enables Zara to capture comprehensive consumer preferences immediately when a purchase is made. Apart from that, customer's information can also be captured instantly and easily with every online transaction, providing Zara's designers an instant view of the current situation. (Kenna, 2011) Furthermore, without a physical shop front, it removes the limitation of operating

hours, thus sales can be conducted around the clock. Ultimately, online retailing can enable Zara to accelerate sales and gain an edge over fast fashion rivals.

(2) Gaining bigger share of online retail market

By having online retail presence globally, it allows Zara to reach out to vast amount of consumer globally. It is said that majority of internet users are between 25 and 34 years old, aligning to Zara's target audience. (New Media Trend Watch, 2012) Furthermore, it enables Zara to capture the market of time-pressed shoppers who prefer to shop from home or work. Therefore, expanding Zara's e-commerce will definitely allow Zara to grab a huge share of the online retail market and increases its customer base and revenues.

(3) Minimize the number of brick & mortar shops

Online retailing can reach a larger audience base, both domestic and international as compared to brick-and-mortar stores. It also enables retailers to offer a broader selection of products and related information in an easily accessible form. Having an online retailing presence also means that Zara can reduce the number of physical stores in a country-which can possibly lead to cannibalization. Lastly, building an online presence is a low-risk way to test new markets acceptance or complement existing store footprints.

B. Feasibility Evaluation

(1) Targeting the right country

Setting up online stores globally is not a simple task as the acceptance and popularity of online shopping is also dependent on the culture and network infrastructure of the country (developing vs. developed country). Therefore, prior to expanding Zara's online retail presence globally, it is essential for Zara to assess the country's prospects on e-commerce before setting up an online store because the number of internet users and how many are comfortable purchasing products online may determine the success of the online store. Furthermore, Zara may have to set up additional DCs in the country or in neighbouring countries to better cater to online demands in order to open an online store in the country. This may incur huge costs although it can be compensated with lesser needs to open brick-and-mortar stores.

(2) High logistic and shipping cost

Goods deliveries to countries further from Zara's DCs in Spain may incur significant delivery cost due to logistics issues and limitations. To reduce its international shipping costs, Zara can renegotiate overseas shipping costs and terms. This can be done by leveraging on the fact that Zara is the fast-fashion leaders and thus have the power to negotiate costs with the delivery company. Alternatively, Zara can source for other logistic companies that could promise deliveries to global-wide locations at a more affordable cost.

(3) International exchange and return handlings

When international shipping is introduced, there may be complicated issues with the return/exchange of goods. Due to the nature of long shipping time to international customers, articles may not be available in the DCs for exchange of sizes by the time goods are delivered to the customer due to the high turnover rate of Zara's garments. Thus, Zara will need to cater international customers' needs by allowing them to exchange for other garments in local brick-and-mortar stores.

C. Recommendation Overview

To sum up, Zara can use online retailing as an approach to tap into growth markets, build the brand and even bypass geographical limitations to reach out to more consumers while investing less capital in setting up physical stores. (Khurana) With the global expansion for its online store, Zara will be able to extend to markets where it does not seek to open as many physical stores in the near future. (Euromonitor International, 2009) In turn, Zara's sales will trump over other rivals.

7. Conclusion

Having looked at Zara's closest competitor H&M SC to determine how Zara has fared against its competitors. Zara have a shorter lead time and is more responsive to market trends as compared to H&M. Following that, we also looked at Zara's updates after the case study and identify several important updates to its SC which includes a more accurate way of managing its inventories, an addition to its sales channel and improvements to retailers' work process. However, it is noted that Zara still experiences several SC challenges. These include key issues such as the limitation of its

companywide interconnectivity, obsolescence and restriction of the technologies currently used and lastly, the need to maintain its leadership in the industry with online expansion.

Based on the challenges discussed above, we have came up with three different recommendations to tackle the issues at hand. They are establishing mobile enterprise applications, upgrading of POS terminals and further improvements on its e-commerce. However, each of these recommendations has its benefits, disadvantages and associated risks. Zara will need to carefully evaluate these recommendations and mitigate possible risks before implementing them.

All in all, we believe that through the implementation of more advanced technologies, whilst having proper management of possible risks, Zara will be able to further enhance their operations and remain as a dominant player in the fast fashion industry.

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