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EN LA INDUSTRIA DE LA MODA: UN ANÁLISIS  
CROSS-CULTURAL DE LAS PRÁCTICAS DE LA  
MODA SOSTENIBLE.

SUSTAINABILITY AND INTERNATIONAL TRADE  
IN THE FASHION INDUSTRY: A CROSS-  
CULTURAL ANALYSIS OF SUSTAINABLE  
FASHION PRACTICES.

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**RESUMEN.**

La sostenibilidad se ha convertido en una preocupación urgente debido al reconocido papel de la industria de la moda en la desigualdad social y el deterioro del medio ambiente. Este estudio examina las cadenas de suministro de conocidas empresas como Patagonia, Adidas y UNIQLO para averiguar cómo afectan los valores culturales y las tradiciones a su compromiso con la sostenibilidad medioambiental.

El proyecto de investigación también examina el comportamiento de los consumidores y los niveles de conocimiento público en relación con la moda sostenible y el comercio internacional en diversos contextos culturales. La investigación trata de evaluar la aplicabilidad de los marcos teóricos a las actividades reales de la cadena de suministro, teniendo en cuenta los aspectos culturales de Estados Unidos, Alemania y Japón. Por ejemplo, las preferencias de los clientes por prendas fabricadas de forma ética y sostenible varían de una cultura a otra, lo que afecta a la demanda de productos sostenibles. Además, las normas y leyes oficiales influyen mucho en cómo se promueven o desincentivan las actividades sostenibles, lo que repercute en los flujos comerciales internacionales.

**PALABRAS CLAVE.**

Sostenibilidad, moda sostenible, comercio internacional, cadena de suministro, cross-cultural.

**ABSTRACT.**

Sustainability has become an urgent issue due to the fashion industry's acknowledged role in social inequality and environmental deterioration. This study looks at the supply chains of well-known companies like Patagonia, Adidas, and UNIQLO to figure out how cultural values and traditions affect their commitment to environmental sustainability.

The research project also looks at consumer behavior and public knowledge levels in relation to sustainable fashion and international trade in various cultural contexts. The research attempts to assess the applicability of theoretical frameworks to actual supply chain activities while taking into consideration the cultural aspects of the USA, Germany, and Japan. For instance, customer preferences for apparel that is made ethically and sustainably vary between cultures, which affects the demand for sustainable goods. Additionally, official rules and laws have a big impact on how sustainable activities are promoted or discouraged, which impacts how trade flows internationally.

**KEY WORDS.**

Sustainability, sustainable fashion, international trade, supply chain, cross-cultural.

**INTRODUCTION.**

The fashion business is known for being among the most polluting in the world, with negative effects on both the environment and society. The activities of the industry have been linked to resource depletion, carbon emissions, water pollution, and worker abuse throughout the stages of raw material extraction, garment production, shipping, and disposal. The primary issue in this study is the high levels of pollution and environmental damage brought on by the fashion industry, which calls for a thorough analysis of sustainable methods and their adoption within the context of international trade.

As a result of these difficulties, sustainability has become a crucial issue for the fashion industry. Due to its complexity and broad consequences, this topic is extremely relevant and fascinating. The fashion industry's role in social injustice and environmental pollution has gained urgent global attention. The need for sustainable fashion methods has grown as consumers want ethical items and are more aware of their environmental impact.

Additionally, because the fashion business is so multinational, it is important to look at how trade affects sustainability. It is crucial to examine how international trade affects sustainability measures, such as supply chain management, labor standards, and environmental regulations, as fashion businesses source materials and produce clothing across national borders.

We may learn a lot about the various techniques used by other cultures to address the environmental effects of the fashion business by examining the sustainability practices in the USA, Germany, and Japan. These nations were chosen owing to their notable differences in terms of cultural values, behaviors, and sustainability beliefs. Understanding how sustainability is approached in these many cultural contexts offers the chance to pinpoint best practices, capitalize on cultural assets, and promote cooperative solutions. In addition, the supply chains of three well-known brands—Patagonia, Adidas, and UNIQLO, each one of them belonging to each of the selected countries, —will be studied in order to determine how the sustainability activities of these companies reflect the social and cultural standards and values of the nations in which they operate.

The personal interest of this topic comes from the fact that the fashion industry needs immediate attention and creative solutions due to its considerable negative effects on the environment and society. Understanding the complexities and difficulties requires looking at how other nations approach sustainability in the context of international trade. The topic takes on an intriguing dimension due to the cultural differences between nations like the USA, Germany, and Japan. This allows us to comprehend how each culture and society responds to the problem, which not only broadens our understanding but also emphasizes the need for customized approaches that are in line with particular cultural contexts.

Furthermore, this subject is quite interesting because it provides an opportunity for investigating how sustainability might be incorporated into the world economy without jeopardizing trade and economic progress. It challenges us to consider critically how sustainability and profitability interact, as well as how firms might use cutting-edge strategies to promote an ethical and responsible fashion sector. By researching this subject, we may add to the existing debates and initiatives to change the fashion business by advocating for greater moral behavior, lowering environmental impact, and encouraging cross-cultural understanding.

In general, the discussion of sustainability and international trade in the fashion business, with a cross-cultural analysis, is thought-provoking and has a significant social impact. In order to create a more sustainable and just future for the fashion industry and our world, it offers an opportunity to examine the details of sustainable development, cultural diversity, and ethical trading practices.

**OBJECTIVES.**

The goal of this final degree project is to do a thorough literature review on the following topics: sustainability, international trade, cross-cultural understanding, and supply chain. Additionally, it refers to conducting a thorough cross-cultural analysis of sustainability and international trade in the fashion sector with a focus on the cultural settings of the USA, Germany, and Japan. These are the objectives to be achieved through the study:

**Understanding the Role of Sustainability in the Fashion Industry:** for this aim, it will be looked at the significance of sustainability in the fashion industry and how it affects consumers, brands, and the environment. Examining the idea of sustainability, its changing meanings, and the increasing significance of implementing sustainable practices in the fashion industry are all part of it.

**Analysis of the Fashion Industry's Importance of International Trade:** The goal of this objective is to evaluate the function and effects of international trade on the fashion sector. It entails researching the factors that influence international trade relations in the fashion sector, such as market trends, trade dynamics, its impact on the environment and global supply networks. The goal is to examine how international trade affects sustainability practices, such as the sourcing of resources, production methods, and distribution systems.

**Comprehending Sustainable Practices in Different Cultures:** The goal of this objective is to investigate the cultural dimensions on sustainability practices in the USA, Germany, and Japanese fashion industries. It entails analyzing the cultural norms, consumer mindsets, governmental regulations, and industry initiatives that support sustainable practices in every country. The goal is to uncover cultural parallels and differences in sustainable practices and their effects on the supply chain of the fashion industry by analyzing these cultural elements.

**Assessing the Applicability of Theory to Practice:** This purpose is to ascertain whether the theoretical knowledge of cultural behavior and sustainable fashion industry practices is in line with the real-world occurrences seen in the supply chains of Patagonia, Adidas, and UNIQLO. The supply chains of selected brands in the USA, Germany, and Japan are studied in order to determine how well the theoretical findings apply in real-world



situations. The interaction between cultural elements, sustainability, and international trade within the fashion business can be better understood thanks to this purpose.

Finally, related to the applicability of theory to practice, assess the level of public awareness at an international level regarding sustainable fashion and international trade, concerning cultural differences (USA, Germany, and Japan), throughout a self-made survey.

## **METHODOLOGY.**

This research has been carried out with both primary and secondary sources, using the deductive method.

It initiates with a theoretical and current analysis of sustainability and international trade, covering everything from its significance to its effects on the environment. From there, it moves on to a study of how various cultures behave in connection to the topic. It has been used theoretical books, academic publications, contrasting and pertinent websites for the subject, reports written by agencies, consultants, and companies for this section of the analysis.

Similar to the theoretical component, an international survey of the chosen nations (the USA, Germany, and Japan) was conducted to gather primary data about the perceptions and awareness of sustainable fashion and international trade in the various cultures. This survey was created in Google Forms with the intention of contrasting the theoretical analysis with the practical one. A group of participants of all ages were asked to respond by using social media sites including Instagram, WhatsApp, Facebook, and LinkedIn.

Hence, while the first part of the analysis depends on existing studies and data provided by organizations, the practical component of the study conducts the survey in the first person, to an international audience to verify the applicability of the theory in practice and measure the level of awareness and knowledge about sustainable fashion in different cultures.

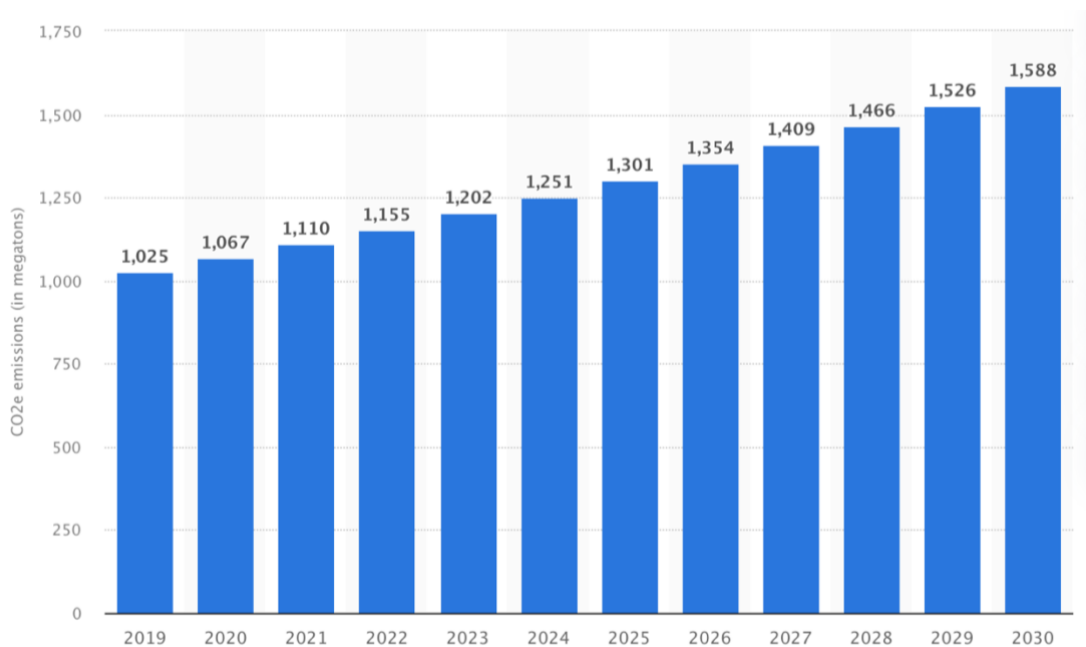
## 1. ROLE OF SUSTAINABILITY IN THE FASHION INDUSTRY.

### 1.1. Importance of sustainability in the fashion industry.

One of the primary contributors to the current environmental situation is the fashion market. Since the advent of fast fashion and mass production, the fashion industry has grown contributing to the increase of pollution at an excessive rate and has one of the largest carbon footprints of any industry in the world.

The data showed by Statista (2022b) explains that due to its significant greenhouse gas emissions, the garment sector is regarded as one of the most polluting. According to calculations, the garment sector released roughly 1.01 gigatons of carbon dioxide equivalents into the environment in 2019, as shown in the figure 1.1. If no immediate action is done, it is predicted that this will rise to 1.6 gigatons by 2030. According to the source, the fundamental data required to provide an entirely accurate total is either lacking or inadequate, hence this figure represents an estimate based on the data that is currently available.

Figure 1.1. Projected carbon dioxide equivalent emissions of the apparel industry worldwide from 2019 to 2030 (in megatons).



Source: Statista (2022b)

20% of the world's wastewater, 10% of its carbon emissions, and massive amounts of trash are produced by the fashion sector. Every second, a garbage truck full of textiles is burned or landfilled. Furthermore, the plastic from our clothing is polluting the oceans. The majority of fabric used to produce clothing, including polyester, acrylic, and nylon fabrics, is made of plastic which makes up around 60% of the fabric. These synthetic materials are strong, lightweight, flexible, and durable. The issue is that every time they are cleaned, tiny plastic fibers up to five millimeters in length known as microfibers, a type of microplastic, shed from them, according to the UN environment program (2019).

Hence, it is crucial that everyone in this industry is aware of how important sustainability is. Consumers and all industry participants, from small independent retailers to significant fashion conglomerates, are impacted by this issue.

#### *1.1.1. Understanding sustainability in the fashion industry.*

Creating and consuming clothing in a "sustained" manner that safeguards the environment and those who make the clothing is referred to as sustainability. True sustainability should also ensure that every aspect of the production process—from raw materials to manufacturing to working conditions and compensation—is ethically and environmentally sound. (Bringé, 2023)

Knowing what sustainable fashion is, it is crucial to comprehending sustainability in this sector. Sustainable fashion is a movement to improve the ecological integrity, social justice, and animal welfare of fashion goods and the fashion industry. Sustainable fashion attempts to design things that may be used, reused, mended, or recycled and takes into consideration the manufacturing, use, and end of life of all fashion items. Slow fashion, regional production, and fair-trade principles can also be included, Alves (2023) has stated.

More specifically, eco-friendly fashion has lessened its negative effects on the environment. This sector focuses on employing organic cotton, hemp, and bamboo as well as other natural and renewable resources. Second, it has promoted social responsibility and fair-trade principles, which ensure that producers receive fair compensation and an adequate wage. Sustainable fashion can also boost regional economies as it promotes the use of locally produced goods and labor. Finally, the sustainable fashion industry produces clothing that will endure a long time and

encourages production process transparency. The UN Alliance for Sustainable Fashion (2022) has explained.

“There are several ways to raise awareness of sustainability in the fashion industry, such as by calling for increased transparency in the production process disclosure. While under constant time constraints, fashion designers battle with transportation miles, traceability, and waste in the production process. As a result, it could be challenging to tell whether the lack of consideration for some components during the design process is caused by time restrictions or a lack of interest”. (Black, 2013)

“Sustainability is a prominent topic right now, and this worldwide trend has inspired many creative business operations techniques in numerous businesses that sell trendy goods. For instance, many fashion businesses have recently made environmental changes through re-engineering their operational procedures”. (Caniato et al., 2012)

Ho and Choi (2012) have described one of the most significant re-engineering business processes, the utilization of the 5Rs. It is a fashion tenet of minimalism that conserves resources, the environment, time, and space. Reduce, Reuse, Recycle, Repair, and Rethink are the five Rs of sustainable fashion, which are a set of guidelines for encouraging eco-friendly behavior in the fashion sector. "Reduce" underlines how crucial it is to cut back on consumption and garment production in order to lessen the total environmental effect. The concept of "reuse" promotes extending the life of clothing items by giving them to others, trading, renting, or finding inventive new uses for them. "Recycle" emphasizes the use of recycling processes to convert used textiles into new materials. "Repair" highlights the need of preserving and repairing clothing rather than throwing it out too soon. Last but not least, "Rethink" advocates for a thorough reevaluation of the entire fashion system in favor to promote sustainability and develop a more ethical and circular sector. In order to reduce waste and advance a more sustainable future, the 5Rs of sustainable fashion seek to promote a more conscientious and responsible attitude to fashion production and consumption.

Given these considerations, sustainability should be viewed as a chance to better the future of responsible fashion.

### *1.1.2. Impacts of Fast Fashion.*

In order to analyze the importance of sustainable fashion, it is essential to understand the negative impact that fast fashion has on the environment and society.

The term "fast fashion" is used to describe the readily available, inexpensively made apparel of today. The definition of "fast" refers to how quickly retailers can adapt runway looks for their retail spaces, keeping up with consumer demand for fresh, original looks. Globalization and the emergence of a global economy have caused supply chains to become more global, shifting the manufacturing of textiles, clothing, and fibers to areas with lower labor costs. As a result of increased demand, clothing becomes more affordable, and production is outsourced to countries with low and moderate incomes to keep costs down. (Bick et al., 2018).

Fast fashion, which comprises of readily accessible, reasonably priced things of the present, has changed how consumers purchase and discard clothing. Fast fashion has become a dominant business model by offering massive quantities of clothing at low prices, which has increased consumption of clothes. (Hayes, 2022).

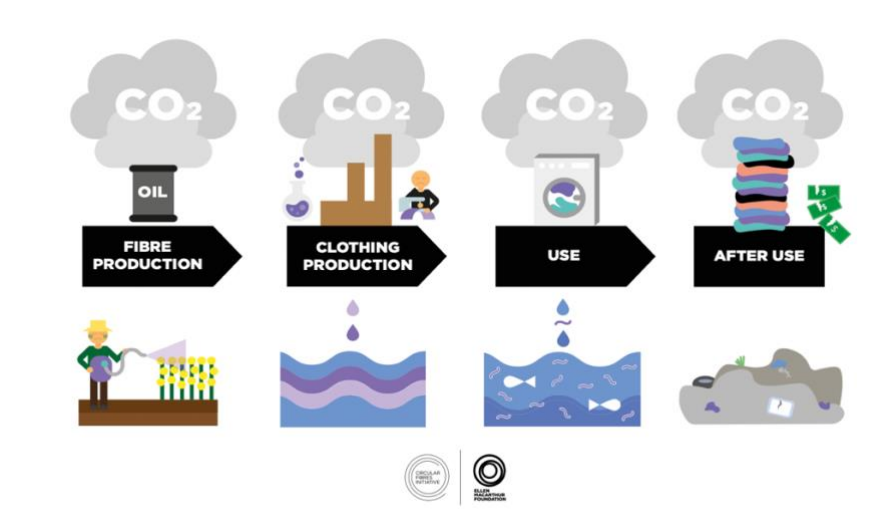
A growing middle class worldwide and higher per capita sales in developed economies have contributed to an estimated two-fold rise in clothing production over the past 15 years. Fashion is ranked as the second most polluting business in the world by the United Nations Conference on Trade and Development (UNCTD), right behind the oil industry. Even more demand for apparel is anticipated by 2050, when the global GDP is projected to grow by 400 percent. Due to the disposal problem brought on by consumerism and mass production, where new clothes are thrown away once they don't fit the expectations and perceived values of the customer, natural resources are under stress. (Reichart and Drew 2019).

As the fashion business is flourishing, a growing number of harmful environmental effects that the sector is accountable for are coming to light. Water resources are depleted, rivers and streams are polluted, and 10% of humanity's carbon emissions come from the fashion industry. Every year, it uses 93 billion cubic meters of water. Furthermore, 85% of all textiles are disposed of in landfills annually and washing some types of clothing releases a sizable amount of microplastics into the ocean. (Geneva Environmental Network, 2023).

Fast fashion also has a human cost; textile workers, particularly women, are sometimes paid inadequate salaries and made to work long hours in horrendous circumstances in poor nations. These circumstances lead to violations of human rights in numerous locations. Serious health issues are brought up by the use of chemicals in clothing production for both customers and industry personnel. Pollution has other effects on health in addition to those already mentioned. (Reichart and Drew 2019).

The Ellen MacArthur Foundation (2017) provides an illustrative explanation of the following. The existing linear system of garment manufacture and the severe environmental harm it produces can be seen in the following image (figure 1.2.). The manner that clothing is now produced, distributed, and used is almost entirely linear. For the purpose of making clothing, which are frequently worn for a little time before being discarded or burned, enormous amounts of nonrenewable resources are mined. More than half of the fast fashion manufactured is thought to be discarded in less than a year. This linear system has major negative societal effects at the local, regional, and global levels. It underutilizes resources, pollutes the environment and its ecosystems, and damages the natural environment. Although the recent Pulse of the Fashion Industry report estimated that the overall benefit to the global economy could be about EUR 160 billion (USD 192 billion) in 2030 if the fashion industry were to address the environmental and societal fallout of the current status quo, it is difficult to estimate the economic value of these negative externalities.

*Figure 1.2. Today's clothing system puts pressure on resources, pollutes the environment, and creates negative societal impacts.*



Source: The Ellen MacArthur Foundation (2017.).

### *1.1.3. How consumer decisions in the fashion industry are influenced by sustainability.*

Due to its capacity to affect consumers' opinions and, in turn, their purchasing decisions, the perception of sustainability has recently assumed an important status. The implementation of sustainability involves and depends heavily on consumers. They serve as the driving force behind the actions of businesses. Consumers frequently set the tone for many businesses and direct them toward the policies they should adopt. This is in line with Brozovic et al. (2020). McNeill and Moore (2015) mention that, despite claims that customers care more and more about unethical activity, this attitude does not always result in a change in behavior. This is typically due to consumers' ignorance about the harmful impacts of the fashion business. However, Biswas (2017) considers that consumer preferences are shifting and that more people are showing a favorable inclination to buy green products in general. The authors have a unique perspective, but this can be explained by how human culture, knowledge, and ethics have changed over time. Based on the literature, it is obvious that consumer preferences are shifting toward the implementation of sustainability; however, a tangible idea of actual facts is a gap that this research aims to fill.

Ciasullo et al., (2017) states that society as a whole, and young generations in particular, are vociferously demanding not only a more sustainable future but also a future at all. It is obvious that if one wants to stop or stop the environmental degradation of the earth, one must consider drastic lifestyle changes as feasible remedies. Currently, society faces a more challenging and competitive climate where sustainability is one of the most powerful marketing tools to draw customers to the fashion industry.

“Consumer behaviors and attitudes are not constant but on the contrary, they change over time” (McNeill and Moore, 2015). According to Ciasullo et al. (2017), Market demand is shifting in favor of more environmentally conscious consumer behavior. More and more consumers are looking for companies and goods that share their personal values and are more sustainable. The authors claim that when it comes to behavior decisions, consumer perceptions are crucial. Consumer behavior increases in favor of better practices as a result of increased awareness of the significance of engaging in ethical consumer behavior. McNeill and Moore (2015) express that despite the fact that customers are expressing an increased concern for unethical behavior and a value for sustainability, the author claims that this attitude does not always translate into behavior, especially when it

comes to buying fashion items. The authors even claim that consumers are hesitant to make long-term adjustments to their purchasing habits.

Additionally, for Ciasullo et al. (2017) expectations are crucial when discussing customer decisions. The likelihood that a buyer would purchase a product increase with their expectations for it. However, some customers purchase low-quality products despite knowing this. This may happen if they don't have much time, are simply looking for a product with certain features, or want to compare it to a more superior one. As explained by Biswas (2017), customer expectations and perceptions of consumer value differ. For practically every item on the consumption value scale, customer expectations are much greater than perceptions. Even the individuals that consumers engage with or are surrounded by may have an impact on their purchasing decisions. Young people who are still forming their interests and lifestyle patterns are more likely to experience this. People make decisions or even purchase certain things in order to fit into a particular social class or group, or to be a part of a niche group. A crucial factor is social impact. People are frequently influenced by what they believe others to think. They succumb to social pressure because they desire to uphold a particular reputation.

For Ciasullo et al. (2017), sometimes because they are so focused on what they believe to be right, customers lose sight of their own will.

The human urge to reveal meanings about oneself and to construct an identity influences consumption across many product categories, but this is likely especially true for clothes, which is continuously on show. Clothing is used to both reinforce meanings to oneself and to radiate meanings about the wearer to others. Over the past ten years, the fast fashion trend has completely transformed the apparel market and transformed consumer attitudes about clothes consumption, creating a culture of impulsive purchases. Young female consumers, who have the highest levels of demand for new fashion products but are least conscious of the societal implications of their fashion purchase, are most affected by this phenomenon. McNeill and Moore, (2015) comment.

As reported by Greenpeace International (2019), the average consumer buys 60% more clothes today than they did over 15 years ago, yet they only keep them for half as long. But because of environmental concerns, more and more consumers are demonstrating a



favorable impulse toward buying green products and are even willing to pay somewhat extra for them, Biswas (2017) say.

McNeill and Moore, (2015) remark that consumers who are ethical often take notice of how their consumption affects other people, animals, or the natural environment. However, some consumers are primarily focused on their own desires for acquisition and personal desires, while others strongly believe that needs should always come before wants and that purchasing should only be motivated by needs. The self should not be the emphasis of consuming, according to another extreme held by certain people who believe that capitalism and profit-making promote consumption as being bad. These shoppers tend to buy few clothes and base their fashion choices primarily on needs.

It is said by Biswas (2017) that fashion is a symbolic expression of personality, values, and feelings, and consumers have various identities. Consumers translate meaning that is shared via social interactions and frequently reflects how they want others to feel or think about them by adopting and wearing specific clothing. Customers who are dissatisfied with their current selves purchase goods that boost their self-esteem and help them become more like their ideal selves. Once a consumer has chosen which version of themselves to exhibit in a certain circumstance, they will act in ways they perceive as symbolic representations of that idealized self-identity, such as dressing in a certain way or joining a particular group. Additionally, the majority of purchases are made under the impression that the item will affect the customers in some way, and that overall product satisfaction will influence future buy choices.

## **2. ROLE OF INTERNATIONAL TRADE IN THE FASHION INDUSTRY.**

### **2.1. Importance of International trade in the fashion industry.**

Fashion Week Online (2023) manifests that international trade does not only affect some industries; rather, it affects almost all areas of the economy. It is primarily seen in the trading of specific commodities and everyday items, but it also affects the fashion sector. Given the numerous steps involved in creating apparel, footwear, and textiles, it is understandable why some processes are outsourced and why importing and exporting products and materials has become common practice. In light of this, it should be noted that brands and companies in the fashion industry frequently import labor and raw materials from other nations.

Not all nations adopt the newest trends at the same time because the fashion industry is fast-paced, always changing, and trend-based. To stay current and spread the newest trends to the local market, some of the top fashion firms look to the pioneers and legends of the field for inspiration. Importing and exporting are therefore quite important in that procedure. Local fashion firms shouldn't be discouraged from pursuing certain trends because they may call for materials that are only available in specific geographic locations, for instance. Thankfully, they have the choice to import some supplies. Similar to this, certain nations might not have the capacity or essential skills to supply specific designs or processes, which forces them to outsource some of these components to other nations in order to meet client requests. In some instances, this may end up being less expensive than hiring domestic labor. Cost reduction, supply chain management, flexibility, and access to a wider range of resources and goods can be summed up as some of the major advantages of global trade in the fashion sector, as was already said, also provided by Fashion Week Online (2023).

### *2.1.1. Overview of international trade in the fashion industry.*

The European Commission (n.d.) has stated that the manufacturing, distribution, and consumption of apparel, accessories, and textiles on a worldwide scale all fall under the purview of the fashion business, which depends on international trade. Fashion firms get their raw materials from diverse places and have their clothing made in nations with cheaper production costs thanks to intricate supply networks that span many nations. By lowering trade obstacles, trade liberalization through accords like free trade agreements and regional economic communities has aided in the mobility of fashion goods. The epicenters of international trade are fashion capitals and global hubs, which hold fashion weeks and trade shows that draw visitors from all over the world. As a result, the dynamics and development of the fashion sector are significantly shaped by international trade.

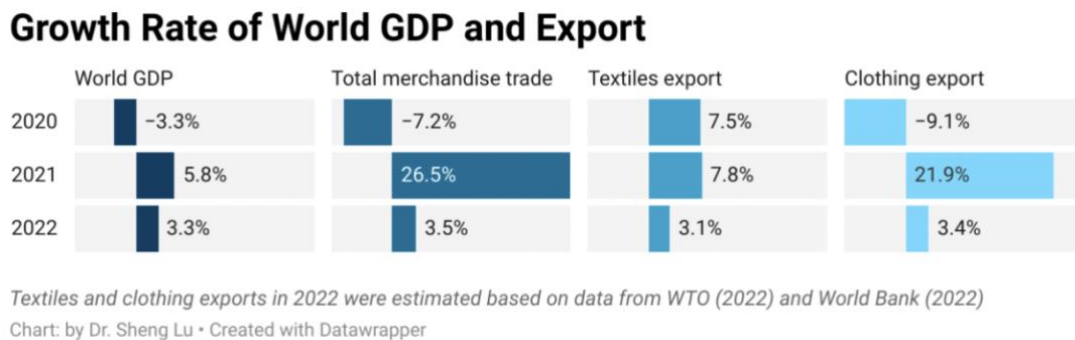
“In 2019, the EU exported €61 billions of textile and clothing and imported €109 billion. The EU imported over €80 billions of clothes, mainly from China, Bangladesh, and Turkey. The European Commission works to ensure a level playing field in international trade. It does this at multilateral level by applying World Trade Organization agreements and at bilateral level through Free Trade Agreements”. (European Commission, n. d.).

Fashion companies are caught in a crosscurrent of trade-related news flow as 2019 gets underway. Costs for some parties may rise, and there may be more disruption risk, if trade tensions between the US and other major economies sharply rise. New trade agreements, however, in some cases promise to improve trading circumstances. The fashion business in the United States represents 6% of imports but pays 51% of tariff receipts, making the tariffs issue extremely significant. In addition, there is a direct impact on the customer from increased tariffs imposed on products originating from China, such as leather garments, woven fabrics, and wool yarn. Mckinsey & Company (2019) has showed in their study.

“Despite some of the positive developments in trade, the dominant theme over 2017 has been tightening of trade conditions between specific partners. For the G-20 economies, there were \$74 billion worth of restrictive measures in May 2018, compared with \$47 billion in May 2017, a rise of 58 percent. Trade-facilitating measures, which include eliminating or reducing tariffs and simplifying customs procedures, meanwhile, fell from \$163 billion to just \$83 billion, a 49 percent drop. Some fashion companies have begun to reconsider their presence in, and exposure to, countries where tariff barriers could further increase the cost of doing business. Many companies had begun this process before the trade tensions mounted, but they cite the recent developments as a tipping point”. (Mckinsey & Company, 2019).

In accordance with Lu (2022), it can be seen in the figure 2.1. as global apparel exports soared in 2021 as the global economy recovered from COVID, although global textile exports increased very slowly as a result of a large trade volume the year before. World textile exports specifically entirely recovered to the pre-COVID level and topped \$548.8 billion in 2021, a significant gain of 21.9% from 2020, thanks to consumers' robust demand. The clothing industry is not exceptional. The world's merchandise trade also increased 26.5% from the previous year in 2021, the greatest gain in decades since economic activity has largely restarted. Comparatively, the value of global textile exports rose more slowly in 2021—at 7.8%, reaching \$354.2 billion—falling behind most other industries. Such a pattern, meanwhile, was understandable given that the textile industry remained strong in 2020 due to the pandemic's high demand for personal safety equipment (PPE).

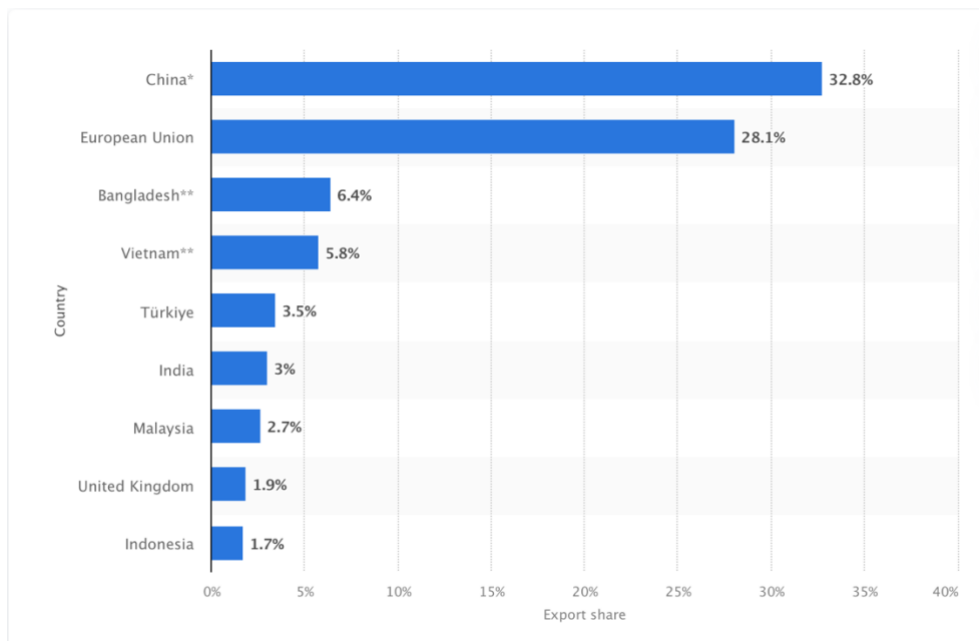
Figure 2.1. Growth Rate of World GDP and Export.



Source: Lu (2022)

Thanks to the data compiled by Statista (2022a), the following figure shows the share in world exports of the leading clothing exporters 2021, by country, where in 2021, China was the top ranked global clothing exporter with a share of approximately 32.8 percent, followed by the European Union, with a share of 28.1 percent, Bangladesh, and Vietnam. In that year, China and the European Union were also the leading textile exporters in the world.

Figure 2.2. Share in world exports of the leading clothing exporters in 2021, by country.



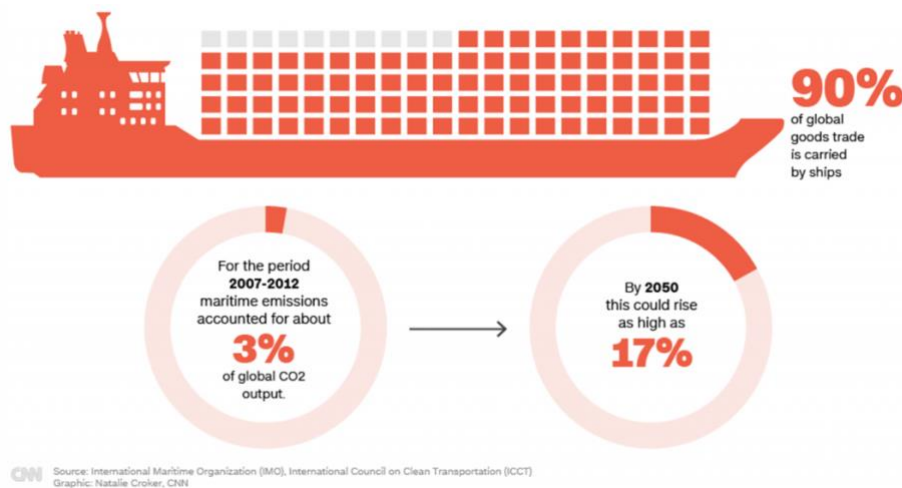
Source: Statista (2022a).

As we have been able to observe in this section, the fashion industry is constantly growing, one of the main reasons has been the post-pandemic that has made international trade in this industry increase, the reason for this has been the use of e-commerce channels. The main exporter in this industry is China, followed by the European Union, with a very differential share compared to the rest of the countries. As the fashion industry continues to evolve and adapt to changing consumer demands, international trade will remain a key catalyst for growth, sustainability, and global market integration.

## 2.2. Impacts of trading clothes in the environment.

The impact of the fashion industry on the environment is one of the most significant in the world and the transportation of these products from one country to another has its effects. When it comes to trading, the main transport mode for global trade is ocean shipping. The OECD (2021) and Lee (2023) have explained and as shown in figure 2.3. that a large group of economic activities that can contribute value to the economy include maritime shipping. Both opportunities and difficulties arise from this. Particularly when it comes to shipping, there is a significant environmental impact. Nearly 10 billion metric tons (11 billion tons) of products are transported annually by ships, which handle almost 90% of all worldwide trade. According to estimates, shipping is responsible for 2.5% of all CO<sub>2</sub> emissions worldwide, and 2015 research from the European Parliament predicted that number may increase to 17% by 2050.

Figure 2.3. Maritime shipping.



Source: CNN (2019)

“Despite this pretty major carbon impact, transport via boat is actually the cheapest and most carbon-efficient option we have right now. A big ship will emit about 10 grams (0.4 ounces) of carbon dioxide to transport 1 metric ton of cargo 1 kilometer (2 tons of cargo 1 mile). That’s roughly half as much as a train, one-fifth as much as a truck, and nearly a fiftieth of what an airplane would emit to accomplish the same task”. (Lee, 2023)

In order to reduce the environmental impact that occurs due to the transportation of all goods in the fashion industry, there is a new initiative that can reduce emissions by trading in used clothing. Based on the data collected by UN Comtrade (2020), for the HS code 6309-textiles; worn clothing and other worn articles. In terms of lowering

pollution and conserving resources, the used clothing industry benefits the environment. The world's used clothing market is dispersed throughout several different geographical areas. 2010 through 2020. The USA, UK, Germany, and the Republic of Korea are the top exporting nations. Historically, only nations in the Global North exported used clothing, but there is a growing trend where countries in the Global South are positioning themselves as exporters. For instance, China is now one of the top three nations in the world for used textile exports. Used clothes exports from China experienced the highest increase between 2010 and 2020, increasing from US\$10 million in 2010 to US\$382 million in 2020 at an average annual growth rate of 56%. In the previous ten years, the USA has continued to be the top exporter in both value and volume terms.

Farrant et al., (2010) states that the best way to reduce the need for virgin materials and the energy consumed in the extraction and processing of raw materials is to extend product life by reusing clothing. The value of the material will be recovered, waste and pollution will be decreased, and fewer new things will need to be acquired. It has been determined that the carbon released during the shipping of old clothing bales was less than the carbon released during the production of new clothing. These elements show that direct clothes reuse has major environmental advantages. However, the fast fashion phenomenon and the fashion industry's quick growth have greatly aided in producing enormous amounts of waste, which in turn has driven the expansion of the secondhand clothing market. Since fewer people are wearing clothes on average before throwing them out, the materials used to make discarded apparel should theoretically be of high quality. Fast fashion clothing, however, is thought to be of poor quality, making it difficult for traders to advertise it in target markets.

The fashion industry will continue to grow, and the transportation of garments and these factors will continue to emit CO<sub>2</sub> gases, however by following this initiative this could be slowed down, even stopped, and reduced, so it is absolutely essential to continue to care for the environment and agree to continue to push the industry towards a greener future.

### **3. CROSS-CULTURAL ANALYSIS OF SUSTAINABLE FASHION PRACTICES IN THE USA, GERMANY, AND JAPAN.**

Explained by Dsouza and Aubry (2021). A cross-cultural notion acknowledges the many nations, backgrounds, and ethnicities around the world, as well as how to effectively bridge the gap with fashion management and styling distinctions. In a time when people's views and their culture play a significant part in introducing cross-cultural fashion trends, cultural influences coexist. People follow fashion trends and industry predictions. Global trends in the business world may be used by the fashion industry to compel social and intercultural movements to understand the fashion environment. Different cultures dictate what is fashionable, and today's multicultural trend is more about consuming mass-produced clothing on a global scale.

In the following section I will comment on the sustainable practices carried out in the selected countries, in this way it will be possible to appreciate in a cross-cultural way the perceptions and practices used, considering the six dimensions of Hofstede taken to the field of fashion and sustainability.

#### **3.1.USA.**

The Global Council for the Promotion of International Trade (n. d.) clarifies that one of the greatest industries in the USA, the fashion industry is estimated to be worth about \$400 billion. It is one of the most resource- and pollution-intensive businesses, nevertheless. The fashion sector is the second-largest consumer of water and contributes 10% of the world's carbon emissions, according to the Environmental Protection Agency. Additionally, the sector is notorious for its weak labor standards and the exploitation of employees in underdeveloped nations.

“Despite these challenges, there is growing awareness among consumers, brands, and policymakers of the need to adopt more sustainable practices in the fashion industry. In recent years, there have been efforts to reduce waste, increase the use of sustainable materials, and improve labor conditions in the industry”. (Global Council for the Promotion of International Trade, n. d.).



### *3.1.1. Cultural factors and consumer attitudes.*

When trying to understand cultural behaviors towards this subject, it becomes essential to look at Hofstede's dimensions when discussing cultural elements and consumer attitudes to take into thought when discussing sustainability in the fashion business. Understanding these dimensions might assist identify potential cultural influences on the adoption and promotion of sustainable fashion practices in the USA, even though they offer a generic framework and people within a community may demonstrate a range of values along each dimension. Various political, economic, and cultural frameworks have an impact on people's values and consciousness, resulting in various consumption patterns.

The individualism vs. collectivism dichotomy in American culture is the most glaring example. The United States ranks first in individuality. Individualistic cultures place a larger importance on the interests of the individual than those of the community and expect people to express themselves freely. (Hofstede Insights, 2001c). As a result, American consumers are less afraid of standing out from the crowd. This could result in a higher demand for a variety of fashion options, such as environmentally friendly and sustainably produced items. As people grow more aware of how the fashion industry affects the environment, they could look for sustainable brands and items that are consistent with their own ideals.

The USA has a low power distance score, which indicates that equality, including social, economic, and environmental issues, is generally prioritized more. (Hofstede Insights, 2001c). This may foster a climate that is more open to ethical labor standards, fair trade, and supply chain transparency as examples of sustainable fashion practices. Lower power distance might also promote cooperation between different stakeholders, resulting in group initiatives to advance sustainability in the fashion business.

The USA scores high in masculinity. The masculinity dimension reflects that the society will be driven by competition, achievement, and success, with the success being defined by the winner/ best in field. (Hofstede Insights, 2001c) In the context of sustainable fashion, this means that male ideals can spur competitiveness and creativity in the sector, resulting in the creation of novel products and economic structures.

The USA scores below average on the Uncertainty avoidance dimension. This dimension has to do with the way that a society deals with the fact that the future can never be known. (Hofstede Insights, 2001c). Therefore, there is typically more tolerance for novel concepts, inventive goods, and a willingness to try something new and different in a low uncertainty avoidance society like the USA. This may make it easier for people to embrace and use sustainable fashion techniques that go against accepted wisdom and support the growth of the sector.

In the long-term orientation American cultures scores low, this means that it is a normative society, they prefer to maintain time-honored traditions and norms while viewing societal change with suspicion. (Hofstede Insights, 2001c). However, there is a rising understanding of the significance of sustainable practices and their long-term effects in the USA. Increasing efforts to incorporate sustainability into the fashion industry have been made as a result of this awareness, including programs like eco-friendly materials, responsible sourcing, and expanded producer responsibility. The United States has a high level of environmental consciousness, and a positive value shift toward recycling and reuse improved the country's good intents for clothing for sustainable consumption. In terms of environmental and social sustainability, the USA is a pioneer.

The last dimension is indulgence, which is defined as the as the extent to which people try to control their desires and impulses, based on the way they were raised, to what extent a society allows and enjoys gratification of basic human desires related to enjoying life and having fun. (Hofstede Insights, 2001c). The American culture has both positive and negative features in this dimension. On the one hand, indulgence can encourage a consumer culture that values individuality, fun, and novelty. This might result in a higher demand for distinctive, stylish, and environmentally friendly apparel solutions in the sustainable fashion sector. The market for sustainable fashion may expand as consumers look for businesses that complement their need for individual happiness and self-expression. On the other hand, the indulgence dimension can also result in an overconsumption and fast fashion culture, where short-term satisfaction is valued more highly than long-term sustainability. As a result of impulsive shopping patterns and a higher turnover of fashion items, the desire for novelty and enjoyment may lead to waste and environmental deterioration. (Hofstede Insights, 2001c).

### 3.1.2. Government policies.

The garment and footwear sector are a major contributor to the climate catastrophe, accounting for 4-8% of the worldwide greenhouse gas footprint. In recent years, the fashion industry has paid increasing attention to environmental issues like greenhouse gas emissions and many others. The fashion business is also heavily scrutinized with regard to social and human rights issues, such as fair salaries and wage theft. (Paton 2022).

Given the impact of the fashion industry and the fact that the United States is one of the largest consumer markets, it is necessary for the government to implement policies to reduce the environmental impact of the fashion industry. The increased attention has resulted in several proposed laws to address social and environmental issues in fashion.

#### California's garment worker protection act.

The new law tackles several significant issues, including the duty of parties entering into contracts to have garment operations done as well as the proper payment of employees in the apparel business.

“The Garment Worker Protection Act aims to ensure that workers in California's garment industry are paid fairly. The Fair Labor Standards Act of 1938 (FLSA) already prohibited garment manufacturers in the US from paying workers by piece rate. However, this bill expands protections afforded to garment workers and the definition of garment manufacturing, resulting in the protection of more workers”. (Paton, 2022).

The Act also gives employees the option to sue manufacturers for compensatory damages, which helps them make sure they get paid for labor already done. Manufacturers are required to maintain employee and pay records for three years, establishing a procedure for people to bring claims to recover unpaid wages. Paton (2022) has reported.

#### Fashioning Accountability and Building Real Institutional Change Act (FABRIC Act)

“Real Institutional Change Act — known as the FABRIC Act is America's first federal fashion bill. The bill is intended to improve the labor rights of garment workers and buoy the American garment manufacturing industry after decades of offshoring. The bill is currently awaiting assignment to a House committee for study, meaning it could be years before it lands on the president's desk”. (Beridze, 2022).

Beridze (2022) has explicated that the FABRIC Act is a proposed federal law that would improve working conditions, change the piece rate pay system, and support domestic clothing manufacture in order to safeguard American garment workers and resurrect the domestic apparel industry. In order to support domestic manufacturers, the Act also aims to offshore the production of apparel to nations with insufficient working conditions.

“Last but not least, the FABRIC Act and California's Garment Worker Protection Act are quite similar in that they both mandate hourly wages for garment employees rather than piece rates. Additionally, it guarantees that employees are paid for the work they have already completed, tackling the problem of wage fraud in the US”. (Beridze, 2022).

### The Fashion Sustainability and Social Accountability Act

The NY Fashion Sustainability and Accountability Act mandates that the fashion industry map its supply chains and address the effects of its operations and supply chain on human rights and the environment. The Act will be the first US law with provisions for sustainability aimed at major fashion brands. The legislation mandates that fashion firms with annual revenues above \$100 million disclose their supplier chains across all manufacturing tiers and the stages of the process where they have the most influence. Aull (2022) reports.

“The Act requires fashion retailers or manufacturers to disclose sustainability and due diligence activities. Companies subject to the Act must map their supply chain and perform and disclose environmental and social due diligence”. (Aull, 2022).

#### *3.1.3. Industry initiatives.*

With an anticipated market value of \$390 billion in 2021, the United States is a significant player in the worldwide fashion business. The fashion business is notorious for having a large negative influence on the environment and the people who work in it; therefore, this growth has come at a cost to society and the environment. The United States has responded by putting into practice a variety of strategies to promote sustainable fashion, including programs aimed at lowering waste, raising transparency, and encouraging moral behavior all throughout the fashion supply chain. (Global Council for the Promotion of International Trade, n. d.).

The fashion industry, customers, and industry stakeholders in the USA have thought about various initiatives that help the environment, as well as bringing ethical practices and making the society; as a result, here are some noteworthy initiatives that the industry and clothing brands have thought about.

The first initiative that the Global Council for the Promotion of International (n. d.) has declared is that American fashion companies have begun to use sustainable materials in their collections, including organic, recycled, and ethically produced materials like recycled polyester and organic cotton. Transparency, ethical labor standards, and ecologically friendly manufacturing procedures are prioritized by these brands. The use of fair-trade certificates guarantees that garment workers receive fair compensation and have a secure workplace.

“Many American fashion companies are working to make their supply chains more transparent, notably by disclosing the locations and working conditions of where their clothing is produced. Fashion companies are becoming more transparent by disclosing details about their manufacturing procedures, supplier chain, and social and environmental policies”. (Global Council for the Promotion of International Trade, n. d.).

Upcycling and repurposing are two strategies that American fashion firms are increasingly looking into as ways to cut waste and make new goods from recycled materials. Through techniques including recycling, upcycling, and garment renting, the circular fashion movement seeks to reduce waste and increase the lifespan of garments. To keep clothing and textiles out of landfills, efforts for textile recycling have been launched across the USA. Services for garment repair and alterations, swap and resale occasions, and workshops for upcycling are among the initiatives aimed at lowering fashion waste. The Global Council for the Promotion of International (n. d.) has communicated.

“Events and fashion weeks featuring sustainable clothing are held in major American cities like New York, Los Angeles, and San Francisco. These venues feature eco-friendly designers, hold industry-specific panel talks on sustainability, and support ethical fashion standards”. (Global Council for the Promotion of International Trade, n. d.).

Lastly the Global Council for the Promotion of International Trade (n. d.) has posted that lot of American organizations are working to raise public awareness of sustainable

fashion and the effects of the fashion industry. Entrepreneurs can provide instructional materials that promote eco-friendly shopping and increase consumer understanding of sustainable fashion. Events, online resources, and social media campaigns can all fall under this category.

These instances highlight the wide spectrum of some of the sustainable fashion activities that are now being undertaken in the USA. The desire for environmentally friendly and ethically created apparel is driving the fashion industry's continued evolution toward more responsible and sustainable processes.

### **3.2. Germany.**

Germany's GDP benefited from the fashion sector to the tune of €66 billion in 2019.

The reputation of the "Made in Germany" brand is one of high quality, dependability, and affordability. This also applies to fashion: the nation is renowned for its high-tech approach to fashion, which includes the use of technological textiles and cutting-edge manufacturing machinery for apparel and textiles. (Berlin Fashion Week, 2022)

In accordance with data collected by Oxford Economics (2021) due to the extent of offshore production in the sector, the global greenhouse gas footprint of the German fashion industry was just over 38 million tons. Of this amount, 34.5 million tons, or more than 90%, came from upstream activities like the production, preparation, and processing of raw materials. Only 2.0 million tons of emissions were produced directly by the industry in Germany, and 1.7 million tons came from emissions connected to the electricity the business bought in Germany. A total of 535,000 terajoules of energy were needed by the German fashion industry's supply chain and direct operations in 2019. In 2019, the water footprint of the fashion sector was 6.5 billion cubic meters.

“Measuring and reporting footprints is the first step in lowering emissions. Companies and organizations in the German fashion sector, as well as the Federal government, have started to change strategies and introduce initiatives aimed at minimizing environmental impacts. However, continuing government assistance will be required to give businesses the resources and information they need to assess environmental impacts, especially small enterprises that may not have the requisite financial resources”. (Fashion Council Germany, 2022).

### *3.2.1. Cultural factors and consumer attitudes.*

It is crucial to take in mind Hofstede's aspects since consumer attitudes and cultural influences are crucial for a cross-cultural analysis of sustainability in fashion. Understanding these dimensions can help identify potential cultural influences on the adoption and promotion of sustainable fashion practices in Germany. As was mentioned in the USA section, these dimensions provide a general framework, and individuals within a society may exhibit a range of values along each dimension.

The German society is a truly individualist one. There is a strong belief in the ideal of self-actualization. Loyalty is based on personal preferences for people as well as a sense of duty and responsibility. (Hofstede Insights, 2001a). Individualistic tendencies can encourage freedom of choice and personal responsibility, which can lead to customers adopting more ethical and environmentally friendly fashion decisions. Consumers that value individuality may be drawn to ethical fashion brands that emphasize self-expression, originality, and moral principles.

Germany has a relatively low power distance, which indicates that equality and a less hierarchical society are preferred. The management must consider the rather substantial co-determination rights. Control is hated, and leadership is pushed to demonstrate knowledge and is most accepted when it is founded on it. Direct and interactive communication and meeting styles are typical. (Hofstede Insights, 2001a). By encouraging openness, cooperation, and inclusive decision-making, this can have a good impact on the sustainable fashion sector. It might promote collaboration and partnerships between many stakeholders, resulting in the adoption of sustainable practices and projects.

Germany is considered a masculine society, indicating a society that values competitiveness, achievement, and success. People rather “live in order to work” and draw a lot of self-esteem from their tasks. (Hofstede Insights, 2001a). By fostering innovation and efficiency in the manufacturing process and encouraging firms to embrace sustainable technology and practices to obtain a competitive edge, this can have an impact on the sustainable fashion sector.

There is a modest bias for uncertainty avoidance in Germany, which means that structure, regulations, and planning are preferred. (Hofstede Insights, 2001a). This may result in a

focus on rules, accreditations, and standards that guarantee openness, authenticity, and environmental responsibility in the context of sustainable fashion. Brands that are transparent about their sustainable operations and uphold high standards may be valued by consumers.

Germany's high long-term orientation score demonstrates the pragmatic nature of the nation. People in pragmatic civilizations hold the view that situation, context, and time all play a significant role in determining what is true. They exhibit a natural capacity to adjust traditions to fit new circumstances, a high predisposition to save and invest, frugality, persistence in getting things done, and sustainability. (Hofstede Insights, 2001a). This cultural value fosters the use of robust materials, timeless designs, and an emphasis on decreasing waste and environmental effect, all of which are in line with the fundamentals of sustainable fashion. Customers could value quality over quantity and be willing to spend money on durable sustainable fashion items.

German culture is restricted in character, as evidenced by the low score on indulgence. Societies that score poorly on this dimension tend to be cynical and pessimistic. Restrained societies limit the satisfaction of their aspirations and place little value on leisure time. (Hofstede Insights, 2001a). By discouraging excessive consumption and encouraging a more conscientious approach to fashion, this can have a favorable impact on the sustainable fashion business. Customers could look for classic, high-quality items that reflect their beliefs and are less harmful to the environment.

The Hofstede dimensions can help create a cultural climate in Germany that is favorable to the development and acceptance of sustainable fashion practices. The emphasis on fairness, responsibility, and long-term thinking, together with a desire for competition and a preference for structure and standards, can encourage the adoption of sustainable practices in the fashion business.

### *3.2.2. Government policies.*

Over the past decade the German Federal Ministry for Economic Cooperation and Development has introduced two initiatives aimed at increasing the sustainability of the textiles and fashion industry.



### Partnership for Sustainable Textiles

“Since its founding in 2014, the Partnership for Sustainable Textiles has been campaigning for social and ecological improvements in the textile and clothing industry along the entire textiles life cycle. The guiding principles for action are respect for human rights and doing business within planetary boundaries. The goals and procedures of the Partnership for Sustainable Textiles are based on international standards and guidelines for corporate due diligence from the UN, ILO, and OECD. As a multi-stakeholder initiative, the Partnership for Sustainable Textiles unites companies, associations, nongovernmental organizations, standard organizations, trade unions, and the German Federal Government. They join forces and contribute their expertise and strengths. In addition, the Partnership for Sustainable Textiles cooperates with European and international initiatives to disseminate best practices, increase the leverage for its commitment and avoid duplication of efforts”. (OECD, 2014).

### The Green Button Government-Run Textile Label

“Since 2019, sustainable textiles can be easily recognized by the government-run textile certification label Green Button. The label demands responsible business practices from companies and sets requirements for sustainable production. In December 2021, around 80 companies offer products with the Green Button, over 150 million textiles have been sold since its launch, and 40% of people in Germany are familiar with the label. To protect people and the environment even more comprehensively, the requirements have been further developed since its introduction”. (Federal Ministry for Economic Cooperation and Development, 2014).

#### *3.2.3. Industry initiatives.*

With a plethora of projects that place an emphasis on moral behavior and environmental responsibility, Germany has emerged as a leader in the global drive toward sustainable fashion. These programs reflect Germany's strong cultural ideals of innovation, social responsibility, and sustainability. In order to demonstrate Germany's commitment to developing a more conscientious and environmentally friendly fashion sector, this section examines some of the major efforts in the country's sustainable fashion scene.

Fashion Revolution Germany e. V. (2023) illustrates a global movement called Fashion Revolution that seeks to advance sustainability and transparency in the fashion sector. Non-profit organization working to create a more sustainable and ethically traded fashion sector by speaking to both brands and consumers of clothes. With the intention of spreading awareness of the wrongdoings in the fashion business through instruction on social and ecological issues. In order to spread awareness about ethical fashion and the need for a more sustainable industry, Fashion Revolution Germany conducts events, campaigns, and educational programs.

“The Neonyt expo is a movement-starting event that aims to transform the fashion business and influence customer behavior by promoting more rapid, transparent, and true fashion. Over the past 20 years, Neonyt has established itself as the most important B2B platform for fashion, sustainability, and innovation. It brings together businesses who pride themselves on recycling and using natural materials, arguing that style and design do not necessarily have to be at odds with environmental responsibility and sustainability”. (Neonyt, 2023).

Kleidertausch.de (2023) has explained the Upcycling and Clothing Swaps. In order to reuse old clothing and cut down on textile waste, upcycling projects and clothing exchanges are common in Germany. Not only supports clothes recycling, but also a more thoughtful, circular approach to fashion consumption. It enables people to update their wardrobes without adding to the demand for the manufacturing of new goods, minimizing the environmental impact of the fashion industry.

These initiatives highlight Germany's dedication to ethical manufacture, transparency, recycling, and education in the fashion industry. A thriving and ethical fashion sector has developed as a result of the nation's strong emphasis on sustainability.

### **3.3. Japan.**

“The Japanese apparel market is among the largest in the world. While traditional clothing remains an integral part of the Japanese culture, the industry has been adapting to Western fashion trends and in turn, setting trends itself. According to a 2021 report by Yano Research, the retail apparel market in Japan grew by 81.9% YoY to 7,515.8 billion yen in 2020, a 17.4% dip from 2019”. (Ng, 2022).

“The annual turnover of Japan’s clothing industry is USD 96 billion, according to Fashion United. The country’s apparel and footwear industry has declined slightly in recent years, but certain segments and companies are flourishing and have promising future prospects”. (Jesse, 2019)

Data from Japan's Ministry of the Environment (2021) shows that 2,300 liters of water and 25.5 kilograms of carbon dioxide are released into the atmosphere on average during the creation of one piece of clothing. However, according to the government, only 34% of the average annual 480,000 tonnes of garments that are disposed of in landfills or burned are actually reused or recycled.

The knowledge of sustainability has recently influenced Japanese consumers' shopping decisions. Consumer demand for sustainable materials is increasing, beginning with the purchase of new goods, with recycled and organic materials setting the trends. Additionally, objects in good shape get a second chance at life on the reuse market rather than being discarded as leftover waste when they are no longer needed. Statista (2023) has studied.

### *3.3.1. Cultural factors and consumer attitudes.*

The Hofstede dimensions shed light on the cultural beliefs and mindsets that can affect a range of societal elements, including environmentally friendly clothing. We can look at the Hofstede aspects in Japan and see how they might affect how that nation approaches sustainable fashion.

Japanese society shows many of the characteristics of a collectivistic society: such as putting harmony of group above the expression of individual opinions and people have a strong sense of shame for losing face. (Hofstede Insights, 2001b). The collectivist values of Japan might encourage a sense of shared accountability for sustainability. As a result, the fashion industry may be more inclined to work together and make collaborative efforts to address pressing social and environmental issues. The advantages of ethical production, eco-friendly materials, and minimizing environmental impact may be emphasized through sustainable fashion projects in Japan.

Japan is a borderline hierarchical society. Yes, Japanese are always conscious of their hierarchical position in any social setting and act accordingly. However, it is not as hierarchical as most of the other Asian cultures. (Hofstede Insights, 2001b). Japan's

comparatively high-power distance could have an impact on the supply chain procedures and brand-consumer connections in the sustainable fashion sector. Brands having a bigger power distance might be under more pressure to maintain fair labor policies, supply chain transparency, and the advancement of sustainable business practices.

Japan is one of the most Masculine societies in the world. However, in combination with their mild collectivism, you do not see assertive and competitive individual behaviors which we often associate with Masculine culture. What you see is a severe competition between groups. What you also see as an expression of Masculinity in Japan is the drive for excellence and perfection in their material production. (Hofstede Insights, 2001b). Japan's emphasis on performance and success may inspire the nation to pursue leadership roles in the world's sustainable fashion sector. Japanese firms could strive to set the bar high for sustainable fashion trends, influencing the behavior of other industry players.

Japan is one of the most uncertainty avoiding countries on earth. This is often attributed to the fact that Japan is constantly threatened by natural disasters. Japanese learned to prepare themselves for any uncertain situation. (Hofstede Insights, 2001b). In order to provide transparency and traceability, clear norms, standards, and guidelines for sustainable fashion should be established. Japan has a high uncertainty avoidance rate. The Japanese sustainable fashion business may embrace risk mitigation techniques and resilience as a result of avoiding ambiguity. Brands may proactively identify and manage any sustainability-related concerns.

Japan ranks as one of the societies with the highest long-term orientation. In the eyes of the Japanese, life is a very brief chapter in the long story of humankind. Virtues and realistic positive examples serve as the people's compass in life. They all support the businesses' longevity. (Hofstede Insights, 2001b). The notion behind it is that businesses exist to serve stakeholders and society as a whole for many generations to come, rather than to generate profits every quarter for the shareholders. This cultural value promotes an industry-wide focus on longevity, durability, and waste reduction so that it will stand the test of time and be around for future generations.

Japan, with a low score, like Germany, is shown to have a culture of Restraint. People with this orientation have the perception that their actions are Restrained by social norms and feel that indulging themselves is somewhat wrong. (Hofstede Insights, 2001b).

Japan's lower indulgence ranking, however, might encourage a more thoughtful approach to fashion consumption. Customers might appreciate moderation, self-control, and restraint, which could translate into less emphasis on excessive consumption and more emphasis on high-quality, long-lasting fashion choices that are consistent with sustainable principles.

The Hofstede dimensions help shed light on how Japanese cultural values may affect sustainable fashion techniques. Understanding these factors can help develop strategies for encouraging sustainability, moral behavior, and eco-friendly practices in Japan's fashion sector.

### *3.3.2. Government policies.*

Like other countries, Japan's fashion industry is growing, and because this society is very conscious of the environmental impact that exists today, the government has undertaken various initiatives to reduce these impacts.

The Green Purchasing Law, enforced by the Ministry of the Environment (2016), compels government organizations to take environmental concerns into account when buying products and services. In the purchase contracts for electricity, autos, energy service firm projects, and building designs, this Law specifies the green contracting standards for governmental agencies and public organizations.

The Cool Biz Campaign, launched by the Ministry of the Environment, encourages businesses and employees to wear light, casual clothing throughout the summer to cut down on the demand for air conditioning, which increases energy usage. In lieu of suits and ties, employees are encouraged to wear open-necked, short-sleeved shirts to work. Additionally, it advises setting office air conditioners at 28 degrees Celsius. The campaign encourages the use of breathable, sustainable fabrics and strives to increase public awareness of the harm that conventional workplace wear causes to the environment. (The Japan Times, 2020).

Japan's Prime Minister Koizumi won the support of other heads of state when he proposed the "3R Initiatives" during the G8 Summit on Sea Island, Georgia, the U.S.A. in June 2004. These initiatives aim to create a healthy material-cycle society through the 3Rs (reduce, reuse, and recycle) This program focuses on recycling and waste reduction in a number of industries, including the fashion industry. It promotes the use of

environmentally friendly manufacturing techniques, the development of eco-friendly raw materials, and the use of sustainable production techniques. (Ministry of Environment (n. d.).

Companies have started to act as a result of Japan's formal pledge in 2020 to attain carbon neutrality by 2050 and to reduce its greenhouse gas emissions by at least 46% from 2013 levels by 2030. As part of these initiatives, the government encourages eco-friendly practices in the fashion sector, such as lowering greenhouse gas emissions during the production of textiles and promoting the use of renewable energy sources. Auto (2022) states.

The Eco Mark project implemented by Eco Mark (2023). According to the definition, this system is "a system in which the use of labels is approved by a third-party organization based on voluntary and diverse criteria." The only Type I environmental label in Japan is called Eco Mark. The Eco Mark is an environmental designation that is placed on goods (goods and services) that are known to be helpful for environmental conservation and have a low environmental impact throughout their whole life cycle, from manufacture to disposal. The goal of this mark is to encourage consumers to choose products that are ecologically friendly and to publicize the initiatives taken by affiliated businesses to protect the environment. Seeks to find and advertise eco-friendly products, such as apparel and textiles. The accreditation makes it easier for customers to choose clothing that is environmentally friendly and complies with standards including using organic materials, conserving energy, and water, and following fair trade principles.

These governmental programs and initiatives help to create a favorable climate in Japan for sustainable fashion. show a dedication to encouraging sustainability in the fashion business. by promoting environmentally friendly behavior. In order to promote positive change and a more sustainable fashion industry, the government is essential.

### *3.3.3. Industry initiatives.*

With an increasing emphasis on implementing measures that encourage ecologically friendly practices within the industry, Japan has emerged as a leading proponent of sustainable fashion. Japan has embraced the idea of sustainability, aiming to reduce the ecological impact of fashion production and consumption. This is accomplished through a distinctive fusion of traditional craftsmanship with cutting-edge technology. Japan is

working to make the fashion business more environmentally and socially conscious. Japan is well-positioned to make a substantial contribution to determining the direction of sustainable fashion on a global scale thanks to its rich cultural legacy and forward-thinking outlook. As JEPLAN (n. d.) defines. Thus, with the help of the government policies it has put in place to improve sustainability in society, it has established a couple of initiatives in the sector.

To cut waste and foster a circular economy, Japan encourages textile recycling. Used clothing is gathered through programs (like the Clean Closet Project) and sorted for recycling or repurposing. Old clothes are recycled into fiberboard or insulation at some textile recycling facilities. Companies work together and with customers to recycle clothing. By bringing together customers who want to recycle with manufacturers and businesses that want to recycle, a recycling-based society with many participants will be developed. JEPLAN (n. d.) explains.

Lastly EcoRoutes (2023) shows that in Japan, there are a number of upcycling initiatives that concentrate on repurposing old or abandoned clothing into fresh fashion items. These initiatives seek to stimulate creativity in sustainable fashion and reduce textile waste. The kimono is one of Japan's most well-known outfits, and the country's traditional textile industry is a veritable treasure mine of exquisite fabrics and sophisticated patterns. A growing number of Japanese upcycling fashion designers are using kimonos to create magnificent new pieces while keeping their traditional value.

Sustainable fashion approaches are greatly influenced by cultural and consumer views. Consumer choices for distinctive and environmentally responsible fashion options are influenced by individualism and a focus on personal expression in the USA. Germany, which is renowned for emphasizing quality and environmental awareness, has a significant customer demand for clothing that is manufactured sustainably and ethically. With its emphasis on craftsmanship and attention to detail, Japan values longevity and durability in clothing choices, which is in line with the concepts of sustainable fashion.

Government regulations are essential for advancing sustainability in the fashion sector. At the state and local levels, the USA has put in place a number of programs to assist sustainable fashion, such as rewarding eco-friendly production methods and minimizing waste. Germany has put in place rigorous environmental laws and certification programs that motivate businesses to use sustainable methods. In order to advance sustainable fashion, Japan has also supported local textile manufacturers and encouraged recycling programs.

Industry activities are crucial for advancing sustainability in the clothing industry. Collaborations between fashion companies, non-profit organizations, and academic institutions have produced ground-breaking solutions in the USA, including efforts to develop sustainable materials and circular fashion. Sustainable fashion brands and industry platforms that support openness and ethical production have emerged in Germany. Through the resurgence of traditional fabrics and techniques, Japan, which places a strong emphasis on traditional craftsmanship, has embraced ecological practices.

Overall, initiatives from the cultural, consumer, governmental, and industry sectors have contributed to the growth of the sustainable fashion industries in the USA, Germany, and Japan. These nations may continue to make substantial progress toward a more sustainable fashion industry by appreciating and utilizing their distinctive cultural values and consumer attitudes, enacting efficient government laws, and supporting industry initiatives. In order to solve the environmental and social issues related to the fashion industry and promote positive change toward a more sustainable and responsible future, collaboration across stakeholders across various dimensions is essential.



#### **4. SUSTAINABILITY AND INTERNATIONAL TRADE THROUGH THE GLOBAL SUPPLY CHAIN.**

When analyzing sustainability and international trade in the fashion industry, it is essential to study the supply chain, in this way it is possible to observe how sustainable each brand is from the extraction of raw materials for each product to the time of marketing it.

In the following section is what is going to be done, it has been taken as an example a brand of each of the chosen countries (USA, Germany, and Japan) and has been analyzed each of the supply chains of the same, in this manner it could be appreciated the sustainability of each of them and if in reality, everything studied theoretically is beginning to be applied in practice. However, it is essential to first know what each of the terms is.

Jones et al., (2021) defines sustainable trade as exchanges of products and services that go beyond only creating economic value to produce social and environmental advantages. Additionally, sustainable commerce encourages the conservation and repurposing of natural resources or lowers poverty and injustice. This movement includes individual projects like fair trade, but more and more public and commercial initiatives are focusing on the entire lifecycle of goods and associated services as they are exchanged worldwide. Greener supply chains are the foundational tenet of sustainable trade.

“A supply chain includes every step that is involved in getting a finished product or service to the customer. The steps may include sourcing raw materials, moving them to production, then transporting the finished products to a distribution center or retail store where they may be delivered to the consumer”. (Hayes, 2023)

A company's attempts to evaluate effects of their products' trip through the supply chain, from the procurement of raw materials to manufacture, storage, distribution, and every transportation connection in between, are referred to as supply chain sustainability. The objective is to have a beneficial impact on the people and communities in and around their operations while minimizing environmental harm from elements including energy consumption, water consumption, and waste creation. These worries are in addition to the regular issues about revenue and profit in the corporate supply chain. Sustainability of the supply chain benefits society and the environment as a whole in addition to serving the

interests of the companies themselves and their stakeholders. Companies are now aware that factors like climate change, such as major weather disruptions and growing resource scarcities, can jeopardize their ability to conduct business as usual. Luther (2021) clarifies.

“According to research, the supply chain accounts for the majority of a company's environmental impact. As items are manufactured and transported throughout the world, supply chains frequently involve energy-intensive production and transportation. Therefore, rather than altering other business procedures, firms can frequently have the most impact by changing their supply chain. Sustainability of the supply chain is difficult due to the intricacy of the numerous supplier connections and border crossings. This complexity can make it difficult to see crucial operational factors like the working conditions at a supplier's far-off factory”. (Luther, 2021).

Supply chain analysis is vital. To accurately evaluate a brand's sustainability performance, the supply chain must be studied. It promotes openness and gives a thorough picture of a brand's sustainability performance, empowering customers, stakeholders, and watchdog groups to make knowledgeable choices, promote good change, and support businesses that put sustainability first in all facets of their business. Additionally, it encourages civic engagement, reduces risks, and fosters ongoing development.

## **4.1. Patagonia.**

An American clothing firm called Patagonia promotes and offers for sale outdoor clothes. Patagonia now sells outdoor items including camping supplies, sleeping bags, and backpacks in addition to apparel. In an effort to run a more environmentally friendly business, Patagonia created the "Worn Wear" idea in 2017. This concept allows customers to return specific Patagonia products in excellent condition in exchange for credit toward new gear. With a B-label, Patagonia is one of the more environmentally friendly apparel companies in the sports and outdoor clothing market. Patagonia is regarded as one of the leaders in the payment of living wages and also keeps expanding the proportion of ecologically friendly materials in its inventory. Additionally, Patagonia is a member of both 1% For the Planet and the Sustainable Apparel Coalition, rejecting fast fashion in favor of items that are high-quality, long-lasting, and offer a repair and reuse program. Highsnobiety (2023b) says.

### *4.1.1. Sustainability.*

Accordingly, to Patagonia (n. d.-b). One of the market's greenest clothing companies is Patagonia. The instructions for the creation of the footprint chronicles were straightforward and unambiguous: Be absolutely honest about where our items came from, and the resources used to make them. The Footprint Chronicles advocates having the power to enact change in any factory or company worldwide. Dates, supplier alliances, and corporate actions regarding ethical and sustainable sourcing are all documented in The Footprint Chronicles.

Patagonia has chosen to implement Patagonia's Supply Chain Environmental Responsibility Program as a result of its commitment to the environment. Its goal is to assess, lessen, and ultimately eliminate the environmental effects of producing Patagonia goods and components. We put our program into practice at supplier locations all around the world, and it addresses a wide range of impact areas, including chemicals, environmental management systems, water use, water emissions, energy consumption, greenhouse gases, other air pollutants, and trash. Patagonia (n. d. -e) has explained.

In the Supply Chain Environmental Responsibility Program, Patagonia (n. d. -e) has illustrated that this program is built on internal standards and acknowledges third-party certification systems like the bluesign® system as ways that their suppliers may

demonstrate how they are achieving Patagonia's objectives. It also makes use of industry-wide tools like the Higg Index. Suppliers are urged to go above and above the program's minimal requirements in order to exhibit environmental excellence and earn their recognition as ethical supply-chain partners. They constantly analyze the manufacturing facilities used by current and potential Patagonia suppliers to determine whether they adhere to the company's basic standards for environmental performance, compliance, and best practices.

#### *4.1.2. Supply chain.*

Patagonia is positioned as one of the most transparent companies in this industry, this is due to the ease with which you can access the data of its supply chain, from the origin of the materials to create their garments, all social responsibility programs, to the facilities and suppliers throughout its supply chain, so you can have the opportunity to know where and how the clothes you buy are made.

#### Origin of materials.

Patagonia (n. d. -c) has reported that suppliers are carefully chosen by Patagonia to meet its high environmental and social requirements. They place a high priority on obtaining materials from vendors who exhibit ethical business methods, such as using down that is properly sourced, recycled polyester, and organic cotton. They also work together with fishers, ranchers, and farmers to ensure sustainable supply chain methods. This season, 89% of their fabrics are made using chosen materials, 100% of their down is obtained ethically, and 100% of the virgin cotton used in their clothing is produced using organic farming practices. In general, each of the materials this business uses to create its clothing has a history that explains how it was developed and how it benefits the environment.

#### Processes.

After being sourced, raw materials are sent to production facilities. They use every material transformation technique available to lessen their impact on the environment. lowering the amount of water needed in the dyeing of textiles to recycle chemicals.

To ensure secure working conditions, just compensation, and adherence to workers' rights, Patagonia collaborates closely with its manufacturing partners on a national and worldwide level. Many of its manufacturers have long-standing partnerships with the

corporation, which promotes accountability and openness. They have produced various programs where these are reflected in this way. Patagonia has established a strong social responsibility program that assesses and controls the effects of our operations on the communities and people in our supply chain. In addition to minimizing harm, we want our business to have a positive impact on the lives of those we touch. These social projects and activities serve as examples of Patagonia's all-encompassing sustainability strategy, which goes beyond the company's own operations to include supporting community-based organizations, encouraging people to take initiative, and pushing for systemic change. Patagonia aspires to serve as a catalyst for a good social and environmental effect within the sector and in the larger community. (Patagonia, n. d. -a).

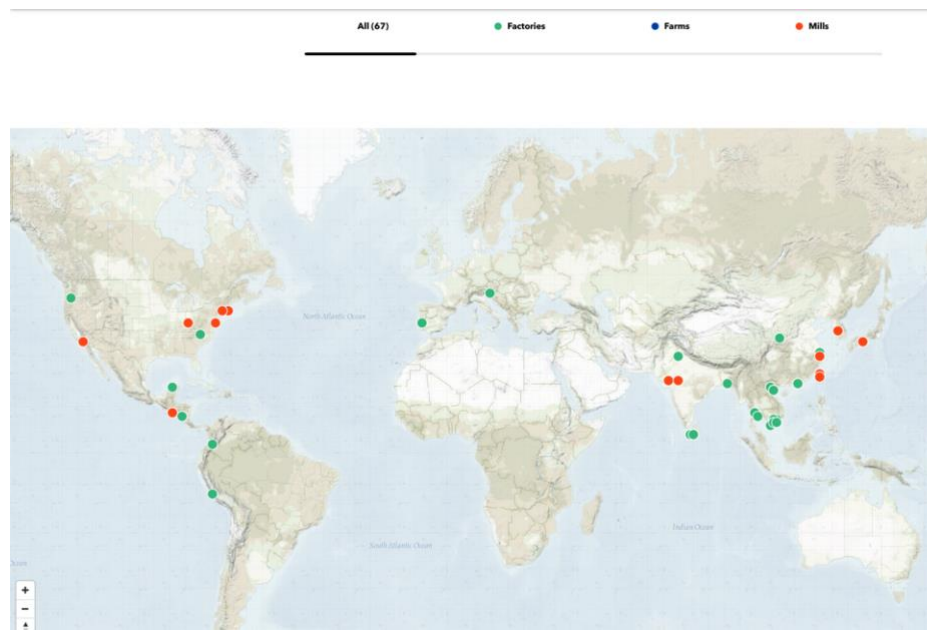
#### Distribution.

After production, the finished goods are delivered to retail stores or distribution hubs. Patagonia has its own distribution facilities and works to reduce the environmental impact of its operations by streamlining transportation routes, utilizing eco-friendly packaging materials, and minimizing trash generation. In addition to its own brick-and-mortar stores, Patagonia also uses e-commerce websites and authorized resellers to market its products.

Patagonia (n. d. -d) illustrates in the figure 4.1. Patagonia is a global company with a global footprint. They own and run businesses in the Netherlands, Australia, Chile, Argentina, Japan, South Korea, and the United States. Additionally, they run two distribution centers, where we receive products from factories in the US and across the globe, as well as more than 70 Patagonia stores throughout the world. In order to promote and maintain ethical labor standards, secure working conditions, and environmental responsibility in the factories, farms, and mills that produce completed items, they participate in a variety of due diligence tasks.

“The company emphasizes educating customers about the environmental impact of their purchases and encourages responsible consumption. As of 2022, we are at 100% renewable electricity in the United States and 76% globally, achieved through both on-site and off-site installations”. (Patagonia, n. d. -d.).

Figure 4.1. Patagonia's factories farms and mills.



Source: Patagonia (n. d. -d).

“Our greenhouse gas emissions footprint for shipping (both inbound and outbound) is around 4% of our total emissions footprint. To reduce our transportation footprint, we are increasing the use of drop-shipping (a way of shipping directly from factories to international distribution centers), minimizing the need for inbound air shipments and reducing the need for two-day shipping options for customers”. (Patagonia, n. d. -d).

Patagonia (n. d.) claims that they are digitizing their entire accounting and payroll processes, installing waste stations and the appropriate signage so employees accurately sort trash, recycling, and compost materials, recycling all of their scrap surfboard foam, and installing composting systems at all of their facilities in order to reduce the amount of waste they produce in their owned-and-operated facilities.

Finally, Patagonia's supply chain serves as an outstanding example of the company's dedication to sustainability, morality, and social responsibility. Patagonia makes sure that every stage of its supply chain is in line with its core values, from the careful selection of raw materials acquired from environmentally responsible suppliers to the focus on fair labor standards and safe working conditions at manufacturing facilities. Patagonia wants to reduce its environmental effect and promote a circular economy through streamlining distribution, encouraging responsible consumption, and providing end-of-life options.

## **4.2. Adidas.**

One of the biggest producers of athletic footwear and apparel in Europe is Adidas AG, part of the adidas group. Through its e-commerce store, more than a thousand retail locations, multiple franchisees, and other outlets, Adidas manufactures and sells athletic wear, sneakers, running shoes, bags, accessories like watches and sunglasses, and so on. (Highsnobiety, 2023a).

Adidas sustainability mission (2023b.) comments that Adidas is striving for systemic change; in their opinion, they must think and behave entirely differently. They are concentrating on three key areas: altering materials, encouraging people to use clothing for longer, and reducing their carbon footprint. To combat waste and lessen their impact, they have chosen to adopt a variety of actions in order to achieve the sustainability they desire. Wherever practicable, recycled polyester will take the place of all virgin polyester by the year 2024. When compared to the emissions baseline of 2017, they pledge to lower our carbon footprint (CO<sub>2</sub>e) by an average of 15% per product by 2025. They also intend to achieve climate neutrality (CO<sub>2</sub>e) in our own operations and retail. As part of the UN Fashion Industry Charter for Climate Action, they aim to cut total greenhouse gas emissions from operations and retail, as well as those of our suppliers, by 30% by 2030 compared to 2017. They also aim to achieve climate neutrality (CO<sub>2</sub>e) by 2050. The business already obtains almost all of its electricity in Germany from renewable sources.

### *4.2.1. Sustainability.*

Adidas has made tremendous efforts to incorporate sustainable practices into its operations because it recognizes the necessity of tackling sustainability concerns. Adidas recognizes the need to strike a balance between sports performance, environmental stewardship, and social responsibility as part of its commitment to be a responsible corporate citizen. By implementing a thorough sustainability strategy, Adidas hopes to reduce its impact on the environment, support ethical labor standards, and spur improvement in the sector. Adidas shows its dedication to fostering a more sustainable future for athletes and the globe by integrating sustainability ideas into its business activities. (Adidas sustainability mission, 2023b).

“Changing the materials, we use can play an important role in how we tackle our overall carbon footprint. That’s why we’re choosing recycled and renewable fabrics over virgin fossil-based materials wherever possible. This helps us to reduce waste, reduce our reliance on finite resources, and reduce our footprint without compromising on quality. To accelerate change, we have committed to implementing recycled and renewable materials in more and more of our products”. (Adidas, 2023a).

To increase their lives, they are experimenting with different methods. However, the system will only function if people stop tossing things away. They want to encourage the globe to recognize the benefits of repairing and reusing equipment by making it simpler for everyone to recycle things. Products are thrown whole into the shredder and ground down after a series of preparation stages, such as sorting between shoes and clothing and cleaning shoes. After that, the pulverized material is blended and heated to form pellets. These pellets serve as raw materials for the creation of new products or components of them. New footwear and clothing are produced, and a new generation of goods is available for use. This statement is supported by Adidas (2023d).

“We're keeping track of the emissions we create at every step of our product development & production, from getting materials to making and shipping products, to the disposal of our products at the end of their lifetime. We have calculated that a large amount of these emissions, 77% to be exact, is generated in our supply chain. 8% come from packaging and logistics, as well as business travel, our offices & retail stores. Another 15% comes from things we cannot directly influence, like how customers use and dispose of our products”. (Adidas, 2023c). Knowing this enables them to determine where they should concentrate in order to further cut our carbon emissions. Adidas (2023) concludes then that they are also assisting their suppliers in switching to cleaner energy sources in order to lower the emissions generated across their supply chain. They must move more quickly toward decarbonization if there is to be any serious change. To do that, they must first comprehend the impact they are already having in order to come up with strategies to reduce it, which is how they are moving toward decarbonization.



#### 4.2.2. Supply chain.

Adidas (n. d. -c) has prioritized supply chain openness, realizing the value of accountability and traceability in attaining sustainable objectives. The business has made great efforts to make its supply chain activities transparent. Adidas makes sure that stakeholders may evaluate the social and environmental effect of its products by making information about its suppliers, production facilities, and raw material sourcing available. By promoting openness, Adidas hopes to gain the confidence of its clients, partners, and advocacy organizations, empowering people to make knowledgeable decisions and hold the company responsible for its sustainability promises.

#### Origin of materials.

Based on data collected by Adidas (n. d. -b) Adidas wants to transition to a scaled-up, all-encompassing sustainable product. By 2025, they hope to have 90% of their products that are sustainable. They characterize products as sustainable when they exhibit environmental advantages over traditional products because of the materials employed, i.e., when they are mostly made of ecologically friendly resources. Most of these are made of recycled materials or more environmentally friendly cotton. Based on standards reflecting the most recent market developments, competitor benchmarks, and expert judgments, the applied criteria for environmentally favored materials and the percentage of the article weight are defined: At least 70% of the weight of the product must be made up of ecologically friendly materials for clothing, at least 50% for accessories and gear, and at least 20% for footwear. From 2022 forward, this standard will be followed. They were able to make seven out of ten of our articles sustainable by the end of 2022. The foundation of the ecologically friendly materials they utilize is made up of the following ingredients (Table 4.1.).

Table 4.1. Selected material types used for Adidas products 2022.

**Selected material types used for adidas products 2022<sup>1</sup>**

Material	Share of total materials used in %	Share of material group in %
<b>Polyester</b>	<b>35</b>	
Recycled polyester		96.0
<b>Rubber</b>	<b>17</b>	
Recycled rubber		1.1
Natural rubber		10.8
<b>Cotton</b>	<b>15</b>	
Third party certified cotton		96.2
Organic cotton		3.7
Recycled cotton		0.1
<b>Ethylene-vinyl acetate (EVA)</b>	<b>12</b>	
Biobased EVA		0.5
Recycled EVA		0.7
<b>Leather</b>	<b>2</b>	
Third party certified leather		99.9

<sup>1</sup> The share of total materials used and share of material groups for rubber, EVA, and leather are based on the Fall/Winter 2022 and Spring/Summer 2022 seasons. The share of material groups for polyester and cotton are based on the Fall/Winter 2022 and Spring/Summer 2023 seasons.

*Source: Adidas (2022).*

### Processes.

Following sourcing, raw materials are delivered to production sites where they are converted into final goods. Adidas works with independent suppliers across the world in addition to running its own factories. The company's global supply chain includes a number of intermediaries, including strategic manufacturing partners, componentry and materials suppliers, and sources for raw materials including cotton, leather, and natural rubber. The great majority of their products are made in the factories of about 110 manufacturing partners throughout the world, working closely with important strategic partners. They value long-term partnerships because 35% of their independent manufacturing partners have been with them for more than 20 years, and 65% of them have been with them for at least ten. Their supplier relationship's duration is based on a set of performance standards that are periodically monitored and revised. Adidas (n. d. - c) has declared.

Additionally, by giving out larger orders, suppliers are encouraged to attain and maintain a high level of performance in relation to these standards. Most of Adidas' production is now done by other parties. In total, they collaborate with more than 400 separate factories located all over the world that produce our goods in roughly 45 nations. With many

different sorts of business partners, some of whom are directly contracted factories and others who are not, their supply chain is multi-layered and worldwide in scope. Adidas prioritizes social compliance, worker safety, and fair labor practices, working closely with suppliers to uphold these requirements. Adidas (n. d. -c) has declared.

#### Distribution.

“After being produced, the finished goods are shipped from the manufacturers to global distribution centers or retail outlets. Adidas aims to cut carbon emissions and the environmental impact of transportation by streamlining its logistics”. (Adidas, 2023).

In compliance of Adidas – Climate Change and Decarbonization (n. d.-a) They can measure, track, and be honest about their carbon footprint across their whole value chain as well as within their own operations thanks to their "Environmental Footprint Tool." Results for 2022 unequivocally demonstrate once more how their environmental impacts are dispersed unevenly along the value chain. The total annual GHG emissions for their value chain are displayed in the table below (table 4.2). In comparison to the prior year, the average annual Scope 1, and 2 GHG emissions per product fell for 2022. Our emphasis on innovation played a significant role in this reduction. They will make sure they stay on track to meet their goal of 15% emission reduction per product by 2025 by continuing to concentrate on their decarbonization strategy, which includes further material innovation, switching to cleaner energy sources at our supplier facilities, enabling low-carbon design for our products, and achieving climate neutrality (CO<sub>2</sub>e) across their own operations.

Table 4.2. Breakdown of annual GHG emissions.

Breakdown of annual GHG emissions<sup>1,2</sup>

	2022	2021
<b>Scope 1 emissions (in tons CO<sub>2</sub>e)</b>	<b>21,856</b>	<b>12,908</b>
Administrative offices	10,752	2,520
Distribution centers	5,128	4,807
Own retail stores	5,439	5,068
Showrooms	537	513
<b>Scope 2 emissions, market-based (in tons CO<sub>2</sub>e)</b>	<b>142,293</b>	<b>125,502</b>
Administrative offices	13,354	8,087
Distribution centers	21,647	10,316
Own retail stores	104,480	105,482
Showrooms	2,812	1,617

Source: Adidas (2022).

Adidas places a high value on ethics, openness, and sustainability. To lessen its impact on the environment, the company actively collaborates with suppliers, makes investments in sustainable products, and encourages responsible consumption. Adidas aims to transform the sportswear market and contribute to a more sustainable future by incorporating sustainability into every step of the production chain.

### 4.3. UNIQLO.

“Uniqlo sells unisex clothing and accessories designed exclusively for the brand. The company has its own design team. The brand is committed to marketing simple, basic, and universal products so that people can combine them as they wish at any time of the year, providing high quality casual wear at remarkably affordable prices for men, women, and kids. Uniqlo is part of the Fast-Retailing Group”. (UNIQLO, n.d. -c).

Although Uniqlo has always been known as a quick fashion company, its emphasis on sustainability has gained recognition over time. This focus can be seen in the company's understanding of Japan and its culture, as well as in its quest for maximum efficiency and zero emissions.

Data from Auto (2022) show that Fast Retailing, the parent company of Uniqlo, has outlined its sustainability goals including a net-zero carbon aim by 2050. It stated that, among other things, by 2030, it plans to use 100% renewable energy for all of its internal

operations and increase the proportion of recycled fabrics used in its products to 50%. In its first product-to-product recycling program, it introduced a recycled down jacket in 2020.

#### *4.3.1. Sustainability.*

UNIQLO (2022), has done a lot of effort to integrate sustainability into its supply chain and operations. UNIQLO has put in place a number of efforts to lessen its environmental effect, advance ethical sourcing, and improve transparency because it recognizes the critical need for environmentally and socially responsible practices in the fashion business. UNIQLO aims to rethink the idea of fast fashion and make a positive impact on a more sustainable future by embracing sustainable materials, streamlining manufacturing techniques, and actively participating in international sustainability collaborations. By making these efforts, UNIQLO demonstrates its dedication to changing the industry for the better.

“Fast Retailing has established targets to reduce greenhouse gas emissions by FY 2030, in accordance with the goals of the Paris Agreement, to reduce environmental impact. These targets have been approved as science-based targets by the Science Based Targets initiative (SBTi). We also conduct human rights due diligence, not only in our own business, but also throughout our supply chain so that human rights risks can be identified and prevented. In terms of social contribution activities, Fast Retailing is committed to measuring and disclosing the impact of its community investments based on the Business for Societal Impact (B4SI) Framework”. (UNIQLO, n. d. -e).

To strengthen their continued commitment to preserving the forests of the globe, UNIQLO is concentrating on a few key areas. This entails sourcing from sustainably managed locations, training their staff about these problems, and attempting to identify substitute fabrics. Additionally, they will seek to collaborate with efforts that encourage forest protection and steer clear of uncommon forest types.

UNIQLO (2022) has made the decision to minimize the amount of single-use plastic in its shops, starting in September 2019 with the phase-out of plastic shopping bags and continuing with the reduction of single-use plastic in product packaging. Fast Retailing Group pledged to cut by 85%, or roughly 7,800 tons yearly, the amount of single-use plastic given to customers at its stores around the world, including shopping bags and

product packaging. They are happy to report that by the end of 2020, this goal was accomplished. In its hangers, sizing seals, and logistics-related packing materials, UNIQLO is taking into consideration doing away with single-use plastic. Where plastic's characteristics are still required, UNIQLO will take into thought using more environmentally friendly options.

Another initiative that supports sustainability is UNIQLO Down Recycle. “Recycling clothes into clothes, UNIQLO’s latest challenge that opens up new links between people, clothing, and the global environment. We are starting with down, which encompasses UNIQLO’s entire down items ranges sold worldwide, and recycling 100% of the down and feathers. Conserving resources, reducing waste, alleviating environmental impact. UNIQLO is rapidly expanding initiatives that target such a future”. (UNIQLO, n. d. -e).

In addition, UNIQLO (n. d. -a) is trying to cut down on the amount of water used to make denim. Up to 99% less water is used during the finishing process thanks to BlueCycle. Just enough water to fill a teacup is used to complete jeans to the same level of perfection. The traditional stone-washed effect is often achieved in the denim industry using natural pumice. However, pumice breaks down over time, necessitating a lot of water to remove the powdered buildup. At UNIQLO, we now use environmental stones that are durable, long-lasting, and powder-free, giving you the same great look with significantly fewer washes. Additionally, ozone-mist washing machines that employ nanobubbles rather than water have been made available. With the help of these two cutting-edge technologies, the amount of water used to polish jeans has been decreased by up to 99%.

#### *4.3.2. Supply chain.*

Accordingly, Fast Retailing aim to make the world a better place through every item of LifeWear they create. The diagram below (Figure 4.2.) displayed by UNIQLO sustainability (2022) helps to clarify how they plan to do this. In order for their customers to shop with complete confidence, the circle on the left demonstrates their dedication to the environment and to workers throughout their manufacturing, transportation, and sales processes. In an effort to become carbon neutral by 2050, they aim to reduce greenhouse gas emissions from both their internal operations (by 90%) and supplier chain (by 20%) by 2030 compared to 2019 levels.

The right circle, on the other hand, demonstrates how customers can keep using their long-lasting LifeWear clothing. Here, they emphasize their accountability for the clothing that ends up in customers' hands and the significance of creating a society that values recycling and encourages people to reuse or recycle their clothing rather than throw it away (along with their initiative to increase the percentage of recycled materials in their products to about 50% by 2030).

Additionally, they make it very evident that they uphold human rights in all phases of production by increasing supply chain transparency and cooperating with the Fair Labor Association (FLA) to promote a livable wage for workers. In addition, they highlight "society" and "people" (as stated at the bottom of the LifeWear Concept), through promoting sustainability, diversity, and equality.

Figure 4.2. LifeWear Concept.



Source: UNIQLO (2021)

### Origin of materials.

“The clothing line UNIQLO is dedicated to using eco-friendly fabrics. The company has concentrated on using recycled fibers in its goods, such as recycled polyester. Additionally, they encourage the use of cotton that is sourced ethically and work to spread the usage of organic cotton”. (UNIQLO, n. d. -d).

### Processes.

Fast Retailing (2023) is dedicated to operating a firm that only produces, moves, and sells what is necessary. Fast Retailing will cut its own businesses' greenhouse gas emissions from FY 2019 levels by 90% by FY 2030. A 20% decrease in greenhouse gas emissions is what UNIQLO and GU want to achieve in the manufacture of raw materials, fabrics, and apparel. We create a reduction strategy in collaboration with our supplier companies and aim to source 100% of the electricity needed for all Fast Retailing outlets and major offices worldwide from renewable sources.

“We assign production department members, who manage product quality and production progress, and Takumi (skilled artisans) to production offices in Shanghai, Ho Chi Minh City, Dhaka, Jakarta, and Bengaluru (formerly Bangalore). Production office representatives visit factories weekly to resolve any issues. The production department swiftly addresses any quality concerns raised by customers and implements improvements if required”. (Fast Retailing, 2023).

### Distribution.

Observing Fast Retailing (2023), UNIQLO'S business model. Products from UNIQLO are offered through a variety of channels, including their own physical stores, online marketplaces, and accredited retailers. At the end of August 2022, UNIQLO Japan has 809 locations (including 10 franchise stores). UNIQLO International has 1,585 locations, approximately twice as many as Japan (996 in the Greater China region, 122 in South Korea, 293 in Southeast Asia and Oceania, 59 in North America, and 115 in Europe). By introducing energy-efficient technologies, employing ethical waste management procedures, and involving customers in sustainability projects, UNIQLO seeks to offer a satisfying and sustainable shopping experience.



In order to reduce its environmental effect and uphold moral standards throughout its supply chain, UNIQLO takes major action. Despite the fact that UNIQLO has made advancements in sustainability, it is crucial to remember that the firm still has work to do in a number of areas, including fully converting to sustainable materials and addressing the environmental effects of its supply chain. But UNIQLO's dedication to openness and ongoing development shows how serious it is about integrating sustainability into its business processes and pursuing a more sustainable future.

## **5. PRACTICAL CASE: PERCEPTION OF SUSTAINABLE FASHION IN DIFFERENT CULTURES.**

An online survey (Appendix 2) with participants from the US, Germany, and Japan was undertaken to gather primary data on understanding the various perspectives on sustainability and global commerce in the fashion business. Due to their distinctive cultural origins and probable divergences in how they approach sustainable design, these nations were particularly chosen. The practical portion of this exploratory effort, which is detailed below, is this section.

The purpose of the study was to gather information about participants' knowledge of sustainable fashion methods, their shopping habits, and their opinions of global fashion trade. I looked at these elements in an effort to understand how people in other nations view sustainability and to pinpoint the variables that affect that perspective.

The survey was given out to a wide set of people across various age groups and genders to guarantee a representative sample. The participants were questioned on a variety of topics, including their understanding of sustainable fashion, how much they thought about sustainability while buying clothing, how they felt about how international trade affected sustainability, and how much they cared and supported it.

The following is an in-depth analysis of the main findings.

### **5.1. Sample representation.**

The sample is shown below to help readers understand how it is made up in relation to the participants' places of residence, their status in a certain age group, and their gender. To conduct the analysis, there was no discrimination against any group based on their age, gender, or place of residence.

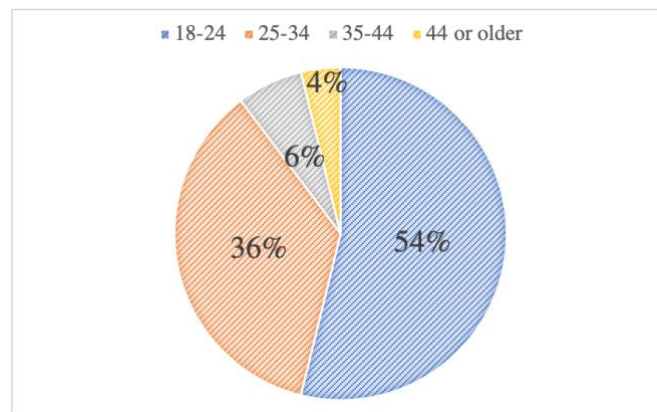
#### *5.1.1. Age of participants.*

Regarding the age of the participants the following ranges available in the survey were reached:

- 53.85% of the participants are between 18 to 24 years old.
- 35.90% of the participants are between 25 to 34 years old.
- 6.41% of the participants are between 35 to 44 years old.
- 3.85% of the participants are 44 years old or older.

The age distribution within the sample is diverse. This fosters an excellent setting for learning the ideas covered in the theoretical half. The majority of the population is between the ages of 18 and 24.

Figure 5.1. Age of participants.

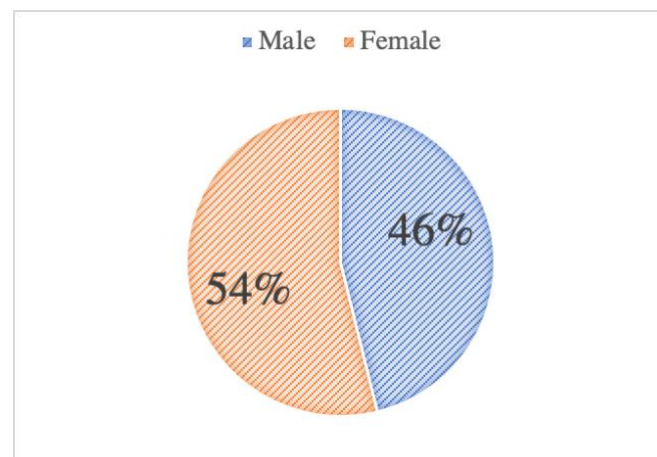


Source: Own elaboration.

#### 5.1.2. Gender of participants.

46.15% of the survey participants were male and 53.85% corresponds to female participants.

Figure 5.2. Gender of the participants.



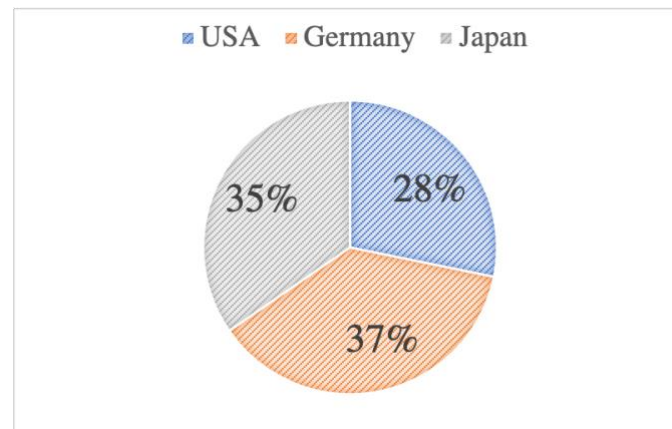
Source: Own elaboration.

### 5.1.3. Place of residence of the participants.

The distribution of the survey was carried out in an international environment in which there are people from the USA, Germany, and Japan. These are the following results:

- 28.21% are residents from the USA.
- 27.18% are residents from Germany.
- 34.62% are residents from Japan.

Figure 5.3. Place of residence of the participants.



Source: Own elaboration.

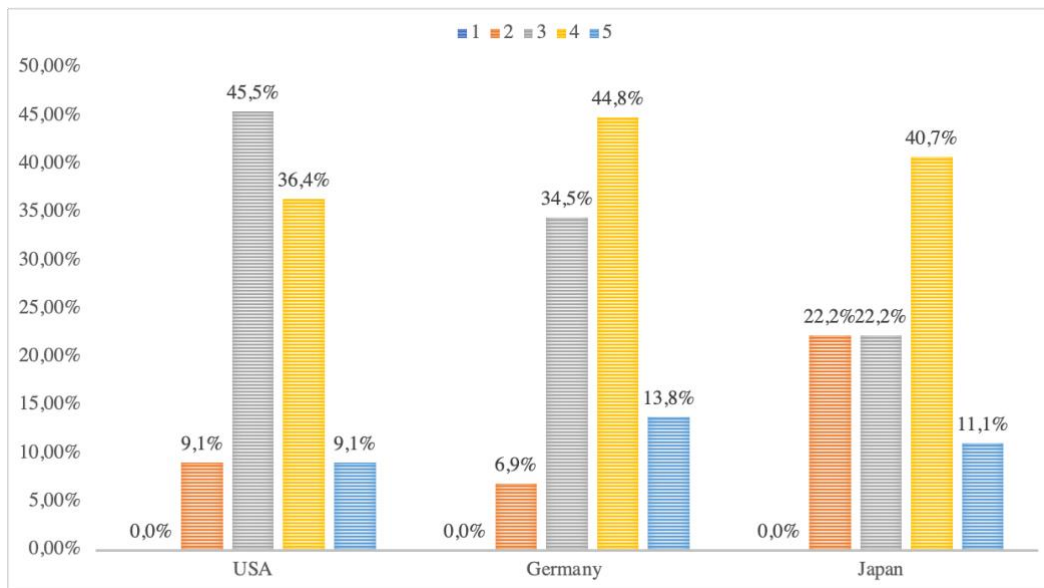
## 5.2. Analysis of the survey results.

When voting in the survey, respondents had the opportunity to choose from a range of 1 to 5 (5 being the maximum and 1 being the minimum).

### 5.2.1. Sustainable fashion view in the countries.

First, we want to know how concerned respondents are with the environment (figure 5.4.). In the USA, with 45.45%, almost half consider that they are concerned with the environment a 3, meaning that their level of concernment is neither too high nor too low. However, Germany (44.83%) and Japan (40.72%) voted a 4, which leads to the conclusion that these two are more concerned compared to the USA. Furthermore, in none of the cases, the respondents have voted that they are not concerned about the environment, therefore, in all the societies surveyed, they have a level of concern regarding sustainability and the environment.

Figure 5.4. Level of concerned about the environment.



Source: Own elaboration.

The figure 5.5. shows the different degrees of sustainability knowledge. The majority of Americans (40.91%) who responded said they were familiar with sustainability on a level 2, which denotes a modest level of awareness. However, a sizable portion (27.27%) chose level 4 to imply they were more familiar with sustainability.

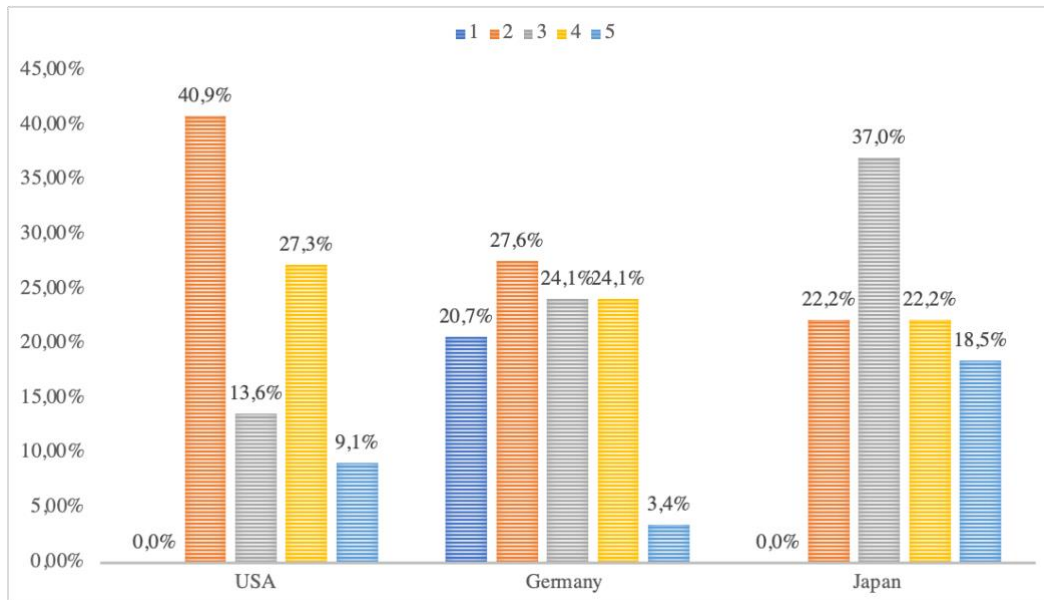
The distribution of sustainability familiarity levels appears to be more uniform in Germany. In comparison to the other countries, a sizable percentage of respondents (24.14%) chose both level 3 and level 4. This shows a comparatively higher level of knowledge.

The level of acquaintance with sustainability in Japan is different from that in other nations. Level 3 was selected by the majority of responders (37.04%), suggesting a modest level of knowledge. It's important to note that none of the respondents chose level 1, which suggests that there is just a very slight lack of knowledge about sustainability in Japan. Additionally, a sizable portion (18.52%) selected level 5, demonstrating a high level of expertise with sustainability.

Overall, the research shows a clear disparity in the examined countries' levels of sustainability familiarity. Germany exhibits a more uniformly distributed comprehension with a greater average level of familiarity than the United States, which shows a moderate

level of familiarity. With a disproportionately high percentage of individuals indicating a moderate or strong level of knowledge, Japan displays balanced familiarity.

Figure 5.5. Level of familiarity of sustainable fashion.

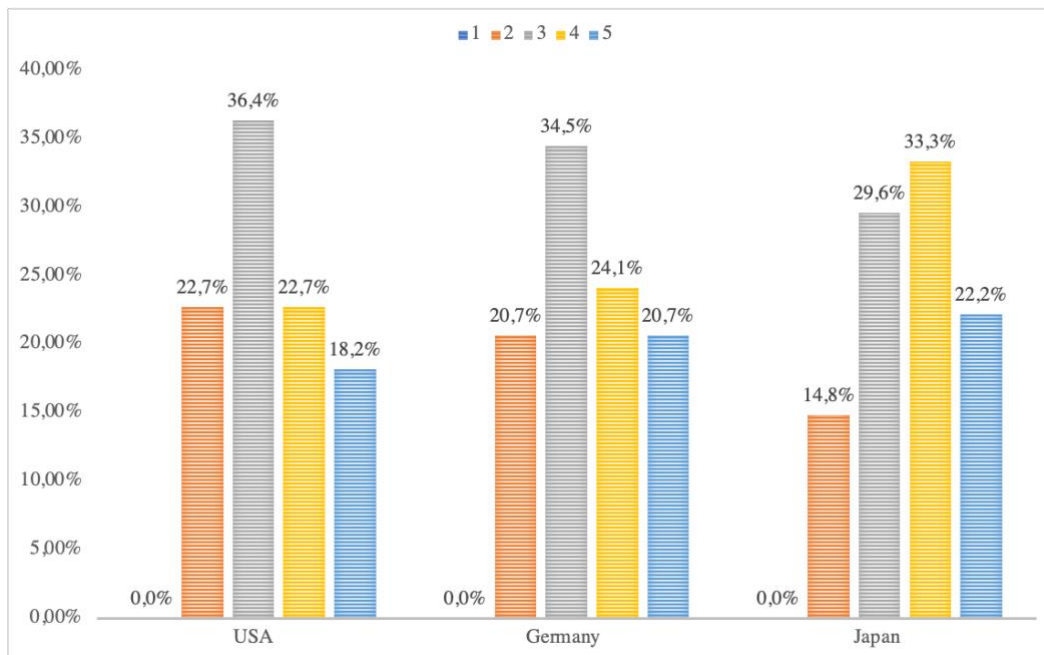


Source: Own elaboration.

The figure 5.6. it illustrates the degree to which people support eco-friendly clothing. degree 3 was chosen by the majority of respondents in both the United States (36.36%) and Germany (34.48%), suggesting a moderate degree of support. Which could mean that the majority of them are in favor of sustainable fashion. The highest percentage (33.33%) of Japanese respondents chose level 4, demonstrating a sizable degree of support for environmentally friendly clothing.

With minor exceptions, everyone in the various nations supports sustainable fashion and is aware of its significance. The most tolerant civilization is, however, that of Japan. These variances reveal the degree to which sustainable fashion is supported differently in each of these nations, suggesting potential differences in consumer attitudes and the market's openness to sustainable fashion projects.

Figure 5.6. Level of supportiveness of sustainable fashion in each country.

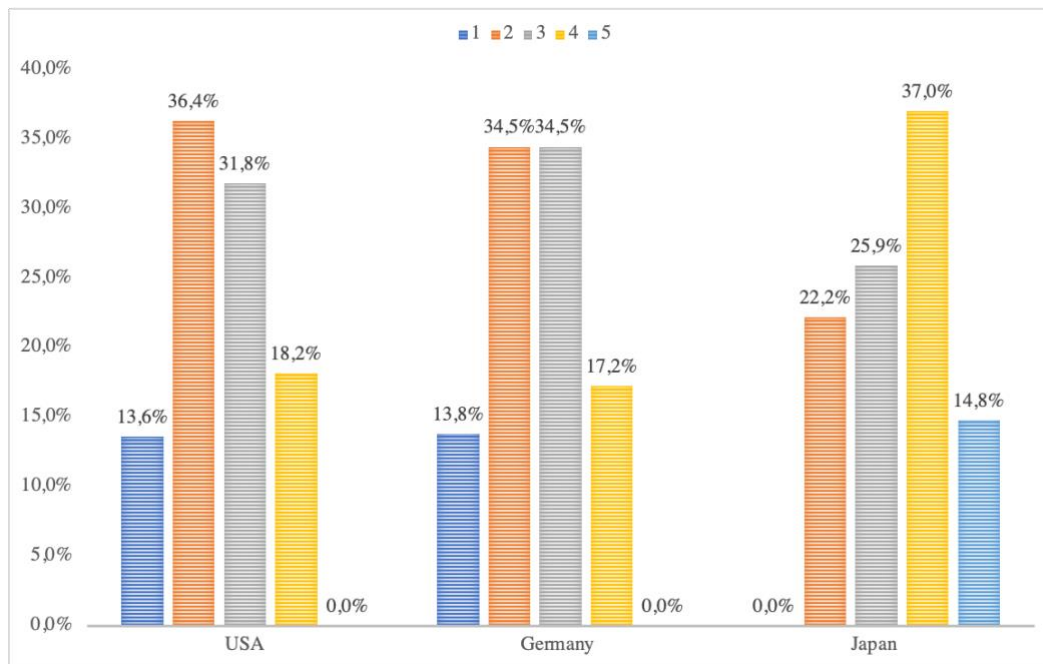


Source: Own elaboration.

Figure 5.7. is related to the previous one. Respondents were asked how supportive they felt their society is. Additionally, when compared to how each of them responded to the prior question, they are not far off the mark. The Japanese have come the closest; their responses about how they view their society and how supportive they are of one another are comparable. The majority response in Japan is still level 4, indicating that the people there favor sustainable fashion and view their own society similarly.

The USA and Germany, however, are a little less grounded in reality. A portion of the populace believes that their society supports sustainable fashion to a level 1 or 2, although this is untrue; instead, these two civilizations believe that their nation supports sustainable fashion to a greater extent than it actually does.

Figure 5.7. Thought of how supportive each society towards sustainable fashion is.



Source: Own elaboration.

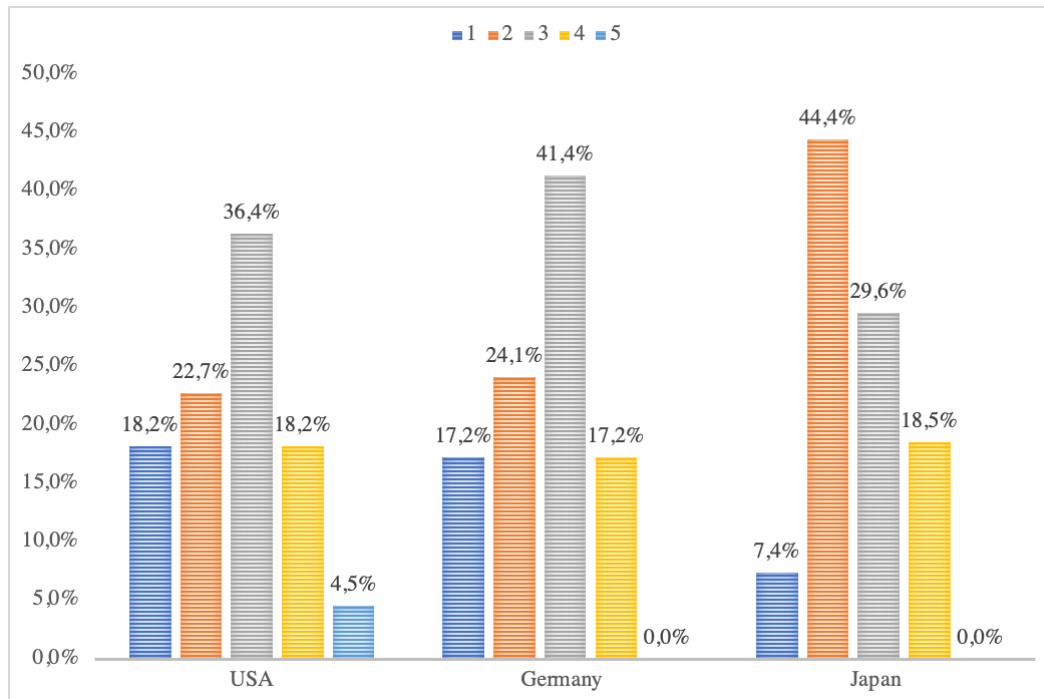
### 5.2.2. Consumer behavior towards sustainable fashion.

This section will contextualize the behavior of each consumer in the chosen countries from their willingness to pay more, how much of their wardrobe is made of sustainable fashion, to what they do with their used clothes.

Firstly, Figure 5.8's data illustrates how different levels of social and environmental impact are considered when making clothing purchases in the context of sustainable fashion. The majority (36.36%) of respondents in the United States chose level 3, indicating a moderate level of consideration for these topics. It is striking that a sizable portion (18.18%) chose level 1, indicating a lack of thought. The biggest percentage of participants (41.38%) in Germany selected level 3, suggesting a moderate amount of attention for these factors. No respondents selected level 5, suggesting that the participants in the survey did not give severe attention to the social and environmental consequences. A sizable portion (44.44%) of Japanese respondents chose level 2, indicating a not very high level of consideration. In general, Germany is the society that considers the social and environmental impact more when making clothing purchases.



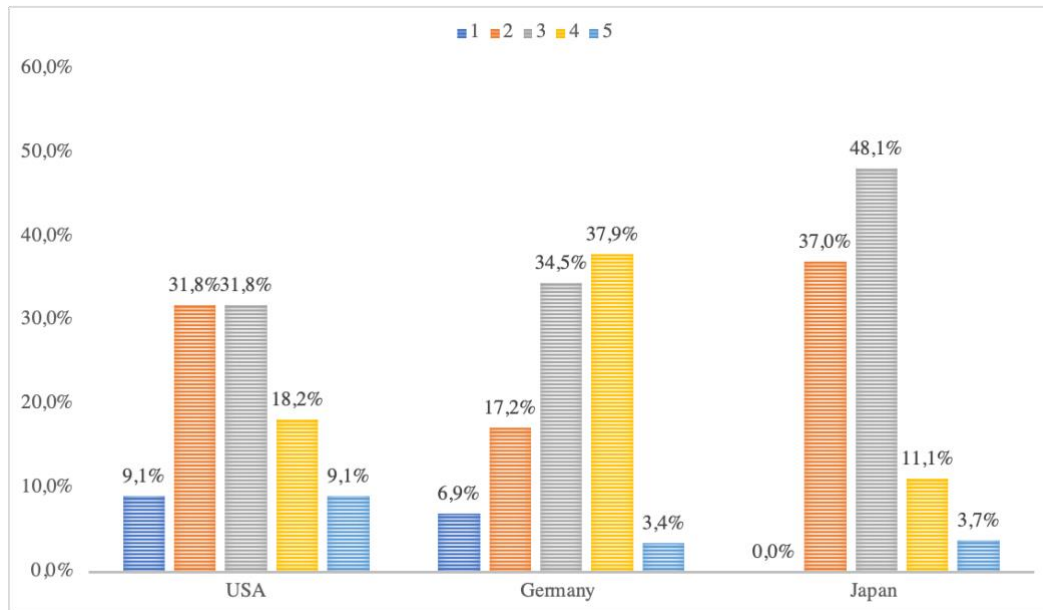
Figure 5.8. Level of consideration of social and environmental impact when purchasing clothes.



Source: Own elaboration.

The figure 5.9. illustrates demonstrates that people are willing to spend more for sustainable fashion than for conventional fashion. The majority of Americans selected levels 2 and 3, indicating a moderate willingness to pay extra. The biggest percentage of participants (37.93%) in Germany selected level 4, showing a relatively high willingness to pay more. A sizable portion of Japanese consumers (48.15%) chose level 3, indicating a considerable willingness to pay more for sustainable clothing. German respondents as a whole are the ones who are willing to spend extra for sustainable fashion, which makes sense given that they are the ones who give the most thought to environmental impact when making clothing purchases.

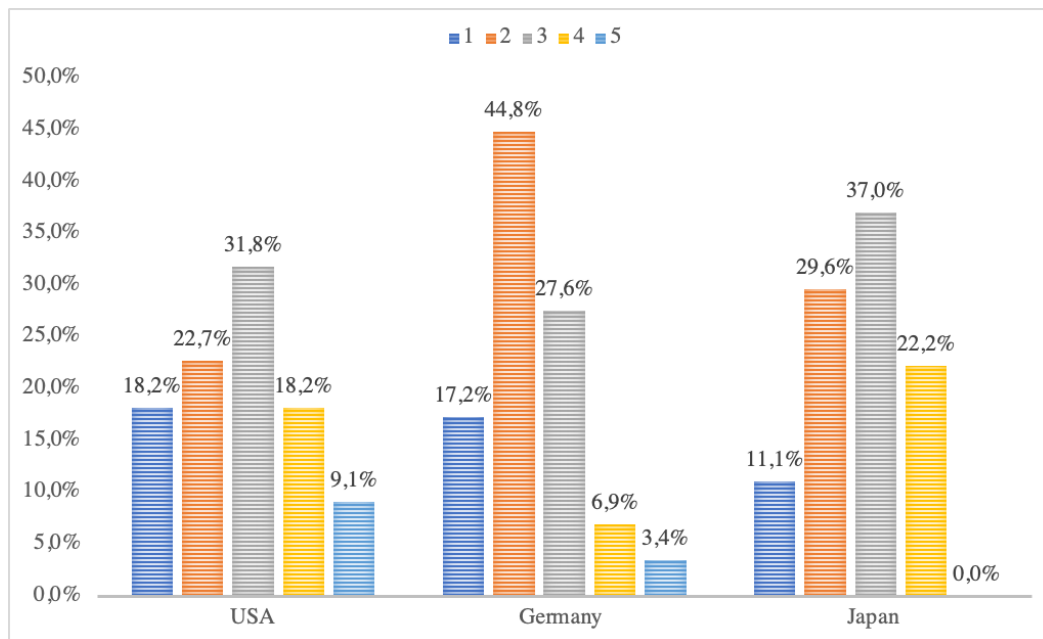
Figure 5.9. Willingness to pay higher prices for sustainable fashion rather than normal fashion.



Source: Own elaboration.

The information in figure 5.10. gives light on the variations in the proportion of sustainable fashion items that respondents' wardrobes contain. The majority of Americans (31.82%) chose level 3, which indicates a mediocre prevalence of sustainable clothing. A tiny number (9.09%) of respondents chose level 5, which may indicate that certain participants had a broader selection of sustainable fashion items. In Germany, the majority (44.83%) chose level 2, indicating that there isn't a lot of sustainable clothing in people's closets. A sizeable portion (around 30%) of respondents in both Japan and the USA selected level 3, suggesting a moderate presence. It's interesting to observe that none of the respondents chose level 5, indicating that they don't have many sustainable fashion products in their closets. These variations show how individuals in these nations have adopted and incorporated sustainable fashion techniques differently, potentially revealing inequalities in consumer behaviors and preferences with relation to the consumption of sustainable fashion.

Figure 5.10. Level of clothes made of sustainable fashion in their wardrobe.



Source: Own elaboration.

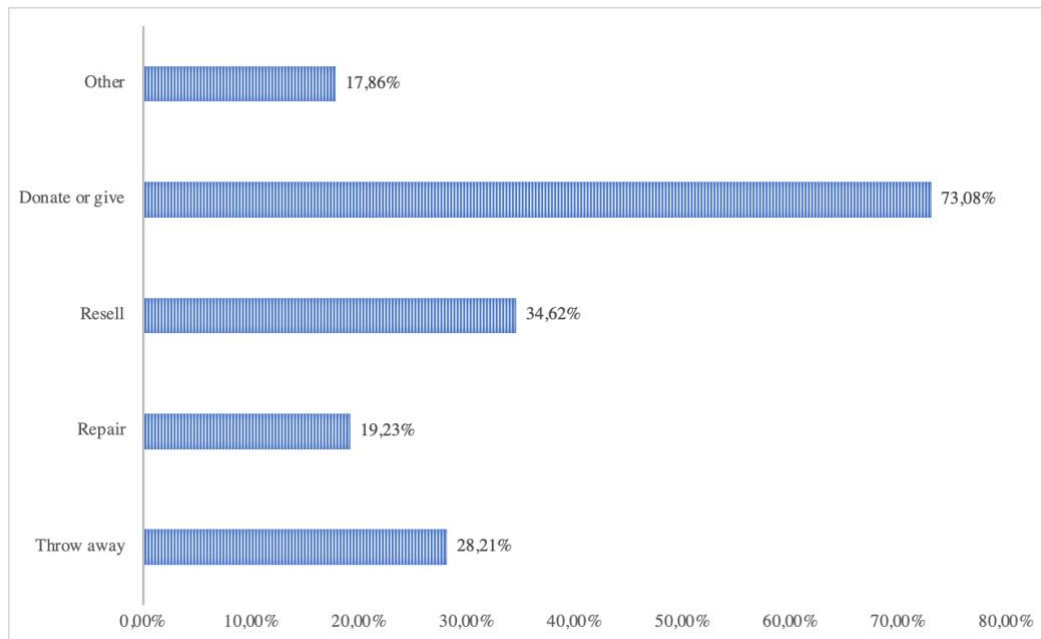
The last figure (5.11) of this section analyzes what each respondent does with their damaged or old garments.

A sizable percentage of participants (73.08%) said they donate or give away their worn-out clothing. This response indicates a high propensity to encourage reuse and increase the usefulness of garments. It displays good behavior in terms of decreasing waste and helping those who might benefit from these products. Furthermore, the high percentage shows that clothing donations and giveaways are widely accepted as ethical and sustainable behaviors.

Reselling their worn-out and torn clothing was another frequent behavior mentioned by participants (34.62%). This comment demonstrates a pattern of thinking about the used market, one of the activities the chosen countries are beginning to pursue. Reselling enables these things to find new owners and may lengthen their useful lives, promoting a more environmentally friendly method of fashion consumption.

28.21% of respondents indicated that they still dispose of old and damaged clothing, indicating that a sizeable percentage of respondents still use this method to deal with undesirable things. This reaction suggests that there may be room for improvement.

Figure 5.11. What it is done to the used clothes.



Source: Own elaboration.

### 5.2.3. Opinions on ways of improving.

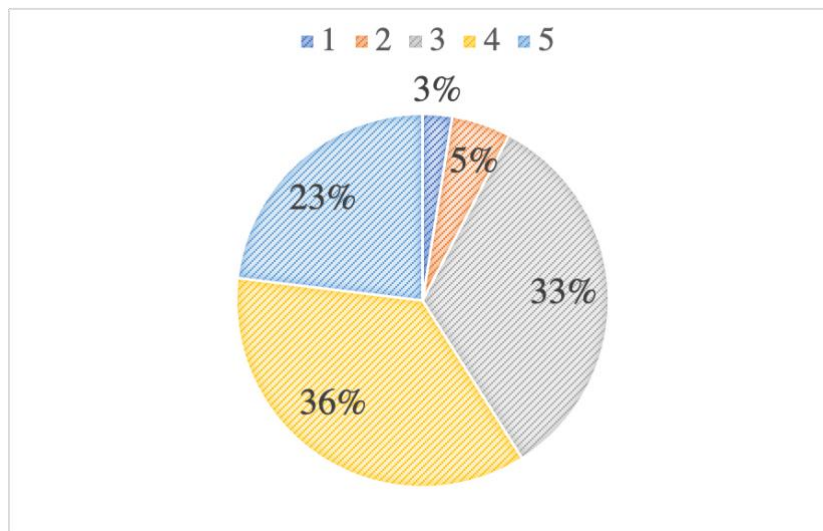
This last section focuses on each respondent's opinion on how the fashion industry and international trade can improve towards increasing sustainability.

The figure 5.12. represents what participants thought on whether or not the fashion sector should put sustainability before profit. Level 4 was chosen by a sizable portion of participants (35.90%), suggesting that the fashion sector should give sustainability a high priority. This response indicates a sense that sustainable practices ought to be included into the industry's core principles and daily operations, showing an appreciation for the significance of both financial advantages and social and environmental benefits. In addition, 23.08% of respondents selected level 5, demonstrating a strong belief that in the fashion industry, sustainability should take precedence above profit. This response hints at an understanding of the pressing need for radical change as well as a dedication to reorganizing the industry's goals in line with sustainable principles.

However, fewer participants (2.56%) chose level 1, indicating that they do not think the fashion sector should put sustainability before profit.

The information presents a variety of viewpoints on whether the fashion industry should put sustainability ahead of profit. While a sizeable fraction of respondents favors some kind of prioritization of sustainability, there is also a discernible percentage that has a more nuanced or opposing opinion. These divergent viewpoints underscore how complicated and nuanced the sustainability difficulties facing the fashion industry are, including the need to balance financial concerns with mitigating environmental and social implications.

Figure 5.12. Should the fashion industry prioritize sustainability over profit?

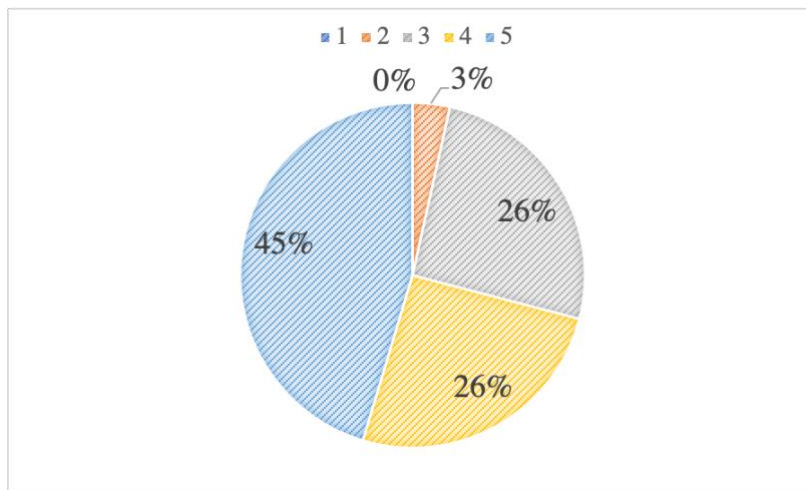


Source: Own elaboration.

The following data (figure 5.13) show whether companies should adopt a more circular economy, i.e., engage in the recycling, upcycling, and extending the life of products through repair, refurbishment, and resale practices to promote sustainability.

A sizable percentage of participants (50%) chose level 5, which shows that they are aware of the environmental and social advantages that may be realized through the application of circular economy principles. It represents a desire on the part of businesses to adopt more sustainable methods like recycling, reuse, and waste reduction in place of the conventional linear paradigm of production and consumption.

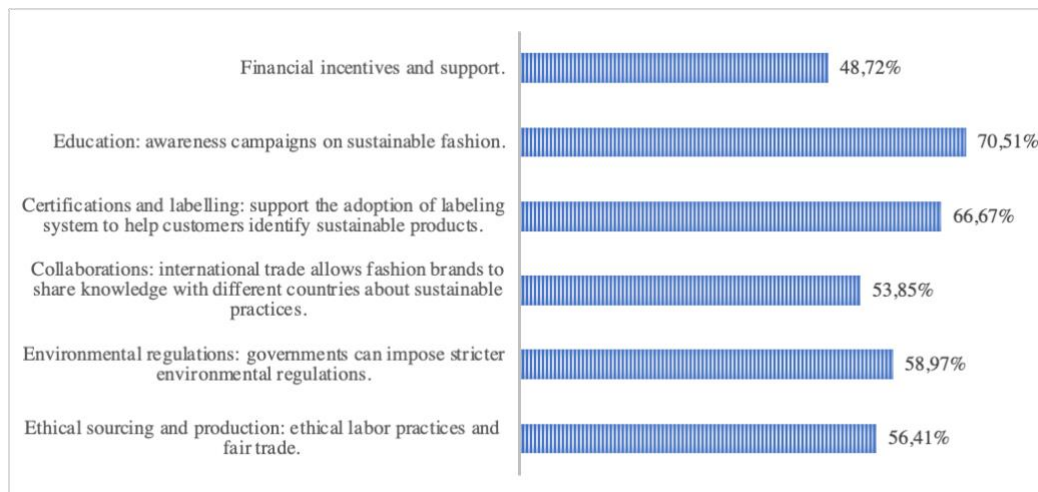
Figure. 5.13. Should companies adopt more of a circular economy?



Source: Own elaboration.

Lastly, figure 5.14. shows how international trade can promote sustainability in the fashion industry. All the answers to this question are very evenly distributed. However, 70.51% of participants chose education as a crucial element in advancing sustainability through global trade. This response demonstrates a significant conviction in the ability of informational campaigns and dissemination to spur beneficial change. It implies that international trade can play a key role in building a more sustainable fashion ecosystem by informing stakeholders, such as consumers and industry experts, about sustainable fashion practices. While collaborations, ethical sourcing, financial incentives, and environmental legislation all attracted significant attention, education and certifications received the most support. These divergent viewpoints underline the complexity of sustainability in global trade and the demand for a thorough and integrated strategy to effect change.

Figure 5.14. How international trade can promote sustainability in the fashion industry?



Source: Own elaboration.

## 6. CONCLUSIONS

Due to a number of important considerations, sustainability has become a crucial need for the fashion business. First, the detrimental effects of fast fashion, including excessive waste, decreasing resources, and labor abuse, have made it clear that immediate change is required. Consumers and the general public now have a better understanding of the environmental and social impact of the fashion industry, which has raised awareness of and demand for sustainable alternatives.

Sustainability factors currently have a big impact on consumer choices in the fashion sector. Consumers actively seek out brands that uphold their ideals and engage in ethical and ecologically responsible business operations. This change in customer behavior has forced fashion firms to give sustainability a higher priority in all aspects of their business, from supply chain transparency to ethical sourcing and manufacturing techniques.

The sustainability initiatives of the fashion industry are greatly aided by international trade. For sourcing resources, manufacturing, and distribution, international trade is crucial due to global supply chains and the industry's interconnectedness. However, due to long-distance transportation, international trade can exacerbate environmental and socioeconomic problems. International fashion trade needs to be accompanied with sustainable business methods and ethical sourcing in order to address these issues. To design and implement strong sustainability norms that regulate international trade, cooperation between nations, industry players, and governments is essential. The

promotion of fair working conditions across the supply chain, as well as incentives for sustainable practices, should all be included in trade policies.

The USA, Germany, and Japan cross-cultural analysis offers important insights into the influence of cultural variables, government policies, and business activities on sustainable fashion practices. When it comes to reaching sustainability goals in the fashion sector, every nation has a different strategy and problems.

Consumers and industry participants in the USA are becoming more aware of the negative effects that fashion has on the environment and society. Government regulations and business initiatives have been essential in advancing sustainability efforts, with organizations like Patagonia setting the standard for transparent supply chain management and sustainable practices.

Germany's culture is renowned for its attention to quality and durability as well as its concern for the environment. Companies like Adidas have embraced sustainability head-on, deploying cutting-edge technologies and taking part in circular economy projects to cut waste and carbon emissions.

Cultural aspects including a high regard for craftsmanship and an eye for detail have influenced the fashion industry's efforts to be sustainable in Japan. As a well-known Japanese clothing company, UNIQLO has made sustainability a priority by enacting policies like sustainable sourcing, cutting back on water use, and participating in community-focused projects.

The examination of the supply chains for Patagonia, Adidas, and UNIQLO has revealed important details about the sustainability views of each culture. The emphasis on transparency and environmental advocacy by Patagonia is consistent with American cultural ideals of conservation. Adidas serves as an example of how German engineering and creativity can fuel environmentally friendly manufacturing procedures. With its environmental activities, UNIQLO demonstrates Japan's commitment to fine craftsmanship, superior products, and involvement in the community.

The cross-cultural research, taken as a whole, emphasizes the importance of cultural elements, governmental regulations, and industry activities in influencing sustainable fashion practices. The fashion business may strive toward reaching sustainable goals



that complement the values and concerns of many cultures while reducing environmental effect and fostering social responsibility by comprehending and utilizing these variables.

The survey's findings highlighted the disparities between the examined countries' perspectives on sustainability and global commerce in the fashion sector. These results highlight the significance of personalized strategies and targeted actions to promote sustainable practices globally by offering insightful information on the various perceptions and behaviors within different cultures with regard to sustainable fashion.

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## **APPENDIX.**

### **APPENDIX 1: RESUMEN DEL TRABAJO EN ESPAÑOL.**

#### **INTRODUCCIÓN.**

La industria de la moda es conocido por ser uno de los más contaminantes del mundo, con efectos negativos tanto para el medio ambiente como para la sociedad. El tema principal de este estudio son los altos niveles de contaminación y los daños medioambientales que provoca la industria de la moda, lo que exige un análisis exhaustivo de los métodos sostenibles y su adopción en el contexto del comercio internacional.

Como consecuencia de estas dificultades, la sostenibilidad se ha convertido en una cuestión crucial para la industria de la moda. El papel de la industria de la moda en la injusticia social y la contaminación medioambiental ha suscitado una atención mundial urgente. La necesidad de métodos de moda sostenibles ha crecido a medida que los consumidores quieren artículos éticos y son más conscientes de su impacto medioambiental.

Podemos aprender mucho sobre las diversas técnicas utilizadas por otras culturas para abordar los efectos medioambientales del negocio de la moda examinando las prácticas de sostenibilidad en Estados Unidos, Alemania y Japón. Se eligieron estas naciones por sus notables diferencias en cuanto a valores culturales, comportamientos y creencias en materia de sostenibilidad. Esto nos permite comprender cómo responde cada cultura y sociedad al problema.

El interés personal de este tema proviene del hecho de que la industria de la moda necesita atención inmediata y soluciones creativas debido a sus considerables efectos negativos sobre el medio ambiente y la sociedad. Para comprender las complejidades y dificultades es necesario observar cómo otras naciones enfocan la sostenibilidad en el contexto del comercio internacional. En general, el debate sobre la sostenibilidad y el comercio internacional en el negocio de la moda, con un análisis Cross-cultural, invita a la reflexión y tiene un importante impacto social. Con el fin de crear un futuro más sostenible y justo para la industria de la moda y nuestro mundo, ofrece la oportunidad de examinar los detalles del desarrollo sostenible, la diversidad cultural y las prácticas comerciales éticas.

**OBJETIVOS.**

El objetivo de este TFG es realizar una exhaustiva revisión bibliográfica sobre los siguientes temas: sostenibilidad, comercio internacional, comprensión intercultural y cadena de suministro. Además, se refiere a realizar un análisis Cross-cultural exhaustivo de la sostenibilidad y el comercio internacional en el sector de la moda, centrándose en los entornos culturales de EE. UU., Alemania y Japón. Estos son los objetivos que se pretenden alcanzar con el estudio: comprender el papel de la sostenibilidad en la industria de la moda, analizar la importancia del comercio internacional en el sector de la moda, comprender las prácticas sostenibles en diferentes culturas y evaluar la aplicabilidad de la teoría a la práctica.

**METODOLOGÍA.**

Comienza con un análisis teórico y actual de la sostenibilidad y el comercio internacional, utilizando el método deductivo. A partir de ahí, se pasa a un estudio de cómo se comportan las distintas culturas en relación con el tema. Se han utilizado libros teóricos, publicaciones académicas, páginas web contrastadas y pertinentes para el tema, informes redactados por agencias, consultoras y empresas. Se realizó una encuesta internacional en las naciones elegidas (EE. UU., Alemania y Japón) para recabar datos primarios sobre las percepciones y el conocimiento de la moda sostenible y el comercio internacional en las distintas culturas. Esta encuesta se creó en Google Forms y se pidió a un grupo de participantes de todas las edades que respondieran utilizando redes sociales como Instagram, WhatsApp, Facebook y LinkedIn.

**PAPEL DE LA SOSTENIBILIDAD EN LA INDUSTRIA DE LA MODA.**

Uno de los principales responsables de la actual situación medioambiental es el mercado de la moda. Desde la llegada de la moda rápida y la producción en masa, la industria de la moda ha crecido contribuyendo al aumento de la contaminación a un ritmo excesivo y tiene una de las mayores huellas de carbono de todas las industrias del mundo.

Los datos mostrados por Statista (2022b) explican que, debido a sus importantes emisiones de gases de efecto invernadero, el sector de la moda está considerado como uno de los más contaminantes. Según los cálculos, el sector de la moda liberó al medio ambiente aproximadamente 1,01 gigatoneladas equivalentes de dióxido de carbono en

2019. Si no se toman medidas inmediatas, se prevé que esta cifra aumente a 1,6 gigatoneladas en 2030.

El 20% de las aguas residuales del mundo, el 10% de sus emisiones de carbono y cantidades masivas de basura son producidas por el sector de la moda. Cada segundo, un camión de basura lleno de textiles se quema o se deposita en vertederos, según el programa de medio ambiente de la ONU (2019). A medida que florece el negocio de la moda, salen a la luz cada vez más efectos perjudiciales para el medio ambiente. Los recursos hídricos se agotan, los ríos y arroyos se contaminan y el 10 % de las emisiones de carbono de la humanidad proceden de la industria de la moda. Cada año utiliza 93.000 millones de metros cúbicos de agua. Además, el 85% de todos los textiles se eliminan anualmente en vertederos y el lavado de algunos tipos de ropa libera una cantidad considerable de micro plásticos en el océano. (Geneva Environmental Network, 2023).

Para combatir estos impactos, es esencial conocer el término de moda sostenible. La moda sostenible es un movimiento para mejorar la integridad ecológica, la justicia social y el bienestar animal de los artículos de moda y la industria de la moda. La moda sostenible intenta diseñar cosas que puedan usarse, reutilizarse, remendarse o reciclarse y tiene en cuenta la fabricación, el uso y el final de la vida útil de todos los artículos de moda. Alves (2023) afirma que también pueden incluirse la moda lenta, la producción regional y los principios del comercio justo.

Para analizar la importancia de la moda sostenible, es esencial comprender el impacto negativo que la moda rápida tiene sobre el medio ambiente y la sociedad. El término "moda rápida" se utiliza para describir la ropa de hoy en día, de fácil acceso y de bajo coste. La definición de "rápido" se refiere a la rapidez con la que los minoristas pueden adaptar los "looks" de pasarela a sus espacios comerciales, manteniéndose al día con la demanda de los consumidores de looks frescos y originales.

La globalización y la aparición de una economía mundial han hecho que las cadenas de suministro sean más globales, desplazando la fabricación de textiles, prendas de vestir y fibras a zonas con costes laborales más bajos. Como resultado del aumento de la demanda, la ropa se vuelve más asequible, y la producción se externaliza a países con ingresos bajos y moderados para mantener los costes bajos. (Brick et al., 2018).

Sin embargo, a pesar del crecimiento de la moda rápida, el consumidor de hoy en día se ve influido por la percepción de la sostenibilidad, debido al estatus que ha adquirido recientemente.

La aplicación de la sostenibilidad implica y depende en gran medida de los consumidores. Ellos son la fuerza motriz de las acciones de las empresas. Con frecuencia, los consumidores marcan la pauta de muchas empresas y las orientan hacia las políticas que deben adoptar. Esto coincide con Brozovic et al. (2020). McNeill y Moore (2015) mencionan que, a pesar de las afirmaciones de que los clientes se preocupan cada vez más por las actividades poco éticas, esta actitud no siempre se traduce en un cambio de comportamiento. Esto se debe normalmente a la ignorancia de los consumidores sobre los impactos perjudiciales del negocio de la moda. Sin embargo, Biswas (2017) considera que las preferencias de los consumidores están cambiando y que cada vez más personas muestran una inclinación favorable a comprar productos ecológicos en general. Los autores tienen una perspectiva única, pero esto puede explicarse por cómo la cultura humana, el conocimiento y la ética han cambiado con el tiempo. Basándose en la bibliografía, es obvio que las preferencias de los consumidores están cambiando hacia la aplicación de la sostenibilidad; sin embargo, una idea tangible de los hechos reales es una laguna que esta investigación pretende llenar.

## **PAPEL DEL COMERCIO INTERNACIONAL EN LA INDUSTRIA DE LA MODA**

La Comisión Europea, (s. f.) ha afirmado que la fabricación, distribución y consumo de prendas de vestir, accesorios y textiles a escala mundial entran en el ámbito de la industria de la moda, que depende del comercio internacional. Las firmas de moda obtienen sus materias primas de diversos lugares y hacen confeccionar sus prendas en naciones con costes de producción más baratos gracias a intrincadas redes de suministro que abarcan muchas naciones.

"En 2019, la UE exportó 61.000 millones de euros en textiles y prendas de vestir e importó 109.000 millones de euros. La UE importó más de 80 000 millones de euros en ropa, principalmente de China, Bangladesh y Turquía. La Comisión Europea trabaja para garantizar la igualdad de condiciones en el comercio internacional. Lo hace a nivel

multilateral aplicando los acuerdos de la Organización Mundial del Comercio y a nivel bilateral a través de los Acuerdos de Libre Comercio". (Comisión Europea, s. f.)

El impacto de la industria de la moda en el medio ambiente es uno de los más importantes del mundo y el transporte de estos productos de un país a otro tiene sus efectos. Cuando se trata de comercio, el principal modo de transporte para el comercio mundial es el transporte marítimo. La OCDE (2021) y Lee (2023) han explicado que el transporte marítimo tiene un impacto medioambiental significativo. Cerca de 10.000 millones de toneladas métricas (11.000 millones de toneladas) de productos se transportan anualmente en barcos, que gestionan casi el 90% de todo el comercio mundial.

### **ANÁLISIS CROSS-CULTURAL DE LAS PRÁCTICAS DE MODA SOSTENIBLE EN EE. UU., ALEMANIA Y JAPÓN.**

Los planteamientos de la moda sostenible están muy influidos por las opiniones culturales y de los consumidores. En Estados Unidos, el individualismo y el énfasis en la expresión personal influyen en la elección de opciones de moda distintivas y respetuosas con el medio ambiente.

Alemania, conocida por su énfasis en la calidad y la conciencia medioambiental, tiene una importante demanda de ropa fabricada de forma sostenible y ética. Japón, con su énfasis en la artesanía y la atención al detalle, valora la longevidad y la durabilidad de las prendas, lo que coincide con los conceptos de la moda sostenible.

La normativa gubernamental es esencial para impulsar la sostenibilidad en el sector de la moda. A nivel estatal y local, EE. UU. ha puesto en marcha una serie de programas para ayudar a la moda sostenible. Alemania ha puesto en marcha rigurosas leyes medioambientales y programas de certificación que motivan a las empresas a utilizar métodos sostenibles. Para impulsar la moda sostenible, Japón también ha apoyado a los fabricantes textiles locales y ha fomentado los programas de reciclaje.

Las actividades de la industria son cruciales para hacer avanzar la sostenibilidad en el sector de la moda. Las colaboraciones entre empresas de moda, organizaciones sin ánimo de lucro e instituciones académicas han producido soluciones innovadoras en EE. UU., como los esfuerzos para desarrollar materiales sostenibles y la moda circular. En Alemania han surgido marcas de moda sostenible y plataformas industriales que apoyan

la apertura y la producción ética. A través del resurgimiento de tejidos y técnicas tradicionales, Japón, que pone un gran énfasis en la artesanía tradicional, ha adoptado prácticas ecológicas.

En general, las iniciativas de los sectores cultural, de consumo, gubernamental e industrial han contribuido al crecimiento de las industrias de la moda sostenible en Estados Unidos, Alemania y Japón. Estos países pueden seguir avanzando sustancialmente hacia una industria de la moda más sostenible si aprecian y utilizan sus valores culturales y actitudes de consumo distintivos, promulgan leyes gubernamentales eficientes y apoyan las iniciativas de la industria. Para resolver los problemas medioambientales y sociales relacionados con la industria de la moda y promover un cambio positivo hacia un futuro más sostenible y responsable, es esencial la colaboración entre las partes interesadas en varias dimensiones.

## **SOSTENIBILIDAD Y COMERCIO INTERNACIONAL A TRAVÉS DE LA CADENA DE SUMINISTRO GLOBAL.**

### **PATAGONIA, ADIDAS Y UNIQLO.**

Según las investigaciones, la cadena de suministro representa la mayor parte del impacto medioambiental de una empresa. Dado que los artículos se fabrican y transportan por todo el mundo, las cadenas de suministro suelen implicar una producción y un transporte que consumen mucha energía. Por lo tanto, en lugar de alterar otros procedimientos empresariales, las empresas pueden tener el mayor impacto cambiando su cadena de suministro. La sostenibilidad de la cadena de suministro es difícil debido a la complejidad de las numerosas conexiones entre proveedores y cruces fronterizos. Esta complejidad puede dificultar la percepción de factores operativos cruciales, como las condiciones laborales en una fábrica lejana de un proveedor". (Luther, 2021).

El análisis de la cadena de suministro es vital. Para evaluar con precisión los resultados de sostenibilidad de una marca, hay que estudiar la cadena de suministro. Promueve la transparencia y ofrece una imagen completa de los resultados de sostenibilidad de una marca, lo que permite a los clientes, las partes interesadas y los grupos de vigilancia tomar decisiones con conocimiento de causa, promover cambios positivos y apoyar a las empresas que dan prioridad a la sostenibilidad en todas las facetas de su actividad.



Además, fomenta el compromiso cívico, reduce los riesgos y promueve el desarrollo continuo.

Patagonia se posiciona como una de las empresas más transparentes en esta industria, esto se debe a la facilidad con la que se puede acceder a los datos de su cadena de suministro, desde el origen de los materiales para crear sus prendas, todos los programas de responsabilidad social, hasta las instalaciones y proveedores a lo largo de su cadena de suministro, para que tengas la oportunidad de saber dónde y cómo se fabrica la ropa que compras.

Adidas (s. f. -c) ha dado prioridad a la apertura de la cadena de suministro, consciente del valor de la responsabilidad y la trazabilidad para alcanzar objetivos sostenibles. La empresa ha hecho grandes esfuerzos para que las actividades de su cadena de suministro sean transparentes. Adidas se asegura de que las partes interesadas puedan evaluar el efecto social y medioambiental de sus productos poniendo a su disposición información sobre sus proveedores, instalaciones de producción y abastecimiento de materias primas.

Para reducir su efecto medioambiental y mantener las normas morales a lo largo de su cadena de suministro, UNIQLO adopta importantes medidas. A pesar de que UNIQLO ha realizado avances en materia de sostenibilidad, es crucial recordar que la empresa aún tiene trabajo por hacer en varias áreas, incluida la conversión total a materiales sostenibles y el tratamiento de los efectos medioambientales de su cadena de suministro. Pero la dedicación de UNIQLO a la apertura y el desarrollo continuo demuestra la seriedad con la que se toma la integración de la sostenibilidad en sus procesos empresariales y la búsqueda de un futuro más sostenible.

### **CASO PRÁCTICO: PERCEPCIÓN DE LA SOSTENIBILIDAD EN DIFERENTES CULTURAS.**

Se llevó a cabo una encuesta online con participantes de Estados Unidos, Alemania y Japón para recabar datos primarios sobre la comprensión de las distintas perspectivas de la sostenibilidad y el comercio internacional en el negocio de la moda. Debido a sus distintos orígenes culturales y a las probables divergencias en su forma de enfocar el diseño sostenible, se eligieron especialmente estos países. La parte práctica de este esfuerzo exploratorio, que se detalla a continuación, constituye esta sección.

El objetivo del estudio era recabar información sobre los conocimientos de los participantes acerca de los métodos de moda sostenible, sus hábitos de compra y sus opiniones sobre el comercio mundial de la moda.

La encuesta se envió a un amplio grupo de personas de distintas edades y sexos para garantizar una muestra representativa. Se preguntó a los participantes sobre diversos temas, como su comprensión de la moda sostenible, cuánto pensaban en la sostenibilidad al comprar ropa, qué opinaban sobre cómo afectaba el comercio internacional a la sostenibilidad y hasta qué punto se preocupaban por ella y la apoyaban.

La muestra tomada representa las siguientes características: El 46,15% de los participantes en la encuesta eran hombres y el 53,85% corresponde a mujeres. Por otra parte, y respecto a la edad de los participantes, se ha obtenido una muestra con representación de todos los grupos de edad. Se sugiere observar la Figura 5.1. Finalmente, el lugar de residencia de los participantes tiene la siguiente distribución: el 28,21% de los participantes son residentes en EE. UU. Del mismo modo, el 27,18% de ellos residen en Alemania, y finalmente el resto, el 34,62% corresponde a participantes que residen en Japón.

El análisis de los datos sobre diversos aspectos de la moda sostenible arroja varias conclusiones clave. En primer lugar, existe una notable variación en el nivel de familiaridad, apoyo, consideración del impacto social y medioambiental, disposición a pagar más y presencia de artículos de moda sostenible entre los países encuestados (Estados Unidos, Alemania y Japón). Mientras que en EE. UU. la familiaridad y el apoyo son relativamente menores, Alemania muestra una postura más moderada y Japón un mayor nivel de familiaridad y apoyo. Además, cuando se trata de considerar el impacto social y medioambiental, Alemania y Japón tienen porcentajes más altos de encuestados que dan prioridad a estos aspectos en comparación con EE. UU. Además, Japón muestra una mayor disposición a pagar más por la moda sostenible, mientras que Alemania tiene una mayor presencia de artículos de moda sostenible en sus armarios. Por último, existe un consenso general entre los participantes en que la industria de la moda debería priorizar la sostenibilidad sobre el beneficio, y que las empresas deberían adoptar prácticas de economía circular. Estos resultados ponen de relieve las diversas perspectivas y comportamientos dentro de las diferentes culturas en lo que respecta a la moda sostenible,

haciendo hincapié en la importancia de los enfoques adaptados y las iniciativas específicas para promover prácticas sostenibles en todo el mundo.

## **CONCLUSIÓN**

Debido a una serie de consideraciones importantes, la sostenibilidad se ha convertido en una necesidad crucial para el negocio de la moda. En primer lugar, los efectos perjudiciales de la moda rápida. Los consumidores y el público en general comprenden ahora mejor el impacto medioambiental y social de la industria de la moda, lo que ha aumentado la concienciación y la demanda de alternativas sostenibles.

Los factores de sostenibilidad tienen actualmente un gran impacto en las elecciones de los consumidores en el sector de la moda. Los consumidores buscan activamente marcas que defiendan sus ideales y realicen operaciones empresariales éticas y ecológicamente responsables. Este cambio en el comportamiento de los clientes ha obligado a las firmas de moda a dar mayor prioridad a la sostenibilidad en todos los aspectos de su negocio, desde la transparencia de la cadena de suministro hasta el abastecimiento ético y las técnicas de fabricación.

Las iniciativas de sostenibilidad de la industria de la moda se ven muy favorecidas por el comercio internacional. Para abastecerse de recursos, fabricar y distribuir, el comercio internacional es crucial debido a las cadenas de suministro mundiales y a la interconexión de la industria. Sin embargo, debido al transporte de larga distancia, el comercio internacional puede agravar los problemas medioambientales y socioeconómicos. Para resolver estos problemas, el comercio internacional de la moda debe ir acompañado de métodos empresariales sostenibles y de un abastecimiento ético.

El análisis Cross-cultural de Estados Unidos, Alemania y Japón ofrece importantes perspectivas sobre la influencia de las variables culturales, las políticas gubernamentales y las actividades empresariales en las prácticas de moda sostenible. Cuando se trata de alcanzar objetivos de sostenibilidad en el sector de la moda, cada nación tiene una estrategia y unos problemas diferentes.

En Estados Unidos, los consumidores y los participantes del sector son cada vez más conscientes de los efectos negativos que la moda tiene sobre el medio ambiente y la sociedad. Las normativas gubernamentales y las iniciativas empresariales han sido

esenciales para avanzar en los esfuerzos de sostenibilidad, con organizaciones como Patagonia marcando la pauta en gestión transparente de la cadena de suministro y prácticas sostenibles.

La cultura alemana es famosa por su atención a la calidad y la durabilidad, así como por su preocupación por el medio ambiente. Empresas como Adidas han abrazado de lleno la sostenibilidad, desplegando tecnologías de vanguardia y participando en proyectos de economía circular para reducir los residuos y las emisiones de carbono.

Aspectos culturales como el gran aprecio por la artesanía y el gusto por el detalle han influido en los esfuerzos de la industria de la moda por ser sostenible en Japón. UNIQLO, una conocida empresa de ropa japonesa ha hecho de la sostenibilidad una prioridad mediante políticas como el abastecimiento sostenible, la reducción del consumo de agua y la participación en proyectos comunitarios.

El examen de las cadenas de suministro de Patagonia, Adidas y UNIQLO ha revelado detalles importantes sobre los puntos de vista de cada cultura en materia de sostenibilidad. El énfasis de Patagonia en la transparencia y la defensa del medio ambiente es coherente con los ideales de conservación de la cultura estadounidense. Adidas es un ejemplo de cómo la ingeniería y la creatividad alemanas pueden impulsar procedimientos de fabricación respetuosos con el medio ambiente. Con sus actividades medioambientales, UNIQLO demuestra el compromiso de Japón con la artesanía fina, los productos superiores y la implicación en la comunidad.

La investigación Cross-cultural, considerada en su conjunto, subraya la importancia de los elementos culturales, la normativa gubernamental y las actividades de la industria a la hora de influir en las prácticas de moda sostenible. La empresa de la moda puede esforzarse por alcanzar objetivos sostenibles que complementen los valores y preocupaciones de muchas culturas.

Los resultados de la encuesta pusieron de relieve las disparidades entre las perspectivas de los países examinados sobre la sostenibilidad y el comercio global en el sector de la moda. Estos resultados ponen de relieve la importancia de las estrategias personalizadas y las acciones específicas para promover prácticas sostenibles a escala mundial, al ofrecer información reveladora sobre las distintas percepciones y comportamientos de las diferentes culturas en relación con la moda sostenible.

**APPENDIX 2: SUSTAINABILITY AND INTERNATIONAL TRADE IN THE FASHION INDUSTRY SURVEY.**

## Sustainability and international trade in the fashion industry.

Hi! I am currently doing my bachelor thesis and that is the reason why I am doing this survey. The research is about sustainability and international trade in the fashion industry in different countries. If you could take a few minutes to fill it out it would be really helpful! Thank you so much!

What country do you live in? \*

Texto de respuesta corta

From 1-5 (1 being the least and 5 being the most). How concerned are you about the environment? \*

- 1
- 2
- 3
- 4
- 5

From 1-5 (1 being the least and 5 being the most). How familiar are you with the concept of sustainability in the fashion industry? \*

- 1
- 2
- 3
- 4
- 5

⋮

From 1-5 (1 being the least and 5 being the most). How supportive are you about sustainable fashion? \*

- 1
- 2
- 3
- 4
- 5

⋮

From 1-5 (1 being the least and 5 being the most). To what extent do you consider the social and environmental impact of your purchases when you buy clothes? \*

- 1
- 2
- 3
- 4
- 5

From 1-5 (1 being the least and 5 being the most). How much of your wardrobe is made of sustainable clothes? \*

- 1
- 2
- 3
- 4
- 5

⋮

From 1-5 (1 being the least and 5 being the most). Are you willing to pay a higher price for sustainable fashion compared with normal fashion? \*

- 1
- 2
- 3
- 4
- 5

What do you do with your old, damaged clothes? \*

- Throw away
- Repair
- Resell
- Donate or give to others
- Other

⋮

Form 1-5 (1 being the least and 5 being the most). How supportive do you think your society is when it comes to sustainable fashion? \*

- 1
- 2
- 3
- 4
- 5

...

Form 1-5 (1 being the least and 5 being the most). How much do you think the fashion industry should prioritize sustainability over profit? \*

- 1
- 2
- 3
- 4
- 5

\*

From 1-5 (1 being the least and 5 being the most). Do you think fashion companies should adopt more circular economy (recycling, upcycling, and extending the life of products through repair, refurbishment, and resale) practices to promote sustainability in the industry? \*

- 1
- 2
- 3
- 4
- 5

\*

---

How do you think international trade in the fashion industry can promote sustainability? \*

- Ethical sourcing and production: ethical labor practices and fair trade.
- Environmental regulations: governments can impose stricter environmental regulations.
- Collaborations: international trade allows fashion brands to share knowledge with different countries a...
- Certifications and labelling: support the adoption of labeling system to help customers identify sustain...
- Education: awareness campaigns on sustainable fashion.
- Financial incentives and support.

\*



Gender \*

- Male
- Female
- Prefer not to say
- Other



Range of age \*

- 18-24
- 25-34
- 35-44
- 44 or older