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The Case for Reshoring and Nearshoring as a Sustainability Enhancer – Perspectives from the  
textile industry

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## Abstract

Sustainability awareness has increased worldwide, but implementation is faltering. The objective of the study is to find out if nearshoring is being used by textile companies to improve their sustainability performance. Moreover, the study aims at understanding the willingness of customers to pay more for nearshored products. To gain better insights four expert interviews were conducted and a questionnaire was filled out by 203 people. Findings resulting from the research indicate that nearshoring has no clear influence on sustainability performance. Furthermore, even customers who are aware of sustainability are not willing to spend significantly more for a sustainably produced T-shirt.

**Keywords:** Sustainability, Nearshoring, Textile Industry, Europe

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## 1. Introduction

The amount consumers are spending on apparel is expected to rise by 2.6% per year from 2019 to 2025. Only two major events stopped this rise in the years 2020 and 2022 respectively, one of them being the COVID-19 pandemic and the other one the war in Ukraine. The industry was one of those most affected by the pandemic. Production in Europe fell by 26.9% in the first cycle of the pandemic ('Coronavirus Impact on Textile Industry in Europe 2020' 2020). Fashion retailers saw a decline of around 40% in demand (Smith 2022). The pandemic changed consumers' behavior significantly. 60% of respondents mentioned that they were making more sustainable purchases and a polarization of sustainability was happening (Kohli et al. 2020; McCabe 2021).

In the past years, expectations towards products have changed and markets have become more demanding. Customers are asking for fast-delivery and excellent price-quality products (Stock and Boyer 2009). To adapt to these needs the development of the supply chain has focused principally on costs and customer service (Schmeisser 2013; Fransoo, Günther, and Jammernegg 2014).

To stay competitive western companies decided to produce or source mainly offshore in less costly countries, most of them located in Asia, from which China had the highest revenue in 2021 with around 378.2 billion US\$ ('Offshoring of Production and Global Job Shifts | The Apparel Industry' 2017; Senn-Kalb and Huu Nguyen 2022). Offshoring, however, forces companies into long-distance logistics and extended transport activities. Even though ocean shipping, communication technologies and efficient transportation modes make it possible to get the finished product to the target market while sustaining attractive costs and lead times, offshoring has its disadvantages (Wall Street Journal 2022). Disruptions like the COVID-19 pandemic and the war in Ukraine have battered the global supply chains and managers are

starting to consider the risks of cross-border dependencies looking for new ways to build resilient supply chains.

Furthermore, due to the environmental changes, the business world is facing an increase in sustainability awareness, which is putting pressure on companies to reduce greenhouse gas emissions (GHG). Consequently, companies are rethinking their production locations and moving production nearshore is an attractive solution (Miroudot 2020).

Specifically, the textile industry is affected since it is responsible for around 10% of global greenhouse gas emissions and considered as one of the biggest contributors to environmental pollution. To keep its rising stakeholder demands intact some action towards more sustainable solutions is required (Desore and Narula 2018; ‘The Impact of Textile Production and Waste on the Environment (Infographic) | News | European Parliament’ 2020).

Considering the above mentioned, this study aims to find out the extent to which sustainability is the determining factor for companies to nearshore their production. It focuses on small and medium enterprises which operate in the textile industry and which are located in Europe. The thesis starts with a review of literature on sustainability and reshoring decisions in Section 2. In Section 3 the chosen methodology will be explained, followed by Section 4, where the results of the quantitative and qualitative data collection phase are processed and analyzed. Finally, Section 5 is dedicated to the implications, limitations, and the conclusion of the study.

## **2. Literature Review**

For a more detailed understanding of this topic, the concepts of “nearshoring”, “offshoring” and “reshoring”, as well as the specificities of the clothing industry must be examined. Lastly, the concept of sustainability is discussed and its relationship with the decision determining a company’s production location.

## 2.1 Nearshoring, offshoring, and reshoring

Companies that transfer at least one process of their business to another country that is rather close by but cheaper than the home country are doing what is called nearshoring (*The Economist* 2005). As globalization became more prominent in the business world in the 1980's and 1990's, companies located in developed nations started to shift their production farther away. This process is defined as offshoring. Businesses see offshoring as a chance to ensure their comparative advantage by reducing costs (Tiwary 2021; van Hassel et al. 2022). For the apparel industry offshoring became of high importance as the industry benefits from lower labor costs, specific material availability, specialization, and low environmental standards. Although there are many aspects promoting reshoring, the textile industry has to consider resource access (Ashby 2016). China, Southeast Asia and South Asia have been the major areas where companies offshored to ('Offshoring of Production and Global Job Shifts | The Apparel Industry' 2017; Gadde and Jonsson 2019). However, scholars argue that offshoring decisions will in future be reversed, and processes will be moved back to the home country ("reshoring") or at least closer ("nearshoring"). While most agree on the fact that "reshoring" and "nearshoring" are becoming more popular, the opinions on why companies decide to do it differ among researchers (Piatanesi and Arauzo-Carod 2019; Fernández-Miguel et al. 2022; van Hassel et al. 2022). Many papers have been published on the matter but there is a significant difference between papers that have been published before and after the outbreak of the COVID-19 pandemic. While the latter focus mainly on the risk factors of offshoring, the papers before the outbreak consider mostly costs.

Research has shown that rising logistics and sourcing costs, emotional elements like loyalty and subsidies can be a reason for relocation (Orzes, Guido and Sarkis 2019). However, nearshoring and reshoring can be as well the possible answers to avoid disruptions caused by pandemics or geopolitical problems. Relocating the production closer to the home

region of the company allows enterprises to stay flexible in case of an unforeseen event (Fernández-Miguel et al. 2022). In comparison, van Hassel et al. (2022) and Miroudot (2020) argue in their papers that the COVID-19 pandemic and the US-China trade war were just the trigger as disruptions have been happening for a long time but not a lot of companies have taken any action. According to them, the actual reason for the shift away from offshoring is that developing countries increased wages and rents. This increase has made it less attractive for countries to offshore as freight rates do not stop rising. However, the scholars also do point out that the pandemic showed that companies which nearshore can keep supply chain and production under control even under exceptional circumstances (van Hassel et al. 2022). A low supply process complexity is very important. Being close to suppliers eases information sharing and the extent of control. Additionally, environmental and social sustainability will play a major role in the future strategic decision-making process and only if the relocation improves global and local sustainability it will be acceptable. The sustainability aspect of reshoring allows long-term cost efficiency (Pourhejazy and Ashby 2021).

Not only has the COVID-19 pandemic been an eye opener for many companies that nearshoring minimizes certain risks, but it was also found that nearshoring can lead to improvements in performance in terms of costs, lead time and quality (Johansson and Olhager 2018).

## **2.2 Textile Industry**

Offshoring has been a very important strategic decision for many companies operating in the textile industry as costs are a key consideration. Many large-scale industrial production sites were established in less costly countries as they have been considered to be more profitable (York 2019). One part of the world has been especially interesting for the western world. In the top 10 list of textiles exporting countries ranked by export value in billion U.S. dollar, 8 are located in Asia. In 2020, China's global textile exportation business was valued

at around 154 billion U.S. dollar, which makes approximately 43.6% of the total textile export market worldwide ('World Trade Statistical Review 2021' 2021). Material supply availability and low-cost labor make it extremely easy for Asian companies to establish production sites and enter the industry.

Over the past years, Asian countries have built incredible expertise in the manufacturing process of textiles. However, considering the controversial working conditions in these countries and the recent sustainability movement, scholars are discussing whether the expertise can be rebuilt in Europe under better regulated circumstances.

### 2.3 Sustainability

There are several definitions of the sustainability concept but in the scope of this paper sustainability refers to meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (UN. Secretary-General and World Commission on Environment and Development 1987, 41). In the business world sustainability is often defined as the triple bottom line (TBL) which consists of the planet, people, and profits. The TBL measures a company’s performance not only on its economic growth and competitiveness but also on its social and environmental performance. In 2015 the United Nations adopted the Sustainable Development Goals (SDGs) which shed light on the influence firms have on global issues (Department of Economic and Social Affairs 2015). Therefore, stakeholders started to expect a proactive rather than a reactive approach from companies regarding their positive impact on the planet (van Zanten and van Tulder 2018). The rising interest in the matter makes it obligatory for companies to adopt sustainability strategies if they want to survive in the long-term. Risks connected to sustainability negligence are for example customer boycott and reputational loss (Hofmann et al. 2014). In addition, especially governments in the western world are regularly introducing new regulations. However, some companies do not comply, either deliberately or unknowingly,

with these regulations by offshoring (Zhang, Padmanabhan, and Huang 2018). Currently, laws and expectations in developing countries are lower concerning environmental and social sustainability. Due to a lack of visibility firms can take advantage of these economically beneficial low standards. Offshoring and obtaining the whole picture and control over a globalized supply chain is nearly impossible (Ashby 2016). Usually, unethical behavior of western companies is not known to the public but sometimes firms are faced with ethical and environmental scandals like the Rana Plaza accident or the Spectrum factory which generate awareness about these issues (Orzes and Sarkis 2019).

Achieving sustainability in the textile industry is especially difficult as supply chains are very complex and long (Shim, Kim, and Na 2018). Bush (2022) assumes it to be “one of the longest” (2). Moreover, the industry is known for the intensive use of natural resources and poor labor conditions (de Brito, Carbone, and Blanquart 2008). However, the Chinese Government announced strategies to make the textile industry more sustainable. This could be a move forward towards sustainability regulations in developing countries (Lee 2022).

### **2.3.1 Environmental Sustainability**

Environmental sustainability is defined as the preservation of the natural ecosystem and resources by minimizing pollution to sustain the wellbeing of future generations (Capone, El Bilali, and Bottalico 2016). Scholars found that the biggest impact of a business on the environment is its supply chain. That is why sustainable supply chain management has become more prominent in the last few years (Handfield, Sroufe, and Walton 2005). The market demand, governmental regulations and stakeholder pressure make companies feel compelled to improve environmental performance upstream and downstream (Kogg 2022). Several steps in the supply chain have a severely negative impact on the environment if not handled well. In the textile industry the choice of materials, the method of manufacturing and



the choice of transportation mode influence the environmental footprint immensely (Keh 2022).

Even though Orzes and Sarkis (2019) and Fratocchi and Di Stefano (2019) doubt that environmental sustainability is the decisive factor for relocation, many researchers agree that nearshoring and reshoring minimize the negative impact of the business on the planet. Research has shown that nearshoring and reshoring to countries of distribution can significantly reduce the CO<sub>2</sub> emissions produced by transporting products overseas (Fernandez-Miguel et al. 2022). Scientists from the University of Nottingham agree with this finding. Usually, companies which focus on environmental sustainability decide the mode of transport by taking into account the GHGs resulting from it (Fransoo, Günther, and Jammernegg 2014). Furthermore, it was pointed that consolidated long-distance shipping by sea causes less GHGs than local transport (Carbone and Moatti 2021). However, the recent container shipping disruptions forced some companies to use air freight which is approximately 47 times more polluting than ocean freight (Baxter 2022). Researchers discovered that the manufacturing of clothes in the UK emits around 47% less GHG than in overseas production plants. This is explained by the electricity supply network which is less carbon intense (Jordan 2019). In another study it was found that pursuing green targets is a significant argument for companies not to offshore (Morganti and De Giovanni 2022). While most scholars believe that nearshoring is helping companies to easily achieve environmental sustainability objectives, some like Carbone and Moatti (2021) claim that it has no effect on a company's sustainability performance.

### **2.3.2 Social Sustainability**

According to the UN social sustainability “is about identifying and managing business impacts, both positive and negative, on people” (‘Do Business in Ways That Benefit Society and Protect People’ n.d.). The goal of the social pillar of the TBL is the world-wide well-

being of societies and communities and includes the health of workers and consumers, the working conditions, etc. (Fratocchi and Di 2019; Khurana and Ricchetti 2016). As social sustainability concerns the world-wide well-being it needs to be considered from two points of view, the home country and host country.

The textile industry is labor intensive and dependent on an employee's skill levels, motivation and productivity. Nevertheless, in emerging economies like Vietnam, Bangladesh and India practices like long working hours, low wages, child labor and forced labor have long been a part of the industry (Grace Annapoorani 2017). Scandals like the water pollution in China, Nike sweatshop and the collapse of the Rana Plaza in 2013 are just some of the many events that show that the social pillar has been neglected in the textile industry (Carbone and Moatti 2021).

Although, social sustainability is of huge importance for a company's long-term success, the social pillar has been the least interesting for researchers in the past years (Fratocchi and Di 2019). Scholars disagree on the benefits of reshoring on social sustainability. It was found that human rights violations increasingly motivate companies to delocalize their production activities (Heikkilä et al. 2008). Physical proximity allows better insights into the working practices and ethical behavior of firms (Ashby 2016). Furthermore, a benefit to the local community of the firms' home country is the reduction of unemployment but this comes with a disadvantage for workers of the host country who would probably lose their jobs (Fratocchi and Di 2019). However, to which extent it could improve the home country's employment figures is also questionable as scholars expect a higher automation of the processes which comes along with less need of employees (Arlbjørn and Mikkelsen 2014).

### **2.3.3 Economic Sustainability**

The third pillar of the TBL is called economic sustainability or also known as the profit a company generates. Profit maximization has been the focus of businesses for a long time

(Miller 2020). Many companies offshore as it has been very profitable from an economic point of view (Milberg and Winkler 2010). The attractive labor costs in developing countries are one of the biggest motives for firms to move their production abroad. It was found that offshoring comes along with lower unit costs than production in the home country (Stentoft et al. 2018). A study was conducted analyzing 270 French firms which confirmed that lower prices were the main reason for 88% of the firms to offshore (Fel and Griette 2017). Nevertheless, scholars agree that the initial financial advantage decreased over time due to changes in business conditions and rising labor costs especially in China (Shih 2014; Fel and Griette 2017). Research has shown that the total cost of ownership stayed the same or even decreased after companies reshored (Fel and Griette 2017). Transportation is partly responsible for these costs and is also a decisive factor as it decides the lead times (van Hassel et al. 2022). Moreover, just focusing on costs could negatively influence the social and the environmental spheres (Morganti and De Giovanni 2022). The findings of a study indicate that ethical behavior is being rewarded by consumers with a willingness to pay higher prices (Creyer 1997). Colamatteo, Cassia and Sansone (2021) discovered that nearshoring significantly increases the purchasing intention and the quality perception if the brand is unknown to the customer. However, another study has shown that consumers believe that all companies are unethical and, therefore, just focus on price and appearance (Joergens 2006).

Considering the controversy surrounding this topic and the fact that research is still very limited, the objective of this paper is to further explore the link between nearshoring and a company's sustainability involvement.

## **2.4 Research Questions**

In the past few years, researchers have been developing an increased interest in the topic of nearshoring and therefore the amount of literature available is constantly rising. However, little is known about the initiatives to nearshore of SME located in Europe and operating in

the textile industry. The aim of this study is to find out if nearshoring will be a strategic move to improve the environmental and social performance of companies. Furthermore, with constantly changing customer behavior the study tries to figure out if consumers reward the nearshoring efforts of companies by a willingness to pay a higher price for clothes. That is why the following research questions have been developed:

**RQ1:** Are customers willing to pay a higher price for clothes which were produced in a nearshored location?

**RQ2:** Is the need for increasing sustainability performance leading to nearshoring decisions from SME manufacturing companies from Central Europe?

### 3. Methodology

Social research can be conducted to track developments and changes in society. Different methods and resources can be used to fill the gap in one's knowledge about certain topics (Bryman 2016). There are two different ways of testing a research question. While a deductive approach is based on hypotheses derived from an already existing theory, researchers use an inductive approach if they do not expect a specific result from their research (Walters 2001).

Due to the few and unclear results or theories on the sustainability aspect of nearshoring activities, an inductive approach was chosen for this research to explore every angle. This study aims to answer the research questions outlined above using two different methodological approaches. Regarding research question one (RQ1) a quantitative research approach was chosen. It is important to get a view of social reality supported by numbers. Especially for companies, statistics are essential to assess demand. Therefore, a quantitative assessment can give a structured overview of the status quo and predict possible future outcomes. For the second research question a qualitative research method is used as it allows

one to obtain important detailed preliminary insights about the topic being studied. Primary and cross-sectional data have been collected to further analyze the topic.

### 3.1 Quantitative research approach

For the quantitative research approach a questionnaire was created. For this purpose, the CXM software Qualtrics was used as it allows one to answer the first research question with statistically significant quantitative data. The survey was distributed online mainly via Whatsapp, Facebook and e-mail. Snowball sampling was used as every participant was asked to share the link to the survey with friends and family to increase the sample size of research participants. To extend the circle of possible participants, the survey was translated into German and French. The target group included people from every background, in different age groups, employed or unemployed and located all over the world. The goal was to get a huge variety of participants to be able to observe potential differences between these groups.

The questions of the survey were formulated to figure out what price customers are willing to pay for clothes that have been environmentally and socially friendly produced. Thus, participants were asked to answer multiple-choice and binary questions, ratings and constant sum scales where they were asked to distribute 100 points. To analyze the results in the next step, people were asked to answer with a metric variable like a number so correlations between variables can be run and regressions can be calculated. The survey was divided into 5 sections. To begin with, a short introduction about the purpose of the survey was given. Then the participants' shopping behavior and spendings were inquired into, followed by the general thoughts of people about environmental and social sustainability. Lastly, the sample characterization was recorded. The questionnaire in English can be found in Appendix 1.

To analyze the quantitative data, statistical analysis was used to discover commonalities in the data. For this, the software IBM SPSS has been made use of.

## 3.2 Qualitative research approach

To obtain qualitative research data semi-structured interviews were conducted. The target interviewees were professionals working in a company which is operating in the textile industry and based in Europe. Specifically, employees working in sustainability and supply chain management were asked to participate. Matching profiles were contacted through contacts or via LinkedIn and asked for interviews.

The interview guide is organized in 6 sections. Firstly, the guide consists of general questions about the company and its current production sites. Afterwards, a deep dive into the environmental sustainability strategy has been done. The next section comprises questions about social sustainability. To complete the Triple Bottom Line, economic sustainability is the main topic of the fourth section. Finally, and most importantly, the interview guide focuses on sustainability and nearshoring. It can be found in Appendix 2. However, it was adapted for each interview depending on the company's current production locations.

One of the 4 interviews was conducted face-to-face and the others on Microsoft Teams. The interviews were held in English or in German and took between 40 and 60 minutes. All interviews were recorded and transcribed.

## 4. Analysis and Discussion

The chapter is divided into two parts, the quantitative and qualitative collection phases, and focuses on the most significant findings regarding the components researched. In Chapter 5 the final conclusions will be presented.

### 4.1 Quantitative Analysis

A total of 203 responses were obtained for the quantitative analysis using a questionnaire. Using convenience sampling, participants were primarily recruited from university and close circles and asked to share the link with their friends. Related to this method 76.9% of the

sample consisted of people between the age of 18-34, 134 of which were female, 65 male, 1 non-binary/third gender and 3 people preferred not to reveal their gender. A preliminary correlation analysis including age and gender did not show relevant or significant results and was not further explored, taking into account the uneven distribution of the variables and the limited extent of the work. Participants listed 22 different countries of origin. However, since the sample of each country was not representative this aspect was not considered in the main analysis. Regarding the educational background, 82.7% of participants held a university degree (Bachelor's or Master's Degree, Professional Degree, Doctorate), 16.3% had a High School diploma and 1% less than that. The majority were either full-time or part-time employees (59.1%) or students (33%). Considering their net yearly income, the biggest group (26.1%) earned less than €10.000 and 69.5% did not earn more than €39.999 a year.

#### **4.2.1 Buyer behavior**

64.5% of participants indicated buying clothes only if they require them, followed by 29.1% that shop around 1-2 times a month. Only a small percentage (6.4%) buy clothes more often than that. On average participants indicated spending around €79.33 monthly on clothes with 52.2% spending up to €50 and 36.6% spending €100 or more. A moderate positive correlation was found between participants' monthly spendings and their yearly income ( $r(198) = .31, p < .001$ ).

Based on the analysis of purchase drivers, design, price and comfort were among the most highly valued with an average of 26, 23.5 and 20 points. 12.6 points were assigned to Brand. Sustainable Material and Sustainable Brand were given the least importance and only earned 10.3 and 6.9 points on average. However, this is not consistent with the ratings for the importance of different brand attributes where the reduction of a negative impact on the environment was rated highest with an average of 27.3 points. On the other hand, customers still expect brands to reduce prices and give discounts (19.3 points). Other valued brand

attributes by the participants were the care for the health of the employees (17.2 points) and the contribution to help low-paid workers in factories in Asia (15.9 points). Among the least important factors were safe and hygienic in-store shopping (10.6 points) and product availability (9.7 points).

These results show that there might be a discrepancy between people's attitudes towards sustainable clothing and their actual buyer behavior, taking into account that a sustainable brand was considered highly attractive but design, price and comfort were still the number one purchase drivers. However, 71.4% of participants believed that a labelling system for sustainable fashion would at least to some extent encourage them to buy more sustainable clothes ( $M = 6.64$ ,  $SD = 2.55$ ). If companies were to take this into consideration and adapt accordingly, sustainable fashion could become more attractive to their customers.

#### **4.2.2 Sustainable fashion**

The multiple response question that aimed to investigate the participants' understanding of what sustainable fashion comprised showed quite balanced results between the different features proposed. 79.80% considered ethical and fair trade/labour practice as sustainable fashion, 73.89% thought that the use of non-hazardous chemicals and a pollution-free production process are characteristics of it, 69.95% agree that the use of recycled material is a feature of sustainable fashion and 63.05% attribute low greenhouse gas emissions to sustainable clothing. Falling behind with 57.64% is the feature of biodegradable/sustainable packaging. Even though more than half of the participants also found this to be an important property, it was least associated with sustainable fashion. Considering these results, people do not seem to differentiate between environmental or social sustainability but rather see it both as one component of sustainable clothing.

The analysis of participants' price evaluation for a basic white T-shirt with different production backgrounds showed that people estimate the cost of a basic white T-shirt from an



unknown producer to be around €15 and sustainable fashion to be on average €13 more expensive than that. However, statistics show that only 33.5% of participants would be willing to pay that amount for an ethically sourced T-shirt and 35% for a T-shirt produced in Europe with low GHG emissions. 35% would only pay up to €15 in total for an ethically sourced T-shirt. 31.5% would pay more than €15 but not more than €25 and 19.3% would pay over €25 and up to €35. Only a minority of 14.2% would pay more than that for an ethically sourced T-shirt. Similar are the expenses for a low GHG emissions T-shirt produced in Europe: 35.5% would pay €15 in total, while 29% would pay over €15 and up to €25, 20.3% from €25.1 to €35 and only 14.2% more than that.

To get a deeper understanding of people's interest in sustainable clothes they were asked to rate the statement "I am very supportive of sustainable clothing." accordingly on a 10-point scale. A mean rating of 6.39 ( $SD = 2.63$ ) indicated that participants were inclined to agree with the statement rather than disagree. 50% of participants rated the statement higher than 6 and 19.3% totally agreed with it. A correlation analysis showed no significant relation between participants' monthly spendings on clothes and their attitude towards sustainable clothing ( $r(199) = -.03$ ). There was, however, a small correlation between participants' support for sustainable clothes and the amount they would spend on such compared to a T-shirt from unknown production (ethically sourced T-shirt:  $r(194) = .3, p < .001$ , low GHG emission T-shirt:  $r(194) = .28, p < .001$ ).

A regression analysis was conducted to find out whether the degree of support for sustainable clothing could predict how much participants would be willing to spend for sustainable fashion. The regression concerning the ethically sourced T-shirt was statistically significant ( $R^2 = .092, F(1, 194) = 19.71, p < .001$ ). It was found that the level of support for sustainable clothing significantly predicted the price that participants were willing to spend on an ethically sourced T-shirt ( $\beta = 1.398, p < .001$ ). With an increase in the level of support by

1, participants' spendings on an ethically sourced T-shirt would go up by €1.40. Similar effects were found for the regression that focused on the T-shirt produced in Europe with low GHG emissions ( $R^2 = .078$ ,  $F(1, 194) = 16.43$ ,  $p < .001$ ). With each increase in the level of support participants would spend €1.30 more on the low GHG emission T-shirt ( $\beta = 1.302$ ,  $p < .001$ ). Despite their significance, the results should be viewed with caution considering that the  $R^2$  value is quite low and indicates a high variability. A moderator analysis found no effects for the impact of participants' yearly income on the relationship between the level of support for sustainable clothing and the price they would pay for sustainable fashion (ethically sourced T-shirt:  $p = .358$ , low GHG emission T-shirt:  $p = .578$ ).

To assess participants' consideration of climate change and possible behavioral consequences a total score from the following 10-point rating questions was computed: "The issue of climate change is important to me." ( $M = 8.33$ ,  $SD = 2.03$ ), "I am very worried about global warming." ( $M = 7.67$ ,  $SD = 2.38$ ), "Global warming will harm me personally." ( $M = 7.12$ ,  $SD = 2.35$ ), "I consider my environmental footprint." ( $M = 6.49$ ,  $SD = 2.18$ ) and "I am conscious of my environmental footprint." ( $M = 6.65$ ,  $SD = 2.32$ ). The higher the score, the higher the concern about climate change and its effects. Interestingly, each scale presented a high average rating indicating high environmental awareness among the participants. The total score was used to analyse whether people's environmental consciousness has an effect on their buyer behavior. A regression analysis indicated that the attitude towards climate change indeed was a significant factor that influenced the price participants were willing to pay for an ethically sourced T-shirt ( $R^2 = .078$ ,  $F(1, 189) = 16.05$ ,  $p < .001$ ) as well as for a T-shirt produced in Europe with low GHG emissions ( $R^2 = .080$ ,  $F(1, 189) = 16.42$ ,  $p < .001$ ). With each point on the environmental consciousness scale participants would pay €0.42 more for an ethically sourced T-shirt ( $\beta = .424$ ,  $p < .001$ ) and €0.43 for a low GHG emission T-shirt ( $\beta = .431$ ,  $p < .001$ ). Similar to previous results this prediction is not very precise due to the

high variability of the data. No moderation effect for participants' earnings influencing the relationship between their environmental consciousness and their willingness to spend on sustainable clothing could be found (ethically sourced T-shirt:  $p = .680$ , low GHG emission T-shirt:  $p = .353$ ).

These results suggest that even though people support sustainable clothing and are aware about climate change they are only willing to adapt their cost expectations for sustainable clothing minimally regardless of their yearly income.

To summarize, results for the quantitative analysis that focused mainly on the customer point of view on sustainable clothing were contradictory: On the one hand customers' ratings regarding their attitude towards aspects of sustainable clothing and environmental issues were quite high, expressing support for sustainability efforts, while on the other hand their buyer behavior mostly disregarded these aspects focusing more on appearance including design and comfort as well as costs. They are not ready to pay for the higher production costs of sustainable fashion. Results, therefore, indicate a negative response to research question 1 on whether customers are willing to pay more for clothes that were produced in a nearshored location. The quantitative analysis showed that only one third of the customers are willing to pay the expected increased price of an ethically or low GHG emissions sourced T-shirt. The results, indeed, indicate that people who value sustainability more would pay a higher price for sustainable clothes, but their cost expectations are only minimally different. In contrast to their environmental consciousness around 85% of the participants do not consider paying more than 35€ on a sustainable T-shirt. Results also suggest that customers did not differentiate between various sustainability definitions but rather see social sustainability and environmental sustainability as one. Even though participants tended to be willing to pay a bit more for a T-shirt produced in Europe with low GHG emissions than for an ethically sourced

T-shirt, it might depend on the right marketing strategy since participants stated that a labelling system could help to advertise and sell sustainable fashion.

### 4.3 Qualitative Findings

In total four interviews were conducted with experts in the textile industry. At time of the interview, the interviewees were employed at companies which are operating in the textile industry. Two companies have their headquarter in Germany while the other two companies are located in Austria. The current positions of the interviewees varied from CEO to Head of Quality Management. All companies are considered small and medium-sized companies. The complete qualitative analysis can be found in Appendix 4.

All companies considered the DACH (Germany, Austria, Switzerland) – region as a target market. However, products were also distributed to other countries in and outside of Europe. The production countries differed extremely. While two companies sourced mainly from Europe, the third one sourced only from Asia and the 4<sup>th</sup> one was more diversified but also sourced the majority from Asia. All enterprises outsourced the majority of their production. Inhouse production was only used in rare cases like customization.

The meaning of sustainability varied for every interviewee. Social sustainability, overproduction, producing in Europe using natural fabrics and sustainability as a holistic approach were mentioned. Concerning environmental sustainability, each company focused on different steps in the supply chain and interpreted the meaning of it in a different way. Circular economy, the optimization of core businesses and processes was the meaning for one company. Another company focused on wastewater, chemical management, and climate protection. The third company focused on long-lasting products. For the last company it meant short transportation routes and natural materials. Although the companies took individual measures concerning environmental sustainability, all agreed that fast fashion should be forbidden, and new sustainable material sources must be found. The interviewees

also agreed that producing in Asia is riskier but every company which decides to produce there can have a positive impact.

*“It often comes down to a brand and its own perception of its responsibilities.” (I1:Male, production offshored)*

In Europe, the likelihood that production is sustainable is higher, as regulations are stricter and governments more concerned. However, sustainable execution in the factories is not guaranteed as the standard can differ immensely. A reason often mentioned by scholars like Fernandez-Miguel et al. (2022) is that the location of Europe comes along with reduced CO2 emissions produced by transportation. Three interviewees argued that transport only contributes minimally to the footprint of the product and that there are measures with greater impact which a company can take. Shipment by cargo allows efficiency and rather low CO2 emissions measured per product as noted by Carbone and Moatti (2021). Nevertheless, the companies which offshored had to take emergency flights to deliver on time due to the recent disruptions in the supply chain. One interviewee who worked for an enterprise that already nearshored its production did see a significant sustainability factor in the shorter routes as trucks can be used. Another positive impact of nearshoring mentioned by an interviewee is the reduction of loss that can be better controlled which means less waste. Overall, there is a similarity between the literature and the interview participants as the opinions regarding the influence of nearshoring on environmental sustainability differed. For one company there is no positive effect while for other ones it has a minimal positive influence.

The companies understood by social sustainability the well-being of people either their own employees or people in general. Good working conditions and the payment of fair prices were mentioned. According to the people interviewed, the textile industry should act by improving the standards. For example, by taking measures together or by reducing the production volumes. However, shifting production to Europe would not increase the overall

situation. All companies agreed that there is a lot to do regarding social sustainability. The enterprises which produce in Asia were convinced that their presence there could improve the situation. Nevertheless, most of the companies believed that Europe is still advanced in comparison to Asia.

*“Europe is more sustainable but not sustainable per se.” (I3, Female, production nearshored).*

One company thought that this is not true for every country in Europe. However, the companies with a nearshored production confirm Ashby’s thought (2016) that control is easier if production is close by.

*“If necessary, you can get into a car and make a visit or just pick it up yourself. There is flexibility that is sustainable and there is controllability.” (I3, Female, production nearshored).*

The participants were indecisive if nearshoring has a positive or even negative effect. As a whole, it will decrease overall social responsibility if companies decide to quit production in Asia. However, starting with a new production in Europe might bring advantages to social sustainability as new jobs can be created.

All companies saw in economic sustainability long-term financial success, either by the long-term existence of a company, by having long-term clients or long-term partnerships. Every company feared different risks. For example, due to the rather small size missing out on needed investments, not being diversified enough or a general change in customer purchasing behavior. Nearshoring allows a reduction of risk and therefore has a positive effect on economic sustainability according to two companies. But this has its price as well. A company that has currently nearshored its production saw no financial benefit, but another enterprise financially benefited from customers who ask for nearshored products.

*“It's also good for our conscience and everything to say we produce in Europe, so there are more and more people asking where the part comes from.” (I4, Female, production nearshored)*

Many companies see nearshoring as a way to reduce risk. However, for each company, whether it is offshoring or nearshoring, production had to fight with problems caused by disruptions. While the companies that produce in Asia had a problem delivering on time because of delays in transport, the companies which are producing in Europe suffered from a shortage of manpower. Qualified manpower was one of the potential obstacles for companies to reshore their production.

*“In Germany, you won't find enough qualified workers.” (I3, Male, production offshored)*

Another factor mentioned by the two companies which are mainly producing in Asia are costs, which is according to Fel and Griette (2017) the main reason for companies to offshore. Lastly, the material availability has to be mentioned. Two companies source mainly from Asia as the materials they need are only produced there. The other two enterprises source mainly from Europe. However, sourcing 100% of the materials in Europe is very difficult as currently Asia is the leading power in manufacturing advanced materials. As the materials need to be shipped to Europe it decreases the positive effect of not having long transport routes.

Concerning the future of nearshoring, two companies believed that Europe will become of higher importance but as Asia has built up a strong know-how over the past years it will remain a strong player. One company assumed that the supply chains will stay global and there will be no boom in Europe.

The statements of the qualitative analysis are representative of previous research findings that present a controversy surrounding the concept of nearshoring as a sustainability enhancer. Companies that have their production already nearshored do see a clear advantage regarding

their sustainability performance. However, especially the representatives of companies that produce the majority of their products in Asia doubt the positive influence of nearshoring. This is especially true for social sustainability where the risk of high unemployment in the host countries due to a shift of production location was pointed out. Nevertheless, the closer proximity companies have to the production factories in Europe makes it easier to control the working environment. This proximity decreases the length of the transportation routes and therefore reduces the emission of CO<sub>2</sub>. This benefit was highlighted in recent years when enterprises had to fly in their clothes due to supply chain disruptions. Still, according to the companies CO<sub>2</sub> emissions due to transport are even without these disruptions not a major factor and are of secondary importance. As the European textile industry is still dependent on Asian materials, it is unsure if long transportation routes can be avoided in the near future and although risk can be reduced by better mitigation of disruption, high production costs are a risk for the profits of the companies.

In response to research question 2 that asked whether the need for increasing sustainability performance leads to nearshoring decisions from SME, it can be concluded that even though many companies are currently making the move to nearshore their production they do not see sustainability as a main contributor to this decision.

## **5 Conclusions and Recommendations**

The aim of this work was to shed light on the relationship between the growing sustainability mindset and how companies adapt their strategies to it. It points out the adverse opinions on the influence of nearshoring on different sustainability aspects and emphasizes the disagreement in existing research on whether nearshoring improves the sustainability factor of a company. The presented work contributes to the existing literature by pointing out how managers of SMEs approach the topic of sustainability in their company and their views on nearshoring and its impact. Like some researchers who argue that the ecological impact of



nearshoring is only minimal, most interviewed managers agreed with these recent findings (Carbone & Moatti, 2021, Fernandez-Miguel et al., 2022, Fratocchi & Di Stefano, 2019, Jordan, 2019). Moreover, they mentioned that it could have disastrous consequences for the social sustainability of the host country, similarly to Fratocchi & Di Stefano (2019) and Arlbjørn & Mikkelsen (2014). Regarding the economical sustainability no consensus was reached among the managers. This is consistent with the controversy in existing research on how nearshoring affects economic sustainability (Shih, 2014, Creyer, 1997, Joergens, 2006, Stentoft et al., 2018, Fel and Griette, 2017).

Several conclusions can be drawn from these results. Depending on a companies' values managers can act in different ways. Considering that nearshoring production could offer a more controllable environment to enact sustainable principles and, even if not to a big extent, reduce GHG emissions as well as reduce the risks of supply chain disruptions it appears as a viable option. The possible financial disadvantage could be compensated by specifically targeting a certain clientele. Given the growing awareness of sustainability, catchy marketing strategies advertising local production could appeal to a broad group of customers and even be an incentive to choose the more expensive but more sustainable fashion item over one which origin of production is unknown. Also, managers should constantly observe the actions of the countries in charge. Even though it could be harder for companies to comply with stricter sustainability regulations, such regulations could kick off a societal change and influence people's willingness to spend.

However, the lack of qualified manpower and materials in Europe pose an obstacle. The current circumstances make it difficult to nearshore production since companies are still dependent on importing missing goods. The innovation of new materials could facilitate the shift to a closer production site. As companies start to produce more in Europe, a qualified workforce will be trained. These happenings should be followed closely by managers.

While offshoring to countries like Asia seems like the more financially beneficial option in the short run, it might be safer for companies to stake their money on nearshoring in the long run. Disruptions like the COVID-19 pandemic or other natural events are likely to happen again in the future and a simplified supply chain could prevent considerable revenue deficits as well as emergency flights and other measures taken that negatively influence ecological sustainability. However, managers should have in mind that nearshoring is not necessarily a sustainability enhancer and that there are better options to bet on when it comes to sustainable business.

The ambiguous findings of this study highlight the importance for further research regarding the effects nearshoring has on sustainability and how common sustainability goals can be combined with customer cost expectations. Due to some constraints this research paper focused on a limited sample size for the qualitative and quantitative research method. Further research should not only include a bigger sample size but also a diverse set of interviewees. Managers' statements whose company mainly produces locally might be biased towards nearshoring and vice versa. Predefined requirements could help to diversify the sample and eliminate the bias by, for example, choosing interview partners based on their managerial experience during their career. A basic review of each SME should be included in quantitative analysis to interpret its success. Furthermore, the discrepancy between participants' attitude towards sustainability and their indicated buyer behavior could suggest ambiguity in some of the questions for quantitative research. A revision of the questionnaire including more objective indicators for sustainability such as an ecological footprint calculator and a clearer analysis of buyer behavior by, for example, simulating real-life scenarios could give a more detailed and accurate insight. However, this work gives a basic understanding of the status quo in this research field and sets a foundation for deeper analysis of the gaps that still need to be explored.

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## 7 Appendices

### Appendix 1: Questionnaire in English

#### Sustainable Clothing

##### Survey Flow

**Standard: Introduction (1 Question)**  
**Standard: Shopping (6 Questions)**  
**Standard: Spendings (8 Questions)**  
**Standard: Environmental and Social Sustainability (6 Questions)**  
**Block: Sample characterization (6 Questions)**

Page Break

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##### Start of Block: Introduction

###### Introduction

Dear participant!

My name is Carolina Halbwachs and I am a Master student at NOVA SBE. For my thesis, I am conducting research related to sustainability and the location of production sites. This survey assesses your ideas related to sustainability and the clothing industry. It will take approximately 5 minutes. There are no right or wrong answers. Your participation will be extremely helpful for the purpose of this research, and I thank you in advance for your time and availability in answering these questions!

Under the law on data protection, all the data collected in this experiment will be fully anonymized and available exclusively to the researchers involved in this study. The results of this study will be used for scientific purposes only and might be published in scientific journals. Your participation in this research is voluntary. You may decline further participation, at any time.

If you have read and understood the content of the present form, please click "Next" to start the survey.

##### End of Block: Introduction

---

##### Start of Block: Shopping



Q1 How often do you shop for clothes?

- Only when I need something (1)
  - 1-2 times per month (2)
  - 3-5 times per month (3)
  - More than 5 times per month (4)
- 

Q2 How much do you spend on average per month (in €) on clothes? Please fill in a number.

\_\_\_\_\_

---



Q3 Which of the following features influence your decision most when purchasing clothes? Please distribute 100 points among the purchase drivers, in terms of how important they are for you, with 0 being the least and 100 the most important.

- Brand you like : \_\_\_\_\_ (1)
  - Design : \_\_\_\_\_ (2)
  - Price : \_\_\_\_\_ (3)
  - Sustainable material : \_\_\_\_\_ (4)
  - Sustainable brand : \_\_\_\_\_ (5)
  - Comfort : \_\_\_\_\_ (6)
  - Total : \_\_\_\_\_
- 



Q4 Which of the following brand attributes are most important to you? Please distribute 100 points among the attributes, in terms of how important they are for you, with 0 being the least and 100 the most important.


- Care for health of employees : \_\_\_\_\_ (1)
  - Contribute to helping low-paid workers in factories in Asia : \_\_\_\_\_ (2)
  - Reduce negative impact on environment : \_\_\_\_\_ (3)
  - Enable safe and hygienic in-store shopping : \_\_\_\_\_ (4)
  - Reduce prices and give discounts : \_\_\_\_\_ (5)
  - Ensure product availability : \_\_\_\_\_ (6)
  - Total : \_\_\_\_\_
-

Q5 Please rate the statement below using the slider.

I do not agree

I completely agree

0 1 2 3 4 5 6 7 8 9 10

I am very supportive of sustainable clothing. ( )	
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---

Q6 Based on your understanding, what are the features best defining sustainable fashion?  
(Multiple answers possible)

- Low greenhouse gas (GHG) emissions (1)
- Ethical and fair trade/labour practice (2)
- Use of recycled material (3)
- No hazardous chemicals used/ pollution-free in production process (4)
- Biodegradable/Sustainable packaging (5)

---

Page Break

**End of Block: Shopping**

---

**Start of Block: Spendings**

Q7 How much would you pay for this T-shirt?

**Basic T-shirt. Production unknown**



---

Page Break

Q8 Now consider the same basic white T-shirt. It was ethically sourced from a brand that treats their workers fairly. How much do you think it would cost? (€)

---

---

Page Break

Q9 Would you buy it for that price ?

Yes (1)

No (2)

---

Page Break

*Display This Question:*

*If Q9 = 2*

Q9.1 How much would you be willing to spend? (€)

---

---

Page Break

Q10 Now consider the same basic white T-shirt. The production took place in Europe and therefore a low amount of greenhouse gas emission was emitted. How much do you think it would cost? (€)

---

---

Page Break

Q11 Would you buy it for that price?

- Yes (1)
- No (2)

---

Page Break

*Display This Question:*

*If Q11 = 2*

Q11.1 How much would you be willing to spend? (€)

---

---

Page Break

Q12 Please rate the statement below using the slider.

I do not agree

I completely agree

0 1 2 3 4 5 6 7 8 9 10

Having a sustainability score or labelling system encourages like the Fairtrade labelling me to purchase sustainable fashion. ()



**End of Block: Spendings**

**Start of Block: Environmental and Social Sustainability**

Q10 Please rate the statement below using the slider.

I do not agree at all


I completely agree

0 1 2 3 4 5 6 7 8 9 10


The issue of climate change is important to me. ()




Q11 Please rate the statement below using the slider.

	I do not agree	I completely agree
	0 1 2 3 4 5 6 7 8 9 10	
I am very worried about global warming. ()		


Q12 Please rate the statement below using the slider.

	I do not agree	I completely agree
	0 1 2 3 4 5 6 7 8 9 10	
Global warming will harm me personally. ()		

Q13 Please rate the statement below using the slider.

	I do not agree	I completely agree
	0 1 2 3 4 5 6 7 8 9 10	
I consider my environmental footprint. ()		

Q14 Please rate the statement below using the slider.

	I do not agree	I completely agree
	0 1 2 3 4 5 6 7 8 9 10	
I am conscious of my environmental footprint. ()		

Q15 Which comes closest to your own attitude about the current environmental problems we face?

- Environmental problems are not very serious and can be readily solved. (1)
- Although environmental problems are quite serious, they are not a dire threat to global well-being, and they can be solved by continuing current approaches and efforts. (2)
- Environmental problems are a dire threat to global well-being, but they can be solved by greatly increasing efforts under the current socioeconomic system. (3)
- Environmental problems are a dire threat to global well-being, and they can be solved only through radical changes in the current socioeconomic system. (4)
- Might as well face it, we're doomed. (5)

**End of Block: Environmental and Social Sustainability**

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**Start of Block: Sample characterization**

Q16 Please indicate your age...

- Under 18 (1)
  - 18 - 24 (2)
  - 25 - 34 (3)
  - 35 - 44 (4)
  - 45 - 54 (5)
  - 55 - 64 (6)
  - 65 - 74 (7)
  - 75 - 84 (8)
  - 85 or older (9)
-

Q17 Indicate your gender:

- Male (1)
  - Female (2)
  - Non-binary / third gender (3)
  - Prefer not to say (4)
- 

Q18 What is your net yearly income

- Less than €10,000 (1)
  - €10,000 - €19,999 (2)
  - €20,000 - €29,999 (3)
  - €30,000 - €39,999 (4)
  - €40,000 - €49,999 (5)
  - €50,000 - €59,999 (6)
  - €60,000 - €69,999 (7)
  - €70,000 - €79,999 (8)
  - €80,000 - €89,999 (9)
  - €90,000 - €99,999 (10)
  - €100,000 - €149,999 (11)
  - More than €150,000 (12)
- 

Q19 Your nationality is:

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Q20 What is your occupation?

- Employed full time (1)
  - Employed part time (2)
  - Unemployed looking for work (3)
  - Unemployed not looking for work (4)
  - Retired (5)
  - Student (6)
  - Disabled (7)
  - Other (Please specify...) (8)
- 

---

Q21 What is your level of education?

- Less than high school (1)
- High school graduate (2)
- Bachelor's Degree (3)
- Master's Degree (4)
- Professional degree (5)
- Doctorate (6)

**End of Block: Sample characterization**

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## Appendix 2: Interview Guide

### INTERVIEW GUIDE

#### Warm-up

Good morning / afternoon / evening. My name is Carolina Halbwachs and I am a Master student at NOVA SBE. For my thesis, I am conducting research related to sustainability and the location of production sites.

For this purpose, I would like to interview you for approximately 45 to 60 minutes by means of a semi-structured interview, which means that I will ask you several questions, to which there are not right or wrong answers and you are free to say whatever comes to your mind on the subject. Also, your answers will be extremely helpful for the purpose of this research, and I thank you in advance for your time and availability in answering these questions!

For the purpose of analyzing our interviews later, I would like to record our conversation. It will remain anonymous, and you will not be contacted further past this interview, in compliance with the General Data Protection Regulation (GDPR), of May 2018.

Would that be ok?

- Yes
- No (finish the interview)

Thank you very much! Let's get started.

#### SECTION 1 – Company

##### Pre-sourcing:

1. When was the company founded?
2. What is the mission of the company?
3. What is the company size?

##### General questions.

4. Can you tell me what the main markets are of the company you are currently working at?
5. Where is your company currently producing most of the products?
6. Does your company outsource the production or is everything done inhouse?
7. When you think about sustainability associated with your company what is the first thing that comes to mind?

8. How much of a priority do you feel sustainability is for the company, and how does it compare to direct competitors?

**The next set of questions focuses on environmental sustainability.**

9. What does environmental sustainability mean in the context of your organization?
10. What do you think about environmental sustainability in the textile industry? Is there anything the industry should do?
11. Through which initiatives does your business try to be more environmentally friendly?
12. How would you assess the importance of environmental sustainability for the local government in the country/countries your company produces?
13. Do you think that the location of your production site can be a problem for your environmental sustainability goals?
14. We know that: Transportation, Manufacturing plant, and Choice of materials are all areas where choices can harm the environment. In your field, which of these would you say are more and less harmful, according to how your business is run.
15. Was your company affected by supply chain disruptions and therefore had to take a different mode of transport? If yes: Please explain.

**The next set of questions focuses on social sustainability.**

16. What does social sustainability mean in the context of your organization?
17. What do you think about social sustainability in textile industry?
18. Through which initiatives does your business try to include social sustainability?
19. How would you assess the importance of social sustainability in the country/countries where your company produces?
20. What is the company's main goal concerning social sustainability?
21. Was your company affected by any occurrences such as the Rana Plaza or other scandals?

**The next set of questions focuses on economic sustainability.**

22. What does economic sustainability mean in the context of your organization?
23. What does economic sustainability mean in your company?
24. What would you say is the biggest risk in guaranteeing economic sustainability?
25. What kind of influence do you expect would nearshoring have on your economic sustainability?

**The next set of questions focuses on sustainability and nearshoring.**

26. Would you say environmental, social and economic sustainability are equally important for the company? If not, how are they different?
27. Have you heard of the trend to nearshore the production? [if not, explain the concept to them]
28. Have you considered this strategic move in the past years?
- 28.1 If yes, what was your main reason behind it?
29. On which pillar of sustainability do you think could it have the biggest positive effect? Why?
30. Do you think it could have a positive effect on one of the pillars of sustainability? Which one?
31. What do you think are potential obstacles for companies which want to nearshore their production?
32. Is there anything else you would like to add?

### **Wrap - up**

The interview has come to an end. It has been very interesting listening to you sharing your experience and views on this subject. Thank you!

Save:

Gender

Age

Company size

Company name (for myself)

Job title

### Appendix 3: Results Quantitative Analysis

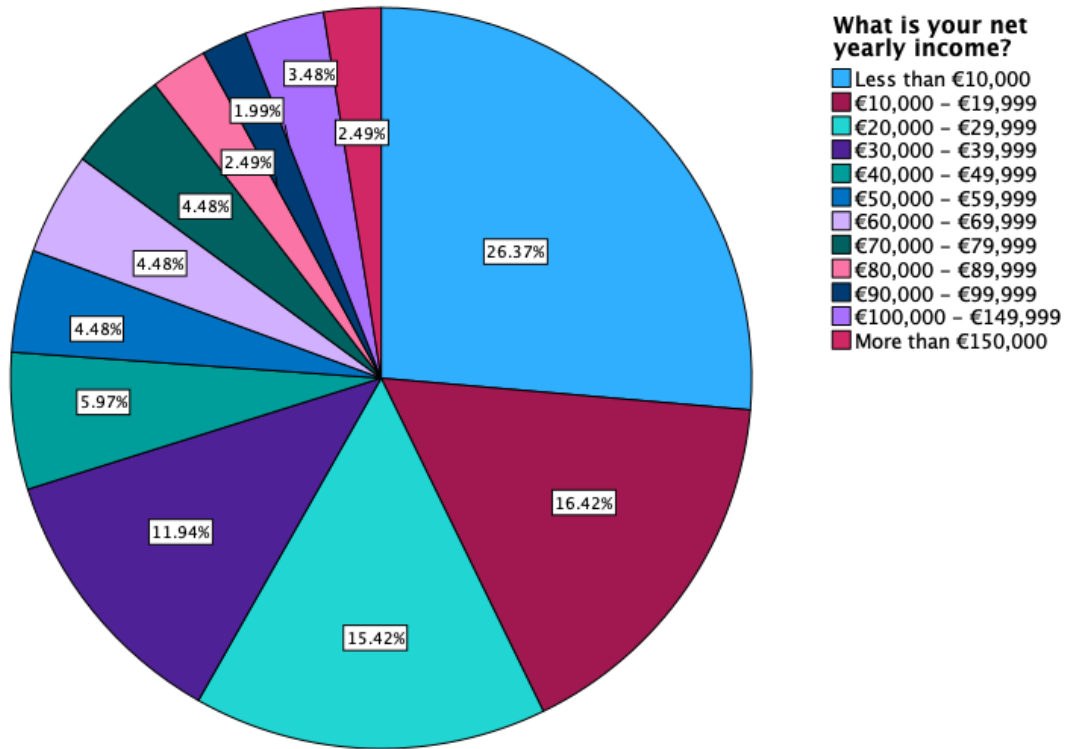


Figure 3.1: Net yearly income distribution

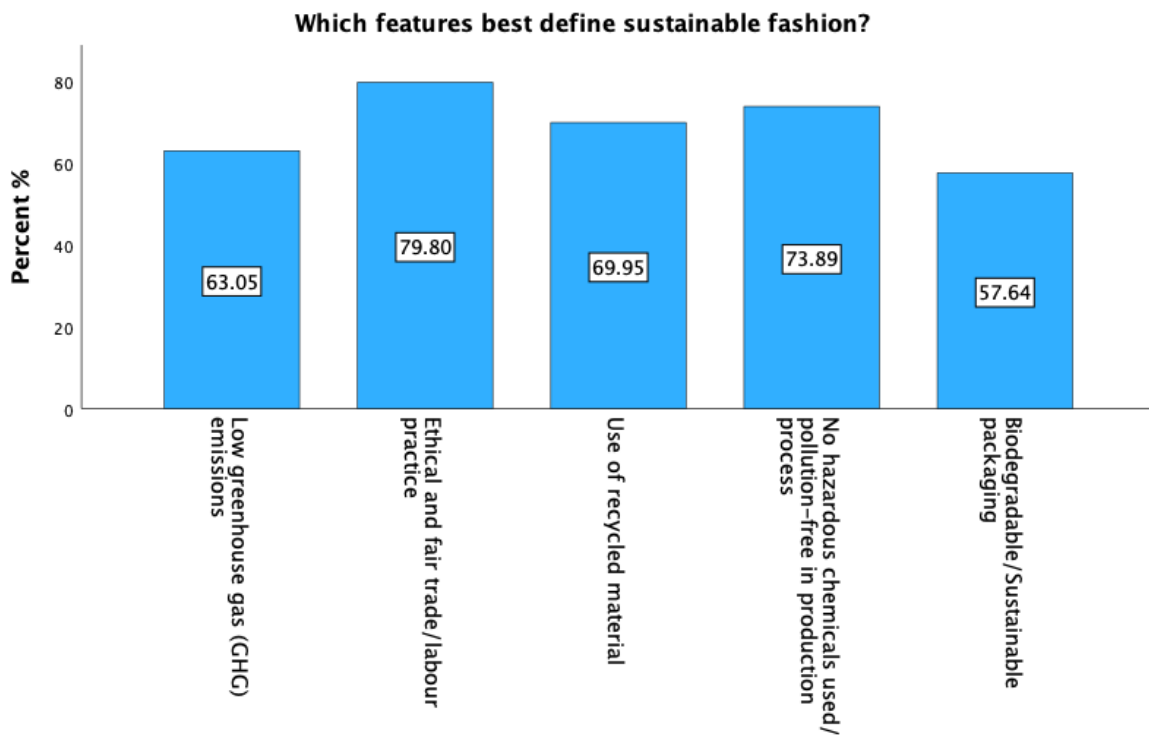


Figure 3.2: Features describing sustainable fashion

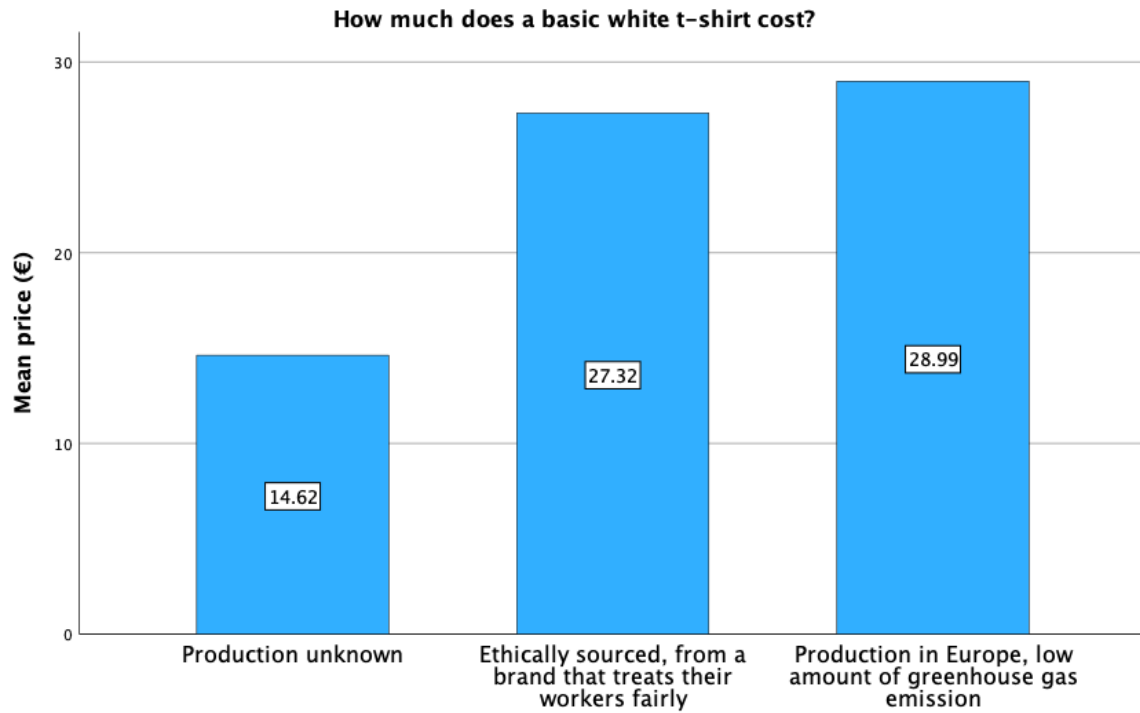


Figure 3.3: Expected price of a T-shirt depending on the production

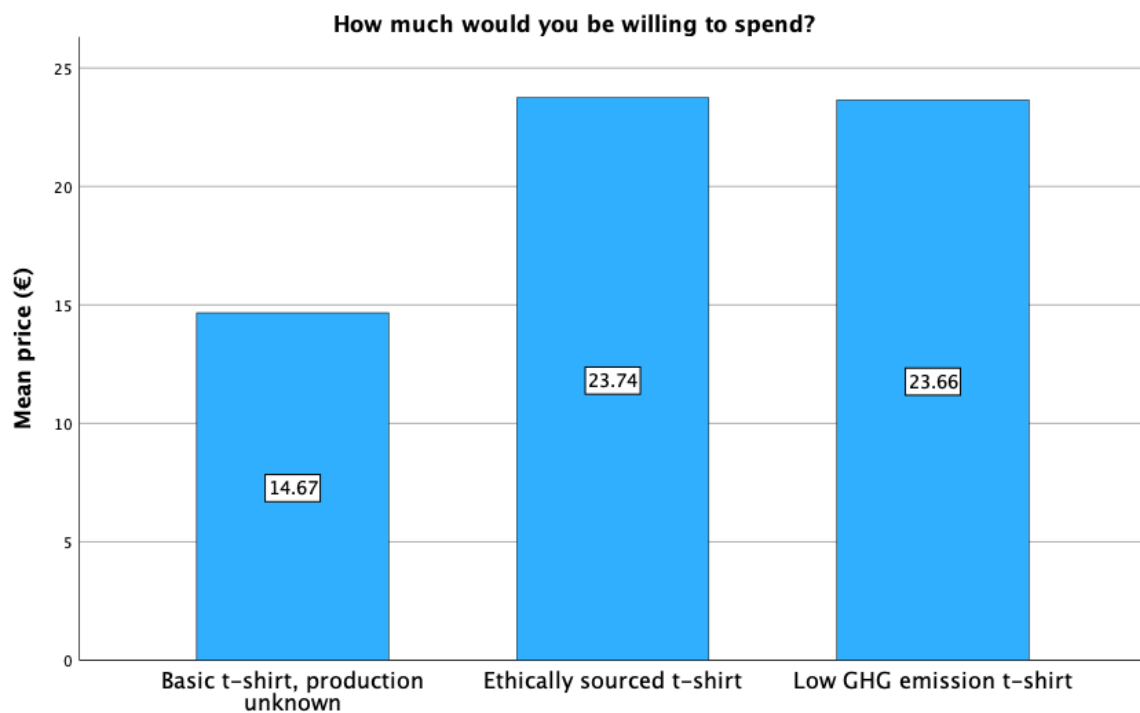


Figure 1.4: Average spending for a white T-shirt depending on the production

## Appendix 4: Results Qualitative Analysis

INTERVIEWEE TARGET		Interviewee A1	Interviewee A2	Interviewee A3	Interviewee A4	Conclusions	
Overview	Target Markets	<i>quote</i>	"Selling markets are mainly Germany, Austria, and Switzerland (80%), minor subsidiaries in France and Japan and significant one in the UK (separated brand and positioning)."	"The main markets are currently the DACH region and the USA where we have our own sales company. However, we sell our products in 64 countries."	"The main market is the DACH region, but we sell to the whole world through our online store."	"Germany, Italy, Austria, Switzerland, England, Benelux, France and a little bit of America but only a little bit."	<i>The DACH-region has been part of all companies' target markets.</i>
		<i>interpretation</i>	The DACH region is the main target.	Mainly the DACH region and the USA.	The DACH region is the main market. However, products can be shipped to different countries.	Mainly central Europe is being targeted.	
	Production countries	<i>quote</i>	"We are producing most of our products in Asia. Vietnam and Myanmar quite large parts but divided over the region."	"In Vietnam (94%), China and Myanmar."	"We have producers in Italy, in Croatia, in Slovenia. Then we simply decide where the best option is at the moment."	"So everything in Eastern Europe is 90%. Hungary, Romania, Bulgaria, leather in Turkey and very little Asia, so only 5%."	<i>The production countries differed extremely. While two companies sourced mainly from Europe, the third one sourced only from Asia and the 4th one was more diversified but also sourced the majority from Asia.</i>
		<i>interpretation</i>	Most of the production takes place in Asia. However, there is also production in other countries.	The production is done in Asia	Production is only done in Europe.	The production takes place mostly in Eastern Europe.	
	Materials	<i>quote</i>	"You will still ship especially in the outdoor industry because you have highly advanced textiles and garments you need. And they are produced in Asia."	"40% of our fabrics at least come from Taiwan. There is as well a market for these fabrics in South Korea and we also source from there. It is unavoidable not to source from Asia"	"Exclusively from Europe is not possible. But I would say 80-90%. The remaining 10% come from all over the world. Depending."	"We send the materials, which mainly come from Italy, to the producers."	<i>Two companies source mainly from Asia as the materials they need are only produced there. These two companies are also producing mainly in Asia. The other two enterprises source the majority from Europe. However, sourcing 100% of the materials in Europe is very difficult.</i>
		<i>interpretation</i>	Most of the materials are from Asia. Asia has material which you need to ship into Europe.	Countries in Asia are key suppliers for fabrics.	A large amount of products in being sourced from Europe but a small part is being sourced from around the globe.	Most of the materials come from Italy.	
	Outsourcing	<i>quote</i>	"We are fully outsourcing to vendors. And we are not thinking of insourcing at any point."	"We no longer have our own production facilities and there are no plans to open new ones in the future."	"It varies. With customisation, we do everything 100% in-house. We can also do some other steps in-house. Only when larger quantities are involved, these are outsourced."	"Yes, it depends on what you mean by production. We already do design and pattern development and everything here in Salzburg. The producers cut the goods and then sew them."	<i>Most of the production is being outsourced only in specific cases one company produces in-house.</i>
		<i>interpretation</i>	The current strategy is to outsource the production; this will not change.	The current strategy is to outsource the production; this will not change.	The larger scale production is being outsourced. Insourcing is common for customisation.	The main part of the production is being outsourced. Only very few things are still being done in-house.	
	First thought about sustainability	<i>quote</i>	"Social sustainability because there was a major emphasis in our latest strategies over the last 30 years because it was as well the major issue in the textile industry. It has been the most important part of our sustainability projects in the past."	"Deuter Promise actually says in one word what we are up to - we promise a holistic approach and the implementation of sustainability on as comprehensive a level as possible."	"Basically, we don't produce large quantities into the blue. We also don't follow a collection run. We don't discontinue any products after a collection, maybe we change the colour. But we sell jackets for years."	"Producing in Europe and that we have a lot of natural fabrics, like wool. Fabrics that do not need to be refined. We also have technical fabrics, but mainly natural fabrics. Then we have buttons made of horn, which is also natural. Yes, and then we always have products that are really sustainable."	<i>Every company has a different first thought about sustainability. Social sustainability, overproduction, nearshoring and thinking about everything were mentioned.</i>
		<i>interpretation</i>	Social sustainability has been a priority in the past. However, the future offers different opportunities.	Sustainability means a holistic approach. Also in the implementation.	Sustainability means that there is no overproduction.	Producing in Europe and using natural fabrics.	
Environmental sustainability meaning for the company	<i>quote</i>	"First part: Current Core business and operations behind it: I think the first step is optimizing operations and optimizing the core businesses we have today. This can play out in different roles: This can go from we are printing less in our HQ in Germany and try to get renewable energy sources to power our computers. Up to we don't fly anymore. Neither any of us on business trips nor our products. 2nd part is: How can we innovate our business model: We earn money while at the same time minimizing impact like life-long warranties, customer service cycle where you can extend the lifetime of a product. Or Circular economy."	"Everything that has to do with the environment is our planet. It's about climate protection, which is where we're very focused at the moment. So that we improve the supply chains. Everything that has to do with waste water, everything that has to do with chemical management, to place it accordingly in the supply chain. We nominate suppliers in the preliminary stage. Of course, we usually source them according to certain standards. But many of them have been working with our partners for a long time due to the long-term nature of the business. We then develop them successively in order to create sustainability."	"Environmental sustainability means not producing one-time or throw-away products. There is a higher value because we pay higher wages, because we use higher value materials, use durable materials."	"The use of natural fabrics and natural buttons and the fact that you don't bring things from far away, but from close by. We also have some loden from Styria. Less transport."	<i>The meaning of environmental sustainability differs for each company. Circular economy, the optimization of core businesses and processes is the meaning for one company. Another company focuses on waste water, chemical management and climate protection. The third company focuses on long-lasting products. For the last company it means short transportation routes and natural materials.</i>	
	<i>interpretation</i>	The current core business and processes need to be optimized. Moreover, a new business model like circular economy is an option.	Waste water, chemical management and climate protection. Suppliers need to be sourced according to certain standards or developed.	Environmental sustainability comes along with long lasting products.	No long distance transport and natural materials.		

Environmental sustainability	Textile industry environmental	quote	"I think there could be impacting measures for example chemicals. How do you harm local environments with the products you are producing. Dying a garment is extremely harmful for the environment. There are many start-ups tackling these issues. So for me the core is innovation for the outdoor industry."	"A very important aspect is the circular economy. It's about making good, durable products that can then be repaired at a later date. Especially when you think about the finite nature of raw materials. It is important that more raw material sources come from the Circuit "	"The industry should ban companies that offer 6 collections a year."	"Very important: get away from all the fast fashion. You have to buy high-quality things that you can wear for longer and get away from the weekly cheap junk shopping."	Three out of four companies agree that the textile industry should forbid fast fashion. Moreover, new material sources have to be found. And for one company a new method for treating garments needs to be invented.
		interpretation	The textile industry should focus on how garments are being treated in a more ecological way.	The products have to be better and longer lasting. New material sources should come from already available items.	No more fast fashion.	No more fast fashion.	
	Offshoring and sustainability of local governments	quote	"In comparison to what we are used to it is much lower. And you can understand that because they have more pressing issues in those countries. Moreover, you can easily avoid standards by bribing the local officials. It often comes down to a brand and its own perception of its responsibilities. We are working a lot with NGOs and we get a label and we work with that. It works way better than with governments. "	"It depends on the legislation in the respective countries and on the implementation. How are they controlled and what loopholes are there? Of course, there are greater risks in Asia than if you were to produce here in Germany. It is a risk. But you have the possibility not to blindly choose the suppliers and also to train them like we do."	"Europe is more sustainable but not sustainable per se. To be honest, the whole business model has been converted to growth in the last 20 years. That is the fundamental problem. Turning that around is actually the most difficult and biggest problem, explaining why nothing is happening and nothing will happen. The social standards are very high in all the partners we work with. Minimum wages are paid everywhere, whether these are appropriate or not is a matter of debate. That is up to the governments. "	It is very important that we produce there, otherwise the labour force will disappear. It's a win-win situation. If you do it all in Europe. Transport distances are much shorter. You saw it with Covid. China production has slowed down a lot. Or it didn't take place at all, because something was missing or they couldn't get the goods here, so Europe as a location is very important. One reason for producing here was definitely the ecological sustainability. The transport routes are eliminated, it is more transparent and we can send travel technicians on site. They can then check the production as well as the company. We can't do that every week in Asia. We don't know what happens behind closed doors. That's why we are more flexible with Eastern Europe, because it's quicker than if I have to send material from Italy to Asia. Then a lot of time is lost. A larger production quantity would not be a problem.	Producing in Asia is definitely riskier but every company which decides to produce there can have a positive impact. In Europe the likelihood that production is sustainable is higher but also not secured.
		interpretation	Governments are less concerned in Asia. However, NGOs are helpful in securing standards.	It is riskier in Asia but a company can actively choose with who to make a deal.	Europe is more sustainable but not necessarily sustainable.	Producing in Europe is better and has many advantages.	
	Problems through disruptions	quote	"Many companies had to fly. We did for minor parts. We set the policy that we will not do that anymore in the future. Still if you have a key account which is demanding you to deliver you sometimes must do it. If there is an urgent matter, we still might do it. We will try to avoid it though."	"There were a few emergency flights. From products that now had the first introduction and had to be here at a certain time. Otherwise they would be punished with commensurate penalties. But that's not really our tactic because we plan so far in advance that flying is rarely necessary. For example, now that the container costs \$20,000, it is better to fly sometimes. From an environmental point of view, of course, it's a disaster, but it's also not a permanent measure. "	"Corona has caused a loss of manpower. It has happened that we have delivered 3-4 weeks too late. But this was more due to a lack of workforce than to a lack of raw materials or long transport routes because we had no goods on the ship in the Suez Canal."	"Yes, huge problems, because in Eastern Europe there is no such thing as short-time work. They couldn't afford to keep the employees and then they had to lay them all off. And of course, during Covid, production dropped a lot because there was no demand. Now that things are back to normal they have lost the people. And the war in Ukraine, yes, of course that also affects us, because we also have a producer in Ukraine, who was no longer available from one day to the next. We also have customers in Ukraine. That had a strong influence on us. We still have big problems now with the lack of labour. "	Each company had to fight with problems caused by disruptions. While the companies that produce in Asia had a problem to deliver on time because of delays in transport, the companies which are producing in Europe are missing manpower.
		interpretation	Some deliveries would not have arrived on time, so shipment by air had to be done. But this should not happen again in the future.	The disruptions caused problems. These problems were resolved by using another mode of transport which is less sustainable.	The disruptions caused problems because of a loss of manpower.	The disruptions caused problems because of a loss of manpower.	
	Transport	quote	"But if we only think about transport and the efficiency of shipment like cargo ships. I think there could be more impacting measures, for example chemicals. "	"According to our calculations, it accounts for between 1-2% of the footprint of our product. It is not massive. If we wanted to assemble the product here, we would first have to bring all the parts from Asia. De facto the same footprint only in the upstream chain. Everything is so globalised. We transport most of the products with containers. "	"We produce closer to the markets, which has an impact on our sustainability. It is not necessarily an advantage financially, because the transport from Italy to here or from Croatia to here by truck is not cheaper than if we have it come from Asia. Containers have become very efficient. It is a time factor."	"Everything by truck. "	For companies producing in Europe shipment by truck is normal and it allows flexibility. In case of production in Asia, cargo is being used which got very efficient and contributes only minimally to the footprint of the product.
		interpretation	Shipment through cargo is usually done and this is very efficient. Definitely not the biggest problem.	Usually, the products are being shipped by containers which makes it possible that the transport contributes only minimally to the footprint of the product.	The shipment by truck allows flexibility but is not necessarily cheaper.	Everything is shipped by truck.	

Social sustainability	Social sustainability	quote	"It is the most important part of our sustainability projects in the past. My opinion is quite strong because I come from an entrepreneurial family which is wearing our name on the clothes. I want to live with my conscience because there are 1000 and 1000 livelihoods depending on the products, we are getting produced by them. Trying to give good working and safety conditions, pay fair salaries."	"It is diverse and multi-layered and starts with the staff in our house. Dealing with them responsibly. Then when we look at the production countries, we talk about all the issues that we also talk about at Fairfoundation (wages, working hours, details on the website). We can implement this directly with the supplier and we also demand this from the deeper supply chain. As of today, we do not have the possibilities to control everything as we would like to, but we are working on it."	"It doesn't matter whether we work with employees or external partners. Fair prices have to be negotiated, because we also have to think economically. We also don't commission anything where we don't know 100% that we can pay for it."	"We still have 80 people here and we are keen that people stay with us for a long time, so we have some people who have been here for 30 years. So we are long-term partners for our employees."	The meaning of social sustainability differs for each company. While one company sees it as their own employees' well-being. Another company thinks of it as everyone's well-being. Another company focuses on fair prices that have to be paid to everyone.	
		interpretation	Social sustainability is of priority. Good working and safety conditions and a fair salary are the key parts of it.	Firstly, we look after the employees at the sites and after we look after the people in the production sites. However, there is no complete control yet.	Fair but reasonable prices have to be paid.	Social sustainability means providing secure jobs for our employees.		
	Textile industry social	quote	"You have a huge responsibility the industry does not really live up to and many scandals and I think we would wish that the industry is improving overall. But it is not improving at least that is my perception because many companies are greenwashing."	"It is lived practice: In the outdoor industry there is a big exchange where companies that are at Fairware share information. They take joint measures. I wouldn't talk about the textile industry in general because that's another story. It's a difficult issue because we produce in countries where there is no freedom of expression. Maybe we won't produce there anymore. We don't know. At the moment everything is in upheaval. So you can't just quickly change the production locations."	"Unclean work, working hours, chemicals, toxins. If we don't start raising prices for the services we provide, we won't come down from the crowd. Unless we come down from the crowd, we will not change the situation. If we don't produce anything in Bangladesh. There will be a big death rate and poverty, human trafficking. It would change a lot for the worse if we stop spending money there. We will have to get away from the situation where people who work 8 hours earn the same as people who work 12 hours. It is more important to produce less. For better products that last longer you just have to spend more. Sometimes you have to leave the fashion aspect out of sustainable products."	"Huge differences between Europe and Asia. You hear about companies collapsing in Bangladesh or elsewhere. People are really exploited there. And unfortunately it's the same in Italy, I've observed that now. There is actually a Chinese town near Florence Prato. The companies there bring in cheap labour from China. They work around the clock and are extremely exploited. We don't want that and we always make sure that our things come from really good companies, where they look after the employees and where they know that no one is being exploited and that there is no child labour. So there are big differences. In Asia it's much more trouble than in Europe."	The textile industry should act by improving the standards. For example by taking measures together or by reducing the production volumes. However, shifting the production to Europe will not improve the overall situation.	
		interpretation	Not a lot is happening in the textile industry. However, it should.	Taking measures together is driving improvement. However, the textile industry cannot be generalized. There are many countries where there is no freedom of expression which is worrying.	It is necessary to reduce the quantity so social standards can be increased. Nearshoring will have a negative effect on Asia so the only solution is to decrease the quantity.	Europe has higher standards. However, sometimes there are also low standards in Europe.		
	Social sustainability in production countries	quote	"This is a development measure probably more powerful than sending another million euros there. You can reach industry, people and create jobs which create value. There are many positive sides to outsourcing regarding social sustainability."	"It is definitely not as good as in Germany. And if you look at the social sustainability, for example of Serbia in comparison to Vietnam, I'm not sure if it's not even better in Vietnam than in Serbia or in Romania or in the USA. It is very well said that we all produce in Europe. But that is just as critical in part, you have exactly the same problems. All our production countries are high risk countries for environmental and social sustainability. You have to be aware of the risks and then act accordingly. And then you can change something: long-term thinking and partnerships help. This has a greater impact on remedying things. And it is precisely in these countries that there are problems that need to be remedied."	"Europe is more sustainable but not sustainable per se. To be honest, the whole business model has been converted to growth in the last 20 years. That is the fundamental problem. Turning that around is actually the most difficult and biggest problem, explaining why nothing is happening and nothing will happen. The social standards are very high in all the partners we work with. Minimum wages are paid everywhere, whether these are appropriate or not is a matter of debate. That is up to the governments."	Well, I know myself again down in a company in Hungary for 2 weeks. At that time I thought that everything was sustainable and that people were being treated well, but now of course Covid is doing it. Yes, I think there is a shortcoming there, because they were put out on the street without being replaced. I don't know how sustainable that is. What are they supposed to do? It's hard to judge because I'm not there all the time. Yes, it is certainly not like in China, where they are really exploited. They have normal working hours. But I can't go into details because I simply don't know.	All companies agree that there is a lot to do regarding social sustainability. The companies which already produce in Asia are convinced that their presence there can improve the situation. Most of the companies believe that Europe is still advanced in comparison to Asia. One company thinks that this is not true for every country in Europe.	
		interpretation	There is a lot to do regarding social responsibility in developing countries. However, investing money in these countries is a good development measure.	The social sustainability in Germany is better. However, it is not possible to say this for whole Europe. The production countries are high risk but it is possible to have a strong impact there.	Europe is more sustainable but not necessarily sustainable.	Europe is certainly not as bad as China but also not perfect.		
	Scandals	quote	"No, luckily not. Getting back the importance on why we spend so much money on social sustainability."	"No, not directly. Indirectly through the founding of the Textile Alliance and the Green Button. How terrible that was, it shook us up and moved a lot of things. It has changed the industry for good. Of course, not everything is perfect yet, but it is moving the industry in the right direction. Somehow everyone was affected and has to justify themselves in the textile industry."	"No."	"No, we don't do that."	None of the companies was affected by any scandals.	
		interpretation	The company has not been affected by any scandal.	No but the positive movement that emerged from this tragedy.	No.	No.		
	Economic sustainability	Economic sustainability	quote	"It has always been of huge importance for us. We have always been a family run business and we have a certain generational mission to pass the company in a healthy state to the next generation. You think long term compared to other fast moving clothing companies which think from quarter to quarter."	"We focus on long-term partnership. We say that we want to work with suppliers for so long that we can see sustainable development. And not necessarily to look at the last cent, but whether the whole thing is right. So we don't have price negotiators who push down prices everywhere."	"For economic sustainability, we need long-term customers, whom we have but also need to retain."	"We are, after all, a family business with many years of experience. We want the company to exist for a long time. We are not looking for total profit maximisation and the next one will be sold off or shut down, I don't know. Instead, there is continuity and I would call that economically sustainable."	All companies see in economic sustainability long term success. Either by the long-term existence of a company, by having long-term clients or long-term partnerships.
		Economic sustainability	interpretation	Very important that the company keeps existing for a long time. Therefore, economic sustainability can be understood as stability.	Economic sustainability means having long term relationships and not focusing only on money.	Economic sustainability means that the company has long term customers.	Very important that the company keeps existing for a long time. Therefore, economic sustainability can be understood as stability.	



	Risk for economic sustainability	<p>"quote"</p> <p>"Off the top of my head: not being bold enough. We as a family business are limited in size and economic power. If we are too restrictive we might trade off future readiness to short term stability."</p>	<p>"Yes, we have quite a concentration on a few suppliers in a few production countries, so there is simply no diversification. There were 3 months of lockdown in Vietnam and all factories were closed. That means for 3 months 93% of the products could not be manufactured. That is of course a high risk."</p>	<p>"Social development. There will always be more poor people, a few extremely rich people, but the middle class, which finances the eternal growth we want, is falling away. If purchasing power disappears, that's a problem for everyone."</p>	<p>"Well, for one thing, the external factors, as you have now seen Corona and Ukraine. All these things. Climate change is also hitting us very hard, for example October, because October is the warmest month on record, normally people buy jackets and coats in October."</p>	<p>Every company fears different risks. For example, due to the rather small size missing out on needed investments. Not being diversified enough or a general change in customer purchasing behavior.</p>
		<p>interpretation</p> <p>A risk is to not try enough and be not competitive in the long term.</p>	<p>A risk is to not be diversified enough.</p>	<p>A risk is that the purchasing power will disappear.</p>	<p>A risk is that external factors are changing customer behavior.</p>	
	Biggest positive effect of nearshoring	<p>"quote"</p> <p>"I think it has a negative impact on social sustainability. Economics we talked about already. Ecological is the biggest positive effect. You will still ship especially in the outdoor industry because you have highly advanced textiles and garments you need. And they are producing in Asia and you will not change the entire supply chain. So you will still need to transport a lot but it will be less in volume which makes it more efficient. Less CO2 emissions. Of course, reduction of loss is easier to control in Europe."</p>	<p>It is certainly on the Economic Sustainability I would say now. So then you would no longer have the supply chain disruptions. Well, yes, the supply chains are still in Southeast Asia. That is simply a fact for the textile and clothing industry. So there's not so much here any more. That would certainly create jobs, but jobs in a wage sector that is rather low and very labour-intensive. I don't know.</p>	<p>"This is very easy for us in Europe: social standards and safety are higher in Europe than in other countries of the world. This is a clear point in favour of nearshoring and sustainability and CO2 emissions. For Europe it would be socially sustainable but not for Asia."</p>	<p>"Everywhere it is very positive."</p>	<p>Most companies see a positive effect from ecologic sustainability. The opinions about the other bottom lines is divided.</p>
		<p>interpretation</p> <p>It has the biggest positive effect on ecological sustainability. Because of less reduction of loss and reduced CO2 emissions due to transport.</p>	<p>Not sure.</p>	<p>It has a positive effect on the social sustainability in Europe but not in Asia. However, you can reduce CO2 emissions.</p>	<p>There is everywhere a positive effect.</p>	
	Social sustainability and nearshoring	<p>"quote"</p> <p>"I think it has a negative impact on social sustainability. Because the bad companies will keep producing in Asia but the companies that want to change something will move to Europe. The conditions for people working in Asia will decrease significantly."</p>	<p>"And if you look at the social sustainability, for example of Serbia in comparison to Vietnam, I'm not sure if it's not even better in Vietnam than in Serbia or in Romania or in the USA. It is very well said that we all produce in Europe. But that is just as critical in part, you have exactly the same problems. Freedom of expression is perhaps not necessarily the highest good, and if we talk about wages, then in my opinion someone in Vietnam is better off with the wages he gets than someone who gets his sewing wages in Romania. So it would also mean that it has a negative effect on social sustainability on the whole because we are taking work away from people in Vietnam. So we leave out our supplier there one hundred percent, there are about 3800 jobs attached to it. And if we were to say that we would stop producing there from one day to the next, then the people there would be out on the street."</p>	<p>"This is very easy for us in Europe: social standards and safety are higher in Europe than in other countries of the world. This is a clear point in favour of nearshoring and sustainability and CO2 emissions. For Europe it would be socially sustainable but not for Asia."</p>	<p>Well, I know myself again down in a company in Hungary for 2 weeks. At that time I thought that everything was sustainable and that people were being treated well, but now of course Covid is doing it. Yes, I think there is a shortcoming there, because they were put out on the street without being replaced. I don't know how sustainable that is. What are they supposed to do? It's hard to judge because I'm not there all the time. Yes, it is certainly not like in China, where they are really exploited. They have normal working hours. But I can't go into details because I simply don't know.</p>	<p>As a whole it would decrease the overall social responsibility if companies decided to quit production in Asia. However, starting with a new production in Europe might bring advantages to social sustainability.</p>
		<p>interpretation</p> <p>There is a negative influence on social sustainability on the whole if a company decides to nearshore.</p>	<p>There is a negative influence on social sustainability on the whole if a company decides to nearshore.</p>	<p>It has a positive effect on the social sustainability in Europe but not in Asia.</p>	<p>It would increase the social sustainability because Europe is more sustainable than e.g. China.</p>	
	Economic sustainability and nearshoring	<p>"quote"</p> <p>"You would need to change a big part of your business model, a major part of your supply chain which hugely affects the rest of your business. It's not impossible but you need to reposition yourself because if you shift certain steps to Europe then you will have to charge approximately 30-40% more to the end-consumer. Which brings you in a completely different price range and even if you have a strong brand, price always plays a role. There are upsides to nearshore. As we have seen in the past 2 years. Because supply chain disruption has a huge effect on your economic sustainability."</p>	<p>"So the risk that comes with complex supply chains of course always means a cost risk as well. If we paint the devil on the wall and China attacks Taiwan tomorrow. A real war will break out, and then production will no longer be possible. We will be short in 40% of our fabrics because we source them from Taiwan and this risk is already there. That's simply there and we wouldn't make a plan B now, because there really is no plan B, if they have such a dominant position in the market for backpack fabrics, then that's just the market in which we source."</p>	<p>"It gives us no financial advantage but the advantage of humanity, of short distances. If necessary, one can get into a means of transport and make a visit or simply pick it up oneself. There is flexibility that is sustainable and controllable."</p>	<p>"It's a big one because, as I said, we're more flexible, it doesn't take so long, we send our own people there, we also monitor it. It's also good for our conscience and everything to say we produce in Europe, so there are more and more people asking where the part comes from. And when we say, Asia, they say, "Okay, well, thank you", that's very important."</p>	<p>Nearshoring allows one to reduce risk and therefore has a positive effect on the economic sustainability according to two companies. But this has its price as well. A company that is currently nearshoring sees no financial benefit and another company financially benefits from customers who ask for nearshored products.</p>
Nearshoring		<p>interpretation</p> <p>There are upsides to nearshoring for example better mitigation of disruptions. However, there are also downsides. The increase of the price due to nearshoring activities forces the company to reposition itself which is a risk.</p>	<p>There is a huge risk by offshoring which negatively influences economic sustainability.</p>	<p>There is no financial advantage.</p>	<p>More and more people are conscious of where the product comes from. So it is positive for the economic sustainability as customers can be retained.</p>	

Environmental sustainability and nearshoring	<p><i>quote</i></p> <p>"I think it has a negative impact on social sustainability. Economics we talked about already. Ecological is the biggest positive effect. You will still ship especially in the outdoor industry because you have highly advanced textiles and garments you need. And they are producing in Asia and you will not change the entire supply chain. So you will still need to transport a lot but it will be less in volume which makes it more efficient. Less CO2 emissions. Of course, execution of loss is easier to control in Europe."</p>	<p>"It depends on how your supply chains are set up, because there are really good supply chains now and very good suppliers who operate mainly in Asia, so they are on a standard that some Italian fabric manufacturers don't have. If you produce over there in the worst shack. To put it bluntly, this can of course have a positive influence, because the rules here are completely different. I think there is only a positive influence if you don't produce in the worst shack. I have seen fabric manufacturers who work at a level that doesn't even exist here."</p>	<p>"We didn't want to make trips to Asia. We decided to do this because we have small quantities and we didn't want anyone to push us to order large quantities. We also have the flexibility in Europe. We can control it and don't have to rely on labels. Labels always have their weak points. When I know an inspector is coming, I put the chemicals away. The CO2 print due to transport is possibly better but otherwise no great advantages."</p>	<p>"It is very important that we produce there, otherwise the labour force will disappear. It's a win-win situation. If you do it all in Europe. Transport distances are much shorter. You saw it with Covid. China production has slowed down a lot. Or it didn't take place at all, because something was missing or they couldn't get the goods here, so Europe as a location is very important. One reason for producing here was definitely the ecological sustainability. The transport routes are eliminated, it is more transparent and we can send travel technicians on site."</p>	<p>One advantage with which three out of four companies agree is the shorter transportation routes as CO2 emissions can be reduced. Due to this shorter transportation, execution of loss can be better controlled which means less waste. For one company nearshoring has no positive effect on environmental sustainability and for another one just a minimal influence.</p>
	<p><i>interpretation</i></p> <p>It has the biggest positive effect on ecological sustainability. Because of less execution of loss and reduced CO2 emissions due to transport.</p>	<p>In a normal scenario, nearshoring has no effect on environmental sustainability because the fabric manufacturers are very advanced.</p>	<p>Nearshoring has maybe a positive effect on the CO2 emissions but other than that there are no great advantages.</p>	<p>Transport is way shorter.</p>	
Potential obstacles	<p><i>quote</i></p> <p>"Costs of course. Access to labor. Where do you get all the people from that are supposed to sew your clothes. Another problem is quality of labor. You have a highly specialized workforce in the areas where we are producing right now. Some products are easy to produce. For example, a t-shirt. If you think of a rain jacket that has to perform in 4000 m at icy conditions in snow. There are a lot of requirements on a product. You need people who are trained. In Asia there are currently being produced we have partners who have the competency to produce those clothes."</p>	<p>"Besides the lack of material. The labour costs. The hourly wages are simply different. And if we need somewhere around 200 - 300 minutes for a product, then of course that has a significant influence. Factories. But there is no one who could open a factory and bring the know-how to run it accordingly. In Germany, you won't find enough qualified workers. No more trained people. And well, in certain textile-heavy production countries you can also find qualified workers. But I can't tell you exactly what the current situation is, because we are not active in these markets."</p>	<p>"There are no problems. It's a matter of attitude. Because we are innovative, we have a lot of materials here. But we have to import some materials. We can't get them from somewhere else. It simply cannot be replicated in the same function. In Austria we already have problems finding qualified workers. But for larger quantities, we work with production facilities and there it's no problem."</p>	<p>"These are dying professions, you can hardly get them any more, or a top seamstress, you can't get them any more. So it is very, very difficult and there is no new blood coming in, because very few people want to do an apprenticeship as a seamstress. Because it is simply no longer, how shall we say, perhaps no longer in keeping with the times, or I don't know? The young people are no longer interested, so yes, we probably wouldn't even be able to make a production in Austria with our forces."</p>	<p>Potential obstacles are costs. Every company mentions that qualified manpower is missing. The material which is used in the product is not available in Europe.</p>
	<p><i>interpretation</i></p> <p>Costs and qualified manpower.</p>	<p>Lack of material, costs, production know-how.</p>	<p>In Austria it is difficult to find qualified workers but working with production facilities in other countries allows companies to avoid the problem.</p>	<p>Lack of qualified workforce.</p>	
Future	<p><i>quote</i></p> <p>"I think the move will go in simplifying those supply chains in the future because we have gone too far. I do think that there will be a boom in the textile production. Because of those supply chain disruptions and people will try to go back to Europe for a certain portion of their production. So for Europe which has a rather small part this will be a boom and it will grow like 10-15%. It will be high but not compared to Asian production which will grow at the same time. But I expect movement to nearshore."</p>	<p>"I think there will be a lot of this, especially in the garment sector. Above all, if we now say that the raw materials no longer necessarily come from Asia, but are recycled raw materials that function here in the cycle and are then also produced here again. I can well imagine that it will work if they are processed into new materials. Maybe for workwear and jersey. Regarding backpacks - no way! There are simply too many components involved, there are such complex supply chains. Maybe in 10-15 years it will look completely different, anything can be possible, but at the moment I would say rather impossible."</p>	<p>"I see it globally. The economy will not want to bring production back to Europe. They have no interest in it. Neither do the politicians."</p>	-	<p>According to the companies, nearshoring will become of higher importance. But the supply chain will remain global. Maybe simplified, maybe not.</p>
	<p><i>interpretation</i></p> <p>Nearshoring will become of higher importance in Europe but the industry will keep growing in Asia as well. Simplified supply chains are necessary.</p>	<p>Nearshoring will become of higher importance but not for the whole textile industry. Some products are too complex and Asia is needed to produce them.</p>	<p>Globally there is no interest to bring production back to Europe.</p>	-	