Fast Moving H&M: An Analysis of Supply Chain Management

Manvinder Singh Rathore, Kriti Maheshwari, Shreyans Jain

School of Business Studies and Social Sciences, Christ University, Karnataka, India

ABSTRACT

Globalization and liberalization led to the paradigm shift in ontology and epistemology of supply chain management today. Methods of research pertaining to object of study under supply chain management has underwent a transition. This research looks into the efficiency and effectiveness of the supply chain management of H&M by understanding its supply chain practices, performances and its operations across the world. This paper further evaluates and analyses the recent technological integrations such as Big Data, Artificial Intelligence, Data Matrix, Block Chain, Coded Couture App and Monki X HoloMe to H&M's Supply Chain Operations. This paper attempts at tapping the transition through a comparison and contrast between the leading two apparel brands namely H&M and Zara. Any discussion on supply chain pertaining to these is focused around their unique strategies. Objective of the research is to propose weaknesses and strengths of H&M supply chain management and proposing the possibility of improving it further.

Keywords: - Supply Chain Management, Dual Integrated Supply Chain, Leagile, H&M, ZARA

1. Introduction:

Hennes & Mauritz (H&M) was founded in 1947 by Erling Persson. It laid its foundation stone by selling clothes for women in Sweden in 1947. It further entered into new markets in Stockholm and started its new line of production of men's clothing by 1968. H&M soon ventured out into new product lines such as clothing for Kids, Accessories, etc. It's one of the leading firms in the clothing industry and is recognized as the brand for fast fashion. Currently, H&M is the second largest clothing retailer. It is currently spread across 61 countries with around 4900+ stores across the globe, thus establishing its strong presence in the marketplace. The target market of H&M falls between the age group of 18-30 years and also to those who are fashion delicate. One of the key factors for H&M's success has been its supply chain management. Supply Chain is known as a process of delivery of raw materials from suppliers to manufacturing units and delivery of finished goods from manufacturing units to the end consumer. The supply chain is the only way through which a company can reduce its operating costs and also at the same time providing the customer with good quality products at best prices. An effective and efficient supply chain becomes an asset of a company and henceforth, is able to add value to their customers when it provides right product at right place at right time. H&M strongly believes that "A short lead time is not an end in itself, since it is always a matter of getting the right balance between price, time and quality" (H&M, 2006)

1.1 Objective of the Study:

The objective of this paper is to study and evaluate H&M's supply chain management, its practices and its performances in the fast-moving fashion globe. As it is reckoned as the world's second largest clothing industry, next to ZARA therefore, we have drawn out comparative analysis between H&M and ZARA to furthermore deepen the horizon of our understanding on how their supply chain management operation makes a distinctive impact on the market space around the globe.

2. H&M's "Design, Production & Distribution":

H&M is prominent for offering fashionable, modish styles apparels and accessories with rapid change over. H&M ensures the best customer offering in every market by maintaining the right pieces of stock in each store that will best suit the customer preferences. H&M strives to provide varied range of merchandise that incentivizes customers to both browse and shop passionately.

According to (Lu, 2014) H&M is headed by the team of 100+ skillful, polished and artistic designers designing their craft from H&M design center in Stockholm, Sweden widely known as "White room". The designers diligently plan and produce season after season collections accomplishing its two-fold design process through long term planning of collections which is done more than a year in advance and real time design feedback that stems out of a customer driven product strategy. The teams responsibly and meticulously do the flexible assortment planning to ensure that every store feels updated on trends and patterns of the merchandise as the demographics and geography significantly influences the distribution of the merchandise. Therefore, high fancy apparels are significantly produced in small quantities and mainly distributed to the main big cities whereas, essentials are ordered in bulk and are widely distributed around the globe. Furthermore, H&M closely work with enthralling number of services to produce assorted range of merchandise there about, H&M has 80- pattern makers, 800 +- suppliers and 30- production distribution centers to be precise across the globe making H&M the world's second largest clothing retailer (MUÑOZ, 2015).

Henceforth, H&M core operation heavily relies on its profound designers, creative directors and pattern makers to stay on top of the game, therefore, H&M has wisely invested on their extremely talented, highly proficient and diverse workforce around the globe, coming from japan, Holland, japan and many more together to produce the right mix of article and accessories and many other different products of H&M to catch up with the latest trends, colors and reasonable prices and fit of the merchandise to suit their customers interests using the service of Worth Global Styles Network (WGSN) to forecast fashion trend and patterns in current times (PETERSON, 2014).

2.1 Manufacturing:

The key to H&M success has been its Dual Integrated Supply chain. In simple words, dual integrated supply chain means having two sources of suppliers producing the same products for the company (MUÑOZ, 2015). H&M has heavy dependence on outsourcing from design to production which is H&M's most commendable and admirable characteristic i.e. its ability to effectively and efficiently collaborate with its partners around the globe. Having stated that, not having factories of its own, H&M utilizes over 800+ partner companies in more than 30 countries, that is H&M's 60% of the merchandises are manufactured by the Asian countries majorly in Bangladesh, Vietnam Cambodia, India and China. Hence, rest are manufactured by the European suppliers (Lu, 2014).

H&M is mainly integrated with three types of suppliers divided into categories namely: Platinum & Gold, Silver & Other Suppliers (Suppliers List: H&M, 2018)

• Platinum & Gold:

The suppliers under this category are mainly the preferred suppliers. The produce around 60 % of the products. Only the suppliers with the best performance and who focus more on sustainability fall under this category.

• Silver:

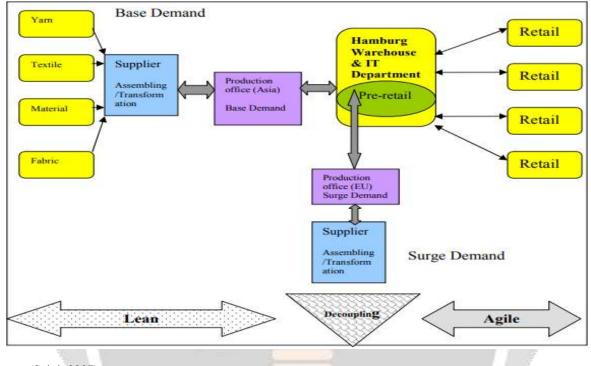
The suppliers that fall under this category are those with which H&M works on a long-time basis and with those who develop close relations with. H&M even provides training and room for development to these suppliers.

• Other:

The suppliers under this category have are in the initial stages of production for H&M or with whom H&M has just placed a test order for its operation. It is difficult for the company to trust on these suppliers and therefore only on the basis of analysis, the suppliers move up the order.

Fashion industry is appropriately acknowledged as 'fast fashion' as it requires higher degree of flexibility, adaptability and response to production and decision making. Therefore, H&M integrates both lean and agile process of manufacturing to reap the maximum benefits out it. In Lean production products take lower lead time as basic and specific merchandises are produced for its customers with large volumes and low variability (MUÑOZ,

2015). Lean production is product oriented and aims at cost optimization, elimination of wastages and efficiency. Whereas, in agile production products take higher lead time as they are fashion sensitive apparels and are made available at very short notice using market knowledge and virtual corporation while maintaining the high standards of quality and controlling the overall costs involved in the production. Lean production aims to provide higher customer satisfaction with higher flexibility variety and effectiveness. In the H&M supply chain process, the lean manufacturing is done by the Asian suppliers which accounts 60% of the production and agile manufacturing is done by the European suppliers which is the rest of the production (Saini, 2007).



Source: (Saini, 2007)

H&M collections are created and placed centrally in the design and buying unit to bring about the balance of major three components i.e. fashion, quality and best price. Though H&M does not own any manufacturing units, but owns the production of offices and closely with its partners to ensure the safety and quality of the product. As H&M outsources most its supplies from Asia to achieve the advantage of leanness the lead time varies 2 weeks to 6 months. Asian Manufacturers procure fabric in advance as per the forecast in order to minimize the cost and increase the efficiency. The production office of H&M is situated in the origin of the production to ensure the quality and work standards of the suppliers maximize the efficiency, minimize the lead time, achieve the lowest cost and zero defects in the given time frame. The transit point in the Hamburg warehouse works as a decoupling point where demands shifts from pull to push, while managing the flow of goods and information upstream and downstream. As H&M is ever evolving, customer centric company and striving to learn from its customers, its focuses on attaining higher customer satisfaction by serving the surge demand by production in the Europe. Henceforth in this way, H&M brings price and quantity advantage by achieving 'leagile' (Lean + Agile) in its supply chain operation (MUÑOZ, 2015).

2.2. Transport Management at H&M:

To ensure that the products get delivered to the customers just in time or to get the products available in stores beforehand, it is crucial for H&M to choose the cheapest and fastest route plan. The final product manufactured by the supplier is generally sent to the warehouse in Hamburg, Germany from where it is ensured that the products are made available in stores but in situations where the demand is design specific, H&M ensures that the produce is directly transported to the particular location of the country ensuring that it is made available just in time. H&M does not depend on third party for its logistics and uses its own logistics services in the name of "H&M International Transportation, Inc." H&M mainly uses Railways, Waterways and Roadways as their mode of transportation to

deliver the products across the globe, thus making it cost effective as well (MUÑOZ, 2015). But when there is a surge demand of new trends, the preferred mode of transport is usually Airways.



Firstly, the production produce from suppliers in Asia or Europe are transported through Ship to the main warehouse in Hamburg, Germany. In case of urgency, airways are preferred over waterways. Although, most part of the production comes from the Asian suppliers, the goods need to be transported to the main hub in Hamburg. The goods received in Hamburg are then transported through Rail to the distribution centers in the specific geographic area. Once the merchandise reaches the distribution centers, they are then sent to the stores through trucks or rail. The distribution centers are often located nearby to the stores which makes transportation easier. For example: Poznan Distribution Centre is totally based for Northern European Market.

H&M has a distribution center established in most of the countries it operates in. There are currently around 13 distribution centers in Asia and Europe (. Stockholm, the headquarter of H&M logistics department, is in charge of importing products, managing stocks and distribution of supplies to the distribution centers. For instance, if H&M wants to expand its operations to a new country, it initially does not set up a distribution center over there but rather it uses the distribution center which is closely situated to that country, thus saving the initial costs of establishment.

When the supplies arrive in each of the distribution centers, the supplies are then unpacked and then they undergo a quality test. Depending on the demand, the supplies are then delivered to each of the stores or are stored in a call off warehouse (a place in each distribution center for storage of goods). Moreover, H&M does not have any backup stocks; they are only replenished from the call off warehouse. As soon as the stock gets over, a replenishment request is sent. For example, H&M has distribution centers set up in Sweden (Boras DC) and Poland (Poznan DC) respectively. (Munoz, 2015: 23)

Replenishment in Poznan DC:

The Poznan Distribution Centre receives the supplies from most of the suppliers situated in Asian and the Turkish market. The produces arrived in Poznan distribution center are done via catalogues accordingly to ensure that the distribution center has sufficient stock to match the customer demand (MUÑOZ, 2015).

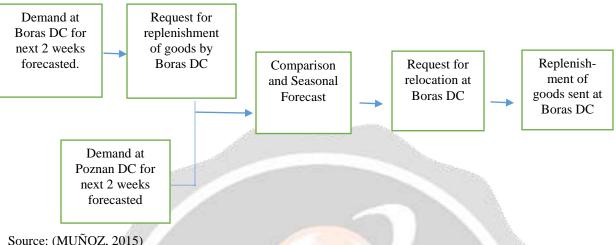
Replenishment in Boras DC:

The transportation of supplies to Boras Distribution Centre occurs in a rare situation. Most of the supplies received in Boras DC are transported from Poznan DC. For instance, the Boras distribution center is suppled directly with the produce only when the produce is more than enough to fill a container or when the supplier is situated nearby to the distribution center. An another significant reason for why the produce could be directly supplied to the Boras DC is when the product is to be sold in Scandinavian region (MUÑOZ, 2015).

The distribution center in Boras DC undergo the sales forecasting to predict the supplies for the next two weeks respectively. The distribution center then requests for relocation of goods from the distribution center in Poznan.

The system then compares the request with the past replenishments and accordingly the forecast is made for the season and finally the replenishment of goods is sent to Boras DC (MUÑOZ, 2015).

To summarize:



Source: (MUNOZ, 2015)

The distribution process at H&M comparatively takes more time to reach the stores than its competitor. For example: ZARA, the leading firm in this field, can transport up to 1 million items per week and takes a lead time of 14 days from the designing of product to making it available in stores. H&M does the same in 21 days. The supply chain of H&M Is comparatively longer mainly due to the transportation of product to the warehouse in Germany before finally transporting it to the distribution centers.

2.3 Inventory Management at H&M:

H&M follows both Centralized and Decentralized Inventory Management System. Some of the activities carried out while managing inventory are centralized such as Quality Inspections & excess stock keeping. This helps them from preventing excessive damages as professional inventory managers are hired for these tasks. Whereas, in some cases H&M carries decentralized form of inventory management system. This is mostly done only in the regional market in order to cater to the needs of the local customers and also helps them manage inventories effectively. Following the decentralized system helps H&M to develop a good customer relationship. Moreover, H&M stores do not keep back up stocks. However, once the stock is sold out, a request for replenishment of goods is placed and products are delivered from the regional replenishment centers.

According to the Annual Report of H&M 2018, it had an excess inventory of around \$4.3 Billion and H&M believes that digitalization up to a great extent can help them remove the inventory. H&M has now initiated RFID (Radio Frequency Identification) in almost 1800 of the stores of H&M and plan to initiate it in many other stores (Jamie Grill-Goodman,2018). Moreover, they believe that a new venture may take off the load of the excess inventory and therefore they have come up with Afound in 2018 which is an off-price marketplace which would sell products of fashion and lifestyle. H&M has also introduced automated warehousing system in most of the warehouses. The automated logistics centers help in increasing efficiency and capacity up to a great extent, thus resulting in a shorter lead time (Grill-Goodman, 2018).

2.4. Warehouse Management at H&M:

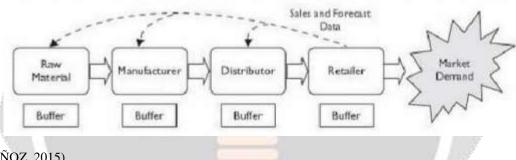
H&M's central warehouse which is located at Hamburg, Germany acts as a main hub for all the production of merchandise. The total production from all the suppliers in Asia & Europe respectively are first transported to the central warehouse. H&M highly relies on Information Communication Technology (ICT) to prevent damages caused by excessive production. Generally, the products are transported to the central warehouse but in cases where the demand is design specific or the produce is for the regional markets, H&M through the use of ICT makes sure that the produce is directly delivered to the particular country or region. The central warehouse of H&M receives more than 160 million pieces on a daily basis and therefore the warehouses is designed in a way so that it could handle a large amount of deliveries at a time. (MUÑOZ, 2015)

3. How is H&M tackling with the un-certainty of Demand?

Demand forecasting in supply chain operation plays a vital role in deciding the efficacy of a firm. If a company cannot predict the demand of a product in a right manner it will surely result in wastage of resources, leading to higher inventories, high labor cost, improper usage of operational areas etc. In fashion industry forecasting of demand can be difficult compared to other industries since in fashion industries product takes longer lead time, has uncertain customer's demand, short selling seasons.

Forecasting demand is a big challenge for a company. Right proportion of balance between requirement of customers and production capacity is considered as one of the primary objective of managing the Supply chain of a company. When a company operates its supply chain, it has to go through certain dynamics which create changes in both production rates and inventory level commonly knowns as **Bullwhip Effect** which brings about distortion in one's supply chain. Here Bullwhip Effect refers to a phenomenon where disparity of demand expands dramatically since every order has to go through every level of company's supply chain.

H&M has considered its supply chain as a single entity which help them to cater to their actual demand of a product. H&M thoroughly study's the end user demand data instead of forecasting demand based on orders received. H&M keeps an eye on uncertain events which might interrupt the manufacturing process in future so they keep their Buffer inventory ready which will not hurt production or sales. Buffer is determined by the unforeseen events in market demand and service required by the market. Company like H&M believes that if they share a company's forecasting data through all levels in Supply Chains from POS (Point of Sales), it will lead to a longer way in reduction of uncertainty extensively.



Source: (MUÑOZ, 2015)

H&M uses the integral focus of QR which help them to manage their inventory management smoothly and efficiently. This helps H&M to keep proper balance between supply and demand of a product. QR consist of a uniform set of Bar codes, Labels, Electronic Data Exchange messages, etc. integration of QR helps H&M in sharing Information data smoothly with their partners that leads to an efficient and effective Supply Chain management. H&M uses QR for their highly volatile demanded products, a long resupply time and a product with short life cycle (MUÑOZ, 2015).

H&M also uses the data from their retail stores(POS) in forecasting the demand of certain products which are favorites among customers. H&M always try to fulfill their customer's demand effectively and efficiently and also tries to eliminate distortion in its supply chain and keeping themselves well versed with current fashion seasons.

4. H&M - Technological Integration

Introduction of latest technologies and artificial intelligence in supply chain operation makes a company stable and competitive in the market place. Company that has introduced latest techniques in their operational business are getting the benefit of lower-cost in manufacturing goods, less lead time, efficiently gathering data of customer's preferences, efficient usage of transportation facilities and keeping the goods in better condition in latest advanced warehouses. H&M, world's second largest fast fashion retailers are growing at a rapid speed in expanding their market in fashion industry. Through digitization and technological integration H&M are fulfilling customer's demand effectively and efficiently considering their affordability, personalization of the product, latest fashion trends, fast delivery process and furthermore (Assignments: Digital Initiative, 2016). H&M has integrated AI technologies and advanced data analytics that helps them in Demand forecasting, less lead time, better inventory

management, improving connection with customers, adjusting themselves with the latest trends in fashion industries to be at top of the game.

Here are some of the successful tech H&M has recently integrated in their Supply chain management:

- 1. **Big data and Artificial Intelligence** H&M has around 4000+ stores throughout the world. Whether you go to the Sweden, Spain and India, you'll find similar merchandise in every store of H&M. Sometimes this does not go well with the taste of customers since company fails in studying the latest trend of fashion and ultimately it results in mass production. Mass production forces the retailers to cut down the price of some products. In order to fulfill customer's demands based on their cultural background; H&M came up with an effort to better stock individual stores. H&M is integrating AI and Big data to get the trust of their existing customers by introducing Loyalty card data, analyzing returns, marinating the memo and receipts of the same. Through these ways H&M is able to tailor its merchandise for each store (Marr, 2016).
- 2. Automated Warehouses- Apparently H&M is using EPC (Electronic product code) in the form of RFID as a tool to identify the data and location of any product kept in a warehouse. A particular product has a unique digital price tag which help a firm in finding out its location quickly and efficiently. RFID helps retailers in finding out the past 2 years' stocks units to weekly or even to daily stock counts. RFID helps H&M in conducting correct demand forecasting in turn its lead to higher profitability. RFID tag can be used anywhere in the world which makes it valuable for any firm. Also, through RFID technology H&M is able to connect with customers in the best possible way. They are making easier for customers by working on better online-offline shopping experience. For instance: Find a store feature help the customers in finding out whether a product is available in offline H&M stores or not (Marr, 2016).
- 3. Data Matrix- H&M has recently come up with 2D barcode that looks like pixelated rectangle. This barcodes stores a significant amount of data. It carries both numbers and letters. Altogether it can store up to 2335 characters' limits. Basically data matrix shows the supply chain data such as batch numbers, product certification, helps in tracing the small products. H&M also use this tool in camera scanners to read at POS. Data matrix also include URL which means it can be used to support online digital service offers (Industry News: The Global Language of Business, 2019).
- 4. **Coded Couture App-** Google and H&M together came up with the coded couture app which is a part of H&M's fashion designing house Ivyrevel. This app helps a customer in finding an appropriate dress he/she wants to wear for an occasion or for any casual event, hassle free. Here Android's awareness API will check on user's daily routine like where they prefer to eat, what's the weather condition in their locality, whether they have to attend a formal or casual meeting, is it for a birthday or marriage events, etc. all this vital information is passed through a channel or algorithm to the app which tailors the outlook of the dress to their customers that fits them the best (Marr, 2016).
- 5. **Monki x HoloMe** H&M group's Monki has collaborate with Holome to make the customers experience with high definition Human Holograms virtual reality. This will be experience through both smartphone and tablet with not much data usage. Here, app will showcase 9 Hologram with different outfits to the users which will allow users to observe keenly and let them decide with what distinctive look they should go for. This 3D effect of apparels will make the customers believe that the holograms are standing in front of them and giving them a virtual experience therefore, inspiring the customers to shop wisely (Halliday, 2018).
- 6. **Home stylist** H&M's home stylist has collaborated with Google and through the help of google assistant customers can ask to connect them with H&M Home Stylist which will suggest the latest styling advices, mood board, nearby shops and retailers to the customers. This technology would be the first voice application app to be introduced within the fashion industry. App will also provide choice of preferable voices, whether you want an exclusive human male or female voice to be able to articulate the communication in an effective manner making shopping easier than ever before (IRIBARREN, 2018).

7. Blockchain- H&M's subsidiary Arket has confirmed that they are going to test some new product through blockchain technology. Here Arket can trace the data of the product and make it sure that data does not get leaked outside. Blockchain is a trusted tool for H&M to keep their data secured. Each block in a blockchain are put in such a manner that they are stored in linearly and chronological order since they are added to the end of a blockchain. Each block has a unique hash code which is made through math function. Hash code keep transform the digital information in the form of numbers and letters. This is one of technologies that H&M is looking forward to integrate with its supply chain to yield some benefits out of it such as: eliminating the risk of forgery and errors, reducing courier cost, identification of any issues quickly, building consumer and its partners trust, minimizing delays in paper works and resulting in advance inventory management (Mix, 2018).

5. ZARA Vs H&M: Who does it better?

ZARA being the king in the Apparel Industry followed by H&M, therefore, comparison of ZARA and H&M is of great significance in evaluating their supply chain operations throughout the world.

| Basis | ZARA | H&M |
|--|---|---|
| Markets | Around 2200 stores in 96 countries | Around 4968 stores in 61 countries. |
| Supply Chain | Vertically Integrated Supply Chain | Dual Supply Chain |
| Outsourcing or Own Production House | Owns Production Activities | Outsources its Production Activities to its suppliers. |
| Major Production | Production is mainly done in Spain & Portugal | Production is mainly done in Asia & Europe continents |
| Modes Of Transport | Uses Fastest Mode Of Transportation (Planes, Trucks); Also owns Railway tracks | Uses cheapest modes of transport (Waterways, Railways, Roadways) |
| Distribution Channel | Centralized Distribution System | Centralized plus Local Distribution System |

| Lead Time | As less as Two Weeks | In Asia- 3 months |
|----------------------|---|---|
| | | In Europe- 3 weeks |
| | | |
| | | |
| Inventory Management | Centralized Inventory Management System | Follows Centralized as well as |
| | | Decentralized Management |
| | | System |
| | | |
| Logistics | Third Party Logistics Provider (3PL)- | In house Logistics Provider- |
| | Inditex Limited | H&M International Transportation |
| | Induce Linned | H&M International Transportation, Inc. |
| | | IIIC. |
| | | |

ZARA, the leading firm in the Apparel Industry and also the youngest one, is spread across 96 countries with around 2200 stores spread across these countries. ZARA's Supply chain is designed in such a way that a product could be designed and have the same product sold in the store a month later. Whereas H&M, the 2nd leading firm in the Apparel Industry and the oldest one, is spread across 61 countries with around 4968 stores spread across. ZARA follows a Vertically Integrated Supply Chain where it manages its own supply chain, that is, the whole process is totally run by them whereas H&M follows a Double Integrated Supply Chain where there are more than one suppliers for the company. ZARA owns its production activities and is solely responsible for its outcomes whereas H&M outsources its production activities to suppliers and there are high chances of delay in the production process. ZARA uses the fastest mode of transportation to get the first mover advantage whereas H&M focuses more on cost cutting and therefore uses the cheapest mode of transportation, thus reducing the chances of getting the advantage. ZARA uses Centralized Inventory Management System in order to ensure the best for the customers at any cost whereas H&M uses Centralized as well as Decentralized Management System which gives equal power to the customers as well as the employees. ZARA uses Third Party Logistics Provider named "Inditex Limited" which helps in reaching the market in lesser than 48 hours across all the countries but is expensive whereas H&M uses in house logistics service provider named "H&M International Transportation, Inc." which is cost effective but comparatively takes longer time to reach its customer.

The lead time of Zara is lesser than 2 weeks. This means that ZARA can manufacture a product and make it available in stores in lesser than 2 weeks. Whereas H&M takes 3 weeks to make the product available at the stores. One of the reasons why H&M's lead time is more than that of ZARA because the production produce from the suppliers are mandatorily to be sent to the central warehouse in Hamburg, Germany. The longer the time H&M takes to make the products available at stores, the more chances of losing its customers. The more the customers they lose, the more it helps its competitors create a value for themselves.

As H&M does not own any of its factories, it has heavy dependence on production and design in countries like Cambodia, Bangladesh & China, since the labour is found cheap in these countries. There are high chances of labour being unskilled in these countries and also there are chances of delay in the production process due to uncertainty of events which would make the customer wait for a longer time. ZARA owns all of its production activities due to which it is able to reach the stores very quickly. A customer does not want to wait for any product and if it does happen, there are high chances that the customer might switch to other substitutes that would accommodate their preferences and therefore it should be made sure that the product is available at right place and at right time to the right customer.

H&M has its entire focus on price of the product whereas ZARA focuses on the Value of the customer (Danziger, 2018). The concept of selling it cheap in the market was prevalent in the older days but in the 21st century, it's not only about price but also about value created for the customers by the product. Only selling the product comparatively cheaper does not create value for customers, but rather the product should be available at right format and at right time and with right quantity is what customers look for these days. And this strategy is well adopted by ZARA.

H&M focuses mainly on Product. On a comparison with ZARA, H&M is widely diversified in terms of products. In fact, according to the Annual Report of H&M 2018, there is an excess inventory of \$4.3 Billion which is unsold. Whereas ZARA believes that it's not only about the product but it is more about experienced shopping, that is, designing new fashionable trends which makes the customer come back for more passionately (Danziger, 2018).

H&M though has 4968 stores worldwide but 80% of its stores are located in malls where it competes with other Fashion retailers thus making it difficult to be attracted by customers whereas ZARA has around 2200 stores worldwide and in 39 online markets. Most of the ZARA stores are located in crucial areas which attracts more customers, precisely, the loyal customers. Moreover, ZARA has the power to shut down the stores which are anymore not profitable unlike H&M (Danziger, 2018).

6. Conclusion:

From the basis of our analysis, we can conclude that H&M's dual integrated supply chain has been a key factor in enhancing their supply chain operations by integrating leagile" in their manufacturing processes from continents like Europe and Asia, therefore, bringing out the cost and quantity advantage in order to effectively and efficiently respond faster to the changing demand of their customers.

H&M, the second largest retailer of apparel industry are constantly striving to strengthen their supply chain performance in the market with its technological integration through initiation of artificial intelligence, RFID, Automated Warehouses, blockchain technology to enrich their customer experience. In order to make the supply chain efficacious, H&M believes in making the product available at the stores at the right time at the right place and at the right price. But when compared to ZARA's supply chain management, ZARA has significantly been successful in its supply chain operations, having distinctive competitive edge over H&M's supply chain management, since, ZARA is purely customer oriented striving to provide better customer service whereas H&M is product oriented facilitating mass production with high variety at reasonable prices. Also, to mention that ZARA's lead time is 14 days as compared to H&M's lead time that is 21 days meaning H&M takes longer time from initiation to completion of its supply chain operations. This implies that the customer might have to wait for longer time period and therefore they tend to venture out opting for substitutes. Henceforth, H&M is performing better in terms of supply chain operations provided that they are the second largest clothing retailer but in comparison to ZARA, H&M has to look out for alternatives in terms of supply chain management strategies.

7. Suggestions:

From the study, these are some of the changes that H&M should take into consideration

- In this fast fashion world, consumers expect fashion to be increasingly personalized and therefore, H&M should not go for mass production and rather be forthcoming with customer centric approaches. With \$4.3 Billion of unsold inventory in their warehouse. H&M should stop its mass production process to avoid any further loses and also opt for a way which removes the unsold inventory.
- H&M should shut down the stores which aren't profitable anymore rather than running them on loses. This could help them increase their financial performance.
- There heavy dependence on outsourcing from Asia makes its supply chain lead time very long than its competitors therefore, H&M should establish their manufacturing units close to the Hamburg warehouse which will help them in reducing their lead time.

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