

# Fast Fashion Supply Chain Issues in the New Marketing Environment: Zara

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**Abstract.** Fashion companies, including Inditex-Zara, are required by the public to speak out more about sustainability concerns in their supply chains nowadays. This article covers the sustainability problems that Inditex's present supply chain is causing for society and the environment, as well as how to revamp it using IT technology and 3D digital techniques to give the corporation market value in the post-pandemic period. ZARA is facing the new fast fashion market in a way that is somewhat at odds with the expectations of the media and society about this company, which may affect customer satisfaction. Therefore, this article has chosen this topic for research and development. This paper examined this in-depth analysis as a means of helping ZARA improve its market performance and some of its internal strategies, and used company-related information, including third-party papers and interview transcripts, to obtain preliminary information. The report mainly includes how ZARA's supply chain strategy works with recommendations on two of the major issues, while references are attached at the bottom.

**Keywords:** Inditex-Zara; Fast fashion industry; Supply chain.

## 1. Introduction

Inditex-Zara is a Spanish transnational clothing enterprise that owns a deep engagement in fashion product design, fabric production, and cloth retailing business. In 2019, Inditex surpasses all other fashion retail brands in terms of market capitalization. Inditex, a leading fast fashion and apparel manufacturer, implements a number of sustainability improvements throughout its operations and supply chain.

Inditex was committed to meliorate the brand performance on some significant sustainability challenges relating to the environment pillar, including introducing recyclable and green energy design into the production process, and optimizing the material choices with qualified partners, according to its company's 2018 Annual Report. The company wants to stop using non-recyclable plastic in its packaging procedures. Pablo Isla, the executive leader of the company's Global Sustainability Commitments, also asserted that by 2025, all apparel manufactured by Inditex will be made from organic, more sustainable materials including cotton, linen, and polyester. Inditex also collaborates with various international organizations to create energy- and water-efficient processes, with the goal of achieving net-zero emissions by 2040. (Inditex, 2020) [1]

Like many other well-known multinational firms with strong sustainability standards, such as HP Inc., Starbucks, and Nike, Inditex lays a great emphasis on creating a healthy, supportive, and secure working environment for its employees, protecting their working life, and condemning illegal child labor issue.

This report focuses on the investigation related to ZARA's supply chain after the Covid-19 incident. In terms of the importance of this topic, it might help people to understand more about this topic and have their own position. This will be done by doing a timely analysis of the current situation of Inditex.

## 2. Problem analysis

### 2.1 Identification of problems in the supply chain system

The success of Inditex-Zara model hinges on its continued expansion, which enables the brand to produce vast amounts of garments swiftly and affordably. The amount of clothing sold on the market

increased from 1 billion to 1.6 billion units annually between 2014 and 2018. The overproduction and significant resource waste problems are bred by Zara's brand culture that encourages people to consume its product recklessly, which has been questioned by the public in recent years, especially in the post-epidemic era (Inditex, 2020) [1].

Apparel brands have been aggressively buying inventory over the past year to avoid shortages. However, they are now struggling to sell unusually high levels of inventory as inflation hits consumer confidence. Target recently warned that it is cutting prices and canceling orders to ease its bloated inventory, while Wal-Mart said it will take "probably several quarters" to reduce its glut of unsold goods. Like Inditex, Macy's expects more supply hurdles ahead, especially as China eases the Covid-19 embargo and delays shipments.

## **2.2 Analysis of related contradictory problems**

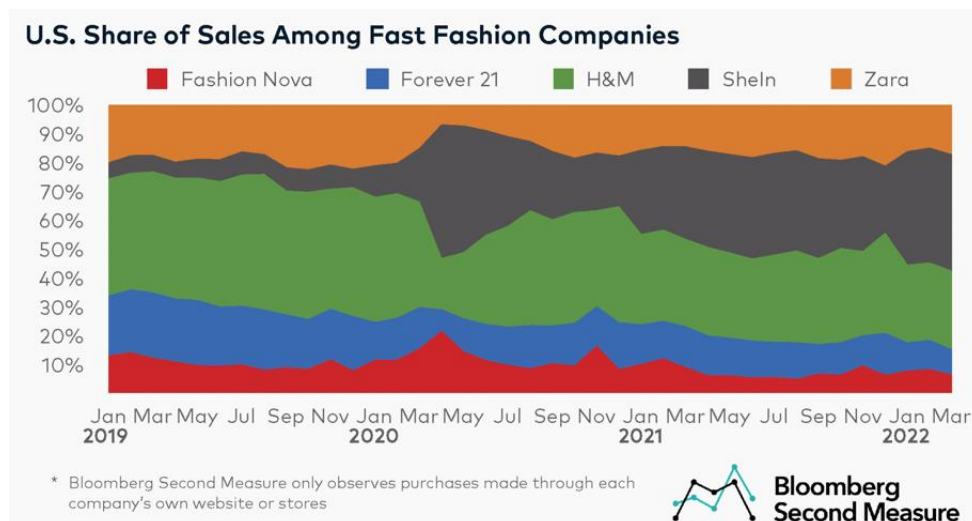
The promise made in Inditex's report to create lasting value for its employees is not supported by the company's practices. The business claims that it takes seriously its social responsibilities to the millions of employees who are employed in its garment factories in the less developed regions like South American and Asia. However, the company's ongoing abuse of its workers has a severe effect on the neighborhood. The 2011 Zara case in Brazil is an illustration of how Inditex was harmed by a labor dispute (A. Anderson, 2011) [2]. A firm will lose public trust if it neglects to represent corporate sustainability in these social issues and take into account the interests of its employees. Inditex must also be mindful of the pressure from the media and the public, which could ruin the brand's reputation and reduce consumer trust.

Both Zara and H&M have strong inventory and logistics. Their strength is that. Strong supply chains connect global retail operations with centralized design and manufacture in almost real-time. However, they are slow when it comes to mobile and e-commerce. And those are the kinds of things that are developing quickly in China, where their Chinese rivals are really skilled. Automation can also be used to enhance the processes involved in manufacturing and distribution. Zara currently only employs particular rotations to use technology and achieve better results. Robotics and automation, however, are now crucial tools for reconsidering the strategy in this sector.

## **3. Problem analysis based on Plan-source-make-deliver**

The fact that Inditex places too much importance on its own vertical integration structure, which frequently rules out global marketing strategies with production and design hubs in Europe (IvyPanda, 2022) [3], is a significant matter. The cluster-focused production approach makes it difficult for Zara to handle cultural groupings in various market contexts. This is incredibly evident in recent years, when some of the brand's Asian clients have become dissatisfied and boycotted the company due to its contentious stance on local concerns like the Xinjiang cotton issue.

To better identify possible client demands and provide the brand a competitive edge, ZARA should establish a number of additional creative divisions to manage particular regions. Fig. 1 (Perri, 2022) [4] depicts Zara as being relatively conservative in the face of the emerging fast fashion models introduced by Shein, and the available data reveals that the long-established brands quickly lost ground to Shein as a result of the general increase in Shein consumption during the Covid-19 epidemic. Therefore, it is worthwhile to conduct deeper research into the reasons behind Zara's cautious approach to building its online sales infrastructure. Additionally, a more thorough explanation will be provided in the following section.



**Fig. 1** Market share of Different fast fashion brands in US [4]

### 3.1 Plan

Inditex's fast fashion often features shorter cloth design and product development cycle to satisfy the demand for originality and freshness from the target customer. Additionally, this business model frequently involves the ongoing requirement to develop high-varietal items and new fashion collections, which increases the degree of uncertainty in anticipating seasonal markets and has an impact on inventory management. Fast fashion firms need to keep larger inventory stock levels to enable prompt responsiveness to the market's need for product variety, which could cause them to be struck by a great deal of obsolescence costs or other wastes like oversupply.

To keep up with the needs of its continually shifting market, Inditex develops an agile supply chain. These issues are addressed by the quick-response supply chain approach used by Inditex. The business is ideally positioned to meet market demand because its design-to-retail cycle time is 5 to 6 months (Inditex, 2017) [5]. Also, the company create its special predicting models, such as MCC and MCCT, to catch up the customer's fascination by tracking the features of sales data((M Garcia, 2014)[6]. Due to prompt processing, the amount of obsolete inventories is considerably reduced. While it waits for clearer and more precise market data from retail locations, Inditex will also put off shipping orders. The business will speak with regional managers to obtain an overview of regional trends and then modify its production schedule for the following season.

### 3.2 Source

The company aggressively launched a cooperative initiative with its chemical suppliers. Through several reuse and recycling initiatives, this program aims to increase the practical lifespan of its textile and leather clothing. Inditex has collection sites set up in each of its tens of thousands of retail locations and logistics hubs throughout the globe, and the use of recyclable raw materials also aids the company in lowering its carbon footprint.

Additionally, the business supports a network of suppliers that is environmentally and socially sustainable by establishing the following rules:

1. Inditex will regularly rate its cooperative manufacturers and suppliers on their environmental performance using the letter grades A, B, C, and D. Suppliers who received A and B qualifications in the audit have a tendency to become long-term partners in the company's supply chain.

2. All factories involved in the Inditex Process are required to receive Inditex's environmental assessment, meaning that factories that manufacture products for Inditex under contract make sure that the cotton, fibers, and recycled polyester they use are from sources that have received sustainable certification (FSC and PESCC) (Inditex, 2017) [5].

### 3.3 Make

Inditex 's clothing production process can be crudely split into the following two categories: outsourced manufacturing and in-house manufacture, using Inditex's sub-brand Zara as an example.

Inditex-supply Zara's chain network is strongly linked with its supply-side clusters thanks to the brand's extraordinary global reach. With its own sourcing staff or reliable third-party agents, the brand can operate near its design destinations thanks to this strong link, giving it the opportunity to quickly adjust garment quantities in reaction to any new trend changes or make offers.

Zara has successfully vertically integrated this portion of its internal manufacturing, enabling the company to manage seasonal fluctuations that affect output without wholly relying on third-party manufacturing facilities. 11 totally owned enterprises make up the internal production lines. Most of these ancillary factories are utilized largely for pre-production activities like textile cutting. 100 layers of fabric will be efficiently preprocessed using robotic knives and laser cutters by computers before being transmitted to the partner's manufacturing network (Ghemawat & Nueno, 2006)[7].

The next element is Zara's outsourced production, which blends an effective supply chain with a flexible supply chain.

**Responsive:** Zara outsources a portion of their production line to Turkey, Bulgaria, Portugal, and other surrounding regions in order to reduce the time between placing an order and receiving it. And thanks to industrial development, these localities frequently have higher industrial output capability. Inditex will incur greater production expenses and experience more flexibility if they outsource to them. Therefore, these flexible supply chains are tasked with producing high-end fashion items as well as a few tailored clothing items.

**Efficient:** In labor-intensive regions like China, India, and Vietnam, Zara outsources production chores to OEMs. These facilities offer the benefit of cheaper labor costs and being nearer to the source of raw materials, but they necessitate lengthier delivery wait times for brands. As a result, they are employed to handle lengthy orders for the usual good with price-sensitive characteristics.

### 3.4 Delivery

In 2016, Radio frequency identification (RFID) technology and matchable bar codes are implemented by Inditex across all of all of its Zara retail stores and logistics spots, and by 2020, it plans to do the same for all of its other brands. (Inditex,2020) [1]. The employment of information-related technology has enabled businesses to locate fulfillment centers throughout the world quickly and precisely to meet immediate orders from numerous warehouses and stores.

The locations of every SKU in Inditex's stores and warehouses around the world are stored using cutting-edge automated technologies. Finished clothing is contained in RFID-tagged packaging, and each box assigned to a certain retailer is aggregated, stored, and called upon by the supply chain information system as needed (Butler, 2013) [8]. The majority of Inditex's logistics hubs are close to the regional airport or have easy access to the rail and road systems. They are then transported from there by vehicle to retail establishments in Europe and twice weekly by air to distribute clothing to far-off markets (mhugos, 2022) [9]. According to Chu (2005), only 20% to 25% of Zara's merchandise are shipped by air, with the remainder going by truck and the sea [9].

Nearly 65% of the clothing that Zara ships is packaged folded, and 35% is packaged hung. With this packaging design, Inditex can deliver the goods to the store more quickly and with a significant reduction in transportation space. The whole shipping and distribution of Inditex items to retailers is handled by outside companies (Inditex Annual Report, 2020) [1].

The company impressively abandons all plastic packaging in favor of recyclable materials. They make an effort to reduce packaging-related waste and emissions.

## 4. Suggestion

### 4.1 Proposal

1. Inditex-Zara can make a stronger effort to decrease waste from overproduction by creating a more agile supply chain with technology. If mass production is essential for gaining market dominance, Inditex should ponder about how it may transform the underused value of its surplus inventory into a more sustainable type of inventory. The business claims that unmarketable apparel may be recycled into a new production cycle using the "Cradles to Cradle" approach.

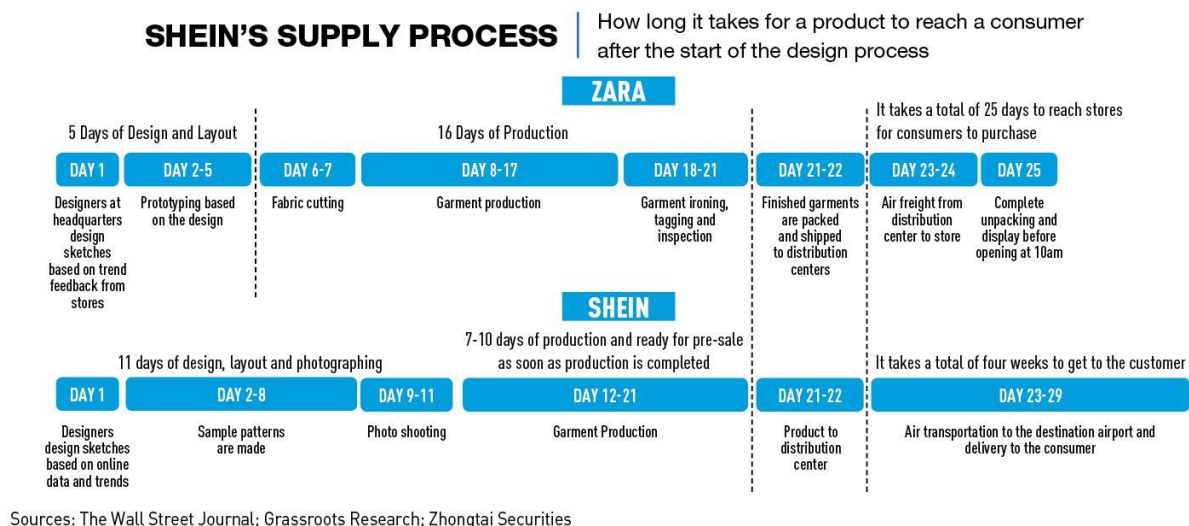
2. Along with adopting some traditional robust labor-protection initiatives, Inditex-Zara can also make an effort to lessen the public outrage by switching from traditional manufacturing to digital manufacturing. This will allow Inditex-Zara to win the support of its local community, which is conducive to implement the company's worldwide marketing initiatives.

### 4.2 Recommendation

#### 4.2.1 Reconstruct the supply chain network with more IT technology involvement

The substantial waste created by excess inventory of several sub-brands under Inditex.Inc in its original supply chain system needs to be addressed through supply chain optimization. Zara adopts a small-batch production and postponement strategy to reduce the overall cost of maintaining a practicable responsive supply chain, despite the fact that the company invests 12,000 newly designed fashion products on the market each year to forecast the right market demand. As a result of the Covid-19 supply chain slowdown, Inditex has accumulated a great amount of unsaleable goods in containers and warehouses(Segran, 2019)[11].

Testing something out before bringing it back into production is hardly a novel idea in the fashion world. SHEIN, the fast fashion sector's rising star during the crisis, can be a useful point of comparison for Inditex because the latter appears to have developed an agile supply chain structure that is more streamlined and sustainable and uses IT technology in the planning stage.



**Fig. 2** SHEIN's supply process [12]

Fig. 2 (CKGSB Knowledge, 2021) [12] demonstrates how SHEIN's intelligence gathering system makes use of Google Trends Finder and web crawler capabilities to identify new fashion trends as they emerge. The designer's design work has been transformed into a SaaS model via its design aid system. The designers at SHEIN also use a model that resembles an industrial assembly line in their work. This calls for them to conduct online exams in accordance with the parameters established by a business. This well-defined scope may include encompass shell fabric, patterns, and even

accessories. Due to its labor cost advantage over ZARA, this method forces SHEIN to equip itself with manufacturing efficiency that may be 2-3 times greater (CKGSB Knowledge, 2021)[12].

In addition, SHEIN maintains figures of 12 and nearly 30 days, while Zara maintains a ratio of 4.2 for inventory turnover and an average inventory holding duration of 86 days (Inditex annual report, 2017) [4]. These figures would suggest that SHEIN's new fast fashion model can give Inditex valuable advice on cutting back on excess inventory and production waste through lean manufacturing.

And finally, SHEIN offers the supplier manufacturer a SaaS application that incorporates the technological elements of online and real-time scheduling. This tool is used by the factory for automated order receipt, sophisticated production planning, cost management, and gathering client feedback. The supplier factory can also receive guidance from SHEIN regarding the quantity of raw materials needed for the garments, as well as the in-time market price. The supplier factory uses this advice to make purchase plans and steer clear of pointless purchases. Zara can imitate a SaaS-applied supply chain network in its ERP system to recreate its adaptable supply chain.

#### 4.2.2 Rebuild one agile supply chain by using 3D printing in the production stage

Zara has more ambitious aspirations for the digitalization of the supply chain than merely computer-assisted fabric cutting and the use of RFID to trace shipments. More and more companies in the textile and fashion sector are attempting to employ knitting and 3D printing to meet the mass customization demands of consumers of quick fashion. For instance, to boost the use of 3D technology in their manufacturing of tailored apparel, Adidas and UNIQLO, both international firms that produce and sell upscale clothing, have made their own 3D knitting projects public. The employment of a mass-produced, specially crafted instrument that automates garment production in accordance with the posture, performance criteria, and particular process needs of the customer is what unites them all. Such a 3D knitting device has a unit cost of \$190,000 and can continue to produce a real-time order every 90 minutes (Farias Iribarren, 2018) [13].

To begin the process of creating streamlined machinery, these machines can be connected to the internal network and added to Zara's regional production facilities in Asia and Europe. The quantity of raw materials needed to produce the clothing will be precisely controlled by computers, enabling real-time updating of inventory data on the warehouse network system (ERP system) and quick responses to customer requests. In the previously mentioned optimization of a 3-D agile supply chain, Zara delays fulfilling actual orders until the nearby 3-D knitting production line is aware of the accurate quantity required. Thereby, the exclusion of uncertain market information can make the company's supply chain cycle be exempt from bullwhip effect, driving Zara to a more suitable "made-to-order" production type, as shown in Figure 3 (Ismail,2019) [14].

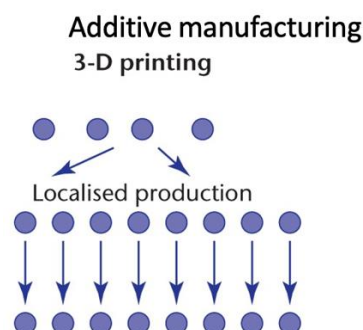


Fig. 3 Additive manufacturing 3-D printing [14]

Additionally, even if this digital technology is only used at the moment to make a small number of knitted clothes, it can nevertheless assist Zara in resolving the associated sustainability issues for the following reasons:

1. When compared to conventional garment production, 3D automated production could indeed cut down on fabric waste and help companies effectively manage their carbon footprint.

2. Zara once had to give up 85% of its manufacturing capacity in the in-season adjustment for modular design in order to fully meet the demands of the organization, which also required businesses to maintain a significant amount of fabric sourcing, sewing firms in Europe, and to pay high labor wages (Inditex, 2020) [1]. Long-term savings can be achieved through the use of machinery in the Inditex supply chain, which also releases the brands from the sweatshop crisis.

## 5. Conclusion

It has been discovered that the majority of Inditex-Zara's sustainability problems are due to the company's unwillingness to see the advantages of including emerging supply chain technology in supply chain development and sustainable strategy. Inditex, a former leader in quick fashion, needs to reorganize its supply chain to grow in a more effective and sustainable manner. In the post-pandemic period, Inditex may employ IT and digitalization as competitive advantages over formidable rivals like Uniqlo, H&M, and SHEIN.

The improvement of the supply chain's productivity and logistical components will go hand in hand with Inditex-Zara's redesigning process. To adjust to such a big departure from its conventional supply chain, the corporation may need to think about designing training programs for its current personnel. One of the difficulties in this process that the brand will encounter in the future may potentially be the potential wave of layoffs.

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