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# Determining the Prospects for Plant Dyed Clothing in a New Market

An Interactive Qualifying Project Proposal submitted to the faculty of

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## Abstract

This project explores the plant dyed clothing market in North America (NA) for the project sponsor and aims to determine whether it is feasible for Hangzhou based clothing company, Zuoan Mixiang (ZAMX), to expand into the NA plant dyed clothing market. A goal of the project is to provide suggestions on marketing strategies for this expansion. Market research into the NA plant dyed clothing market included researching similar consumer markets including artisanal and sustainable clothing, investigated similar companies as ZAMX, and surveyed potential consumers in the NA market. Recommendations are made to ZAMX based on the conducted research.

## Authorship

This project was an equal collaboration between all members of the WPI team: Heath Bastow, Charlotte Carter, Jocelyn Diaz, and Keenan Segenchuk. Each section was written with equal contributions from all group members.

## Acknowledgments

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# Executive Summary

## Introduction

The goal of this project is to analyze current consumer opinion on plant-dyed clothing to identify key marketing strategies for Zuoan Mixiang Textile Company (ZAMX) who is considering expansion into the North American (NA) market.

The sponsor of this project, ZAMX, is a contemporary clothing brand that focuses on naturally dyed clothes. In addition to the warehouse where the sewing and dyeing process occurs, ZAMX also has two direct stores and distributes their products to more than fifty retailers. Products sold include the basic t-shirt and socks, scrunchies, and hats. Prices for these essential items range from \$9-\$60. Higher end clothing such as sweaters, blouses, and pants are much more expensive, and ZAMX's most expensive coat is \$450.

To investigate the plant dyed clothing market in NA, we first investigated similar clothing markets including the artisanal and sustainable clothing markets. The artisanal clothing market is unexplored in previous research. Most papers that mention artisanal fashion do so in the context of the greater fashion industry.

The sustainable clothing market is on the rise in NA as the fast fashion model significantly contributes to the amount of waste in the textile industry, and consumers are realizing buying new clothes every fashion cycle is not sustainable for their bank accounts. We estimate the sustainable clothing market in 2022 to be US\$12.7bn. The market has been growing at a compound annual growth rate of 8.7% since 2015. The market growth has been accompanied by research into sustainable production methods for the fashion industry. Sustainable production methods can complement ZAMX's production methods and support opportunities for growth or cause more competition in the sustainable fashion industry. Either way, ZAMX should not worry since sustainability is not the main draw of their clothing, even though including sustainability as a feature could prove particularly useful for reaching consumers who would not otherwise find their clothes. If ZAMX intends on taking advantage of this large consumer base, they should make sure their clothes are durable and the dyes do not fade after wash since making clothes to last a long time is the major selling point of sustainable fashion and the antithesis of the fast-fashion business model.

Past research has failed to qualify a specific demographic for the sustainable consumer, though evidence suggests age and gender are a factor. Most sustainable clothing consumers are millennials or generation X, and most are female as well. A lack of concrete demographic should not be an issue for marketing to these consumers since historically successful sustainable clothing companies have focused more on the defining features of their products with subtle sustainable marketing intended to validate the high price point required to create their high-quality products. Research provides evidence that sustainability knowledge correlates to increased willingness to pay for sustainable clothing. Some research has failed to find any correlation between knowledge and willingness to purchase sustainable clothing. Despite these inconsistencies, educating people on the plant dyeing process and its inherently natural nature might be an effective way to increase consumer interest in plant-dyed clothes.

## **Methodology Overview**

### ***Content Analysis***

To determine common marketing strategies used within the NA market, we analyzed the websites of companies with comparable products to ZAMX. We compiled “about us” pages from thirty-three different websites consisting of about 20,000 words. Important and related phrases were highlighted in distinct colors. Each phrase was tagged based on specific topic and keywords. This data allowed for characterization, marketing messages, and business characteristics of companies similar to ZAMX.

### ***Broad-based Consumer Survey***

To get a sense of the current NA consumer clothing market, we created a survey to determine the current demographic and interests of NA consumers. Because plant-dyed clothing is a niche market, we wanted a focused sample, so we sent the survey to social media groups focused on sustainable, artisanal, handmade, or naturally dyed clothing. The survey sample included some “convenience samples” such as friends and family interested in fashion and clothing. This inclusion of additional samples allowed for a larger sample size for statistical analysis.

## **Findings**

Based on our findings, we conclude that there is a viable NA market for ZAMX. Background research showed a growing U.S. plant dyed clothing market. This market is expected to grow by 104% from 2020 to 2026. Additionally, it was found that the sustainable fashion market has been growing at an average compound annual growth rate of 8.7% since 2015 (Arizton Advisory & Intelligence, 2021; The Business Research Company, 2022). North American consumer demographics for sustainable, plant-dyed, and artisanal clothing matches with current demographic of ZAMX customers.

The content analysis resulted in 642 phrases consisting of 13364 words. 343 phrases (6807 words) were from companies we deemed successful, and 299 phrases (6557 words) were from companies we deemed unsuccessful. We found that 40% of the phrases in the content analysis focused on sustainability which was expected due to our sample being primarily sustainable clothing brands. The next most common focus was their products at 28% with ethics and community being less important at 16% and 12% respectively. We found that there was no significant change in these percentages when isolating only successful or unsuccessful companies.

The most common tag found was “Partners” at fifty-six occurrences with a close to equal proportion between successful and unsuccessful companies. Another important tag was “Material,” and it was overwhelmingly used by successful companies rather than unsuccessful companies showing that they want to teach their consumers about the special qualities of the materials they used. We also found that “Handmade,” “Natural,” and “Comfort” topics were covered more by successful companies rather than unsuccessful companies.

During our data analysis of the survey, we first analyzed the entire dataset of 143 respondents. Then we filtered out the people who do not purchase plant dyed, artisanal, and/or sustainable clothing and had about seventy-nine datapoints. We define this dataset as plant dyed, artisanal, or sustainable specific (PDSA-specific). Our conclusions are the same for each group. Most PDSA-specific consumers identify as female aged 18-35 years old, which was similar to the full dataset. Comfort and durability are highly valued by both groups. However, people who purchase general clothing value the look/style of a garment over clothing sustainability characteristics, and vice versa. Additionally, PDSA-specific consumers prefer shopping online rather than in person, whereas the respondents are evenly split with 51% favoring in person

shopping and 49% online. Finally, the most common channels that people use when hearing and learning about clothing brands are social media and online advertisements. These conclusions allowed us to make recommendations for ZAMX.

## **Recommendations**

Our first and main recommendation is that ZAMX should make a website accessible to U.S. and Canadian consumers. This allows for in-depth marketing, consumer education, and customizable e-commerce options. We did preliminary research into English friendly domain names, website builders, and the various costs associated with these. We found that websites for sales and marketing would cost between \$132 and \$770 annually depending on the domain name used and the services used.

We also recommend creating English social media accounts on platforms like Instagram and Facebook with either translated content from the Chinese social media accounts or with original, English content. We recommend this because we found that the most popular places that the participants of our study learned about clothing brands was through social media and online ads. Social media also allows ZAMX to educate consumers on plant-dyed clothing.

Finally, we recommend focusing on sustainability messaging in marketing as there is a large market which is interested in sustainability. Naturally dyed clothing fits well into the sustainability market because ZAMX makes their clothes from natural materials, so they do not release harmful chemicals into the environment.



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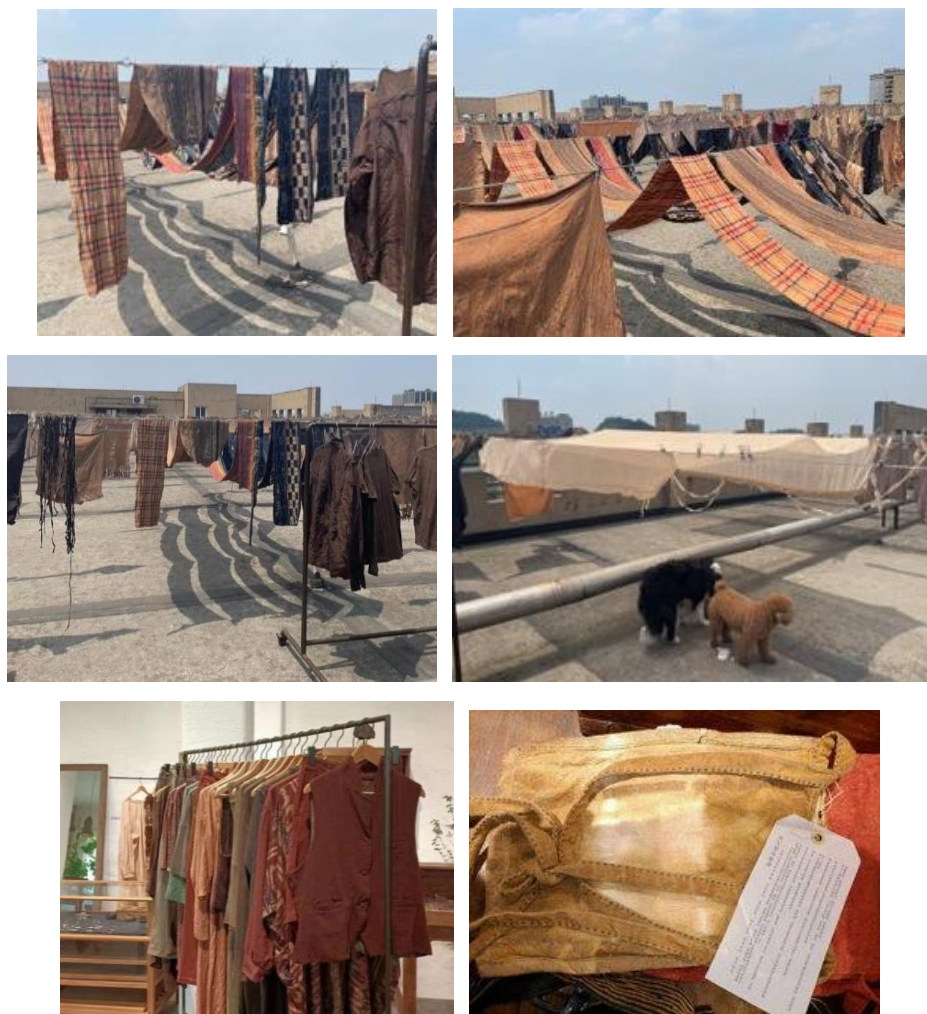
# 1 Introduction

The first known clothes were simple animal hides with holes in them for the wearers to stick their arms through. These were plain browns, greys, and off-whites (Patra, 2016; “Prehistoric Clothing,” 2013). It took tens of thousands of years, but finally, natural dyes were discovered. People could express themselves. Dyes made from berries, teas, vegetables, animal products, and minerals were used to create colors like red, yellow, green, blue, brown, or anything else one could imagine. Once humans were able to dye their clothes, color became an important part of society. People used colors to show status, armies used colors to distinguish friend from foe, and nations adopted colors that allowed for representation on the global stage.

With color being so important to society, it was only a matter of time before an easier, cheaper alternative was created. Synthetic dyes are an excellent alternative as they allowed even the poorest of people to wear bright blues and purples which were inaccessible to the public due to the prohibitive cost; however, synthetically dyed clothing does not have the same artistry as naturally dyed clothing. Synthetically dyed garments are produced in massive factories with huge vats of colored chemicals and each one comes out a precise and uniform color. Plant dyed clothes, on the other hand, are handmade in significantly smaller batches with each product having a unique pattern due to the heterogeneous nature of the dyes. These qualities make plant-dyed clothing more desirable; however, the handmade nature, smaller batches, and unique characteristics of every individual piece also make plant-dyed clothing more expensive to produce and harder to market.

## 1.1 Sponsor Information

Zuoan Mixiang (ZAMX), the sponsor of this project, is a modern clothing brand that specializes in naturally dyed clothes. They make their clothes out of natural textiles such as wool, linen, and silk, and they dye them using natural products like tea leaves, minerals, and chestnut shells. The textiles are first sewn into the clothing. Then the clothes are repeatedly dunked in a vat of their natural dyes until the desired color is achieved. Finally, the clothes are dyed out in the sun and any final sewing is completed (see Figure 1).



*Figure 1: Dyed fabrics drying on the rooftop of ZAMX's warehouse (top four) and finished products (bottom two).*

Besides the warehouse where the dyeing process occurs, ZAMX also has two brick-and-mortar locations and sells their products to more than fifty retailers. Items include basic clothing and accessories such as socks ranging from \$12 to \$22, T-shirts for \$23 to \$46, hair ties (\$9-\$12), hats (\$60), and higher-end items including sweaters, blouses, and pants that range from \$100 to \$450 for their most expensive coat. ZAMX would like to expand into the North American (NA) fashion market so that they can sell to the larger fashion market there. They currently have someone in Canada who can open up a location for them there, so ZAMX is looking into whether that is viable and what tactics are best for this market.

## **1.2 Project Goal and Overview of Report**

The rigorous process and high resource cost associated with creating plant-dyed textiles combined with the low versatility of plant-based dyes have resulted in the textile industry being

dominated by synthetically dyed cloth. Additionally, based on previous research, we now understand that the practice and dyeing are tedious, time-consuming, and require effort and labor. Because of these factors, natural dyed clothing is rendered obsolete in the modern world (Tang, 2018).

Plant dyed clothing costs more and the market for it is much smaller and not very well known. The goal of this project is to analyze current consumer opinion on plant-dyed clothing to identify key marketing strategies for ZAMX when looking to expand into North America. To achieve this goal, we used the following research questions:

1. What does the North American plant dye market look like?

This question is meant to help the sponsor understand current demographics, market requirements, and clothing purchase interests and motivation.

2. How do other companies currently market comparable products?

This question provides insights for the sponsor into what are current marketing practices and strategies that ZAMX should consider as they expand. It will help ZAMX benchmark their practices against competitors

In this report, we will provide context for the project with a brief history of natural dyes, present previous research done on the topic, and then discuss the research we did over the course of the IQP. During our study, we created a survey to understand the demographics of the current U.S. market and to learn what these consumers find most important when buying. We also studied the websites of clothing brands which fall in a similar category to ZAMX to determine what common marketing strategies they used; details of these activities appear in the methodology section. The results of the studies appear in section 4: Results and Analysis. Through our studies we recommend that ZAMX creates a website and informs consumers about the process they go through when making their clothing, including where they get the raw materials (textiles, dye products, etc.), the working environment of the factories, and the intricate process needed to dye the clothes; details of these recommendations appear in the concluding section of this report, along with discussion of some challenges faced during the project.

## 2 Background

In this section, we provide background information on various aspects of the past and current naturally dyed clothing market. We first discuss the broad history of plant dyes and clothing in general, then we present previous research done into the current clothing market. Topics covered include marketing strategies used in the artisanal and sustainable clothing markets, market statistics, and environmental effects of the current industry.

This provides a foundation for the methodology and survey instrument development. It also provides insights into potential relationships to findings and informs the recommendations made in the conclusion of this paper.

### 2.1 History of Plant Dyes

Clothing was originally for warmth and protection from the elements. Modern humans started making functional, sophisticated, and specifically tailored clothes for themselves 45,000 years ago in Europe (Pérez et al., 2018; Rigby, 2020; Tarle, 2012). As civilization advanced, the practice of dyeing clothing emerged to distinguish gender, class, status, and allegiance. Civilizations in the Middle East, Egypt, and Asia used dyes made of minerals, animals, and vegetables (Patra, 2016).

Ancient Chinese society enjoyed a vibrant textile culture due to the processes and practices of dyeing, printing, embroidery, weaving, quilting, and tapestry (Tang, 2018). Throughout the millennia, specific colors started to represent social status with yellow only worn by the emperor, red denoting aristocracy, and blues and greens were the colors of the masses. Additionally, the upper classes preferred silk fabrics and the commoners wore hemp, although after 1200 C.E., the commoners wore cotton (Major, 2005; Tang, 2018).

Under the Han Dynasty (130 BCE-1453 CE), the Silk Road was established and created connections between China and the West. Merchants used these routes to trade goods such as silks, wools, and dyestuffs among other items. Archeological studies found wool and silk textiles in Central Asia and Xinjiang, and chemical analysis revealed an exciting history of dyestuffs (Liu et al., 2021; Zhang et al., 2008). Additionally, researchers examined plant dye recipes and historical Chinese to determine plant dye origins and understand the process of plant dyeing



(Han, 2015; Han & Quye, 2018). With such an integral part in human history, naturally dyed clothing is a symbol of heritage.

For thousands of years, natural dyes were the only way to dye clothes. Massive industries were built up around the textile dyeing process, but using natural dyes is slow and resource intensive, and can only be used on natural textiles. This makes them difficult to scale, but in 1771, British chemist Peter Woulfe created the first true synthetic dye, which dyed silk yellow (Michael W. Davidson & The Florida State University, n.d.). In 1856, chemist William Henry Perkin created mauve from coal-tar chemicals and later created a factory to mass produce these dyes.

From then on, the synthetic dye industry rapidly grew to replace the market for plant dyes in the textile industry. Although synthetically dyed textiles started as a more expensive, more vibrant alternative that were considered luxury goods, competition driven research and development brought the prices down. Once the prices were low enough, colorful clothing became easily accessible and clothing industry boomed, but the natural dye industry all but died out. As of 2008, the dye and pigment market was valued at US\$16bn (Bafana et al., 2011).

## **2.2 Analysis of the Current Clothing Market**

In this section, we will discuss background on various aspects of the current textile market which pertain to our research. We specifically focus on the artisan and sustainable clothing markets.

### **2.2.1 Artisanal Clothing**

The artisanal clothing market is important to study in reference to this project. Artisanal clothing is defined as any high-quality clothing “involving traditional methods and skillful craftsmanship” which is produced in small scales (Aakko, 2019). Artisanal clothing requires skilled craftspeople and is much more labor intensive than mass-produced fast fashion. While this means a higher cost of production, many consumers find artisanal clothing to be worth the extra price. ZAMX is a mid-to-high end clothing brand which focuses on handmade garments which require special expertise which puts ZAMX in the perfect position to market their products as handmade or artisanal. The use of natural dyes and natural materials also puts

ZAMX in a position to market themselves as unique, which is a big selling point for artisanal brands.

One study by Bhaduri & Stanforth (2017) found that calling a brand artisanal increased the customer's perceived value of clothing. The study presented U.S. consumers of varying involvement in fashion with jeans and handbags and asked them to estimate the price with and without various cues which suggested the clothes were artisanal, curated, or handcrafted. It was found that consumers with both high and low involvement in fashion raised their estimations when the products were described as artisanal. Additionally, calling clothing "handcrafted" increased the perceived cost of the clothing for most consumers no matter the level of fashion involvement.

### 2.2.2 Sustainability and Sustainable Clothing

The sustainable clothing market is another important market to study. The World Wildlife Foundation's 2020 Living Planet Report assesses that humans are consuming resources at a rate 56% faster than the Earth can regenerate them (Almond, R.E.A. et al., 2020). Given the amount of waste in the textile industry, research into the viability of recycling fabrics and sustainably sourcing them along with other inputs of the textile industry has been the focus of a lot of contemporary research. The U.S. alone generates 250 million metric tons per year of municipal waste, of which only 35% is recycled or composted (Hiller Connell & Kozar, 2014). Although consumers often donate or hand down clothes, all clothes will succumb to wear overtime and eventually be discarded. According to an EPA report on waste data from 2018, textiles were 5.8% of all municipal solid waste produced in the U.S., of which only 14.7% were recycled. Of the 17 million metric tons of municipal textile waste in 2018, 2.5 million metric tons (14.7%) were recycled, 3.2 million metric tons (18.8%) were burned for energy recovery, the remaining 11.3 million metric tons (66.4%) went into landfills (US EPA, 2017).

The high amount of textile waste in the U.S. is due to the current "fast-fashion" model in the fashion industry. From 1975 to 2018, textile production per capita has increased from 5.9 kg to 13 kg a year (Peters et al., 2019). Just like how in the 1920s and 1930s the Phoebus cartel reduced the lifespan of incandescent lightbulbs from 2,500 to 1,000 hours so they could sell more lightbulbs (Hatcher, 2019; NPR, 2019; *The Great Lightbulb Conspiracy*, 2014), many fashion firms make cheap, trendy clothing that is not durable or out of fashion in a few months

so they can sell more clothes – or planned obsolescence. The old clothes might be passed on to other people, but their low durability means they must be thrown away eventually. Making more durable clothes not only reduces municipal waste, but also production waste. Even if ZAMX’s plant-dyeing process uses three times as much water as synthetic dyes – as mentioned by the owner – if their clothes last three times as long then that makes the overall water footprint equal. That is, the synthetically dyed garment consumer must replace the piece two times before ZAMX’s clothing succumbs to wear resulting in using the same amount of water to keep their customers clothed. However, it is not clear that this water usage occurs throughout the supply chain until use, and this needs to be carefully evaluated.

Along with the waste produced once the clothes reach their end-of-life, the current clothing market creates a huge amount of toxic waste during the production process. The fashion industry accounts for approximately 20% of industrial wastewater (Niinimäki et al., 2020). Many tons of effluent are released into the environment during the dyeing process, much of which includes toxic carcinogens and mutagens which are difficult and costly to treat (Ratna, 2013; Umbuzeiro et al., 2005). This can have devastating environmental effects causing increased rates of cancer and mutation in the surrounding environment. One study found that the bacteria on human skin could break down azo dyes, the most common type of synthetic dye, into aromatic amines which are carcinogenic to humans (Platzek et al., 1999). Dyes can also be harmful to those who work with them causing “eczema, contact dermatitis, asthma, chronic bronchitis, tuberculosis, hematoma, bladder cancer, and irritation to eyes” (Chung, 2016).

There are many methods aimed at treating the waste from dye plants, but most methods are costly, ineffective, or not fully developed. Physical treatment methods consist of adding a compound to the water such as activated charcoal, peat, silica gel, and fly ash. These methods are restricted because they produce substantial amounts of sludge, and methods which do not produce sludge, such as ultrafiltration or reverse osmosis, are expensive and have other drawbacks. Chemical treatments and biological methods use various chemicals or organisms respectively to break down the dyes, but, while these treatments break down the colors within the dyes, they can produce carcinogenic aromatic amines and other harmful byproducts (Chung, 2016; Mehta et al., 2021).

These factors, in addition to an abundance of novel fiber recycling technologies, have sparked an initiative to use more sustainable methods in the textile supply chain. While naturally dyed clothing does not produce wastewater full of mutagens and carcinogens, it does use water. According to ZAMX, they require about twenty liters of water to plant-dye one garment, whereas it would only take them 7 liters for the same garment with synthetic dyes. Furthermore, novel technology and dyeing methods are constantly pushing the water consumption of contemporary dyeing methods down. In 1995 dyeing cotton took 100-180L of water per kilogram of cloth, whereas by 2011 water consumption was around 30-50L per kilogram depending on the type of dye used (Petek & Glavič, 1996; Kant, 2011). Given that ZAMX is committed to their traditional dyeing techniques, future research into reusing dye wastewater will be much more useful to them than technological advancements for sustainable dyeing techniques or machines.

Increasing water scarcity made saving water a concern for the sustainably minded shopper. The Living Planet Report claims people used 75% of fresh surface water in 2020 which was an increase of 5% from their 2018 report (Almond, R.E.A. et al., 2020). Plant-dyed garments' largest sustainability problem is by far water consumption: from growing the plants, to the dyeing process, naturally dyed clothing consumes more water than their synthetic counterparts. Future research is required to determine whether treatment methods could mitigate the water consumption of the plant dyeing process or if the wastewater could have other uses to make the process more sustainable. Increasing their product's lifespan is the most certain way to reduce water consumption, since having durable products that "last a lifetime" means a consumer does not need to keep buying new clothes when the old ones wear through and eliminates the waste from all the clothes that would have been needed to replace a low durability garment more often.

With this new focus on sustainable practices, it may prove to be beneficial for ZAMX to investigate marketing towards sustainability. Plant dyed clothing is significantly less environmentally burdensome than synthetically dyed clothing, though rising water scarcity means they may not be able to market as 100% sustainable.

### 2.2.3 North American Fashion Market

Statista (2022c) estimates the NA fashion market to be worth US\$364.2bn in 2022. This figure is overwhelmingly dominated by the U.S. fashion market which is estimated at US\$312bn, or about 86% of the total revenue from the NA fashion market (Statista, 2022d). Canada in comparison only generates around US\$34.93bn, or about 10% of total fashion revenue in NA (Statista, 2022a). This means by selling to the U.S. and Canada, ZAMX will be selling to a market worth US\$346.9bn in addition to the US\$286.5bn fashion market in China they are currently selling to (Statista, 2022b). Additionally, NA consumers may be willing to spend more on clothes than Chinese consumers since the U.S. and Canada both have a fashion revenue per capita of over US\$900, while China's per person fashion revenue is only US\$196.8.

Since ZAMX's customers are overwhelmingly female, it is worth noting the women's apparel markets in these countries. In China, women's apparel generates US\$154.8bn in revenue, or 54% of the total fashion market. For Canada, the women's fashion market is worth US\$19.3bn, or 55% of the Canadian fashion market. The U.S. fashion market is the least women-dominated at 52% women's apparel, which generates US\$163bn in revenue each year.

### 2.2.4 Current Sustainable Fashion Market

From 2020 to 2026, the plant dye market in the U.S. is expected to grow 104% (Arizton Advisory & Intelligence, 2021). The U.S. sustainable fashion market has been growing at an average compound annual growth rate of 8.7% since 2015 (The Business Research Company, 2022). Given that the U.S. fashion industry in 2015 was worth US\$296.28bn (Statista, 2022d) and the sustainable fashion market was 2.4% of the global fashion market (Statista, 2022e) in 2015, using that 8.7% compound annual growth rate, we estimate the U.S. sustainable fashion market in 2022 to be US\$12.7bn. Unfortunately, we were unable to find exact numbers for the size of the sustainable fashion market in the U.S., so we had to extrapolate using global figures.

Fashion value chains in the U.S. are reallocating focus away from the make-take-waste business model towards sustainability due to the growing environmental concerns. Interestingly, plant-dye producers find themselves in the position synthetic dye firms were once in – patterns and imperfections in plant-dyed fabrics give them extra value in the same way vibrancy of synthetic dyes once did, and their high production prices and durability keep them as luxury products. Furthermore, there has been a surge in research into topics such as cruelty-free silk,

cotton recycling, and circular design (Koep et al., 2021). This is of unique importance given that plant dyes only work on natural fabrics like cotton and silk, so increased focus on sustainable production and recycling of these fabrics reduce production cost of plant-dyed clothes. It does seem that acquiring fabric is a much smaller part of the production costs than the plant dyes themselves, so an increase in supply of natural fabrics will only provide marginal advantages.

With the huge growth in the synthetic dye market, there was also a new growth in competition. The adolescent synthetic dye market saw a growth of 587% in the number of firms in the industry from 1970 to 1976, in the following years high competition pressured many firms to exit the industry (Murmman & Homburg, 2001). This is an example of a shakeout. With many U.S. companies refocusing towards sustainability, sustainable clothing is not exactly the niche market it once was. If sustainable clothing keeps getting more popular, then a shakeout may occur, although shakeouts are usually more pronounced in “high tech” industries. The lack of patentability for the plant-dyeing process and variation from company to company also reduce the likelihood of a sizeable shakeout.

These considerations pose the question: how should ZAMX address competition? If competition brings the market equilibrium for sustainable clothes lower than ZAMX’s price point, what should they do? ZAMX uses local suppliers and produces their clothing in smaller batches, meaning their clothing is expensive. Cheaper sustainable production methods may mean that, while a sustainable marketing strategy could be more effective at present, without a major change to ZAMX’s business model, other markets such as artisanal clothing could prove to be safer markets. ZAMX only has two “master dyers,” the company focuses on producing products distinguished by their quality, rather than being able to provide more of a product at a lower price.

Given high water consumption is the largest environmental concern for ZAMX, increased investments into sustainable production methods due to the growing market may benefit them down the line. If novel water reuse methods (Melody Bomgardner, 2018) in the synthetic dyeing process are ever translated to natural dyes, ZAMX might have to make a choice between their current artisanal manufacturing methods and more modern, but sustainable ones. Artisans give their clothing value through the effort and tradition they put into making it, so modern methods probably won’t suit those values. If such a state of high competition occurs in the sustainable

clothing market, ZAMX should not attempt to follow market trends, but should be confident in the quality of their products.

## **2.3 Market Strategies**

In market research from 2010, 43% of consumers said they will be “extremely green” in five years (Lee, 2011), but the sustainable fashion market was only 2.4% of the total fashion market in 2015 (Statista, 2022). Perhaps sustainable brands do not know how to capture a consumer base due to poor understanding of the environmentally concerned consumer, or perhaps those consumers who said they would be extremely green do not know the environmental impact that the fashion industry has and focus on other ways of buying sustainably.

Lee (2011) mentions how demographics are a poor predictor of willingness to pay for environmentally friendly products, describing how one study found that a female consumer with above average education and economic status is more willing to be environmentally conscious, while several other studies found the environmentally conscious consumer was less educated and had a lower income than average. The standard approach for finding an environmentally conscious consumer is looking at their environmental knowledge, values, and attitude. Those meta-physical characteristics are not ideal criteria for defining a demographic and may not even be accurate. Some papers provide evidence that consumers’ knowledge of environmental impact was a significant predictor of sustainable purchasing behavior (Chakraborty et al., 1994; Chan, 1999), but others found weak or no correlation (Kim & Damhorst, 1998; Laroche et al., 2001). Lee’s (2011) own results show environmental knowledge may not be a good predictor of willingness to pay more for eco-apparel either. Age is a worthwhile characteristic to look into since 44% of sustainable fashion consumption is done by millennials, while generation X accounts for 28% and generation Z 13% (Statista, 2021), but it is uncertain whether generation would be a good demographic since other factors such as disposable income could influence those figures more than sustainable purchasing attitude.

The other characteristic that we found is a good indicator of sustainable shopping is gender. When people talk about clean, eco-friendly products, the first products that come to mind are often skincare/makeup, fashion, and household cleaning products. These items are most associated with women as in the old patriarchal society, women were housemakers (Brough et

al., 2016; Stewart, 2021). Additionally, women tend to be the primary shoppers for household goods and groceries for their family as mothers want to make healthy choices for their children. Women are often open to paying a bit more for a product for natural and organic cleaning items and food so long as they are proven to be worthwhile (Lucia Robinson, 2012).

Greenness and femininity are commonly associated and thus a corresponding stereotype, held by both genders exists: people judge those who engage in sustainable and eco-friendly practices as more feminine. It is speculated that these two concepts are cognitively linked because font and colors used in eco-friendly messages might be more feminine rather than masculine. Nonetheless, the green-feminine stereotype is likely to cause less of an engagement in sustainable practices and spending habits in those who avoid feminine associations (Brough et al., 2016).

Since it is difficult to identify a target demographic for sustainable clothes, a better option might be to primarily advertise them as quality clothes that everyone would want. The sustainability aspect would appeal to the buyer's self-esteem (Meyer, 2001), helping diminish the anxiety and ecological responsibility of consumption (Joy et al., 2015). People who recycle or buy organic foods do not necessarily seek out sustainable fashion, but if they find a product with good design and functionality, sustainability criteria may make them willing to pay more for it or choose to buy it over other clothing they were considering.

Through their case studies of successful environmental fashion producers Coop and Patagonia, Meyer (2001) found "both companies do marketing for green products rather than green marketing." Patagonia emphasized their products superior durability, functionality, and performance side by side with the environmental benefits as part of their definition of "high quality" apparel. Coop kept prices low and emphasized the softness of organic cotton as well as using it as part of their environmental message. Linking the environmental aspect of their clothes to more tangible benefits for the consumer like the functionality of Patagonia or the softness of Coop's organic cotton is important for justifying sustainable clothes' high price points. One reason this strategy is effective could be that it doesn't only target consumers specifically searching for sustainable clothes since people who have sustainable behavior don't usually actively search for sustainable fashion (Joy et al., 2015). It also reduces the sustainability



knowledge required to know if the product is worth its price since specific sustainability criteria are too deep for the average consumer to consider.

Durability is an especially important characteristic of sustainable, artisan, and luxury clothing alike. The durability aspect is what ties luxury clothing to sustainability and vice versa; instead of disposing the now-outdated clothing bought in the last fashion cycle, spending more on a timeless piece to last a lifetime is more sustainable (Ozdamar-Ertekin, 2019). This lowers consumption of resources and production of waste.

Alternatively, fast-fashion is defined by speed, style, low cost, and disposability which allow the consumer to have an ever-changing identity (Joy et al., 2015). Plant-dyed clothing might have a similar advantage in the way the appearance of plant-dyed pieces changes over time after washing but the fading of colors may impact the clothing's lifespan.

Joy et al. (2015) found that consumers tend to associate the themes of desire/dream, history/heritage, and elegance/art with luxury. So, ZAMX could advertise the tradition behind their dyeing techniques and the artistic patterns that plant dyeing techniques produce could be beneficial if NA consumers are put off by the price.

Through our survey, and informed by the literature, we will investigate the importance consumers place on qualities such as durability, artistic value, history, comfort, price, and brand recognition when deciding to purchase clothing. Insight into relative consumer priority and their relationships to various messaging help inform recommendations to our project sponsor.

### 3 Methods

In this section, we discuss the methods we used in our study including the process to find similar companies, the analysis of their marketing materials, and the survey we distributed to NA consumers.

#### 3.1 Finding Companies Similar to ZAMX

A major part of our research was studying how companies in the same market as ZAMX are marketing their products to provide insight into current industry practice. We used a web search to find these companies so brands without internet presence were not included. We used the Google and Bing search engines with search terms such as “plant-dyed clothing,” “naturally

dyed clothing,” and “natural clothes.” We could not find many plant-dye specific clothing companies due to their rarity, so we expanded our search to artisanal and sustainable brands. These were compiled into Appendix 1: Companies Studied. After compiling a list of companies, we vetted them to make sure they were still in business and that the websites included the information we required for our study.

Once we had this list of vetted companies, we determined how successful each company was. We collected four data points for measuring company success of companies included in our content analysis. We used ratings on websites like Facebook, Yelp, Etsy, and Trust Pilot, and Google reviews for physical stores when applicable. The second and third metrics were revenue and the year the company was established, although these were hard to find. Revenue estimates provided vague ranges for lower earning companies i.e., <5 million. The fourth, and most consistently available data point was social media following. Thus, our success data might be biased towards social media following for that reason—but research shows that numbers of followers and social media engagement and share prices or performance organizations correlate positively (Paniagua et al. 2014).

After collecting these data, we determined whether the company was successful in terms of our study. This metric is imprecise, and more work would have to be done to get an accurate ranking of the success of the companies, but we used it in our content analysis so we could compare the marketing strategies of less successful ones to the more successful ones.

### **3.2 Content Analysis**

With the list of companies and websites identified through the process in section 3.1, we wanted to determine the most common strategies used to market clothing brands. We started by compiling the “about us” pages into a single document. These are any sort of pages on the website that discuss the company and their processes, values, or mission. This included pages titled “About Us,” “Our Story,” “Our Process,” “Our Values,” etc. We collected more than 20,000 words worth of “about us” pages and compiled all of them into a single document from which we could analyze them using Zotero and Excel.

The analysis consisted of highlighting important sections in colors based on topic. We used green to indicate any writing which focused on sustainability or environmentally friendly

actions, yellow coding for people and society, blue coding for ethical practices, red coding for specific product qualities, and purple coding for miscellaneous topics that do not fit into the other categories. For a second order of categorization, we tagged the highlighted quotations based on a list of frequently used words and phrases. These words and phrases were found by using Voyant Tools to find some of the most commonly appearing words used, and by adding tags for themes we found were repeated often. Table 1 provides some examples of highlighted phrases and their associated color and tags. Once all the phrases were highlighted and tagged, they were imported into Excel for quantitative analysis. The full content analysis is shown in Appendix 2.

*Table 1: List of companies, the highlighted color of the phrase, the tags associated with the phrase and the phrase itself.*

<b>Company</b>	<b>Color</b>	<b>Tag(s)</b>	<b>Phrase</b>
<b>Nomads Clothing</b>	Yellow	Community, Local, Skilled Labor	“Daughters of the Ganges is a socially conscious brand that works with talented artisans across communities in India, celebrating their traditional crafts whilst supporting them towards building a better future for both themselves and their families.”
<b>Gaia</b>	Red	Handmade, Natural, Natural Dyes, Unique	“Because we hand dye each garment on a variety of organic fabrics no 2 batches are ever exactly the same and the degree of variation shifts from fabric to fabric, dye bath to dye bath, and season to season.”
<b>Cleobella</b>	Green	Material, Organic, Recycle, Supply Chain	“With shifting to organic and circular fibers, to changing to recycled hang tags and shipping bags, we are making a commitment to clean up our supply chain.”
<b>Harvest &amp; Mill</b>	Blue	Employee welfare, Partners, Transparency	“We regularly visit these factories, we know the people who sew our clothing and we have a high level of transparency and visibility for the working conditions where our clothing is made”
<b>Indigo Luna</b>	Purple	Change, Slow-living, Social	“To us, the use of plant dyes encapsulates the slow, carefully chosen values of Indigo Luna and also the changing narrative that conscious consumers, like you, are driving.”

### 3.3 Surveys

We used Qualtrics to create a survey to determine current consumer perspectives on naturally dyed, sustainable, and artisanal clothing markets in North America. This survey was used to determine the current demographic profile of the market (or at least those interested in replying), and the most important factors for respondents. The survey asked respondents what factors they considered when buying clothes, specifically when buying artisan, sustainable, and plant dyed clothing.

The survey were meant to help answer research question 2. The survey questions were informed by previous research on customer interests and website information of companies in Appendix 1: Companies Studied. We decided which factors to include in our survey primarily based on factors that our background research indicated were important. Section 2.3 informed most of the more general purchasing factors e.g., comfort, durability, and price, while information from our sponsor helped with some of the plant-dye specific questions. We used sections 2.2.2 and 2.2.4 to decide on what sustainability-related factors to include.

To get the sample for our survey, we searched for focus groups on Facebook, Discord, and Reddit. A full list of communities invited to participate are shown in Table 2. We targeted social media groups with interests in fashion, sustainability, artisanal products, and plant dyes. We also included groups such as r/SurveyExchange as it was a given that our post would not be taken down and reposts were allowed. The social media groups dedicated to artisanal and plant-dyed clothing were limited and not as common as groups about sustainability. This resulted in skewed data that favors sustainability more, though that may be representative of the NA population.

*Table 2: List of social media groups in which our survey was posted and the number of members in each group. The communities highlighted in orange indicate that we were rejected from the community and blue indicates a repost.*

Group Name	Number of Members
<b>Facebook</b>	
FASHION WORLD COLLECTION'S	607,200
Sustainable Living	132,100
Sustainable Fashion Collective	22,400
Fashion Designers & Stylists Community	9,100
Fashion	8,900

Sustainable Fashion	8,600
Organic Threads	7,800
Natural Plant Dyes	7,700
Switch to Sustainable {All Things Sustainable}	4,700
Sustainable + Ethical Fashion & Lifestyle	4,300
Organic Clothing and Resale and Exchange	4,300
Fashion & Designing	909
Sustainable business, Eco-friendly living	858
Sustainably  Sustainable Fashion Community	324
<b>Reddit</b>	
r/DIY	21,800,000
r/vegan	1,200,000
r/ZeroWaste	952,000
r/Anticonsumption	476,000
r/sustainability	288,000
r/handmade	220,000
r/samplesize	195,000
r/EthicalFashion	51,300
r/vegetarianism	44,000
r/femalefashion	28,800
r/sustainable	16,500
r/enviroaction	11,600
r/EcoFriendly	11,400
r/MarketingResearch	11,400
r/surveyexchange	11,000
r/takemysurvey	10,500
r/dyeing	9,200
r/WomensFashion	9,100
r/PlantBased4thePlanet	8,000
r/WPI	7,000
r/naturalDye	2,300
r/slowfashion	143
<b>Discord</b>	
Custom Fashion	719
Environmental Ectivists	506
Sustainable Fashion	76
Eco-Punk Haven	75
Sustainable Living Alt	10

Table 2: Table of social media communities in which we posted our survey.

An example of the Facebook, Reddit, and Discord posts is shown in Figure 2. When first sending the survey out, many of the community moderators and automatic systems in the

communities quickly blocked or deleted our posts because they did not follow some of the rules set in place by the moderators of the various pages. Moderators denied our posts because our account was too new, the post was deemed advertising, or market research was prohibited. Regarding Reddit, we messaged the moderators of the communities for permission to post our survey; most moderators never responded or explicitly denied our request. After a week of collecting responses, we had not hit our goal of two hundred responses, so we reached out to personal connections such as family, friends, WPI staff and faculty, and the environmentalist club of a U.S. software company. We ended up with 156 total responses from a variety of sample populations. Out of these responses, 143 responses were found to be useful since the rest were either incomplete or completed outside of North America.

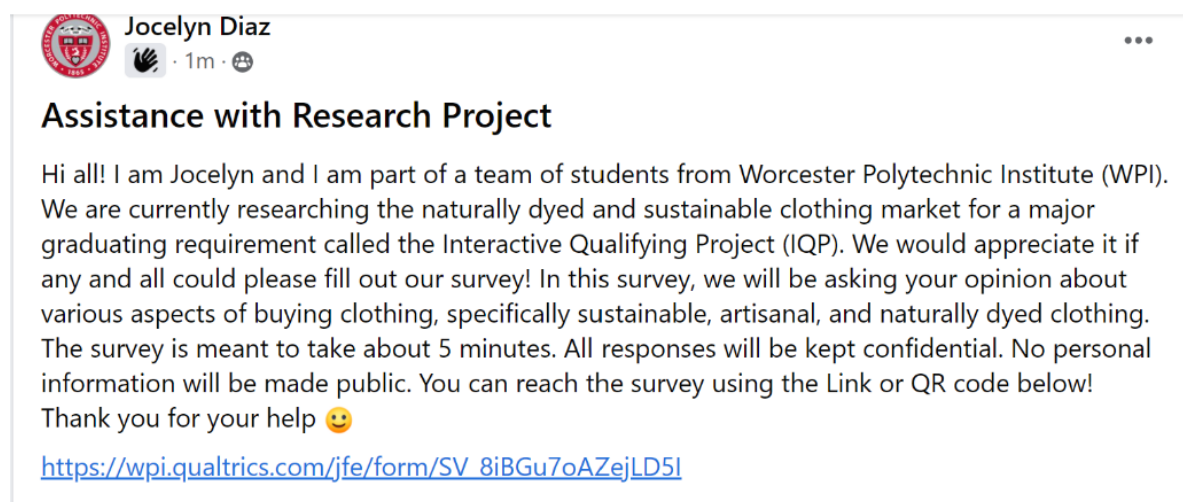


Figure 2: An example post which was sent to Facebook groups.

After our first fifty-eight responses, we had many answers to our open-ended question saying that durability was an important factor, so we added a Likert scale question asking how much you consider durability when buying sustainable clothing. This means that the confidence level in the average of durability is lower. It was also apparent that some people did not notice the N/A option for some of the Likert scale questions so we moved it from the last option to the first. While these may affect the survey results, it should be minimal, and we believe having the extra data on how much people care about durability is important.

In the process of sending out the survey, and with open ended survey questions, we received various testimonials from our sample. As stated before, we noticed the commonality of

durability in early responses, so we added that to our survey, but as the number of responses grew, we noticed other similarities.

Multiple people responded that they find the fit of the clothes to be important. They want a company which makes online returns easy if the clothes do not fit, or companies with a wide selection of sizes and clothes which suit all body types.

Another major consideration we found was the ability to recycle and reuse clothes. Many people said they bought secondhand clothes either because they reduce the waste put into the environment or because thrifted clothes were cheaper.

A few responses discussed the price of the clothes, including how the price of the clothes we are focusing on are too high for them to be able to shop sustainably; they reasoned that since the price is out of their range, the other factors do not matter since they would not consider spending that much on clothes. This means some consumers may be unwilling to buy ZAMX's clothes regardless of marketing or product quality, although we do not expect this to be a substantial portion of the population. A copy of the complete survey is included in Appendix 3: Survey.

The data analysis for the survey information is based on frequency statistics, mean value responses from Likert-type scales based on preferences, and some comparative analyses of various grouping with t-test statistics to determine if significant differences exist.

## 4 Results and Analysis

In this section, we go through the data collected through content analysis and survey results. The survey results will be evaluated based on content analysis data and survey quantitative data. In each case general observation and their relationships to the research questions are also summarized.

### 4.1 Content Analysis Data

We highlighted 642 phrases consisting of 13364 words from the “about us” pages of companies we identified. 343 phrases (6807 words) came from companies we deemed successful and 299 phrases (6557 words) from companies we deemed unsuccessful. A summary of the findings based on percentages of phrases appear in Table 3. We found that 40% of the phrases in

the “about us” pages focused on sustainability; the least mentioned topical category, “community,” had only 12% of the phrases. Given that our database of companies (see Appendix 1) had more companies marketing towards sustainability rather than naturally dyed clothing, this was expected. These values do not change significantly between successful and unsuccessful companies indicating that the general ideas focused on by company marketing pages do not have a significant effect on the successfulness of the companies.

*Table 3: Percentages of types of phrases in content analysis.*

	<b>Percentages</b>	<b>Sustainability</b>	<b>Ethics</b>	<b>Products</b>	<b>Community</b>	<b>Other</b>
<b>Total</b>	100%	40%	16%	28%	12%	4%
<b>Successful</b>	53%	41%	17%	28%	10%	3%
<b>Unsuccessful</b>	47%	38%	15%	29%	14%	4%

From the keyword tags, the most common tag was “Partners” with fifty-six occurrences (see Table 4). This tag appeared in relatively equal proportion between successful and unsuccessful companies. These companies discussed their relationship with their partners such as manufacturing plants, suppliers, and retailers. Another important tag was the “Material” tag which specifies any phrase which mentions the materials used in the clothing. This was overwhelmingly used by successful companies rather than unsuccessful companies showing that they want to educate their consumers about the special qualities of the materials they used. It was also found that “Handmade,” “Natural,” and “Comfort” topics were covered more by successful companies rather than unsuccessful companies. This should be good for ZAMX as ZAMX sells handmade naturally dyed clothing made from natural, comfortable materials.

*Table 4: Common and important tags used.*

Tag	All	Successful	Unsuccessful
“Partners”	56	27	29
“Local”	46	19	27
“Waste Reduction”	42	17	25
“Material”	39	35	4
“Handmade”	37	23	14



“High Quality”	37	11	25
“Natural”	33	20	13
“Comfort”	28	20	8

## 4.2 Survey Quantitative Data

The survey resulted in 156 responses. Of these 156 responses, 143 of them were usable for data analysis. The data cleaning process began with the deletion of unnecessary columns that Qualtrics had included when the results were exported to Excel. These columns included variables such as longitude/latitude, IP address, and the language of the Survey.

Additional columns like ethnicity were also removed because the sponsor indicated that ethnicity was not an area of focus. Responses in which the surveyed indicated that they resided outside of North America were removed, in tandem with vastly incomplete responses. The open ended questions that allowed for the surveyed to write in their own responses not part of the statistical analysis. For example, if the person taking the survey did not respond to half of the questions, or it was obvious that they gave up after a few questions, those responses were deleted. Lastly, the column names were renamed to be more precise. After the cleaning process was completed, the coding began.

The survey responses were in string type and needed to be transformed into numeric values for analysis to proceed. For each question, a number was designated for each unique response. For example, when transforming the “Gender” data, “female” became 0, “male” turned into 1, “other” was 2, and “prefer not to say” was a 3. The remaining blank cells were filled with “N/A.” The codes we used are shown in Table 5.

*Table 5: Example of codes used for data analysis of survey results*

Variable	Original	Code			
Gender			Clothing type		
	Female	0		Artisanal	0
	Male	1		Sustainable	1
	Other	2		Plant-dyed	2
	Prefer not to say	3	Employment		

Age				Stay-at-home	0
	Under 18	0		Full-time	1
	18-24 years	1		Part-time	2
	25-34 years	2		Student	3
	35-44 years	3		Retired	4
	45-54 years	4		Unemployed	5
	55-64 years	5		Other	6
	65+ years	6			

The following sections (4.2.1 and 4.2.2) are our conclusions on the characteristics of consumers and consumer preferences and values, respectively.

#### 4.2.1 Characteristics of Consumers

We performed data analysis on the full set of 143 respondents and then filtered out the people who indicated that they do not purchase plant dyed (PD), sustainable (S), or artisanal (A) clothing (PDSA-specific). This PDSA-specific set only had seventy-nine responses. Our conclusion from using the complete set is the same as using the PDSA-specific set; however, online and in person shopping preferences had a significant difference.

Most NA consumers who purchase clothing identify as female. Out of the 143 responses, eighty-six indicated that they identified as female (59%), and a mere 45 (31%) were male. The remainder of the respondents either identified as non-binary or another gender or did not want to disclose (8%) (see Table 6). These change slightly when looking at PDSA-specific consumers with 65% of these responses identifying as female, 23% identifying as male, and 12% identifying as other or did not want to disclose (see Table 7).

*Table 6: Summary table of age, gender, and income*

Count of Age					
Income	Female	Male	Other	Pref. no	Grand Total
more than \$150,000	12	17	1	0	30

\$100,000-\$150,000	14	9	0	0	23
\$50,000-\$100,000	24	4	0	1	29
less than \$50,000	25	8	3	5	41
Prefer not to say	11	7	2	0	20
Grand Total	86	45	6	6	143

Table 7: Summary table of income and gender of plant dyed, artisanal, and sustainable fashion consumers

Count of Age (PD)					
Income	Female	Male	Other	Pref. no	Grand Total
More than \$150,000	4	6	1	0	11
\$100,000-\$150,000	9	3	0	0	12
\$50,000-\$100,000	17	1	0	1	19
less than \$50,000	15	4	2	5	26
Prefer not to say	6	4	1	0	11
Grand Total	51	18	4	6	79

This correlates to the results of our Hangzhou Dianzi University (HDU) counterpart's first survey that was completed at ZAMX's Hangzhou brick-and-mortar location (see Table 8). This first survey was created to help answer what the characteristics of the consumers who buy plant dyed clothing are.

Table 8: Spread of gender from HDU survey

Gender	Count
F	105
M	2
Grand Total	107

The main age groups that purchase plant dyed, sustainable, and artisanal clothing are 18-24 and 25-34 years old (see Table 9). This solidifies Statista’s assertion that millennials (ages 25-41) contribute to most of the sustainable fashion consumption. We can assume that the “Under 18” group does not purchase plant dyed clothing or the like due to the high prices of the clothing and many people under eighteen are in high school and therefore do not have a stable income for themselves. Therefore, ZAMX should market towards the younger crowd. This conclusion may be incredulous as Statista also states that uncertainty surrounding the use of generation for sustainable fashion exists and other factors including income may influence but it is uncertain whether generation would be a good demographic since other factors such as disposable income could influence the statistics of age and sustainable fashion consumption more than purchasing attitude.

*Table 9: Spread of ages for PDSA-specific data set (left) and the entire dataset as a whole (right).*

Age group (PDSA)	Count	Age group	Count
18-24 years	17	18-24 years	36
25-34 years	30	25-34 years	42
35-44 years	11	35-44 years	20
45-54 years	3	45-54 years	14
55-64 years	12	55-64 years	22
65+ years	4	65+ years	6
Under 18 years	2	Under 18 years	3
Grand Total	79	Grand Total	143

Tying into the age range conclusion, the people who make less than \$50,000 a year tend to purchase plant dyed clothing more whereas \$100,000-\$150,000 do not buy as often (see Table 10). This makes sense as people aged 18-24 tend to pursue a degree and do not have time for a

full-time job. Additionally, 25-34 year old have recently joined the workforce and salaries might not be the highest.

*Table 10: Spread of incomes for PDSA-specific and complete dataset*

Income (PDSA)	Count	Income	Count
More than \$150,000	11	More than \$150,000	30
\$100,000-\$150,000	12	\$100,000-\$150,000	23
\$50,000-\$100,000	19	\$50,000-\$100,000	29
less than \$50,000	26	less than \$50,000	41
Prefer not to say	11	Prefer not to say	20
Grand Total	79	Grand Total	143

According to Lee (2011), the use of demographics to predict the willingness to pay for a sustainable and plant-dyed product does not heed any conclusive results as one study has found that female identifying consumers with above average income is more willing to engage in sustainable practices while a different study asserts that those who have a lesser income are predicted to be more environmentally conscious. Thus, income may not be the best characteristic to describe PDSA-specific consumers.

#### 4.2.2 Consumer Preferences and Values

For the respondents, the split between online and in-person shopping preferences is about half and half; however, when just looking at the seventy-nine consumers who buy plant dyed, artisanal, and/or sustainable clothing, forty-six preferred shopping online and thirty-three favored in-person shopping. People with more niche clothing interests may find online shopping more convenient as shopping in person for PDSA-specific clothing may prove difficult regarding time spent looking for truly sustainable, plant dyed, or artisanal clothing. In brick-and-mortar locations, clothing often is not explicitly advertised as PDSA-specific, and if they are, consumers do not really know if the product they are purchasing is purely PDSA-specific. Shopping online at a PDSA-specific company guarantees that the product is plant dyed, artisanal, or sustainable.

Moreover, we wanted to see if online shopping preferences or in-person makes a difference in each characteristic of clothing. A T-test for each attribute was performed all with a confidence level of 95%. Each test had a p-value greater than  $\alpha$  (0.05), indicating that shopping preferences do not make a difference in the importance levels of characteristics of clothing (see Appendix 3: Survey for t-tests).

The importance levels of each characteristic are relatively the same as each group highly values comfort level and durability. However, looks/style is more favored by the consumers who typically do not purchase plant dyed, artisanal, and/or sustainable clothing whereas sustainability is particularly important to PDSA-specific consumers (see Tables Table 11 and Table 12). Meyer (2001) asserts that the sustainability aspect would appeal to the shopper's self-esteem, and this would alleviate the anxiety and ecological responsibility of consumption (Joy et al., 2015). People who engage in sustainable practices do not necessarily look for sustainable fashion; however, if they find a product with preferable design and functionality, sustainability criteria may make them willing to pay more for the product or choose to purchase it over other clothing. Additionally, in case studies of successful eco-friendly fashion producers, Coop and Patagonia, Meyer (2001) found that Patagonia stresses the durability of their products and Coop emphasized the comfort of organic cotton. Connecting the environmental aspect of their clothes to more palpable benefits for the consumer is key for justifying the high prices of sustainable clothing. Both companies marketed green products rather than doing green marketing.

*Table 11: Summary table of the characteristics consumers in the plant dyed, artisanal, and sustainable fashion market consider when purchasing clothing and whether they prefer shopping in person or online*

	Looks/style	Material Choice	Employee Welfare	Sustainability	Comfort	Price	Brand Name	Durability
Female	2.82	2.98	2.78	3.20	3.37	2.90	0.55	3.16
Online	2.97	3.14	2.79	3.14	3.48	2.90	0.62	3.63
In person	2.64	2.77	2.77	3.27	3.23	2.91	0.45	2.82
Male	2.83	3.17	2.28	2.94	2.78	2.44	1.44	2.92
Online	3.00	3.27	2.55	3.27	2.82	2.36	1.45	3.50
In person	2.57	3	1.86	2.43	2.71	2.57	1.43	2.33
Other	3	2.75	3	3.25	3.5	3.25	0.5	2.67
Online	3	2.67	2.67	3.33	3.33	3	0.67	3
In person	3	3	4	3	4	4	0	2
Pref. no	3	3	2.83	3.83	2.83	1.67	0.5	4
Online	4	3.33	3.33	3.67	3	1.67	1	4
In-Person	2	2.67	2.33	4	2.67	1.67	0	4

Table 12: Summary table of online and in-person shopping preferences for the entire sample by gender and importance level of each characteristic of clothing

	Looks/style	Material choice	Employee welfare	Sustainability	Comfort	Price	Brand name	Durability
Female	2.97	2.88	2.45	2.71	3.24	2.9	0.64	2.9
Online	3.04	3.07	2.6	2.8	3.24	2.76	0.67	3.12
In-Person	2.88	2.68	2.29	2.61	3.24	3.05	0.61	2.74
Male	2.73	2.76	1.67	2.04	3.07	2.67	1.11	2.83
Online	2.94	2.94	2.11	2.67	2.94	2.28	1.28	3.31
In-Person	2.59	2.63	1.37	1.63	3.15	2.93	1.00	2.57
Other	3.17	2.5	2	2.17	3.67	3.33	0.33	2.8
Online	3	2.5	2	2.5	3.5	3.25	0.5	2.67
In-Person	3.5	2.5	2	1.5	4	3.5	0	3

Female identifying consumers tend to value the sustainability aspect more than males as the average level of sustainability importance is 3.20 for females and 2.94 for males (see Table 11). We wanted to see if this difference is statistically significant, so a T-Test was conducted. A confidence level of 95% was used. Since the p-value of the test was about 0.35, which is much larger than  $\alpha$  (0.05), we accept the null hypothesis that the difference between male and female is not statistically significant regarding sustainability (see Table 13). Moreover, we see that the distribution of the importance of sustainability by gender is female skewed (see Appendix 3 for distribution graph).

Table 13: T-test to see if gender is statistically significant regarding the importance of sustainability

t-Test: Two-Sample Assuming Equal Variances

	<i>F</i>	<i>M</i>
Mean	3.196078	2.944444
Variance	0.720784	0.996732
Observations	51	18



Pooled Variance	0.790801
Hypothesized Mean Difference	0
df	67
t Stat	1.032126
P(T<=t) one-tail	0.152862
t Critical one-tail	1.667916
P(T<=t) two-tail	0.305725
t Critical two-tail	1.996008

This phenomenon of women purchasing more sustainable products may be explained through the green-feminine stereotype, in which people who tend avoid female associations will engage less in eco-friendly practices (Brough et al., 2016). Additionally, Stewart (2021) asserts that sustainable products including household cleaners, clothing, and makeup are marketed towards women due to the lingering effects of patriarchal society.

Finally, social media is the most used channel for people to hear and learn about clothing brands. Online advertisements were the second most used and magazines are not at all commonly used. For social media and the average frequency was 1.65 and 1.58 respectively, whereas magazines have an average of only 0.29 (see Table 14). Based on this conclusion, ZAMX should use social media to promote their brand and products as many more people use social media to learn about clothing and brands.

*Table 14: Summary table of channels used by consumers regarding how they hear and learn about clothing brands*

Row Labels	Family	Friends	Coworkers	Ads	Magazines	Social media	Storefront
Female	1.03	1.4	0.71	1.76	0.33	1.8	0.90
Male	0.84	1	0.32	1.19	0.19	1.29	0.90
Other	1.2	1	0.6	1.2	0	1.4	1
Pref. no	1.2	1.2	0.2	1.6	0.4	1	1.20
Grand Total	0.99	1.29	0.58	1.58	0.29	1.65	0.92

These takeaways from the data will help us formulate final recommendations for ZAMX.

### 4.3 Testimonials

From both the open response questions on our survey and responses to our social media posts, we received many testimonials which are included in Appendix 4: Testimonials. These were not extensively analyzed due to time constraints in our project, so no hard conclusions should be made from these responses. As mentioned earlier, after a number of these responses indicated that durability was important to them, we added durability as a factor to consider when buying clothing in our survey. Common themes in these testimonials were that some respondents prefer to thrift or buy second-hand while some also prefer to make their own clothes or dye the clothes themselves. A few responses were adamant that the materials used must be natural and the clothes must fit well and feel good. We also noticed that multiple respondents indicated that they have had issues with natural dyes fading from their clothes when washed, which is a problem that is prevalent with natural dyes. Finally, we found that there were some responses indicating that they would have bought natural or sustainable clothing but factors like cost and availability made it difficult.

While it is possible that these are important factors to consider, more data would be needed to determine the validity of these testimonials. The responses were biased due to the sample we were working with (primarily social media groups interested in discussing similar topics) and the fact that these were optional questions, so not all participants responded to the open response questions in our survey.

## 5 Findings and Results

We found that there is a sufficient market for plant dyed clothing within the United States and Canada, but considerations need to be made when marketing to NA consumers. Through our surveys, we found that the NA market consisted of mainly younger, female consumers with a range of household incomes. This indicates that ZAMX will have a viable customer base in North America as they primarily make women's clothing in a reasonable price range. We also found that plant dyed clothing consumers prefer shopping online versus in person and that they learn about clothing brands through online ads and social media more often than any other form of marketing.

## 5.1 Recommendations

In this section, we discuss our recommendations to ZAMX when moving into the NA market. We start with recommending selling options and then move onto marketing strategies to consider. These recommendations are based on the limited findings of this paper and more research would have to be done to increase confidence in our advice.

### 5.1.1 Website

Given that half of our respondents indicated that they primarily bought clothing online, we believe that it would be beneficial for ZAMX to create a website for NA consumers. U.S. consumers use websites in the same way as Chinese consumers use apps such as Taobao in China. Through some simple online research, we found services like [Wix](#), [Squarespace](#), [GoDaddy](#), etc. which have built in templates, design tools, e-commerce tools, domains, and other useful tools. These cost between \$20 and \$60 per month for the website maintenance tools plus an additional \$12 to \$50 per year depending on the domain name and where it was bought from (*GoDaddy*, n.d.; *Google Domains*, n.d.; *Squarespace*, n.d.; *Wix*, n.d.). For example, when browsing on [Google Domains](#), we found the domain [www.zuoanmixiang.clothing](#) costs \$30 per year, [www.zamx.clothing](#) costs \$50 per year, and [www.zuaonmixiangclothes.com](#) costs \$12 per year (*Google Domains*, n.d.). These domain names and prices are just a few examples but should show a rough cost estimate for running a website for ZAMX of between \$252 and \$770 per year depending on the domain name and payment plan.

≡
×

ⓘ Did you mean: [左岸迷香](#)

Results
All endings

Endings for "zuoanmixiang"

.com	.net	.org	.info	.xyz	→
⊘	✓ \$12/year	✓ \$12/year	✓ \$22/year	✓ \$12/year	All endings

Suggested names

Relevance ▾

Domain name	Pricing
✓ zuoanmixiang.us	\$12/year <span>♥</span> <span>🛒</span>
✓ zuoanmixiang.me	\$20/year <span>♥</span> <span>🛒</span>
✓ zuoanmixiang.online	\$30/year <span>♥</span> <span>🛒</span>

Figure 3: Example search for domain names on Google Domains. The search term is shown at the top with endings shown below that and other suggestions below that.

Each of the website builders has multiple plans which allow for various levels of control and utility. Squarespace’s plans consist of Personal, Business, Commerce Basic, and Commerce Advanced (Figure 4). If ZAMX chooses to use Squarespace, they would have to subscribe to at least the Business plan, though some features of the more expensive plans might be useful and worth the extra cost. For example, there is a 3% transaction fee for all sales on the Business plan which means that if ZAMX plans to sell more than \$134 of products per month, the Commerce Basic plan is already more cost-effective as there is no transaction fee for sales. The Commerce Basic plan also includes features such as “Point of Sale,” which can be used to integrate the online store with the in-person location to keep inventory coordinated, and “Products on Instagram,” which can be used to directly tag products from social media posts on Instagram to the website page where they can be sold. Each website building service has many plans with

different options for features, so ZAMX would have to do their own research into which features would be worth the extra costs.

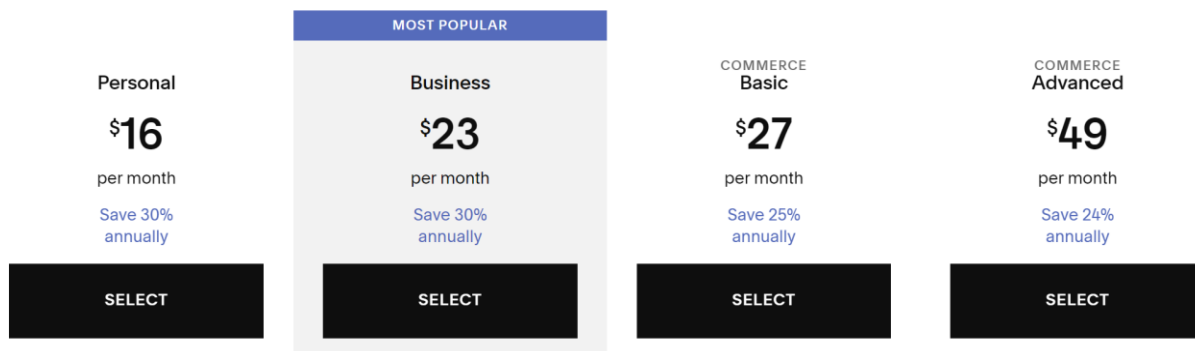


Figure 4: Payment plans for Squarespace. These are cost per month if bought annually

These website building companies also offer design services where they will make the website for their customers, so, depending on the technical abilities of the ZAMX employees and the amount of time they are willing to put into the website, this might be desired more than just paying for the website plans. If ZAMX is interested in having more control over their website, they could contract someone to create the website for them or they could hire a full-time employee, but these options are expensive and likely unnecessary with the style of website that ZAMX would be looking for.

Extra costs associated with using a website include payment service fees and shipping costs. We also did not look at selling between the U.S. and Canada, which might incur extra costs, so ZAMX would have to determine whether to sell to U.S. consumers once they know the cost of selling across the border.

### 5.1.2 Other E-Commerce Options

Since a website takes a great deal of time to set up, other e-commerce options ZAMX could consider are established online marketplaces such as Amazon, Etsy, eBay, Depop, etc. It was found that consumers who shop online find it more convenient to shop on an app rather than a website, so using a service which already has an app could be beneficial, though there are issues involved with using these marketplaces (Almarashdeh et al., 2019). Amazon is a massive marketplace with over 300 million customers globally, and they have well established shipping services, so it would be relatively easy to sell on Amazon, but there are some serious costs

associated with using the platform (*Amazon Global Selling*, 2022). Firstly, there is a \$39.99 per month fee, plus there are additional fees if choosing to use the Amazon fulfillment program (*Revenue Calculator*, n.d.). One major issue with using Amazon is that it is a marketplace ripe with competition. Counterfeit products and unauthorized sellers are a common problem on the platform which lower margins and can mess with brand image (Israeli et al., 2022). While Amazon would be easy to set up and sell on, we do not recommend using Amazon due to its excessive cost and difficulties with competition.

Etsy could be a better marketplace to consider instead of Amazon. Etsy is a marketplace meant for unique, handmade goods made by small or single person businesses. ZAMX is larger than most sellers on Etsy being a business with multiple physical locations and many retailers, but the customer base of Etsy could be good for ZAMX as most of the products sold on Etsy are unique, handmade, or natural. There are small fees which come with selling on Etsy. These fees are dependent on the services used, but are likely to come out to less than the cost of selling on Amazon (*What Are the Fees and Taxes for Selling on Etsy*, n.d.). One issue with selling on Etsy is that it could hurt the ZAMX brand image as Etsy is meant for small businesses.

The final marketplace we investigated was Depop. This is a fashion specific marketplace meant for reselling used clothes. While ZAMX is selling new clothes rather than reselling secondhand clothes, at least one of the companies we studied, Lucy and Yak, got started on Depop selling original clothing.

We still recommend making a website over selling on these marketplaces as the website will allow for more freedom in marketing and selling but using these marketplaces may be easier to set up and already have a regular flow of customers.

### 5.1.3 Social Media

We recommend that ZAMX should have a social media presence. Social media was the most used out of all the other channels that people utilize to learn and hear about clothing products and brands. More responses to our survey said they find clothing through social media than any other means, and almost all the companies we identified for our content analysis had an Instagram or Facebook page. Of those companies, the ones with both Instagram and Facebook pages had three to twenty times as many followers on Instagram as they do on Facebook. So,

Instagram may be a better way to reach a wide audience, though it does not have text only posts and Facebook is generally preferred for longer-format media. If ZAMX is considering video marketing like showing the dyeing process or DIY-style videos, Instagram and TikTok would be the go-to platforms for short-format videos while Facebook or YouTube would be better for long-format videos.

Many of the image and text posts which ZAMX posts on Chinese social medias could be easily translated to English and posted on English social medias while longer format videos would have to be subtitled or re-dubbed in English.

#### 5.1.4 Marketing Towards Sustainability

We also recommend that ZAMX investigates marketing towards other markets. While looking for survey participants, we found a greater audience on social media for sustainable clothing discussion boards than artisanal or plant-dyed specific ones. We also found much more research on the sustainable fashion market than the artisanal fashion market, and almost none on the plant-dyed fashion market. Therefore, it is evident that there is a much larger consumer base for sustainable clothing companies and general mid-range, natural clothing companies than companies which specialize in naturally dyed clothing. While this could mean an unexplored niche in the market, it is more likely that there is just a larger percentage of the population interested in shopping sustainably than shopping naturally dyed clothes. Although ZAMX's defining characteristic is the use of plant dyes, we recommend that ZAMX tries to take advantage of the size of the sustainable fashion market by including some sustainability-related marketing. For instance, mentioning that natural dyes and textiles cause less harm to the environment than synthetic dyes and textiles may increase interest in plant-dyed clothing. In addition, ZAMX could use sea shipping rather than air since it fits their slow-fashion paradigm and is more sustainable.

#### 5.1.5 Other Marketing Recommendations

Other than marketing towards sustainability, ZAMX should focus on the quality and unique aspects of their clothes and brand in their marketing material. From our surveys, we found that consumers consider the comfort and quality of the clothes more than anything else and have little interest in the brand name of the clothes. This means that ZAMX should focus on the quality of their clothes in their marketing materials, emphasizing the look, feel, and quality of

the clothes. One challenge that ZAMX might face is the problem of durability with naturally dyed clothes. As naturally dyed fabrics lose their color when washed, ZAMX should include instructions on how to care for their clothes in their marketing materials or with the clothes when shipped.

We also recommend creating plenty of marketing materials to teach consumers about the process of plant-dyeing. Other research on the subject has found that it is possible that consumers are more likely to buy, though the findings are not conclusive (Wang et al., 2019). ZAMX could use text that talks about the suppliers, manufacturers, and retailers they works with; the production process that the clothes go through; or the unique materials that are used in the clothing. These are all common topics we found while doing our content analysis. Videos would be beneficial to include too as they are more interactive than reading text.

## **5.2 Challenges**

In this section we talk about challenges faced during the project. The information provided here is for future studies that would be completed along these lines. This section is also valuable in providing limitations our analysis also faces due to the challenges.

Our biggest challenge was completing the interviews we had planned for in the project proposals. We reached out to twenty-four of the companies that we had identified in Appendix 1: Companies Studied which had email addresses listed on their websites them. None of them responded. We also phoned the five Hawaiian retailers that we had identified as sustainable and asked if we could come in the store to ask a few questions. Most gave us a response like “our owner isn’t in the store right now, you can call back later and maybe they’ll be here, but I don’t know their schedule.” Na Mea Hawai’i’s receptionist gave us their owner’s email and said she would be a good person to interview, but we did not get a response the first time we emailed them and did not follow up since one interview is only marginally more useful than none.



#### Research Project on Sustainable and Plant Dyed Clothing

Diaz, Jocelyn <jadiaz@wpi.edu>

Thu 11/3/2022 9:21 PM

To: info@theziran.com <info@theziran.com>

Hello Ziran,

We are a team of students from Worcester Polytechnic Institute currently working on a project called the Interactive Qualifying Project (IQP). This project, which is a requirement for our graduation, encourages us to go outside of our comfort zone and do research in fields we know very little about. My team is currently studying the current artisanal clothing market, specifically clothes made from natural textiles and dyes, to make recommendations in marketing and sales tactics in the North American market. We have spent the last seven weeks learning as much as we can about this market through online research, but we can only go so far with academic articles and by browsing the web. Because your company specializes in sustainable and plant dyed clothing, we wanted to reach out to see if we could set up an interview to learn more about the industry from a professional.

We would like to make it clear that we are sponsored by the Zuonan Mixiang Textile Company based in Hangzhou, China, but our final report, including the results of our interviews, surveys, and other forms of research, will be publicly available at the end of the IQP. If an interview is agreed upon, we can keep your company information confidential from our final report if asked.

A 15 or 30 minute virtual interview would be extremely helpful for our project, so if you can spare the time, please get back to me and we can work out a time. Also, if you have any questions about our study, we will be happy to answer them.

Thank you,

Jocelyn Diaz, Heath Bastow, Charlotte Carter, Keenan Segenchuk

*Figure 5: The email we sent to the twenty-four sustainable companies with emails.*

Removing interviews from our methodology meant that we could put more time into the content analysis, which proved to be more useful as we learned a great deal about the marketing strategies of companies in the same market as ZAMX. An example of the interview process is included in Appendix 5: Interview Process.

As mentioned in section 3.3, when we sent out the surveys, many of the communities we reached out to mark our posts as spam, self-promotion, or advertisements. Prior to posting, we ensured to look at the rules of the groups; however, some of the rules were not explicitly posted on the community page itself, resulting in removed posts and being permanently banned from a couple of communities. After several removals, we messaged the moderators of each community directly to ask permission to post. Almost all the moderators blatantly denied our request and others never replied.

### 5.3 Future work

As we were unable to interview similar companies within North America, we believe it would be beneficial to proceed with interviews to see what insights industry professionals could provide. We also planned to interview a few retailers here in Hawai'i, but we could not find any willing to do interviews. Future studies may want to interview retailers to see what they look for when deciding whether to carry a specific brand. It would also be helpful to do a study like the one the HDU team conducted in which they determined some of the most preferred marketing strategies in China. This information would be useful for comparing the two markets, and it

would reveal which of ZAMX's current marketing strategies would still be effective in the NA market and which ones would not work as well. We believe a wider ranging survey of the general North American population could be helpful in determining potential interest in the naturally dyed clothing market as our study focused on what the current market interests were. A survey of the general population would also be useful for quantifying what percentage of the NA population buys sustainable, artisanal, or plant-dyed clothes. Finally, an in-depth analysis of the costs associated with implementing our recommendations could be helpful to determine what strategies should be pursued and what would be too difficult to implement.

## **5.4 Conclusion**

This project studied the plant dyed clothing market within North America for our sponsor, the Zuan Mixiang Textile Company. We used previous studies on similar markets, an online survey, and analysis of marketing material of similar companies to determine whether there was a viable market for ZAMX to enter the North American market and what marketing strategies would be most beneficial as they enter the market. Our research shows that there is likely a sufficient consumer base within North America with the market projected to grow over the next few years. We also provided recommendations to ZAMX based on our findings including methods of e-commerce to use in North America and topics to focus on when marketing to North American consumers.

## Bibliography

- Aakko, M. (2019). Unfolding Artisanal Fashion. *Fashion Theory*, 23(4–5), 531–552.  
<https://doi.org/10.1080/1362704X.2017.1421297>
- Almarashdeh, I., Jaradat, G., Abuhamdah, A., Alsmadi, M., Alazzam, M. B., Alkhasawneh, R., & Awawdeh, I. (2019). *The Difference Between Shopping Online Using Mobile Apps and Website Shopping: A Case Study of Service Convenience*.
- Almond, R.E.A., Grooten, M., & Petersen, T. (2020). *Living Planet Report 2020*. WWF.
- Amazon Global Selling / Benefits of Global Selling. (2022). <https://sell.amazon.in/Grow-Your-Business/Amazon-Global-Selling/>. <https://sell.amazon.in/grow-your-business/amazon-global-selling/benefits-sem-2>
- Arizton Advisory & Intelligence. (2021). U.S. Natural Dyes Market Size to Reach Revenues of USD 1.5 Billion by 2026.
- Bafana, A., Devi, S. S., & Chakrabarti, T. (2011). Azo dyes: Past, present and the future. *Environmental Reviews*, 19, 350–371. <https://doi.org/10.1139/A11-018>
- Bhaduri, G., & Stanforth, N. (2017). To (or not to) label products as artisanal: Effect of fashion involvement on customer perceived value. *Journal of Product & Brand Management*, 26(2), 177–189. <https://doi.org/10.1108/JPBM-04-2016-1153>
- Brough, A. R., Wilkie, J. E. B., Ma, J., Isaac, M. S., & Gal, D. (2016). Is Eco-Friendly Unmanly? The Green-Feminine Stereotype and Its Effect on Sustainable Consumption. *Journal of Consumer Research*, 43(4), 567–582. <https://doi.org/10.1093/jcr/ucw044>
- Chakraborty, G., Amyx, D., Dejong, P., Lin, X., & Wiener, J. (1994, January 1). *Influencers of Purchase Intentions for Ecologically Safe Products*.

- Chan, K. (1999). Market Segmentation of Green Consumers in Hong Kong. *Journal of International Consumer Marketing*, 12, 7–24. [https://doi.org/10.1300/J046v12n02\\_02](https://doi.org/10.1300/J046v12n02_02)
- Chung, K.-T. (2016). Azo dyes and human health: A review. *Journal of Environmental Science and Health, Part C*, 34(4), 233–261. <https://doi.org/10.1080/10590501.2016.1236602>
- GoDaddy. (n.d.). GoDaddy. Retrieved December 12, 2022, from <https://www.godaddy.com/>
- Google Domains. (n.d.). Google Domains. Retrieved December 12, 2022, from <https://domains.google/>
- Hatcher, J. (2019, December 13). *The Phoebus Cartel: Lightbulbs, Conspiracies, and Planned Obsolescence*. Alabrava. <https://alabrava.net/phoebus-cartel-planned-obsolence/>
- Hiller Connell, K., & Kozar, J. (2014). Environmentally sustainable clothing consumption: Knowledge, attitudes, and behavior. In *Roadmap to Sustainable Textiles and Clothing* (pp. 41–61). Springer Science.
- Israeli, A., Schlesinger, L. A., Higgins, M., & Semerkant, S. (2022, September 1). Should Your Company Sell on Amazon? *Harvard Business Review*. <https://hbr.org/2022/09/should-your-company-sell-on-amazon>
- Joy, A., Jr, J. F. S., Venkatesh, A., Wang, J., & Chan, R. (2015). Fast Fashion, Sustainability, and the Ethical Appeal of Luxury Brands. *Fashion Theory*. <https://doi.org/10.2752/175174112X13340749707123>
- Kant, R. (2011). *Textile dyeing industry an environmental hazard*. 2012. <https://doi.org/10.4236/ns.2012.41004>
- Kim, H.-S., & Damhorst, M. L. (1998). Environmental Concern and Apparel Consumption. *Clothing and Textiles Research Journal*, 16(3), 126–133. <https://doi.org/10.1177/0887302X9801600303>

- Koep, L., Morris, J., Dembski, N., & Guenther, E. (2021). Buying practices in the textile and fashion industry: Past, present and future. In *Sustainable Textile and Fashion Value Chains* (1st ed.). Springer Cham.
- Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting Consumers Who Are Willing to Pay More for Environmentally Friendly Products. *Journal of Consumer Marketing*, 18, 503–520. <https://doi.org/10.1108/EUM00000000006155>
- Lee, S. (2011). Consumers' Value, Environmental Consciousness, and Willingness to Pay more toward Green-Apparel Products. *Journal of Global Fashion Marketing*, 2(3), 161–169. <https://doi.org/10.1080/20932685.2011.10593094>
- Lucia Robinson. (2012, December 3). *Men vs. Women in Sustainability Shopping*. <https://www.triplepundit.com/story/2012/men-vs-women-sustainability-shopping/60196>
- Major, J. S. (2005). China: History of Dress. In Valerie Steele (Ed.), *Encyclopedia of Clothing and Fashion* (Vol. 1). [link.gale.com/apps/doc/CX3427500125/WHIC?u=mlln\\_c\\_worpoly&sid=bookmark-WHIC&xid=e142abe3](http://link.gale.com/apps/doc/CX3427500125/WHIC?u=mlln_c_worpoly&sid=bookmark-WHIC&xid=e142abe3)
- Mehta, M., Sharma, M., Pathania, K., Kumar Jena, P., & Bhushan, I. (2021). Degradation of synthetic dyes using nanoparticles: A mini-review | SpringerLink. *Environmental Science and Pollution Research*, 28, 49434–49446.
- Melody Bomgardner. (2018, July 15). *These new textile dyeing methods could make fashion more sustainable*. Chemical & Engineering News. <https://cen.acs.org/business/consumer-products/new-textile-dyeing-methods-make/96/i29>
- Meyer, A. (2001). What's in it for the customers? Successfully marketing green clothes. *Business Strategy and the Environment*, 10(5), 317–330. <https://doi.org/10.1002/bse.302>

- Michael W. Davidson & The Florida State University. (n.d.). *Molecular Expressions Photo Gallery: The Synthetic Dye Collection*. The Synthetic Dye Collection. Retrieved October 11, 2022, from <https://micro.magnet.fsu.edu/micro/gallery/dyes/dyes.html>
- Murmann, J. P., & Homburg, E. (2001). Comparing evolutionary dynamics across different national settings: The case of the synthetic dye industry, 1857–1914. *Journal of Evolutionary Economics*, 11(2), 177–205. <https://doi.org/10.1007/PL00003863>
- Niinimäki, K., Peters, G., Dahlbo, H., Perry, P., Rissanen, T., & Gwilt, A. (2020). The environmental price of fast fashion. *Nature Reviews Earth & Environment*, 1(4), Article 4. <https://doi.org/10.1038/s43017-020-0039-9>
- NPR. (2019, March 28). *The Phoebus Cartel*. NPR. <https://www.npr.org/2019/03/27/707188193/the-phoebus-cartel>
- Ozdamar-Ertekin, Z. (2019). Can Luxury Fashion Provide a Roadmap for Sustainability? *Markets, Globalization & Development Review*, 4(1). <https://doi.org/10.23860/MGDR-2019-04-01-03>
- Patra, R. (2016, September 7). To Dye For: A history of natural and synthetic dyes. *Patra Selections Blog: Silk Clothing and Underwear*. <https://blog.patra.com/2016/09/07/to-dye-for-a-history-of-natural-and-synthetic-dyes/>
- Pérez, G. D., Luque, F., Morales, P. P., Jiménez, I., Sánchez-Cañete, F. J. S., Raya, P., Martínez-Acitores, J. S., García, M. A. S., Tham, T. E. R., Sánchez, V. F. V., & Hernández, P. (2018). Evolution from first hominids to modern humans: Philosophy, bioarchaeology and biology - Review. *Archaeobios*, 12, 69–82.

- Petek, J., & Glavič, P. (1996). An integral approach to waste minimization in process industries. *Resources, Conservation and Recycling*, 17(3), 169–188. [https://doi.org/10.1016/0921-3449\(96\)01151-2](https://doi.org/10.1016/0921-3449(96)01151-2)
- Peters, G. M., Sandin, G., & Spak, B. (2019). Environmental Prospects for Mixed Textile Recycling in Sweden. *ACS Sustainable Chemistry & Engineering*, 7(13), 11682–11690. <https://doi.org/10.1021/acssuschemeng.9b01742>
- Platzek, T., Lang, C., Grohmann, G., Gi, U.-S., & Baltes, W. (1999). Formation of a carcinogenic aromatic amine from an azo dye by human skin bacteria in vitro. *Human & Experimental Toxicology*, 18(9), 552–559. <https://doi.org/10.1191/096032799678845061>
- Prehistoric Clothing. (2013). *Fashion, Costume, and Culture : Clothing, Headwear, Body Decorations, and Footwear Through the Ages*, 1(2). [https://link.gale.com/apps/doc/CX2760000013/WHIC?u=mlin\\_c\\_worpoly&sid=bookmark-WHIC&xid=7b9739ff](https://link.gale.com/apps/doc/CX2760000013/WHIC?u=mlin_c_worpoly&sid=bookmark-WHIC&xid=7b9739ff)
- Ratna, P. (2013). Pollution due to synthetic dyes toxicity & carcinogenicity studies and remediation. *International Journal of Environmental Sciences*, 3(3), 940–955. <https://doi.org/10.6088/ijes.2012030133002>
- Revenue Calculator. (n.d.). Amazon Revenue Calculator. Retrieved December 12, 2022, from [https://sellercentral.amazon.com/revcalpublic?ref\\_=sdus\\_pri\\_xscus\\_rc2&initialSessionID=time%3D20827872011&ld=NSBing\\_SD\\_PRI\\_RC2\\_T1\\_mh0b-20&ldStackingCodes=SEUSSOABING-B10002-D%3ENSBing](https://sellercentral.amazon.com/revcalpublic?ref_=sdus_pri_xscus_rc2&initialSessionID=time%3D20827872011&ld=NSBing_SD_PRI_RC2_T1_mh0b-20&ldStackingCodes=SEUSSOABING-B10002-D%3ENSBing)
- Rigby, S. (2020, May 12). *Ancient humans arrived in Europe “far earlier than previously thought.”* BBC Science Focus Magazine. <https://www.sciencefocus.com/news/ancient-humans-arrived-in-europe-far-earlier-than-previously-thought/>

- Squarespace. (n.d.). Squarespace. Retrieved December 12, 2022, from <https://www.squarespace.com/>
- Statista. (2021). *U.S. sustainable apparel market share by age 2021*. Statista. <https://www.statista.com/statistics/1276260/market-share-of-sustainable-apparel-in-the-us-by-generation/>
- Statista. (2022a). *Apparel—Canada | Statista Market Forecast*. Statista. <https://www.statista.com/outlook/cmo/apparel/canada>
- Statista. (2022b). *Apparel—China | Statista Market Forecast*. Statista. <https://www.statista.com/outlook/cmo/apparel/china>
- Statista. (2022c). *Apparel—North America | Statista Market Forecast*. Statista. <https://www.statista.com/outlook/cmo/apparel/north-america>
- Statista. (2022d). *Apparel—United States | Statista Market Forecast*. Statista. <https://www.statista.com/outlook/cmo/apparel/united-states>
- Statista. (2022e). *Global: Sustainable clothing sales 2013-2026*. Statista. <https://www.statista.com/forecasts/1307848/worldwide-sales-of-sustainable-clothing-items>
- Stewart, L. (2021, July 20). Why the Burden of Sustainability Is Placed on Women. *Setting Mind*. <https://settingmind.com/the-burden-of-sustainability-is-placed-on-women/>
- Tang, F. (2018). Elementary Introduction to Traditional Chinese Plant Dyeing Art and Its Inheritance in Modern Times. In A. Marcus & W. Wang (Eds.), *Design, User Experience, and Usability: Designing Interactions* (Vol. 10919, pp. 96–109). Springer International Publishing. [https://doi.org/10.1007/978-3-319-91803-7\\_8](https://doi.org/10.1007/978-3-319-91803-7_8)



- Tarle, L. (2012). *Clothing and the Replacement of Neanderthals by Modern Humans* [Simon Fraser University]. <https://docslib.org/doc/7319142/clothing-and-the-replacement-of-neanderthals-by-modern-humans>
- The Business Research Company. (2022). *Global Ethical Fashion Opportunities And Strategies Market Report*. <https://www.thebusinessresearchcompany.com/report/ethical-fashion-market>
- The Great Lightbulb Conspiracy*. (2014, September 24). IEEE Spectrum.  
<https://spectrum.ieee.org/the-great-lightbulb-conspiracy>
- Umbuzeiro, G. A., Freeman, H. S., Warren, S. H., Oliveira, D. P., Terao, Y., Watanabe, T., & Claxton, L. D. (2005). The contribution of azo dyes to the mutagenic activity of the Cristais River. *Chemosphere*, 60(1), 55–64.  
<https://doi.org/10.1016/j.chemosphere.2004.11.100>
- US EPA, O. (2017, September 12). *Textiles: Material-Specific Data* [Collections and Lists].  
<https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/textiles-material-specific-data>
- Voyant Tools*. (n.d.). Retrieved December 1, 2022, from <https://voyant-tools.org/>
- Wang, H., Ma, B., & Bai, R. (2019). How Does Green Product Knowledge Effectively Promote Green Purchase Intention? *Sustainability*, 11(4), Article 4.  
<https://doi.org/10.3390/su11041193>
- What are the Fees and Taxes for Selling on Etsy*. (n.d.). Etsy Help. Retrieved December 12, 2022, from <https://help.etsy.com/hc/en-us/articles/115014483627-What-are-the-Fees-and-Taxes-for-Selling-on-Etsy>
- Wix. (n.d.). HP NEW BG -Gr. Retrieved December 12, 2022, from <https://www.wix.com>

## Appendices

### Appendix 1: Companies Studied

Company	Website URL
Artisan Textile Co.	<a href="https://www.artisantextilecompany.com/">https://www.artisantextilecompany.com/</a>
Back beat co.	<a href="https://backbeat.co/">https://backbeat.co/</a>
Beunica	<a href="https://beunica.com/">https://beunica.com/</a>
California Cloth Foundry	<a href="https://clothfoundry.com/">https://clothfoundry.com/</a>
Cleobella	<a href="https://shop.cleobella.com/">https://shop.cleobella.com/</a>
Creative Cotton	<a href="https://shopcreativecotton.com/">https://shopcreativecotton.com/</a>
Gaia	<a href="https://gaiaconceptions.com/">https://gaiaconceptions.com/</a>
GALERIE.LA	<a href="https://galerie.la/">https://galerie.la/</a>
HARA	<a href="https://www.harathelabel.com/">https://www.harathelabel.com/</a>
Harvest & Mill	<a href="https://harvestandmill.com/">https://harvestandmill.com/</a>
Hazel	<a href="https://www.hazelbabyclothing.com/">https://www.hazelbabyclothing.com/</a>
Here	<a href="https://www.here-shop-here.com/">https://www.here-shop-here.com/</a>
Indigo Luna	<a href="https://indigoluna.store/">https://indigoluna.store/</a>
Kaliko	<a href="https://www.kaliko.co/">https://www.kaliko.co/</a>
Kimonosshi	<a href="https://kimonosshi.com/">https://kimonosshi.com/</a>
Lucy and Yak	<a href="https://lucyandyak.com/">https://lucyandyak.com/</a>
Master Craftsmanship	<a href="https://mcraftsmanship.com/">https://mcraftsmanship.com/</a>
Monsoon Blooms	<a href="https://www.monsoonblooms.com/">https://www.monsoonblooms.com/</a>
Monsoon London	<a href="https://www.monsoonlondon.com/us/brand.html">https://www.monsoonlondon.com/us/brand.html</a>
Na Mea Hawai'i	<a href="https://www.nameahawaii.com/">https://www.nameahawaii.com/</a>
Nomads Clothing	<a href="https://www.nomadsclothing.com/">https://www.nomadsclothing.com/</a>
Olderbrother	<a href="https://olderbrother.us/">https://olderbrother.us/</a>
Oliver Logan	<a href="https://oliverlogan.com/">https://oliverlogan.com/</a>
OM Body Studios	<a href="https://ombodystudios.com/">https://ombodystudios.com/</a>
Rainbow and Yarrow	<a href="https://rainbowandyarrow.com/">https://rainbowandyarrow.com/</a>
Sustain by Kat	<a href="https://sustainbykat.com/">https://sustainbykat.com/</a>
T&L Muumuu Factory	<a href="https://muumuufactory.com/">https://muumuufactory.com/</a>
TenTree	<a href="https://www.tentree.com/">https://www.tentree.com/</a>
The Handmade Clothing Company	<a href="https://www.handmadeclothingcompany.com/">https://www.handmadeclothingcompany.com/</a>
Thorns	<a href="https://www.thornsclothing.com/">https://www.thornsclothing.com/</a>
Wearwell	<a href="https://www.shopwearwell.com/">https://www.shopwearwell.com/</a>
Wild Harvest Studio	<a href="https://www.wildharveststudio.com/">https://www.wildharveststudio.com/</a>
Ziran	<a href="https://theziran.com/">https://theziran.com/</a>

## **Appendix 2: Content Analysis**

Below is the compiled list of quotations, highlighted colors, and company that the quotation came from. The colors used were yellow (Y) for community aspects, red (R) for product aspects, blue (B) for ethics, green (G) for sustainability, and purple (P) for anything else we thought was important.

Company	Quotation	Highlighted color	Tags
<b>Artisan Textile Co.</b>	“Welcome to ATC, where you can create, learn and shop all things fiber.”	P	Education
<b>Artisan Textile Co.</b>	“Our shop is 100% sourced and maintained by local Southern Colorado artisans.”	Y	Employee Welfare, Local, Skilled Labor
<b>Artisan Textile Co.</b>	“Artisan Textile Company, or ATC, was started in 2015 as a brick and mortar store to give our customers sustainable, locally handmade, artisanal products, and in turn create a wonderful artist community, allowing our artists to sell their wares locally and for a profit. A win-win in our eyes!”	Y	
<b>Artisan Textile Co.</b>	“We are working on offering a selection of our wonderful, high quality wares not just in our lovely hometown in Colorado, but also to everyone that is looking for a one-of-a-kind gift (for themselves or for others)”	R	High Quality, Unique
<b>Artisan Textile Co.</b>	“that is sustainably made by an”	G	
<b>Artisan Textile Co.</b>	“actual person with quality and love all woven together!”	R	Handmade, High Quality
<b>Back beat co.</b>	“We use organic, recycled and other low-impact fabrics”	G	Organic, Recycle
<b>Back beat co.</b>	“create high comfort and fun styles with nods to old school surf 'n' skate culture.”	R	Comfort, Fashion
<b>Back beat co.</b>	“We believe in giving a f*ck, being realistic about the expectations we set for ourselves and on doing better season after season through the adoption of the best low impact practices.”	P	Change
<b>Back beat co.</b>	“We recognize that ethical and social responsibility is not one-size-fits-all.”	B	
<b>Back beat co.</b>	“At BBCo we prioritize the ethical and social responsibility of every aspect of creating, producing and selling clothes, before our profit margins.”	B	Production, Social
<b>Back beat co.</b>	“This includes holding our fabrics and finished quality to higher standards”	R	High Quality
<b>Back beat co.</b>	“raising the bar on working conditions for the people sewing our garments together”	B	Employee Welfare
<b>Back beat co.</b>	“being environmentally responsible with the materials used to package and get the final product to your door.”	G	Supply Chain
<b>Back beat co.</b>	“We use “Low Impact” Fabrics, which means our fabrics are either recycled or sustainably farmed.”	G	Material, Recycle

<b>Back beat co.</b>	“Our current roster consists of Recycled Cotton, Hemp (our favorite!), GOTS certified Organic Cotton, Tencel and Deadstock Fabric.”	G	Certifications, Material
<b>Back beat co.</b>	“We spend a lot of time sourcing new and innovative low impact fabrics and sometimes even have stuff specially made for us.”	P	Innovation
<b>Back beat co.</b>	“We only ship using recycled paper mailers, recycled plastic poly bags, and home compostable bags.”	G	
<b>Beunica</b>	Beunica brings together a community of independent brands and artisans with shoppers looking for unique and curated fashion accessories, homeware, and natural beauty products.	R	Exclusive, Skilled Labor, Unique
<b>Beunica</b>	community	Y	
<b>Beunica</b>	Each piece is carefully selected to bring our customers one of a kind products with a focus on craftsmanship, quality	R	Exclusive, Handmade
<b>Beunica</b>	and sustainability.	G	
<b>Beunica</b>	We are committed to supporting small independent brands and artisans	Y	Community
<b>Beunica</b>	who align with our sustainable business practices	G	Partners
<b>Beunica</b>	and ethical standards.	B	Partners
<b>Beunica</b>	We strive to inspire a contemporary lifestyle based on slow-living, where quality comes before quantity, through limited pieces that are original, durable	R	Exclusive, High Quality, Long Lasting, Slow-living
<b>Beunica</b>	and sustainable	G	
<b>Beunica</b>	The collections are locally made in small production runs in the designers’ studio or by artisan collectives.	R	Exclusive, Local, Skilled Labor, Small batch
<b>Beunica</b>	The collections are locally made	Y	Local
<b>Beunica</b>	By shopping with us, you play a part in driving fashion to be more ethical.	B	Consumer action
<b>Beunica</b>	By choosing to wear local labels that embrace transparent production and traceable sourcing, you are joining us in creating a more sustainable future.	G	Consumer action, Transparency
<b>Beunica</b>	The beauty of creation is individuality. In a world that is becoming increasingly homogenized by big retail, we are committed to bringing you one of a kind accessories that will allow you to express your own unique style.	R	Exclusive, Unique
<b>Beunica</b>	We don't sacrifice style for ethics. Our carefully curated product is a testament to the fact that conscious consumption	G	
<b>Beunica</b>	We don't sacrifice style for ethics.	B	
<b>Beunica</b>	shouldn't lead to a compromise on quality and luxury.	R	High Quality

<b>California Cloth Foundry</b>	“In collaboration with nature, we make A Healthy Wardrobe® naturally, and like food, with nothing we can't consume.”	R	Natural
<b>California Cloth Foundry</b>	“Because our skin absorbs what we put on it, we choose only botanical ingredients and avoid all petrol-based fibers, treatments and dyes.”	R	Health benefits, Nontoxic
<b>California Cloth Foundry</b>	“We will always dye and finish our fabrics with natural ingredients that do no harm to the planet.”	G	Natural
<b>California Cloth Foundry</b>	“Eggshells instead of heavy metals, natural enzymes instead of Formaldehyde, and dyes made from madder root, weld, and chestnut instead of petroleum derivatives. There's always a cleaner, safer alternative to the harmful chemicals used in most commercial clothing production.”	G	Current Industry, Nontoxic, Production
<b>California Cloth Foundry</b>	“We are committed to using those alternatives, with the intention of making them viable options for the rest of the industry.”	G	Change
<b>California Cloth Foundry</b>	“Clean & Green: We will always make our fabrics from the most sustainable natural fibers available.”	G	Material, Natural
<b>California Cloth Foundry</b>	“From Cleaner Cotton™ and Texas Organic to Lenzing Modal®, we will always use premium branded raw materials that are certified sustainable and clean.”	G	High Quality
<b>California Cloth Foundry</b>	“Compostable: We will always package our products in environmentally responsible materials.”	G	Supply Chain, Waste Reduction
<b>California Cloth Foundry</b>	“Our packaging uses only biodegradable paper, cellophane and cardboard, and vegetable-based inks.”	G	Supply Chain, Waste Reduction
<b>California Cloth Foundry</b>	“We are committed to establishing manufacturing methods that will make our products fully compostable.”	G	Supply Chain, Waste Reduction
<b>California Cloth Foundry</b>	“Certain parts of the manufacturing process have yet to find ecologically friendly alternatives.”	G	Current Industry, Production
<b>California Cloth Foundry</b>	“We are committed to finding solutions to these limitations, and are keen to collaborate with anyone who can help us to make that happen.”	G	Innovation, Partners

<b>California Cloth Foundry</b>	“We will always make our products beautiful.”	R	Look
<b>California Cloth Foundry</b>	“outward appearance,”	R	Look
<b>California Cloth Foundry</b>	“environmentally responsible manufacturing processes”	G	Production
<b>California Cloth Foundry</b>	“In an industry whose products are designed to become obsolete after the current 'season', we believe in the longevity of high quality fabrics and classic design.”	R	High Quality, Long Lasting
<b>California Cloth Foundry</b>	“Longer fibers and innovative green chemistry allow us to create wearable, washable clothes without compromising on softness, so our Healthy Wardrobe pieces live with you longer.”	R	Comfort, High Quality, Innovation, Long Lasting
<b>California Cloth Foundry</b>	“Considering every step of our supply chain as an opportunity to reduce waste; we design our fiber blends, our fabrics and our fashion with this in mind.”	G	Supply Chain, Waste Reduction
<b>California Cloth Foundry</b>	“We also take additional steps to reduce the cutting room waste that often exceeds 25% of the material used.”	G	Waste Reduction
<b>California Cloth Foundry</b>	“Finally, we make sure we get our designs right before going into production, because less error means less waste.”	G	High Quality, Waste Reduction
<b>California Cloth Foundry</b>	“We work exclusively within the United States where our exceptional labor laws give full workers' rights”	B	Employee Welfare
<b>California Cloth Foundry</b>	“We go beyond this, only working with manufacturers and partner vendors who pay fair living wages as measured by the local workers not a federal governing body outside that community.”	B	Employee Welfare
<b>California Cloth Foundry</b>	“Our process begins with the purchase of the finest materials, like luxurious and sustainably grown American cotton.”	R	High Quality, Material
<b>California Cloth Foundry</b>	“We buy directly from our farmers, which ensures that we acquire the ‘cream of the crop’ longest, finest gauge and strongest fibers.”	Y	High Quality, Partners

<b>California Cloth Foundry</b>	“Once we have our raw materials we design our natural yarn blends to work perfectly in everything from our impossibly light ring spun jersey to our weighty french terry, making sure we optimize the 'drape', or how each fabric falls and moves on the body.”	R	Comfort, High Quality, Look
<b>California Cloth Foundry</b>	“With this in mind, we design our blends accordingly and mill our yarns ring spun, a slower and more expensive spinning process that creates a stronger, softer and more beautiful textile than fast fashion’s inexpensive standards.”	R	High Quality, Slow-living
<b>California Cloth Foundry</b>	“While deeply rooted in thousands of years of natural dye and fiber innovation, our formulas are developed in partnership with the giants of the US conventional textiles industry.”	Y	Partners, Production
<b>California Cloth Foundry</b>	“From Lydia’s 25+ years of industry expertise, California Cloth Foundry Inc was born.”	P	Established
<b>California Cloth Foundry</b>	“to reverse fashion's ‘race to the bottom’ of ethics,”	B	Current Industry
<b>California Cloth Foundry</b>	“environment”	G	
<b>California Cloth Foundry</b>	“quality”	R	
<b>California Cloth Foundry</b>	“Gratitude and Praise to our supply chain partners and these crazy creatives,”	Y	Partners, Supply Chain
<b>Cleobella</b>	“Deeply rooted in our partnerships with independent artisans around the world, our designs are ethically handmade”	B	Global, Handmade, Partners
<b>Cleobella</b>	“handmade while preserving traditional heritage techniques.”	R	Handmade, Traditional
<b>Cleobella</b>	“While Cleobella has transformed in many ways since its inception in 2006, the brand’s guiding principles remain the same.”	P	Established
<b>Cleobella</b>	“Cleobella's handmade process allows us the pleasure of personally working with local artisans and small factories, creating jobs and sustainable incomes around the world.”	Y	Economy, Global, Local
<b>Cleobella</b>	“We are committed to sustainable manufacturing practices”	G	Production
<b>Cleobella</b>	“celebrate traditional craftsman techniques.”	R	Skilled Labor, Traditional



<b>Cleobella</b>	“Cleobella’s globally inspired and ethically handmade process is at the core of our brand and rooted in tradition and integrity.”	R	Global, Handmade, Traditional
<b>Cleobella</b>	“Cleobella’s globally inspired and ethically handmade process is at the core of our brand and rooted in tradition and integrity.”	B	Handmade, Production
<b>Cleobella</b>	“Creating pieces that will be treasured is our mantra.”	R	High Quality, Long Lasting
<b>Cleobella</b>	“Although we are not perfect, we strive to make products that are clean and reliable.”	G	Long Lasting
<b>Cleobella</b>	“We are continually researching and looking for new ways to offer the cleanest products possible.”	G	Innovation
<b>Cleobella</b>	“With shifting to organic and circular fibers, to changing to recycled hang tags and shipping bags, we are making a commitment to clean up our supply chain.”	G	Material, Organic, Recycle, Supply Chain
<b>Cleobella</b>	“As well as advocating for slow fashion, conscious consumerism, and preserving traditional artisan crafts.”	B	Slow-living, Traditional
<b>Cleobella</b>	“By using techniques like tooling, weaving, dyeing, and woodblock printing, we are able to create uniquely beautiful pieces that preserve the heritage art of the diverse cultures they represent.”	R	Handmade, Look, Skilled Labor
<b>Cleobella</b>	“Our wholesale business is cut to order eliminating as much overproduction as possible.”	G	Waste Reduction
<b>Cleobella</b>	“Our people are always at the heart and center of everything we do.”	B	Employee Welfare
<b>Cleobella</b>	“As a small, family-run business, maintaining close relationships with our artisan partners is the center of our brand.”	Y	
<b>Cleobella</b>	“Since Cleobella’s inception, our founders have split their time between California and Southeast Asia for the last 14 years, ensuring they can work closely and with our team in the U.S. and our artisans partners abroad.”	Y	Global, Partners, Skilled Labor
<b>Cleobella</b>	“Cleobella is committed to do what we can to help our world shift to a better planet for all.”	G	Change
<b>Cleobella</b>	“Cleobella has always been passionate about our responsibility to the planet and we know there are always ways to improve.”	G	Change
<b>Cleobella</b>	“We believe in designing products in a meaningful way that is conscious of our environment, our makers, and the women who wear our designs.”	G	
<b>Cleobella</b>	“We have the opportunity to inspire others to help create more jobs, greater prosperity, and better lives for all makers around the world.”	B	Economy, Global

<b>Cleobella</b>	“A Cleobella favorite, all our cottons are from certified organically produced raw materials.”	G	Certifications, Material, Organic
<b>Cleobella</b>	“Our Ecovero Viscose fibers generate up to 50% lower emissions and water compared to generic viscose.”	G	Carbon footprint, Material, Water
<b>Cleobella</b>	“Ecovero is derived from certified wood sources using responsible production processes that meet high environmental standards, lower emissions, and it contributes to a cleaner planet.”	G	
<b>Cleobella</b>	“Naturally derived from the fibers of the flax plant, linen provides laidback style and breathable versatility.”	G	Comfort, Material
<b>Cleobella</b>	“It is the second strongest fabric guaranteeing durability and longevity.”	R	Long Lasting, Material
<b>Cleobella</b>	“Linen is incredibly easy to grow and requires low levels of water and maintenance making it perfect for responsible fashion.”	G	Material, Water
<b>Cleobella</b>	“We love hemp for its water saving characteristics,”	G	Material, Water
<b>Cleobella</b>	“breathability, and durability.”	R	Long Lasting
<b>Cleobella</b>	“It is also a natural resistant to mildew, mold, and rot.”	R	Health benefits, Long Lasting, Material
<b>Cleobella</b>	“Hemp is three times the strength of cotton and gets softer and more durable with each wear.”	R	Long Lasting
<b>Creative Cotton</b>	“I’m Stephanie, a fifth generation seamstress”	Y	Traditional
<b>Creative Cotton</b>	“love for textiles and seeing other humans be the best possible version of themselves.”	R	Feel good
<b>Creative Cotton</b>	“Enter the Original Funky Knit Skirt©, a fashion piece that anyone can easily pull on/off and flatters any body”	R	Selection
<b>Gaia</b>	We custom cut, sew, and dye each garment at our studio in Greensboro, NC. Based on your unique choices	R	Handmade, Skilled Labor
<b>Gaia</b>	Our selection of Organic Fabrics makes it easy to customize for your unique needs.	R	Material, Organic, Unique
<b>Gaia</b>	Deepen your relationship to Gaia	P	Spiritualism
<b>Gaia</b>	Each one has unique herbal properties that align us with her grace.	R	Health benefits, Spiritualism

<b>Gaia</b>	We work with the Rao family of master printers based in the Deccan Plateau in India.	Y	Partners
<b>Gaia</b>	Our textiles are printed one at a time with carved wooden blocks and non-toxic vegetable dyes on the finest Organic Cotton Knit.	R	Handmade, Health benefits, High Quality
<b>Gaia</b>	Purchasing one of our blockprinted items directly supports the entire community of block carvers, dye mixers, master printers, and dhobi wallahs, but you are also ensuring the environmentally-sustainable future of an ancient textile tradition.	Y	Community, Consumer action, Traditional
<b>Gaia</b>	environmentally-sustainable	G	
<b>Gaia</b>	Hand printed with Indigo, a 100% organic cotton medium weight knit fabric that is smooth to the touch with a little give for comfort.	R	Comfort, Handmade, Natural, Natural dyes, Organic
<b>Gaia</b>	Fair Trade: India	B	Certifications
<b>Gaia</b>	a smooth feel and beautiful drape. This fabric works great for beating the heat or for year round layering.	R	Comfort
<b>Gaia</b>	Fair Trade: China, Hemp Traders (Ecocert certified)	B	Certifications
<b>Gaia</b>	Our organic handwoven fabrics	R	Handmade, Material, Organic
<b>Gaia</b>	are from India where we partner with different NGOs to bring organic cotton farmers, natural dyers, and weavers	G	Organizations, Partners
<b>Gaia</b>	are from India where we partner with different NGOs to bring organic cotton farmers, natural dyers, and weavers	Y	Community, Organizations, Partners
<b>Gaia</b>	to create rich, organic woven textiles with a soft but durable texture.	R	Comfort, Long Lasting, Material, Organic
<b>Gaia</b>	Thank you for ensuring the environmentallysustainable future	G	Consumer action
<b>Gaia</b>	an ancient textile tradition.	R	Traditional
<b>Gaia</b>	Low-impact dyes are dyes that have been certified as eco-friendly by Oeko-Tex with their Standard 100 label for there higher than average absorption rate (70%-80%, depending on the color).	G	Certifications, Natural

<b>Gaia</b>	This means less water is required in the rinse process and less dye runs off in the water; therefore, the dyes have a lower impact on the environment.	G	Nontoxic, Water
<b>Gaia</b>	Low-impact dyes are AZO free and do not contain heavy metals (like chrome, copper and zinc), nor do they require toxic chemical mordants to fix them to the fiber.	G	Nontoxic
<b>Gaia</b>	Because we hand dye each garment on a variety of organic fabrics no 2 batches are ever exactly the same and the degree of variation shifts from fabric to fabric, dye bath to dye bath, and season to season.	R	Handmade, Natural, Natural dyes, Unique
<b>Gaia</b>	We hand dye each garment so colors will shift a little each dye bath.	R	Handmade, Natural dyes
<b>Gaia</b>	No two garments will ever be the same!!!	R	Unique
<b>Gaia</b>	We use only Organic Fibers, this means how the fiber takes the dye will shift from season to season, based on the specific conditions when each fiber was grown and each fabric will take the dye a little differently.	R	Material, Organic, Unique
<b>Gaia</b>	It is truly our joy to honor the Nature of Nature by allowing her to speak through our clothing in this way.	P	Nature, Spiritualism
<b>Gaia</b>	All of these nuances means no two garments will ever be the same, offering us as makers and you as a supporter of eco handmade the opportunity to celebrate nature, the human hand, and embrace the beautiful uniqueness that occurs when all these worlds are united.	R	Nature, Unique
<b>Gaia</b>	We use a range of plant materials, insects, and pigments to create our natural dye clothing.	R	Natural, Natural dyes
<b>Gaia</b>	If you enjoy an appearance that can range from a tie-dyed effect to darker and lighter spots then Natural Dyes are a great choice.	R	Look, Natural
<b>Gaia</b>	amazing wellness benefits	R	Health benefits
<b>Gaia</b>	hands down the most eco friendly	G	
<b>Gaia</b>	We are a label born out of a deep desire to make the most eco friendly clothing possible.	G	
<b>Gaia</b>	“This meant looking at every step in the life span of a garment. It’s a curricular way of thinking rather than linear with regeneration as the ultimate goal.”	G	Circular Economy, Supply Chain
<b>Gaia</b>	“Slow Foods Movement, Slow Clothing”	B	Slow-living
<b>Gaia</b>	“Slow Foods Movement, Slow Clothing”	G	Slow-living
<b>Gaia</b>	“fair trade”	B	Certifications
<b>Gaia</b>	“fair trade organic and regenerative raw materials, a mindful and sustainable supply of energy”	G	

<b>Gaia</b>	“artisan quality production, designing long lasting versatile garments,”	R	High Quality, Long Lasting
<b>Gaia</b>	“long lasting versatile garments”	G	Long Lasting
<b>Gaia</b>	“and thinking about where the production waste and the garment ends up.”	G	Circular Economy, Waste Reduction
<b>Gaia</b>	“In order to keep our production just as sustainable as our materials almost all garments created at the Gaia Studio are Made-to-Order.”	G	Production
<b>Gaia</b>	“Because we don’t cut into fabric and produce a garment until it’s ordered, we are not expending precious material and human energy until another human has said they want and will use the object.”	G	Waste Reduction
<b>Gaia</b>	“We strive to create comfortable, highly versatile, and long-lasting garments.”	R	Comfort, Long Lasting, Selection
<b>Gaia</b>	“We focus on classic silhouettes that are still modern, while allowing customer customization options that help you tweak our basic designs to suite your specific needs.”	R	Look
<b>Gaia</b>	“Our hope is through collaboration we can make a garment you will love and cherish until it is added to the compost or turned into something else.”	G	Circular Economy, Recycle, Waste Reduction
<b>Gaia</b>	“We also find creative ways to turn our fabric scraps into One of a Kind Garments, gifts, or sheet mulching in our community garden. Any left over scraps are sent to Material Return to be recycled into usable fabric yardage.”	G	Material, Recycle
<b>Gaia</b>	“Our company culture includes collaborations and donations that support intersectional environmentalism, social justice, and our local farms.”	B	Social
<b>Gaia</b>	“our local farms.”	Y	Local
<b>Gaia</b>	“We also partner with and support other artisanal makers for the fabrics used in our Organic Handweave Garments and our Organic Natural Dyed Blockprint Garments.”	B	Partners
<b>Gaia</b>	“The first step was to only use certified organic fabrics that are produced either locally (North Carolina, USA) or through fair trade practices abroad.”	B	Certifications
<b>Gaia</b>	“The first step was to only use certified organic fabrics that are produced either locally (North Carolina, USA) or through fair trade practices abroad.”	Y	Local
<b>Gaia</b>	“We also made sure our dyes are as ecofriendly as possible often passing on certain colors because they didn’t meet our standards.”	G	Natural

<b>Gaia</b>	“We are always experimenting with new techniques and researching new possibilities.”	G	Innovation
<b>Gaia</b>	“Gaia Conceptions team of Artisans cuts, sews, and dyes each garment by hand at our studio in beautiful North Carolina based on your unique choices.”	R	Handmade
<b>Gaia</b>	“This gives us the opportunity to keep quality craftsmanship in every piece we make.”	R	High Quality, Skilled Labor
<b>Gaia</b>	“We love giving the client the ability to build a more custom garment.”	R	Unique
<b>Gaia</b>	“We use the Lean or Made to Order method of production. Meaning that we make your garment for you upon order. Eliminating unwanted stock is just one of the ways we reduce our environmental impact. The Made To Order method produces less waste, uses less energy, and is over all a more sustainable system.”	G	Production, Waste Reduction
<b>Gaia</b>	“In order to keep our production just as sustainable as our materials we use a made to order production model. We began as a made-to-order company and have kept that model as we’ve grown. It reduces waste (we don’t overproduce inventory or cut into materials that aren’t needed),”	G	Production
<b>Gaia</b>	“this allows us to offer a wide variety of styles, sizes, and customization that other inventory-based companies can’t afford to offer.”	R	Unique
<b>GALERIE. LA</b>	Making green a bonus, not the focus	G	Easy
<b>GALERIE. LA</b>	The concept is simple: fashion with integrity. We thoughtfully curate the finest selection of sustainable fashion from emerging brands worldwide.	G	Global, Partners
<b>GALERIE. LA</b>	To have a positive environmental and social impact that is not at the expense of style and design is key.	G	Easy
<b>GALERIE. LA</b>	To have a positive environmental and social impact that is not at the expense of style and design is key.	B	Easy
<b>GALERIE. LA</b>	Our team is committed to scouting the most intriguing designers who use sustainable production methods to reduce their environmental footprint	G	Partners
<b>GALERIE. LA</b>	while taking the ethical business practices necessary to benefit people and communities.	B	Partners
<b>GALERIE. LA</b>	Our mission is to work as a community, building a platform devoted to the highest quality of sustainable fashion.	G	
<b>GALERIE. LA</b>	Our mission is to work as a community, building a platform devoted to the highest quality of sustainable fashion.	Y	Community
<b>GALERIE. LA</b>	Our mission is to work as a community, building a platform devoted to the highest quality of sustainable fashion.	R	High Quality
<b>GALERIE. LA</b>	Let’s shift the dialogue by having conversations about fashion’s issues, practices and possibilities.	P	Change, Social

<b>HARA</b>	HARA makes effortlessly soft comfy undies, bras and bamboo clothing for a better future	R	Comfort
<b>HARA</b>	Created with natural plant-based dyes from sustainable materials and using ethical production methods in Australia	G	Material
<b>HARA</b>	Created with natural plant-based dyes from sustainable materials and using ethical production methods in Australia	B	Production
<b>HARA</b>	HARA is the women's bamboo clothing you can truly feel good about.	R	Feel good, Material, Women
<b>HARA</b>	empowering them to feel weightless and carefree	R	Comfort, Feel good
<b>HARA</b>	Supported by a commitment to sustainability, reduced waste	G	Water
<b>HARA</b>	better ethics	B	
<b>HARA</b>	includes comfy basics and easy separates that fit to the contours of your body.	R	Comfort, Selection
<b>HARA</b>	Soft and delicate, every garment from HARA fits and flatters without constricting your body's natural movement — it almost feels like a second skin.	R	Comfort, Look
<b>HARA</b>	Whether you're looking for delicate and weightless bras, super soft undies, loungewear in a range of shades inspired by nature or antibacterial sportswear that feels great, you'll find it all in HARA's online boutique.	R	Comfort, Selection
<b>HARA</b>	HARA is committed to offering fashion to all women, no matter what shape or size you may be	R	Selection
<b>HARA</b>	The apparel industry is one of the earth's biggest polluters.	G	Current Industry
<b>HARA</b>	At HARA, we're doing our part to reduce that carbon footprint, creating garments that are designed to be loved and to last.	G	Carbon footprint, Long Lasting
<b>HARA</b>	Our dream at HARA is to create a completely transparent supply chain that all happens in one place.	G	Transparency
<b>HARA</b>	From the way we run our production team to the care we take in selecting the right natural dyes and flattering cuts for each of our designs, we're taking a slower, more considered approach to fashion.	P	Slow-living
<b>HARA</b>	Our mission as a label is to bring change and awareness to the human and environmental issues within the fashion industry	G	Change, Current Industry, Education
<b>HARA</b>	Our mission as a label is to bring change and awareness to the human and environmental issues within the fashion industry	B	Change, Current

			Industry, Education
<b>HARA</b>	while creating sustainable soft dreamy bamboo underwear that's both rejuvenating and empowering.	R	Comfort, Feel good
<b>Harvest &amp; Mill</b>	"Harvest & Mill was born out of a need for locally sewn and USA grown organic clothing."	Y	Local, Organic
<b>Harvest &amp; Mill</b>	"By supporting our USA organic cotton farmers, American heritage mills and our local sewing community, we are rebuilding supply chains based on ecological and ethical principles."	B	Community, Local, Partners, Supply Chain
<b>Harvest &amp; Mill</b>	"All of our organic cotton is grown in the USA. All of our yarn is spun and knit in the USA. We independently sew our own clothing in Oakland, Berkeley and San Francisco - all within 20 miles of our studio in Berkeley."	Y	Local
<b>Harvest &amp; Mill</b>	"Our 100% USA organic cotton fabric is made exclusively for us. We directly commission American heritage mills to spin, knit and finish our fabric. We can trace our materials all the way back to the organic cotton farms."	Y	Local, Organic, Partners
<b>Harvest &amp; Mill</b>	"All of our designs are available in our natural undyed unbleached clean finish fabric. Our naturallydyed clothing comes from farmers and dye artists in Indiana and California."	R	Natural
<b>Harvest &amp; Mill</b>	"From our organic fabric to our packaging, all our materials are compostable or recyclable. We don't use plastic bags or mailers. Your items come wrapped in compostable tissue paper and a compostable (or re-usable) kraft paper mailer."	G	Recycle, Supply Chain, Waste Reduction
<b>Harvest &amp; Mill</b>	"We believe in transparent science and data as much as you do. We calculate our impact through a globally accepted analysis methodology. We measure the impact metrics of each individual product through the entire manufacturing process. That means, we trace our clothing from the organic farm all the way to the moment it ships"	G	Transparency
<b>Harvest &amp; Mill</b>	"70% less GHG emissions than other sustainable clothing brands. 53% less energy use than other sustainable clothing brands. 50% less water consumption than other sustainable clothing brands."	G	Statistics
<b>Harvest &amp; Mill</b>	"American supply chain From the organic farms, to the heritage mills and to our local sewing community, our supply chain is completely Made in America and fully traceable."	G	Local, Organic, Supply Chain, Transparency
<b>Harvest &amp; Mill</b>	"American supply chain From the organic farms, to the heritage mills and to our local sewing community, our supply chain is completely Made in America and fully traceable."	Y	
<b>Harvest &amp; Mill</b>	"100% organic cotton All of our cotton is 100% organic and grown in the USA. 100% carbon neutral clothing We offset our entire carbon footprint. This includes	G	Carbon footprint,



	our manufacturing process, all supply chain transportation, our office and the carbon footprint on all orders we ship out.”		Organic, Production, Statistics, Supply Chain
<b>Harvest &amp; Mill</b>	“5X shorter travel distance Our clothing travels through our supply chain an average of 34,234 miles less than other sustainable clothing, radically decreasing environmental impacts like pollution, waste and energy use.”	G	Local, Statistics, Supply Chain
<b>Harvest &amp; Mill</b>	“Up to 100% less dye chemicals Most of our clothing is made using natural color and organic heirloom cottons that are entirely dye-free and bleach-free”	G	Natural, Nontoxic, Organic
<b>Harvest &amp; Mill</b>	“Plastic-free packaging and shipping materials All our packaging and shipping materials are plastic-free, reusable, recyclable and easily compostable”	G	Waste Reduction
<b>Harvest &amp; Mill</b>	“we realized it’s actually the larger fashion system that needs to be reimaged.”	B	Change, Social
<b>Harvest &amp; Mill</b>	“100% of our cotton is organic and grown in the USA We work directly with American organic cotton farmers to source the highest quality organic cotton. These farmers are on the cutting edge of regenerative agricultural practices.”	G	Innovation, Organic, Partners
<b>Harvest &amp; Mill</b>	“USA organic cotton farmers use regenerative practices that focus on soil health, conservation and mitigating the climate crisis.”	G	
<b>Harvest &amp; Mill</b>	“These farmers use less water than conventional cotton, use nonGMO seeds, cover cropping and emphasize soil ecology.”	G	Nontoxic, Organic, Water
<b>Harvest &amp; Mill</b>	“Instead, our farmer partners use crop rotations, composting and integrated pest management to achieve ecological balance.”	G	
<b>Harvest &amp; Mill</b>	“By supporting USA organic cotton farmers, we are supporting the people who are on the front lines of preventing climate change, showing a path for other growers to transition to organic and helping to keep our planet clean for generations to come.”	G	Local, Organic
<b>Harvest &amp; Mill</b>	“Organic cotton is a low-impact and efficient natural fiber, especially when comparing the full lifecycle of cotton vs other fibers. Cotton is a natural plant fiber that requires simple mechanical milling and has less spinning waste than other natural fibers (like hemp).”	G	Long Lasting, Waste Reduction
<b>Harvest &amp; Mill</b>	“Organic cotton seed can be used for next seasons’ planting or as a byproduct it can be used for cooking oil.”	G	Recycle
<b>Harvest &amp; Mill</b>	“Organic cotton foliage is composted or incorporated back into the soil matter on the farm, minimizing agricultural waste.”	G	Organic
<b>Harvest &amp; Mill</b>	“There are no enzyme baths required to soften cotton (like bamboo requires). Cotton clothing is biodegradable and can be composted after its useful life.”	G	Nontoxic, Waste Reduction

<b>Harvest &amp; Mill</b>	“Cotton is naturally soft, pliable and breathable, making it perfect for clothing that lives next to our skin with minimal processing.”	R	Comfort
<b>Harvest &amp; Mill</b>	“Organic farming doesn’t just affect farmland. Surrounding communities are directly impacted by the farming techniques used nearby.”	Y	Community
<b>Harvest &amp; Mill</b>	“Agricultural and industrial pollution disproportionately affect marginalized communities that live in close proximity, deepening cycles of health disparities.”	B	Social
<b>Harvest &amp; Mill</b>	“These are also communities that are often most affected by climate change. Environmental justice and social justice go hand in hand.”	B	Social
<b>Harvest &amp; Mill</b>	“These are also communities that are often most affected by climate change. Environmental justice and social justice go hand in hand.”	G	
<b>Harvest &amp; Mill</b>	“Organic cotton not only keeps toxic chemicals out of the local water and air, it also addresses underlying causes of climate change.”	G	Carbon footprint, Nontoxic
<b>Harvest &amp; Mill</b>	“We can effect positive change in these communities and fight the climate crisis through better farming practices.”	G	
<b>Harvest &amp; Mill</b>	“positive change in these communities”	B	
<b>Harvest &amp; Mill</b>	“We are building localized and decentralized supply chains entirely within the USA. From the organic farms, to the American heritage mills, to the family-owned sewing factories, every single step of our supply chain is in the USA.”	Y	
<b>Harvest &amp; Mill</b>	“In creating our supply chain, our goal was to minimize the distance between each step of our supply chain. The shorter the distance raw materials travel, the lower the environmental impact.”	G	Supply Chain
<b>Harvest &amp; Mill</b>	“Most other brands ship their raw materials around the world to be grown, milled or sewn and those vast distances have devastating environmental consequences like higher levels of GHG emissions, increased pollution and higher energy use.”	G	Carbon footprint, Current Industry
<b>Harvest &amp; Mill</b>	“The distances between our farms, mills and factories are a fraction of the industry average.”	G	Supply Chain
<b>Harvest &amp; Mill</b>	“local communities”	Y	
<b>Harvest &amp; Mill</b>	“sustainable manufacturing”	G	
<b>Harvest &amp; Mill</b>	“creating high quality clothing.”	R	High Quality
<b>Harvest &amp; Mill</b>	“Throughout our entire supply chain, we work only with small and independent American farms, factories and mills.”	Y	Partners, Supply Chain

<b>Harvest &amp; Mill</b>	“These small businesses hire local workers, use local services, reinvest in their communities and care about the quality of life in their neighborhoods.”	Y	Community, Local
<b>Harvest &amp; Mill</b>	“A strong local economy encourages community engagement, entrepreneurship, resiliency and innovation.”	Y	Community, Economy, Local
<b>Harvest &amp; Mill</b>	“Right now, the USA has many skilled workers and textile manufacturing infrastructure that are largely underutilized.”	Y	Skilled Labor
<b>Harvest &amp; Mill</b>	“As sustainable designers, we know that using existing infrastructure and local resources has a lower environmental impact than building new infrastructure and importing resources.”	G	Established
<b>Harvest &amp; Mill</b>	“Not only does localized manufacturing help local economies,”	Y	Local
<b>Harvest &amp; Mill</b>	“it is actually more sustainable too.”	G	
<b>Harvest &amp; Mill</b>	“All of our sewing takes place within 15 miles of our studio in Berkeley, California.”	Y	Local
<b>Harvest &amp; Mill</b>	“We work with independent, family-owned factories in Oakland and San Francisco.”	Y	Partners
<b>Harvest &amp; Mill</b>	“We regularly visit these factories, we know the people who sew our clothing and we have a high level of transparency and visibility for the working conditions where our clothing is made.”	B	Employee Welfare, Partners, Transparency
<b>Harvest &amp; Mill</b>	“By working with our neighbors, we also help build a more diverse and inclusive region”	Y	Community, Local, Partners, Social
<b>Harvest &amp; Mill</b>	“We support workers’ rights for every worker throughout our supply chain.”	B	Employee Welfare, Supply Chain
<b>Harvest &amp; Mill</b>	“From the farm workers to the factory workers, every single person who works on Harvest & Mill clothing receives a fair wage, safe working conditions, the legally protected right to organize and protection from discrimination.”	B	Supply Chain
<b>Harvest &amp; Mill</b>	“Since all of our manufacturing takes place within the USA, our contracts and workers’ guarantees are legally enforceable, making the strength of our commitments stronger than other voluntary or third-party certifications.”	B	
<b>Harvest &amp; Mill</b>	“Our raw materials never cross national boundaries or jurisdictions, which is a regulatory loophole other fashion brands use to shirk legal responsibility for the working conditions where their clothing is made.”	B	Transparency

<b>Harvest &amp; Mill</b>	“Our USA made process also means that we have the ability to pass stronger laws and demand stricter regulations through our elected representatives, our advocates and the ballot box.”	B	Social
<b>Harvest &amp; Mill</b>	“We are proud to be accountable for the treatment of every worker who contributes to a Harvest & Mill garment.”	B	Employee Welfare
<b>Harvest &amp; Mill</b>	“Natural is beautiful. Our clothing is designed to look and feel like raw organic cotton.”	R	Comfort, Look, Natural
<b>Harvest &amp; Mill</b>	“That’s why we never use bleaches, synthetic chemical finishes or toxic dyes to make our clothing.”	R	Nontoxic
<b>Harvest &amp; Mill</b>	“Most Harvest & Mill clothing is made with dye-free organic cotton. In addition to using white cotton varieties, we use heirloom cottons that naturally grow brown, green and red.”	R	Innovation, Natural
<b>Harvest &amp; Mill</b>	“Dye-free fabrics use significantly less water, energy and resources during the manufacturing process.”	G	Carbon footprint, Water
<b>Harvest &amp; Mill</b>	“These fabrics also ensure that no dye chemicals are leached into our local water supplies when we wash our clothes at home.”	G	Water
<b>Harvest &amp; Mill</b>	“The Harvest & Mill Sock Collection, our Organic Heirloom Brown Clothing Collection and all our natural-white joggers and tops are made with organic dye-free and bleachfree cottons.”	R	Natural, Nontoxic, Organic
<b>Harvest &amp; Mill</b>	“Did you know, our skin is the largest organ of our body and we can absorb substances through our skin? Dye-free clothing can offer relief for sensitive skin, allergies and for those trying to detoxify their bodies and their lifestyles.”	R	Health benefits, Nontoxic
<b>Harvest &amp; Mill</b>	“In a world full of synthetic colors, wearing natural color clothing can help remind us of the inherent beauty in nature.”	R	Look, Nature
<b>Harvest &amp; Mill</b>	“Our Artist Series features natural dye artists who incorporate the origins of their dye materials into their process.”	R	Natural, Partners, Skilled Labor
<b>Harvest &amp; Mill</b>	“These artists organically grow their own dye materials on their farm or sustainably forage their dye materials locally.”	G	Local, Organic
<b>Harvest &amp; Mill</b>	“The artists use dye techniques that have been used for thousands of years, such as traditional Sukumo indigo dye and clay dye.”	R	Skilled Labor, Traditional
<b>Harvest &amp; Mill</b>	“Each piece is dyed by hand, one-by-one.”	R	Handmade, Organic, Small batch
<b>Harvest &amp; Mill</b>	“We feature the artists’ statement, their process and link to their other work.”	R	Look

<b>Harvest &amp; Mill</b>	“Through growing or foraging their dye materials, these artists have a profound understanding of what it takes to dye clothing in a sustainable way.”	G	Skilled Labor
<b>Harvest &amp; Mill</b>	“Our artist collaborations offer a glimpse into a greener past while reimagining how that history can lead us to a more ecological future.”	G	
<b>Harvest &amp; Mill</b>	“Our low impact black fabric is dyed using non-toxic and eco-friendly dyes in the USA.”	G	Nontoxic
<b>Harvest &amp; Mill</b>	“Our fabrics are free of toxic substances like azo dyes, formaldehyde, PFC or flame retardants, phthalates, heavy metals, chlorine bleach, VOCS or other dangerous substances commonly found in clothing.”	G	Nontoxic
<b>Harvest &amp; Mill</b>	“Many of these substances are known to be carcinogenic, neurotoxic or can cause organ damage.”	G	Current Industry, Health benefits
<b>Harvest &amp; Mill</b>	“We analyze the full lifecycle and comprehensive impact of our clothing.”	G	Circular Economy
<b>Harvest &amp; Mill</b>	“We believe that all clothing and all fashion brands should be carbon neutral. We offset 100% of our manufacturing process, the shipping of every order and our studio’s carbon footprint.”	G	Carbon footprint
<b>Harvest &amp; Mill</b>	“Our primary goal is always to minimize our carbon footprint. After that, the footprint we still have is offset.”	G	Carbon footprint
<b>Harvest &amp; Mill</b>	“We offset through the Garcia River Forest reforestation project and the Capricorn Ridge Wind Farm. The Garcia River Forest is located in Northern California’s redwood coast and traps more than 4M tons of CO2 from the atmosphere, creates local jobs, protects 53 miles of streams and improves habitat for threatened flora and fauna. The Capricorn Ridge Wind Farm in Texas avoids an average of 160,000 metric tons of greenhouse gas emissions per year, employs local workers and is capable of generating enough electricity for more than 220,000 homes.”	G	Organizations, Statistics
<b>Harvest &amp; Mill</b>	“Our packaging is plastic-free, made from recycled paper and designed to be reused, recycled or easily composted at home.”	G	Supply Chain, Waste Reduction
<b>Harvest &amp; Mill</b>	“While there are compostable “plastic imitation” bags made from natural materials, these often need to be composted in specific facilities which increases the likelihood they will not be disposed of properly.”	G	Current Industry, Waste Reduction
<b>Harvest &amp; Mill</b>	“Paper can be composted at home or recycled at any facility and made from previously recycled content. All of our packaging is 100% recyclable, easily biodegradable and Made in the USA.”	G	Waste Reduction
<b>Harvest &amp; Mill</b>	“All of our clothing is vegan and cruelty-free.”	P	Lifestyle

<b>Harvest &amp; Mill</b>	“Our entire product line is PETA-approved, we do not use any animal product trims or tags and no animals are harmed in the making of our products.”	P	Certifications
<b>Harvest &amp; Mill</b>	“Vegan clothing also has a lower environmental impact than clothing made from animal fibers. Plant fibers have lower GHG emissions, use natural resources more efficiently and cause less pollution.”	G	
<b>Harvest &amp; Mill</b>	“Vegan clothing also has a lower environmental impact than clothing made from animal fibers. Plant fibers have lower GHG emissions, use natural resources more efficiently and cause less pollution.”	G	
<b>Harvest &amp; Mill</b>	“We design our patterns to minimize off-cuts and fabric waste. All extra fabric is either repurposed or recycled.”	G	Recycle
<b>Harvest &amp; Mill</b>	“None of our fabric ends up in a landfill. After your Harvest & Mill clothing is past its useful life, we recommend repurposing, recycling or composting where appropriate.”	G	Circular Economy, Waste Reduction
<b>Harvest &amp; Mill</b>	“While we each have the opportunity to create positive change through our individual actions, on a larger scale we need governments and private businesses to step up and build better systems.”	B	Social
<b>Harvest &amp; Mill</b>	“That is why at Harvest & Mill, our team is committed to reimagining the fashion, design and manufacturing industries as avenues to change our world for the better.”	B	Change
<b>Harvest &amp; Mill</b>	“None of these big dreams and visions could be possible without your support.”	B	Consumer action
<b>Harvest &amp; Mill</b>	“Fibershed is a non-profit who develops regional fiber systems that build soil & protect the health of our biosphere.”	G	Organizations
<b>Harvest &amp; Mill</b>	“To constantly advance our sustainability, we always strive to go the extra mile to measure and study both our environmental and social impacts and to analyze our process.”	G	
<b>Hazel</b>	“sustainable brand”	G	
<b>Hazel</b>	“We combine premium materials that are the softest & healthiest for your baby's delicate skin.”	R	Health benefits, High Quality
<b>Hazel</b>	“In order to do this, we chose to use plant based dyes which are biodegradable, nontoxic & nonallergic.”	R	Nontoxic
<b>Hazel</b>	“biodegradable,”	G	Waste Reduction
<b>Hazel</b>	“Our clothes are done with TENCEL™ which is breathable, antibacterial, hypoallergenic, moisture wicking & gentle on skin.”	R	Comfort, Health benefits
<b>Hazel</b>	“people”	P	
<b>Hazel</b>	“nature”	G	

<b>Hazel</b>	“We support our community by producing locally in Bali & handmade.”	Y	Community, Handmade, Local, Partners
<b>Hazel</b>	“We are slow fashion, thought to be loved for many years & by many little ones.”	G	Long Lasting, Slow-living
<b>Hazel</b>	“We use eco friendly packaging. We have a zero waste program”	G	Waste Reduction
<b>Hazel</b>	“we give back to moms & kids in need.”	B	Charity
<b>Hazel</b>	“Because clothing comes into prolonged contact with one’s skin - it is very important for us to make a product free of toxic substances. We choose to use TENCEL™ which is free of harmful chemicals for our skin, botanical dyes, nickel free snaps & ecofriendly detergents.”	R	Nontoxic
<b>Hazel</b>	“Natural dyes are biodegradable”	G	Material, Natural dyes, Waste Reduction
<b>Hazel</b>	“nontoxic and nonallergic.”	R	Nontoxic
<b>Hazel</b>	“Additionally, they don't contain harmful chemicals nor carcinogenic components, common to artificial or synthetic dyes.”	R	Current Industry, Nontoxic
<b>Hazel</b>	“Imagine how good this is for our little ones' skin!”	R	Health benefits
<b>Hazel</b>	“Also, by using plant dyes over these other choices, you help to preserve the environment and lower human dependence on harmful products.”	G	
<b>Hazel</b>	“Many times, residuals from the textile dyeing process end up in our oceans - The process of color treating fabric contributes to as much as 20% of the world’s water pollution.”	G	Water
<b>Hazel</b>	“Furthermore, the natural dyes that we use produce no waste, unlike the products used in the synthetic dyeing process. Leaves & bark are easy to extract, they are harvested several times (trees are not killed), the leaf waste is processed into compost to fertilize the soil (closed loop process) & leftover water is filtered by enceng gondok plants before flowing into the river.”	G	Current Industry, Waste Reduction, Water
<b>Hazel</b>	“All of these raw materials are grown at the factory's own plantation in the island, in the village of Tampak Siring.”	Y	Local
<b>Hazel</b>	“Another interesting advantage of plant dyes is that they provide higher UV absorption - By wearing clothes dyed naturally, you'll protect your skin more from the sun’s harmful rays.”	R	Health benefits
<b>Hazel</b>	“What are TENCEL™ Lyocell benefits? First of all, it is a silky soft high quality fabric perfect for babies' delicate skin and for underwear. It is breathable, super	R	Comfort, Health

	light, helps to regulate temperature and it is wrinkle-resistant. Comparing it to cotton, it is ten times more resistant to bacterial growth and it is 50% more absorbent, helping wick moisture from the skin. Lyocell material offers great strength and elasticity, which transforms it into a durable fabric.”		benefits, Innovation
<b>Hazel</b>	“TENCEL™ Lyocell fibers come from mainly beech, birch, eucalyptus & spruce trees, harvested from sustainably managed PEFC or FSC forests.”	G	
<b>Hazel</b>	“Not only because it is made from sustainably sourced wood but also because traditionally, viscose process' uses harmful sodium hydroxide whereas Tencel replaces it with a close loop NMMO process -this non toxic solution is recoverable (99% of it) and it is recycled time after time to produce new fibers and minimize waste.”	G	Innovation, Nontoxic, Waste Reduction
<b>Hazel</b>	“Also, it requires less water than cotton, less energy in the production compared to most of the fabrics & it is compostable.”	G	Waste Reduction, Water
<b>Hazel</b>	“TENCEL™ Lyocell received the same ranking to GOTS Cotton on the Environmental Benchmark for Fibers by Made-By, a Dutch organization. It got the European Award for the Environment from the European Commission in the category “The Technology Award for Sustainable Development” and it is certified USDA biobased.”	G	Innovation
<b>Hazel</b>	“At Hazel, we feel very proud of working mostly and mainly with small companies based within the same island, run by local families and handmade”	Y	Local, Partners
<b>Hazel</b>	“2 businesses are women owned & run like Hazel!”	Y	Women
<b>Hazel</b>	“We choose to work with companies that promote gender equality, ethnic and religion diversity, that respect working hours and pay a living wage.”	B	Social
<b>Hazel</b>	“We regularly visit the different production sites to be involved in their process, assuring that they work in safe conditions and are complying with our Code of Conduct.”	B	Partners
<b>Hazel</b>	“The office, sewing factory, most of the packaging suppliers, fabric distributor and the dyeing studio are all located within a radius of 15 km IN Bali, which allows us to reduce our carbon footprint.”	G	Carbon footprint, Local
<b>Hazel</b>	“All of our products and packaging have been mindfully thought. They are either natural, recyclable, from a recycled element, compostable and/or all of above.”	G	Recycle, Waste Reduction
<b>Hazel</b>	“From the detergents we use to our mailers - and we are 100% plastic free. To minimize waste, we don't put any unnecessary tags on our clothes and we run very small batches.”	G	Small batch, Waste Reduction
<b>Hazel</b>	“Last but not least, we are proud of working with a company that collects leftover fabric treads (read more about our zero waste program below) & turn them into	G	Circular Economy,



	yarn to be hand woven into carpets or table runners, giving what would be waste material a second life.”		Partners, Waste Reduction
<b>Hazel</b>	“Also, they give women from the nearby village the opportunity to be in safe & formal employment while at the same time preserving Bali’s beautiful dyeing and weaving traditions”	B	Employee Welfare, Local, Women
<b>Hazel</b>	“One of our main concerns about the fashion industry is the amount of waste generated by the unused fabric that is not trendy anymore, leftover fabric cuts from factories whose goal is to minimize production time and 'fast fashion' brands.”	G	
<b>Hazel</b>	“On our efforts to produce on a sustainable and ethical way, we choose colors/designs that are timeless and we produce in very small batches - working hard to minimize waste from the moment we come out with our colors,”	G	Long Lasting, Small batch, Waste Reduction
<b>Hazel</b>	“We also provide free repairs and to encourage circularity, we give a discount to people that return preloved pieces locally!”	G	Circular Economy, Waste Reduction
<b>Hazel</b>	“Since September, we've been working with tailors that due to COVID have lost most or all of their clients here in Bali, to transform some of our waste than cannot be reduced (fabric straps) into scrunchies, bandana bibs and pacifier clips - and selling them locally (soon on the website).”	Y	Local, Partners
<b>Hazel</b>	“The procedures from these items are donated to Bali Street Mums Project, giving back to this beautiful island that we are happy to call home. The amazing people behind this organization help mothers and their children who have been on the streets and give them refuge at their safe house, they teach the moms skills so that they can earn a living and educate their kids - "By saving families once, they're empowered to sustain themselves for generations" BSMP. Visit their website here”	B	Charity, Organizations
<b>Here</b>	“Supporting independent labels from around the world.”	Y	Global, Partners
<b>Here</b>	“Women owned,”	B	Women
<b>Here</b>	“sustainable small batch production.”	G	Small batch
<b>Indigo Luna</b>	“First imagined in the sand on the Australian coastal town of Torquay Inspired by thoughtful Scandinavian/Nordic simplicity Given life and flavoured on the magical island of Bali, Indonesia”	Y	Culture
<b>Indigo Luna</b>	“We are a small, family run brand ensuring quality, transparency, eco-consciousness and sustainable manufacturing practices.”	G	Production, Transparency
<b>Indigo Luna</b>	“quality,”	R	High Quality

<b>Indigo Luna</b>	“We fell completely in love with the beauty and complexity of the Indigo plant and the way we could create earthy colours from nature”	R	Look, Natural dyes
<b>Indigo Luna</b>	“that doesn't have a negative impact on our planet.”	G	Material, Natural
<b>Indigo Luna</b>	“This has been a continuing thread throughout our journey, and every decision we make is chosen to benefit the environment and health of the workers over profits.”	G	
<b>Indigo Luna</b>	“health of the workers over profits.”	B	
<b>Indigo Luna</b>	“smallest footprint we can”	G	Carbon footprint, Waste Reduction
<b>Indigo Luna</b>	“Choose well, buy less, make it last.”	G	Long Lasting
<b>Indigo Luna</b>	“To us, the use of plant dyes encapsulates the slow, carefully chosen values of Indigo Luna and also the changing narrative that conscious consumers, like you, are driving.”	P	Change, Slow-living, Social
<b>Indigo Luna</b>	“By supporting ethical brands you are directly helping to create the world you want to see around you.”	B	
<b>Indigo Luna</b>	“We want you to feel the love in each hand made stitch and understand that there are real loving humans creating these garments”	R	Handmade
<b>Indigo Luna</b>	“This is NOT fast fashion.”	R	Slow-living
<b>Indigo Luna</b>	“We are dedicated to thoughtful slow creation. Reducing unnecessary impact on other beings and our planet while providing an alternative to mass production and fast fashion.”	G	Slow-living
<b>Indigo Luna</b>	“Our garments are made in beautiful simple shapes, earthy colours and plant dyes from recycled or organic materials.”	R	Look, Natural, Organic
<b>Indigo Luna</b>	“recycled or organic materials.”	G	
<b>Indigo Luna</b>	“Collections are purposely created in small, sustainable runs and we plan to run out of stock.”	G	Small batch
<b>Indigo Luna</b>	“Everything is cut, sewn and dyed by loving human hand,”	R	Handmade
<b>Indigo Luna</b>	“we ensure that every person involved in production works in comfortable, safe conditions.”	B	Employee Welfare, Production

<b>Indigo Luna</b>	“Creations designed to celebrate the female form, by providing simple, minimalistic shapes in eco-conscious fabrics.”	R	Women
<b>Indigo Luna</b>	“Designed for all bodies no matter your moon cycle or if you are creating life.”	R	Selection
<b>Indigo Luna</b>	“We believe in female empowerment, with two of three directors being female as well as 93% of all employed staff.”	B	Social, Women
<b>Kaliko</b>	“At Kaliko we believe in the power of handcrafted textiles made with care.”	R	Handmade
<b>Kaliko</b>	“Our goal is to help you discover the beauty of foraged colors.”	R	Natural dyes
<b>Kaliko</b>	“We empower others by educating about textile-making techniques and offer craft supplies for indie makers.”	Y	Education
<b>Kaliko</b>	“Our in-house line of textile products is made with certified local fibers and hand-dyed in our studio.”	R	Handmade, Local, Partners
<b>Kaliko</b>	“Our mission is to spread love for natural textiles and educate about healthy processes of making cloth.”	P	Education, Health benefits
<b>Kaliko</b>	“dye with plants and hand-weave for our line of handmade sustainable textile goods”	R	Handmade
<b>Kaliko</b>	“sustainable textile goods”	G	
<b>Kaliko</b>	“teach traditional textile-making techniques by running in-person workshops, offering online classes and publishing eBooks”	P	Education, Traditional
<b>Kaliko</b>	“collaborate with international brands on art projects and offer small-batch dyeing services for indie businesses and fellow artists”	Y	Community, Global, Small batch
<b>Kaliko</b>	“We also teach traditional cloth-making techniques to help people slow down and be more mindful of how textiles are actually made.”	P	Slow-living, Traditional
<b>Kaliko</b>	“Researching and teaching natural dyeing helps us educate about non-toxic predecessors to synthetic dyes. We want to promote healthy alternatives to the conventional textile industry.”	P	Education, Health benefits
<b>Kaliko</b>	“We work with certified and natural fibers, which are beneficial for the planet and its people.”	G	Certifications, Material, Natural
<b>Kaliko</b>	“We work with certified and natural fibers, which are beneficial for the planet and its people.”	B	Certifications
<b>Kaliko</b>	“We choose to operate within our local economy and source all materials exclusively from EU-based small businesses. Local female freelancers support us in offering unique products "Made in Berlin".”	Y	Local, Women
<b>Kaliko</b>	“Using textile offcuts for small handmade goods and art projects helps us reduce waste.”	G	Material, Recycle

<b>Kaliko</b>	“We source 100% bio-degradable paper packaging to minimize our environmental impact.”	G	Waste Reduction
<b>Kaliko</b>	“Natural fibers are gifts of nature.”	G	Material, Natural, Nature
<b>Kaliko</b>	“Unlike synthetic fibers, natural fibers are bio-degradable and don't burden the environment.”	G	Current Industry, Waste Reduction
<b>Kaliko</b>	“After their lifecycle is over, they can be composted, as long as the dyes used were organic too.”	G	Waste Reduction
<b>Kaliko</b>	“We choose to work with GOTS certified and/or local fibers.”	G	Certifications
<b>Kaliko</b>	“We source unbleached organic cotton from Turkey, natural linen from Lithuania, raw hemp from Belgium and pure wool from Germany.”	Y	Local
<b>Kaliko</b>	“Natural dyes have unique properties: they can be antibacterial, insulate in winter and help cool down in summer.”	R	Health benefits, Material
<b>Kaliko</b>	“They let our bodies breathe and make sure that our skin—the biggest organ of a human body—is feeling comfortable.”	R	Comfort
<b>Kaliko</b>	“Conventional synthetic dyes are one of the main sources of pollution in the textile industry. They are derived from petrochemicals and often toxic. Before their discovery in 19th century, all colorants were obtained from natural sources. But sadly, this ancestral knowledge got slowly lost during the industrial revolution. Synthetic dyeing on a large scale took over, causing harm to the environment and the people. Synthetic dyeing process requires huge amounts of water and releases toxic substances to our rivers afterwards.”	G	Current Industry
<b>Kaliko</b>	“Today, natural dyes are getting re-discovered, as a healthy alternative to synthetic color.”	R	Health benefits
<b>Kaliko</b>	“In our studio, we dye our products by hand, using metal salts as pre-fixatives and natural dyes as sources of color.”	R	Handmade, Natural dyes
<b>Kaliko</b>	“Our main objective for setting up a sustainable business was to develop a short supply chain”	G	Local, Supply Chain
<b>Kaliko</b>	“Working with businesses based in Europe also allows us to make sure that their processes match our standards.”	G	Local
<b>Kaliko</b>	“We worked hard on building relationships with European producers, suppliers and manufacturers.”	Y	Local, Partners
<b>Kaliko</b>	“Our craft supplies are made with help from local family businesses. All sewing is done by Berlin-based freelancers.”	Y	Local, Supply Chain

<b>Kaliko</b>	“Kaliko's goal is to support our local economy and to have a positive social impact.”	Y	Community, Local, Social
<b>Kimonoshi</b>	“We specialized in making some of the best modern Japanese style Kimono Cardigan shirts for men & women and Japanese style Capri cropped pants you have ever seen.”	R	High Quality
<b>Kimonoshi</b>	“Japanese styles continue to influence the men’s fashion industry this season, particularly when it comes to casual and streetwear. This is a trend that first started with the rise of the Japanese souvenir jacket, and now it is the kimono that is taking centre stage as the hottest item that every man should have in his wardrobe.”	R	Fashion
<b>Kimonoshi</b>	“The kimono is an important and traditional piece of Japanese culture, as well as this season’s hottest trend.”	R	Fashion, Traditional
<b>Lucy and Yak</b>	“selling handmade pouches made from pre-loved clothes”	R	Circular Economy, Handmade, Material, Recycle
<b>Lucy and Yak</b>	“After a long search, they met Ismail in India and hit it instantly over their shared values, ethics and all round good vibes”	B	Partners
<b>Lucy and Yak</b>	“renewable energy”	G	Renewable Energy
<b>Lucy and Yak</b>	“Lucy, Chris & Yak all agree that comfort is key! Finding the comfiest organic fabrics, creating shapes, styles & prints to suit every Yakker out there”	R	Comfort, Selection
<b>Lucy and Yak</b>	“and making sure our customers & people are all well looked after.”	B	Employee Welfare
<b>Lucy and Yak</b>	“We believe if we put out kindness, fairness, and all round good vibes, it breeds more of the same. Every pair of Yaks we make should stay in circulation for as long as possible. We’ll continue to use organic and recycled fabrics, but also make sure all our Yaks can be Re:Yakked and Re-loved through our Repair and Upcycle network, our Facebook Buy, Sell, Trade group, our Depop page and now our Buy back initiative in collaboration with Beyond Retro vintage shops”	G	Circular Economy
<b>Lucy and Yak</b>	“Re:Yakked and Re-loved through our Repair and Upcycle network”	G	Recycle
<b>Lucy and Yak</b>	“Whether they’re continuing to cut our carbon footprint, sourcing even more sustainable fabrics”	G	Carbon footprint, Material
<b>Lucy and Yak</b>	“We’re sure you know by now that all of our organic cotton is GOTS certified. BUT after a lot of hard work, we recently as a brand became fully GOTS certified too! This means that every step of our process has been certified, from processing,	G	Certifications, Organic

	manufacturing, packaging, labelling, and trading to distribution. This is a big deal for us, as not many actual clothing brands are fully certified – so we’re over the moon, ecstatic and excited to share the good news! It’s a huge step on our journey to driving more sustainable and responsible production as a brand.”		
<b>Lucy and Yak</b>	“We’re working with the team at Ecologi to help o-set our carbon emissions – you can check out our page <a href="#">HERE</a> . but here’s a little update on what we’ve achieved so far!”	G	Carbon footprint
<b>Lucy and Yak</b>	“37 Months of climate change impact 1,713.39 T of carbon offset so far 28,156 Real trees planted in our forest 1713.39 Tonnes of CO2 is the Equivalent to: 1,315 long haul flights 5,140 meters of sea ice saved 4,250,921 miles driven in a car”	G	Statistics
<b>Lucy and Yak</b>	“We were super excited to start using Natural Earth Pigments for some of our Yaks - vivid natural colours that have minimal environmental impact compared to synthetic dyes.”	G	Natural, Natural dyes
<b>Lucy and Yak</b>	“LEFTOVER FABRICS ARE RE:YAKKED AND MADE INTO TRAVIS HATS & ADA APRONS! BOLD COLOURS & PRINTS ARE ALL DYED RESPONSIBLY. FABRIC WASTE IS COLLECTED AND RETURNED FOR RECYCLING.”	G	Circular Economy, Material, Recycle
<b>Lucy and Yak</b>	“We’ve started using linen! Natural fibres that make for breathable, comfy & durable Yaks”	R	Comfort, Long Lasting
<b>Lucy and Yak</b>	“These little bundles of joy are another way we’re making the most of leftover fabrics – giving Yakkers a chance to get creative and Re:Yak, repair or upcycle old clothes.”	G	Circular Economy, Recycle
<b>Lucy and Yak</b>	“As if giving local girls a life changing education wasn’t enough for the amazing Fior Di Loto foundation, they also help them get into university, provide food parcels for their families, and even build houses for those in need!”	B	Organizations, Partners
<b>Lucy and Yak</b>	“As if giving local girls a life changing education wasn’t enough for the amazing Fior Di Loto foundation, they also help them get into university, provide food parcels for their families, and even build houses for those in need!”	Y	Local, Partners
<b>Lucy and Yak</b>	“Over 100 girls are at Uni or College 153 Women received sewing machines for International Women’s Day 1800 Families received monthly food parcels 21 Houses build by the For Di Loto Foundation”	B	Statistics
<b>Lucy and Yak</b>	“The plan is to turn them into Re:Yak Hubs with upcycling workshops, mending services, and our own Re:Yak buyback scheme.”	G	Circular Economy
<b>Lucy and Yak</b>	“SUSTAINABLE FASHION WEEK We teamed up with Future Leap (One of the largest green business networks in the UK) to take part in Sustainable Fashion Week, with a focus on upskilling, inspiring and empowering the community instead of next season’s trend.”	G	Organizations

<b>Lucy and Yak</b>	“LUCY & YAK X UNHIDDEN We’re heading to London Fashion Week! We’re donating some Yaks to the team at Unhidden, an adaptive clothing brand that will upcycle the items for the event. There’s even a longer term partnership to follow! Unhidden will be adapting more Lucy & Yak pieces to make them accessible to even more people.”	R	Fashion
<b>Lucy and Yak</b>	“ORGANIC COTTON DEMAND The demand for organic cotton is on the up, so we’re exploring using other sustainable fabrics to ease our need for it,”	G	Material
<b>Lucy and Yak</b>	“unique for our customers (check out our wood fibre skirts!)”	R	Unique
<b>Lucy and Yak</b>	“USING MORE OFFCUT FABRICS From pillow covers to bandanas, there’s a lot of new Yaks to be getting excited about.”	G	Recycle
<b>Lucy and Yak</b>	“RECYCLED COTTON We’re trying out Recycled Cotton! It entails significantly less water consumption than growing it, and gives unused fabric a new lease of life.”	G	Material, Recycle
<b>Lucy and Yak</b>	“A NEW SUSTAINABILITY & ETHICS MANAGER One of the latest (and most important) new roles on the L&Y team, our manager is here to help us achieve our goals and become a truly circular brand.”	G	Circular Economy
<b>Master Craftsmanship</b>	“The workmanship of masters, nurtured through the culture and traditions of Japan, has been passed down for hundreds of years, and fine works created with the passion of craftsmen and the traditional skills of the masters continue to remain unknown at locations throughout the country.”	R	Handmade, High Quality, Traditional
<b>Master Craftsmanship</b>	“We are looking at spending years and decades to bring Japan and the global community together and to get many people in the world involved so we may continue to expand new possibilities.”	Y	Global
<b>Monsoon Blooms</b>	“Fairtrade”	B	Certifications
<b>Monsoon Blooms</b>	“organic cotton”	R	Organic
<b>Monsoon Blooms</b>	“From the time the cotton seeds are planted right through until the fabric is ready to be posted to us, it is governed by the certification of Fairtrade (FLOCERT) and Global Organic Textile Standard (GOTS).”	B	Certifications
<b>Monsoon Blooms</b>	“Our cotton is coloured according to the wisdom of Ayurveda at a small dye-house in the southern forests of Kerala.”	R	Handmade, Skilled Labor
<b>Monsoon Blooms</b>	“Using 100% natural plant dyes rich in medicinal properties, the fabrics are known locally as 'healing cloths' used more for health than for fashion.”	R	Health benefits, Natural dyes

<b>Monsoon Blooms</b>	“With a 7000-year history, India's ancient Ayurvedic medicine is a trusted science of the mind, body and spirit that gives much honour to the power of plants.”	R	Health benefits, Traditional
<b>Monsoon Blooms</b>	“Used to treat all manner of problems from minor ailments to life threatening diseases, it is impossible to overstate the magic of this medicine. Not only is Ayurveda used to cure, but also to prevent. It is an all encompassing way of life that can be used to elevate even the most mundane daily tasks;”	R	Health benefits, Lifestyle
<b>Monsoon Blooms</b>	“Each of our natural colours is achieved using somewhere between 25 and 50 mindfully selected herbs, plants, flowers, roots and barks.”	R	Natural dyes, Nature
<b>Monsoon Blooms</b>	“The 100% vegan dye baths (consisting of no smashed insects - a common ingredient in most natural dyes) are boiled at a controlled temperature before being filtered, dried, softened with natural ingredients such as coconut oil, and left in the dark to fixate.”	R	Lifestyle, Natural dyes, Skilled Labor
<b>Monsoon Blooms</b>	“In Sanskrit, the Hindu language of worship, this process of fabric dyeing is referred to as 'ayurvastra', loosely translating to healthy clothing.”	R	Culture, Health benefits, Traditional
<b>Monsoon London</b>	“Our story begins with one man and his vision; to bring vibrant, colourful, hand-crafted artisan clothes from faraway places to the markets of London. It is a journey that started on a hippy commune in Ibiza, 1970, and finished with an overland trip east, through Afghanistan and India.”	Y	Culture
<b>Monsoon London</b>	“beautiful, bohemian-inspired pieces with hand-printed, hand-woven and crochet design details, which he started to trade from a stall on Portobello Road, London.”	R	Culture, Handmade, Look
<b>Monsoon London</b>	“We are passionate about connecting contemporary designs with a network of craftspeople, creating unique collections to be cherished.”	R	Look, Skilled Labor, Unique
<b>Monsoon London</b>	“We have an eye for true beauty, whether that’s our intricate design details, colourful prints, fabrics or embellishments.”	R	Look
<b>Monsoon London</b>	“We design in-house, source globally and ethically, and are dedicated to delivering keepsake quality.”	R	Global, High Quality
<b>Monsoon London</b>	“globally and ethically,”	B	Global
<b>Monsoon London</b>	“We believe in the positive, empowering, life-changing power of trade rather than aid. And we want to do right by the people who make our beautiful things.”	B	Community, Employee Welfare, Feel good
<b>Monsoon London</b>	“As a founder member of the Ethical Trading Initiative (ETI), we’ve been at the forefront of driving sustainable improvements in working conditions and livelihoods wherever we do business.”	B	Change, Partners



<b>Monsoon London</b>	“But that’s not all. Each year, the Monsoon Accessorize Trust (founded in 1994) supports life-changing projects in income-generation, healthcare and education for over 10,000 women and children throughout Asia.”	B	Charity, Women
<b>Na Mea Hawai‘i</b>	Nā Mea Hawai‘i is a place with pride and respect for Hawaiians and Hawaiian culture. Because of this pride and respect, we want to share information about culture, language and traditions with those who are interested in learning. We include ourselves in this learning process.	Y	Community, Education
<b>Na Mea Hawai‘i</b>	Through the sales and distribution of books and educational materials focused primarily on nā mea Hawai‘i, things having to do with Hawai‘i.	Y	Education, Local
<b>Na Mea Hawai‘i</b>	We also support local producers, farmers, small businesses and makers of all kinds, by selling what they make here in the Islands.	Y	Local, Partners
<b>Na Mea Hawai‘i</b>	We also are part of a network of people who carry the continuity of culture through traditional means, in contemporary settings.	Y	Community, Local
<b>Na Mea Hawai‘i</b>	These artisans use materials and methods that have always been in our Islands, nā mea Hawai‘i wale nō.	Y	Traditional
<b>Na Mea Hawai‘i</b>	We are here to assist, to share our knowledge and grow our understanding.	Y	Education
<b>Na Mea Hawai‘i</b>	We have made it a priority to help each person get to a source of knowledge for the information they need, through books, people, mele, experiences, we want to be a place that offers Native Knowledge Exchange regardless of the sales outcome.	Y	Community, Education
<b>Na Mea Hawai‘i</b>	Through the examples we set—in the way we conduct business and in the way we work we work with one another—we create a business environment of collaborative and shared effort and concern for one another and our community	Y	Community, Local
<b>Nomads Clothing</b>	Our modern Triangle handloom cotton coats play with the contrast sides of the fabric as well as contrast colour lining.	R	Handmade, Look
<b>Nomads Clothing</b>	Also, in the Ecovero jersey is the Japanese inspired Kimono print in easy to wear tops and dresses.	R	Culture
<b>Nomads Clothing</b>	organic cotton jersey	R	Organic
<b>Nomads Clothing</b>	We’ve been creating ethical fair trade clothing for over 30 years.	B	Certifications, Established
<b>Nomads Clothing</b>	wonderfully vibrant culture of India.	Y	Culture
<b>Nomads Clothing</b>	invest in a selection of fair trade handicrafts from Nepal.	B	Certifications
<b>Nomads Clothing</b>	manufacture our own products, and we began to build lifelong relationships with artisan producers and fair trade factories in India.	Y	Certifications, Partners, Skilled Labor

<b>Nomads Clothing</b>	Today we focus our attentions on designing and creating contemporary clothing that is 100% ethically produced	B	Production
<b>Nomads Clothing</b>	and celebrates traditional artisan skills	R	Traditional
<b>Nomads Clothing</b>	whilst using the best quality natural fibres	R	High Quality, Natural
<b>Nomads Clothing</b>	environmentally friendly processes.	G	Production
<b>Nomads Clothing</b>	We continue to create ethical fair trade clothing	B	Certifications
<b>Nomads Clothing</b>	that celebrates natural fibres	R	Natural
<b>Nomads Clothing</b>	traditional artisan techniques	R	Skilled Labor, Traditional
<b>Nomads Clothing</b>	can be found in 350 shops all over the world.	Y	Global
<b>Nomads Clothing</b>	Since we started in 1989, we have been committed to ethical trade.	B	Established
<b>Nomads Clothing</b>	Since our journey began in 1989, we have been committed to ethical trade.	B	Established
<b>Nomads Clothing</b>	We nurture long term relationships with our trusted fair trade suppliers and have carefully developed a supply chain of like-minded people who share our ethos of trading responsibly.	B	Certifications, Partners, Supply Chain
<b>Nomads Clothing</b>	Our clothes are designed and made to last using carefully sourced natural fibres	R	Long Lasting, Material, Natural
<b>Nomads Clothing</b>	environmentally conscious processes.	G	Production
<b>Nomads Clothing</b>	Wherever we do business, either in the UK or overseas, we are committed to doing our best to deliver a high standard of ethical conduct.	B	
<b>Nomads Clothing</b>	For us, it's not enough to simply comply with legal requirements; we are constantly looking for new ways to improve our relationships, and we work closely with everyone involved in the Nomads journey.	B	Partners
<b>Nomads Clothing</b>	We also like to support charities where we can, read more to discover the charities we support here and in India.	B	Charity
<b>Nomads Clothing</b>	We also like to support charities where we can, read more to discover the charities we support here and in India.	Y	Charity

<b>Nomads Clothing</b>	GOTS (Global Organic Textile Standards)	G	Certifications
<b>Nomads Clothing</b>	BAFTS (The British Association for Fair Trade Shops) and Common Objective.	B	Certifications
<b>Nomads Clothing</b>	We consider the impact on the environment that each step of our journey takes, and actively seek to use environmentally friendly materials and methods at every opportunity.	G	Material, Production
<b>Nomads Clothing</b>	We choose to use natural fibres because they are better for the environment	G	Material
<b>Nomads Clothing</b>	as well as the farmers, producers	B	Employee Welfare, Partners
<b>Nomads Clothing</b>	we have always been pioneers of the ‘Trade not Aid’ ethos, and we are proud to have developed and nurtured valuable business channels with India.	B	Partners
<b>Nomads Clothing</b>	These partnerships have added to the country’s economy whilst establishing the Nomads brand and ultimately providing contemporary, ethically produced clothing to our customers.	B	Economy, Partners
<b>Nomads Clothing</b>	We knew from day one that we would have to work hard and be proactive in ensuring that no part of the Nomads supply chain would be involved in any of the negative practices so prevalent in the clothing industry, so we operate a closely monitored fair trade policy.	B	Certifications
<b>Nomads Clothing</b>	We visit our suppliers in India regularly throughout the year to ensure our standards are being met and to work on developing new designs with our talented team.	R	High Quality
<b>Nomads Clothing</b>	From the initial pattern cutting process to the traditional artisan details, we personally know where our products are made and have a good relationship with each supplier.	Y	
<b>Nomads Clothing</b>	initial pattern cutting process to the traditional artisan details	R	Traditional
<b>Nomads Clothing</b>	Factory owner and manager Irfan has been working in the garment industry for 30 years	P	Established
<b>Nomads Clothing</b>	after years honing his skills and knowledge working long hours in various garment factories, he set up Impulsion 10 years ago and has gone from strength to strength.	R	Skilled Labor
<b>Nomads Clothing</b>	Impulsion specialises in printing and sourcing traditional handloom and textured cotton woven fabrics.	R	Handmade, Traditional
<b>Nomads Clothing</b>	Swati specialises in providing excellent quality natural fibres and printed fabrics.	R	High Quality, Material, Natural

<b>Nomads Clothing</b>	We have partnered with Daughters of the Ganges to create a range of handcrafted jewellery exclusively for Nomads.	R	Exclusive, Handmade
<b>Nomads Clothing</b>	Daughters of the Ganges is a socially conscious brand that works with talented artisans across communities in India, celebrating their traditional crafts whilst supporting them towards building a better future for both themselves and their families.	Y	Community, Local, Skilled Labor
<b>Nomads Clothing</b>	We are always looking to increase our range of beautiful organic cotton and eco fabrics beautiful fabrics and clothing that cares.	G	Material, Organic
<b>Olderbrother</b>	“There is no place for heavy metals or toxins in our lives so, true to that, they don’t touch our clothes.”	R	Lifestyle, Nontoxic
<b>Olderbrother</b>	“Colors spring from hibiscus, sustainable wood bark or turmeric to play across our palette - revealing playful themes and variations in the elemental beauty of the cloth”	R	Look
<b>Olderbrother</b>	“Our eco-conscious range includes organic cottons from Japanese farms, unique blends of wool and woven rice paper, and linen from the flax fields in Japan’s cooler climates - once the source of Imperial ceremonial robes.”	R	Organic
<b>Olderbrother</b>	“eco-conscious”	G	
<b>Olderbrother</b>	“Most importantly, each shares a defining trait – a natural material that knows the nature of your skin.”	R	Natural
<b>Olderbrother</b>	“We make universal garments, equally tailored to fit men, women and people.”	R	Selection
<b>Oliver Logan</b>	never putting our interests before what's good for the planet.	G	
<b>Oliver Logan</b>	From our sustainability and social initiatives to being transparent in how we do business, we're working towards a brighter future,	G	Change, Transparency
<b>Oliver Logan</b>	Based in Los Angeles, we're committed to ethical denim - minimal footprint for maximum comfort.	B	
<b>Oliver Logan</b>	minimal footprint	G	
<b>Oliver Logan</b>	maximum comfort.	R	Comfort
<b>Oliver Logan</b>	We go to great lengths to ensure our entire supply chain is as responsible and clean as possible, from growing and harvesting organic cotton to sewing and finishing, plus all the processes in between.	G	Supply Chain
<b>Oliver Logan</b>	We do this by choosing to only partner and cultivate relationships with like-minded suppliers across the globe	Y	Global, Partners

<b>Oliver Logan</b>	all of who won't compromise people,	B	Employee Welfare
<b>Oliver Logan</b>	the planet	G	Partners
<b>Oliver Logan</b>	and quality for the end gain.	R	Partners
<b>Oliver Logan</b>	Using denim as a force for good is at the core of who we are, and so is making jeans and clothes that transcend seasons, are super comfy, and are designed to suit every body.	R	Comfort, Selection
<b>Oliver Logan</b>	We're making positive changes for a better future by doing what we love most, ethically made denim.	B	Production
<b>Oliver Logan</b>	48,256 miles of driving emissions avoided 11,756,160 days of drinking water saved 18,604,936 hours of bulb energy saved	G	Statistics
<b>Oliver Logan</b>	As leaders in ethical apparel, we need to walk the walk as much as we talk the talk.	B	Transparency
<b>Oliver Logan</b>	We value our community	Y	Community
<b>Oliver Logan</b>	and we value transparency, especially regarding our sustainability efforts.	G	Transparency
<b>Oliver Logan</b>	That is why we have partnered with Green Story, a platform that measures the environmental impact of brands.	G	Partners
<b>Oliver Logan</b>	They have concluded that just one of our shirts saves 969 liters of water, roughly 510 days' worth of drinking water. A single pair of our jeans conserves .52 CO2 emission, about 1.2 miles worth of driving, and our pants have proven to be quite efficient, offsetting 414 hours of energy per pair.	G	Statistics
<b>Oliver Logan</b>	As we grow, this ongoing partnership with Green Story will help us offset our carbon footprint and maintain our vision for a brighter tomorrow.	G	Carbon footprint
<b>Oliver Logan</b>	Our clothes are made from reclaimed fibers sourced from textile waste that has first been sorted by type and color before being stripped and re-spun into yarns and fabrics ready to be used to make our jeans.	G	Material, Recycle
<b>Oliver Logan</b>	We're closing the loop on our manufacturing process, meaning our clothes are made with recycled material from post-consumer waste. So, the clothes you're wearing now could end up in our jeans and tees.	G	Circular Economy
<b>Oliver Logan</b>	We have partnered with global suppliers, all of whom have the highest environmental and sustainable standards	G	Global, Partners
<b>Oliver Logan</b>	treat their people with respect and are paid well.	B	Employee Welfare, Partners

<b>Oliver Logan</b>	Our factories are committed to creating a cleaner fashion industry by using the latest technology to significantly reduce our emission output, save energy and resources, and ensure better wastewater treatment	G	Innovation, Water
<b>OM Body Studios</b>	“All of our ingredients in all compartments of our business come from exclusively organic and responsible sources.”	G	Organic
<b>OM Body Studios</b>	“I make it a priority in all aspects of OM Body Studios to connect to Mother Nature and only use the highest quality, organic ingredients for each one of our products.”	R	High Quality, Nature, Organic
<b>OM Body Studios</b>	“Being raw vegan for 7 years, my lifestyle integrated into my art and I wanted everything to be directly traceable to our earth in it’s true, authentic form.”	P	Lifestyle, Nature
<b>OM Body Studios</b>	“From the elimination of anything not directly derived from the earth and diligently doing research on plants medicinal values, their history and the colors they produce.”	R	Health benefits, Look, Natural, Traditional
<b>OM Body Studios</b>	“I find it absolutely fascinating one plant can create so many colors and/or be a healthy, healing hug around my body.”	R	Health benefits, Material, Natural
<b>OM Body Studios</b>	“These items are alive.”	R	Nature
<b>OM Body Studios</b>	“You’re wearing or painting with the highest vibrational form of the product you are receiving.”	R	Health benefits, High Quality, Spiritualism
<b>OM Body Studios</b>	“From the fixation on all things health into every aspect of my life, my art especially, I find it exciting to be part of a new movement, to take things slow, to meditate as I make and to make the healthiest product I know.”	P	Health benefits, Lifestyle, Slow-living
<b>OM Body Studios</b>	“The Slow Movement is our planets hope for a future. As Slow Fashion grows in awareness and buyers begin to care more about how their garment was made and the materials used, we can be part of the change.”	G	Slow-living
<b>OM Body Studios</b>	“It’s a revolution.”	P	
<b>OM Body Studios</b>	“All of our products are tried and tested to ensure a dependable outcome.”	R	High Quality
<b>OM Body Studios</b>	“All of our products always have the full list of ingredients labeled accurately and visibly. We are a company that emphasizes truth, clarity and purity.”	R	Transparency

<b>Rainbow and Yarrow</b>	“Each piece is handmade with intention & integrity.”	R	Handmade
<b>Rainbow and Yarrow</b>	“Through the alchemy of the pigments and spirits of the plant, a one of a kind healing vibration is imbued into each piece.”	R	Health benefits, Spiritualism
<b>Rainbow and Yarrow</b>	“Our studio in Portland, is sheltered under a great grandmother cedar who offers cedar bows to each dye bath as I create within the living landscape and honor the ancestors of this land that continue to inspire me daily.”	R	Spiritualism
<b>Rainbow and Yarrow</b>	“She is creating a simple, comfortable, gentle and calming collection of clothing for her life and now is sharing it with you.”	R	Comfort, Lifestyle
<b>Rainbow and Yarrow</b>	“in this life- we honor the earth, the Mother, and the source of all life.”	P	Lifestyle, Nature, Spiritualism
<b>Rainbow and Yarrow</b>	“the clothes we wear are key to our health and balance, just as the food we eat, the air we breathe and the water we drink. wearing plant dyed natural fibers strengthens our relationship to the earth and to the source of all life.”	R	Health benefits, Spiritualism
<b>Sustain by Kat</b>	“Did you know -- Studies prove you absorb chemicals and pesticides laced within the fibers of your clothes... right into your skin?”	R	Current Industry, Health benefits
<b>Sustain by Kat</b>	“Sustain offers a better alternative. Made from organic fibers and holistic, natural dyeing techniques - our styles are a welcome relief for anyone looking to heal and soothe skin concerns, or simply be more proactive about their health.”	R	Health benefits, Natural, Organic
<b>Sustain by Kat</b>	“We take sustainability seriously. Everything from the fibers in our clothing, thread, dyes, and even tags are 100% natural and eco-friendly.”	G	Natural
<b>Sustain by Kat</b>	“We revived time-honored techniques that utilize plants as dyes.”	G	Natural, Traditional
<b>Sustain by Kat</b>	“Love our mauve and olive tanks? Their signature colors are created using safe and natural plants and roots. Hint : pomegranate is one of them. We aim to go beyond trying to shrink our environmental impact, our goal is to erase it entirely.”	G	
<b>Sustain by Kat</b>	“Sustain makes healthy clothing from organic, natural fibers that are good for your body and good for the world.”	G	Health benefits, Natural
<b>Sustain by Kat</b>	“Unlike traditional manufacturing processes, we avoid using synthetic dyes and toxic chemicals that could absorb into your skin and cause health issues.”	R	Health benefits, Nontoxic

<b>Sustain by Kat</b>	“Our selection of plant-dyed clothing made with certified organic materials and ayurvedic processes promote well-being.”	R	
<b>Sustain by Kat</b>	“Also, by using pesticide-free plants, we are actively reducing the harmful chemicals within the atmosphere. Together, we are helping to reverse the cause of global climate change.”	G	Nontoxic
<b>Sustain by Kat</b>	“Our mission at Sustain is to create high-quality, timeless basics made from 100% natural materials -- down to the thread.”	R	High Quality, Natural
<b>Sustain by Kat</b>	“helping both our planet”	G	
<b>Sustain by Kat</b>	“people in it.”	B	
<b>T&amp;L Muumuu Factory</b>	Muumuu Factory is a family owned and operated local garment manufacturer located in Honolulu, Hawaii.	Y	Local
<b>T&amp;L Muumuu Factory</b>	Established in 1987 by Thang and Betty Truong after purchasing a business that was going out-of-business, the Muumuu Factory has grown into a very successful business and Hawaii mainstay for the next generation of leaders to take over.	Y	Established, Local
<b>T&amp;L Muumuu Factory</b>	Our company specializes in producing garments that are locally designed and popular with Hawaii residents.	Y	Local
<b>T&amp;L Muumuu Factory</b>	All designs and manufacturing are produced in-house and made in Hawaii.	Y	Local
<b>T&amp;L Muumuu Factory</b>	The Muumuu Factory has one of the largest selections of aloha attire in the world.	R	Selection
<b>TenTree</b>	“For every item purchased we plant ten trees, in an effort to regenerate ecosystems, capture carbon”	G	Carbon footprint
<b>TenTree</b>	“provide planting jobs in communities around the world.”	B	Community, Economy
<b>TenTree</b>	“All our products are created with an Earth-First approach, meaning they’re made in fair, safe working conditions,”	B	Employee Welfare
<b>TenTree</b>	“constructed using only sustainably sourced and recycled materials”	G	Material, Recycle
<b>TenTree</b>	“That's why we source only the most comfortable”	R	Comfort
<b>TenTree</b>	“sustainable textiles on the market.”	G	
<b>TenTree</b>	“99% compostable materials, or activewear that helps divert waste from landfills, all of our products are made with the earth in mind.”	G	Waste Reduction



<b>TenTree</b>	“By using responsibly sourced materials — like TENCEL™ lyocell, organic cotton or REPREEVE® recycled polyester — we're able to cut back on the waste water and emissions that are created by typical apparel manufacturing.”	G	Carbon footprint, Innovation, Recycle, Water
<b>TenTree</b>	“And though 98% of all of our products are eco-friendly, we're always looking to innovate with new materials and methods, like recycled nylon, cotton and naturally dyed or undyed fabrics.”	G	Innovation
<b>TenTree</b>	“The factories we partner with all strive to meet the highest standards when it comes to upholding ethical labour rights.”	B	Partners
<b>TenTree</b>	“We make sure that workers are properly compensated with fair wages, ensuring proper rest days and access to equal employment opportunities for both men and women.”	B	Employee Welfare, Social
<b>TenTree</b>	“In every facet of our business, we strive to provide people with safe workplaces where they can feel good about their contributions to protecting our planet.”	B	Employee Welfare
<b>TenTree</b>	“We approach every step of our business with these guardrails, and this includes our partners and suppliers. With these pillars of ethics and principles, we ensure that all the people who work with tentree are respected, valued, and feel safe. Before any form of production can begin, we require all of our suppliers to sign and adhere to the following guidelines. We also require routine audits to ensure their continual commitment to our code of conduct.”	B	
<b>TenTree</b>	“Certified B Corporations are businesses that meet the highest standards of verified social and environmental performance, accountability, and transparency.”	G	Certifications
<b>TenTree</b>	“Brands with a Climate Neutral label measure and offset all of the emissions it takes to run their business, produce products or services, and deliver them to customers. Besides offsetting our emissions, we're constantly striving for new ways to make our processes more circular and less impactful.”	G	Certifications, Circular Economy
<b>TenTree</b>	“Circularity is our innovative, all-in-one solution that resells or recycles your old tentree, so that nothing goes to waste.”	G	Circular Economy
<b>TenTree</b>	“Through a one of a kind partnership with textile recycler SuperCircle and resale guru Treet, we've created an integrated solution to keep your pre-loved items in circulation, and out of landfills.”	G	Circular Economy
<b>TenTree</b>	“Your clothes will be resold on our site or recycled into new materials. Nothing gets thrown away.”	G	Circular Economy, Recycle, Waste Reduction
<b>TenTree</b>	“Sustainability is at the core of everything we do — but we believe just saying that isn't enough. Whether we're restoring a forest in Indonesia or sourcing sustainable cotton in Turkey, we want our community to know about it. That's because we	G	Transparency

	believe open conversation about how we're protecting our planet is the only way to make sure that we do.”		
<b>TenTree</b>	“This means that we reduce our emissions wherever possible, while offsetting the small amount we do produce. This results in a net zero effect on the climate.”	G	Carbon footprint
<b>TenTree</b>	“At tentree, sustainability has been a main focus of ours since the beginning — so it's only natural that our materials are some of the most earth-friendly in the industry. But don't take our word for it, scroll down to learn more about our fibres and blends.”	G	
<b>TenTree</b>	“soft on your skin”	R	Comfort
<b>TenTree</b>	“it is on the planet”	G	
<b>TenTree</b>	“using sustainable,”	G	
<b>TenTree</b>	“comfortable fabrics”	R	Comfort
<b>TenTree</b>	“and blends like organic cotton, hemp, recycled polyester and TENCEL™ lyocell.”	G	Material, Organic
<b>TenTree</b>	“The apparel industry is one of the biggest polluters on the planet, but it doesn't have to be.”	G	Current Industry
<b>TenTree</b>	“That's what inspired us to create clothing that uses less water, less harmful chemicals, and less energy-heavy processes to make.”	G	Carbon footprint, Nontoxic, Water
<b>TenTree</b>	“We're always working on new ways to do better by our planet, from working on new circularity initiatives, to implementing tracing software in our supply chains. And of course, we're going to keep planting trees (1 billion by 2030, to be exact).”	G	Circular Economy, Innovation, Supply Chain
<b>TenTree</b>	“That's why we work only with manufacturers and suppliers that are conscious of their environmental impact,”	G	Partners
<b>TenTree</b>	“that guarantee a safe and respectful environment for their employees.”	B	Employee Welfare
<b>TenTree</b>	“We believe that sustainable clothes should come in sustainable packaging. All the materials we use to ship your clothing are made and sourced responsibly — and only used when it's absolutely necessary.”	G	Supply Chain
<b>TenTree</b>	“An Industry's Worth of Wasteful Packaging Around 80 billion items of clothing are made annually, most of which are packed and shipped in single-use or non-recyclable packaging. These items are rarely reused, and often end up in landfills or incinerators. In 2020, over two billion people purchased goods or services online, and online retail sales surpassed 4.2 trillion U.S. dollars worldwide.”	G	Current Industry

<b>TenTree</b>	“Research suggests that 26% off all plastic made is used for packaging. 72% of that is thrown away. Around 3 billion trees are pulped every single year to produce 241 million tons of shipping cartons, cardboard mailers, void-fill wrappers and other paper-based packaging.”	G	Current Industry, Statistics
<b>TenTree</b>	“The Responsible Packaging Movement We've joined a packaging revolution with over 100 like-minded brands that aims to eliminate excess packaging waste from supply chains in a responsible, long-lasting way.”	G	Organizations, Supply Chain, Waste Reduction
<b>TenTree</b>	“Eliminating single-use plastics Using only FSC certified and mostly 100% recycled paper for tags and packaging inserts Using 100% recyclable shipping mailers that are biodegradable”	G	Supply Chain, Waste Reduction
<b>TenTree</b>	“Being completely transparent about our packaging choices”	G	Transparency
<b>TenTree</b>	“Since 2018 we've replaced plastic bags with a method of packaging our items by rolling and tying them with recyclable paper twine. When customers order bulk orders, we use 1 master poly bag that's fully recyclable. Of all our products, 85-90% no longer use individual poly bags.”	G	Supply Chain, Waste Reduction
<b>TenTree</b>	“All of our tags, inserts and sleeves are made with FSC certified paper, the majority of which is 100% recycled. Each hang tag is secured to the garment using organic cotton string, instead of the standard plastic version.”	G	Certifications, Recycle
<b>TenTree</b>	“Our packaging supplier has production facilities located in parts of the world that are strategically close to our key manufacturing areas.”	G	Local, Supply Chain
<b>TenTree</b>	“This way, we minimize the transportation necessary to ship products between suppliers and factories. For example, our hangtags for products produced in India are made in India, packaging made in Turkey goes to our Turkish factories... And so on.”	G	Local, Supply Chain
<b>TenTree</b>	“Whenever our products are shipped, we offset our shipping emissions by planting trees.”	G	Carbon footprint
<b>TenTree</b>	“Our current mailers are made from 100% post-consumer recycled plastic, and are fully recyclable and biodegradable.”	G	Recycle, Supply Chain, Waste Reduction
<b>TenTree</b>	“By adding a special chemical compound called BDG®, we're able to create plastic packaging that can be metabolized by bacteria, leaving behind nothing but biogas (which can be used as fuel) and compost.”	G	Innovation, Waste Reduction
<b>TenTree</b>	“Eliminating Poly Bags - Items that can more easily stain or crease are typically wrapped in a recyclable poly bag. Since these bags are made from plastics — we're currently seeking to replace them. In the future we will use either 100% post-consumer recyclable and biodegradable poly bags, or will use biodegradable paper.	G	Recycle, Supply Chain, Waste Reduction

	Carton Liners - Our current liners are made from 100% recycled, post-consumer plastics. But in the future, we'll line our boxes with material that's not only recycled, but fully recyclable and compostable, too.”		
<b>The Handmade Clothing Company</b>	“handcrafting items for her to wear.”	R	Handmade
<b>The Handmade Clothing Company</b>	“All our items are handmade from start to finish using the best fabrics ensuring the highest quality.”	R	Handmade, High Quality
<b>Thorns</b>	“creating historical, genderless, romantic clothing.”	R	Look, Traditional
<b>Thorns</b>	“We manufacture exclusively in small, ethical factories located in New York's famous garment district”	B	Production
<b>Thorns</b>	“We strive to make our garments fit many humans, while still retaining a tailored, historic look.”	R	High Quality, Selection
<b>Thorns</b>	“Thorns is a small design studio located in New York City. We produce bespoke-quality clothing on a made-to-order basis, working exclusively with highly skilled local tradespeople.”	R	Handmade, High Quality, Skilled Labor, Small batch
<b>Thorns</b>	“Our products are 100% sweatshop free, and predominately manufactured in New York City's famous garment district.”	B	Local, Production
<b>Thorns</b>	“Like a dangerous wall of rose bushes that a fairy tale witch conjures around her castle, to protect from outside interference, it is my hope that our clothing can be a shield and talisman to help it's wearer feel a sense of power, protection, and comfortable privacy. We should all be granted a thorn-protected castle in which to perform acts of personal magic, art, prophecy, and creativity.”	R	Feel good
<b>Wearwell</b>	revolutionize the fashion industry to work better for people and the planet.	P	Change
<b>Wearwell</b>	easy to buy the most ethical	B	Easy
<b>Wearwell</b>	sustainable products	G	Easy
<b>Wearwell</b>	support the brands making a positive impact for garment workers, artisans, and the environment.	G	Partners
<b>Wearwell</b>	As sustainability becomes buzzier, it’s hard to know which brands you can trust and which are greenwashing. We dig into the details of every brand we work with to understand the impact they are delivering on.	G	Traditional, Transparency

<b>Wearwell</b>	Nearly 80 million garment workers around the world make the clothing we wear. The majority of those garment workers are unfairly paid and work in unsafe conditions. Hot take: this is not okay.	B	Current Industry
<b>Wearwell</b>	On top of that, the fashion industry's unsustainable environmental practices pollute waterways with toxic dyes, use materials that devastate our oceans, and create waste that can take anywhere from 20-200 years to decompose in a landfill.	G	Current Industry
<b>Wearwell</b>	Wearwell is part of a movement that's building a more sustainable fashion industry, prioritizing workers' rights and minimizing environmental impact.	G	
<b>Wearwell</b>	prioritizing workers' rights	B	Employee Welfare
<b>Wearwell</b>	We're committed to making it easier for more people to live sustainably	G	Easy
<b>Wearwell</b>	and support brands that meet the highest standards.	B	Easy
<b>Wearwell</b>	We choose to partner with brands making a positive impact in two distinct areas: workers' rights	B	Partners
<b>Wearwell</b>	and the environment	G	Partners
<b>Wearwell</b>	When deciding which brands to partner with, we look at the brand's self-reported information on workers' rights and environmental sustainability as well as impact criteria from leading	G	Certifications, Partners
<b>Wearwell</b>	Fair Trade, GOTS Certified, BlueSign, OEKO-TEX Standard 100, and B Corp.	G	Certifications
<b>Wearwell</b>	In addition to seeking impact in the making of every product we carry, we are committed to inclusivity in race, gender, sexual orientation, and bodies.	B	Social
<b>Wearwell</b>	We are committed to building a business that is anti-racist and advocates for intersectional social justice.	B	Social
<b>Wearwell</b>	BIPOC-owned and women-owned brands that meet our sourcing criteria.	B	Certifications, Women
<b>Wearwell</b>	We believe that sustainable fashion should be inclusive of and available to all bodies. Today, we offer a range of sizes from XS-3X, and we are committed to continuing to add more sizes and fit options.	R	Selection
<b>Wearwell</b>	Our work here is never done. As wearwell grows, we'll continue to evaluate the brands that we work with and identify what we can do to make sure that our members' purchases make the greatest positive impact possible.	G	Partners
<b>Wearwell</b>	Our work here is never done. As wearwell grows, we'll continue to evaluate the brands that we work with and identify what we can do to make sure that our members' purchases make the greatest positive impact possible.	B	Partners
<b>Wearwell</b>	1% for the Planet is a global movement tackling our planet's most pressing environmental issues, certifying that at least 1% of sales from member companies, like wearwell, is donated annually to non-profits making the greatest impact for sustainability.	G	Charity, Organizations

<b>Wearwell</b>	The Wearwell Community's Impact 1% of every wearwell purchase is donated to a nonprofit of your choice. Check out the impact the wearwell community is making below.	Y	Charity
<b>Wearwell</b>	Wearwell makes it easy.	G	Easy
<b>Wearwell</b>	Wearwell makes it easy.	B	Easy
<b>Wearwell</b>	STEP ONE Verify Brand's Impact + Business Model INITIAL ASSESSMENT Assess how the brand defines + measures their own impact INTERVIEW Chat with the brand to learn more about their production process + environmental impact VALIDATE Look for third-party certifications where possible to further validate impact STEP TWO Identify the Best Way to Partner with Brand LEARN Work with the brand to understand how we can best structure our partnership for mutual growth COLLABORATE Collaborate on marketing initiatives to grow awareness within the wearwell community SUPPORT Find opportunities to deepen our work together with unique product offerings and more STEP THREE Launch on wearwell + Continue to Grow Our Partnership PROMOTE Promote brand's products + impact story widely to the wearwell community CHECK IN Check in often with our partners to learn about updates to their production, team, + products UPDATE Gather ongoing impact data to keep the details we communicate up-to-date	P	
<b>Wild Harvest Studio</b>	"Wild Harvest Studio is the story of one woman's friendship with the Earth and all the beautiful creatures that share it."	G	Nature
<b>Wild Harvest Studio</b>	"All pieces are a celebration of the Earth's bounty and a dedication to honor all the intricate diversity within our ecosystem. Crafted amongst the ever changing trees of New England."	G	Nature
<b>Wild Harvest Studio</b>	"Each piece is small batch, cut, sewn, hand dyed, and one of a kind. Using only organic natural fibers, plant dyes, sweet incantations, and love."	R	Handmade, Natural, Small batch, Unique
<b>Ziran</b>	"Skilled artisans have been hand making xiang yun sha silk for 500 years in one small village in southern China."	R	Handmade, Skilled Labor, Traditional
<b>Ziran</b>	"No harsh chemicals are used and the entire process is sustainable, from beginning to end."	R	Nontoxic
<b>Ziran</b>	"Our silk is naturally anti-microbial, wrinkle-resistant, and incredibly buttery soft."	R	Comfort, Health benefits
<b>Ziran</b>	"Uncle Bo is a master craftsman who dyes every yard of Ziran Silk."	R	Handmade, Skilled Labor

<b>Ziran</b>	“Our silk is made only during the summer, when the sun is highest. 15 yard bundles are stretched and baked in the sun. If it rains the silk cannot be made.”	R	Exclusive
<b>Ziran</b>	“Our silk is hand carried to the river and washed. Then the entire process is repeated up to 30 times to get the desired texture and color. Every yard is different and one of a kind.”	R	Handmade, High Quality, Unique
<b>Ziran</b>	“All of our products are made-to-order and hand cut and sewn in Los Angeles.”	G	Small batch
<b>Ziran</b>	“We aim to be as transparent and responsible as possible, both in our manufacturing processes and our relationships with the people we work with.”	G	Transparency
<b>Ziran</b>	“An emblem of cultural heritage, our silk is the highest quality in the world.”	R	High Quality
<b>Ziran</b>	“By choosing Ziran you are helping continue an ancient and beautiful craft.”	Y	Traditional
<b>Ziran</b>	“We believe it's our duty to honor and preserve this tradition for the next generation.”	Y	Traditional
<b>Ziran</b>	“We are the first and only brand using xiang yun sha silk in North America. We are continually developing new variations of silk making, from proprietary "leather silks", patchwork and embroidery, raw silks, and silk-cotton blends.”	R	Innovation
<b>Ziran</b>	“Ziran is a sustainable silk line base on storytelling, purpose, and cultural heritage.”	Y	Traditional
<b>Ziran</b>	“By using xiang yun sha silk, Ziran is helping to preserve and protect an ancient tradition,”	Y	
<b>Ziran</b>	“while leading a new generation to live the Ziran way: natural, spontaneous, and free.”	Y	Lifestyle
<b>Ziran</b>	“She discovered xiang yun sha silk while researching ancient Chinese techniques in college and instantly fell in love with both it's luxurious beauty and cultural significance.”	Y	Traditional
<b>Ziran</b>	“sustainability,”	G	
<b>Ziran</b>	“social responsibility”	B	

## Appendix 3: Survey

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### Start of Block: Demographics

Hello, we are a team of students from Worcester Polytechnic Institute currently researching the plant dye market for a course called the Interactive Qualifying Project (IQP). In this survey, we will be asking your opinion about various aspects of buying clothing, specifically sustainable, artisanal, and plant-dyed clothing. The survey is meant to take less than 10 minutes. All responses will be kept confidential. No personal information will be made public.

Please check "I'm not a robot" to continue

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Page Break



How old are you?

- ☐ Under 18
  - ☐ 18-24 years old
  - ☐ 25-34 years old
  - ☐ 35-44 years old
  - ☐ 45-54 years old
  - ☐ 55-64 years old
  - ☐ 65+ years old
- 

How do you describe yourself?

- ☐ Male
  - ☐ Female
  - ☐ Non-binary / third gender
  - ☐ Prefer to self-describe \_\_\_\_\_
  - ☐ Prefer not to say
- 



In which country do you currently reside?

▼ United States of America ... Zimbabwe

Choose one or more races that you consider yourself to be

- ☐ White or Caucasian
- ☐ Black or African American
- ☐ American Indian/Native American or Alaska Native
- ☐ Asian
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ Other
- ☐ Prefer not to say

Are you of Spanish, Hispanic, or Latino origin?

- ☐ Yes
- ☐ No

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Page Break

What best describes your employment status over the last three months?

- ☐ Working full-time
- ☐ Working part-time
- ☐ Unemployed and looking for work
- ☐ A homemaker or stay-at-home parent

- ☐ Student
- ☐ Retired
- ☐ Other

What was your total household income before taxes during the past 12 months?

- ☐ Less than \$25,000
- ☐ \$25,000-\$49,999
- ☐ \$50,000-\$74,999
- ☐ \$75,000-\$99,999
- ☐ \$100,000-\$149,999
- ☐ \$150,000 or more
- ☐ Prefer not to say

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Page Break

End of Block: Demographics

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Start of Block: Questions

How frequently do you learn about clothing brands from...

	None at all	A little	A moderate amount	A lot	A great deal
Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coworkers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online Ads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Magazines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Media	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Storefront Displays	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When you buy clothing, do you more often shop in stores or online?

- ☐ Online
- ☐ In Person

How important do you consider the following factors when buying clothes?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Look/Style	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand Name	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comfort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Material Choice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employee Welfare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Durability/Longevity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Are there any other important factors you consider when you buy clothes?

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Page Break

What types of clothing do you typically buy?

- ☐ Artisanal
- ☐ Sustainable
- ☐ Naturally dyed
- ☐ None of the above

When choosing to buy artisanal clothing, how important are the following factors?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important	Not Applicable
Artistic value	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historical production methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand/designer name	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uniqueness/exclusivity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When choosing to buy sustainable clothing, how important are the following factors?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important	Not Applicable
Low impact packaging and shipping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low carbon production methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low water consumption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sustainably sourced materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainability certifications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recyclability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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When choosing to buy naturally dyed clothing, how important are the following factors

	Not at all important	Slightly important	Moderately important	Very important	Extremely important	Not Applicable
Look of naturally dyed textiles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Artistic value	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historical production methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Small scale production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Connection to nature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you have any additional thoughts or comments on the topics covered in this survey.

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If you would like to receive a link to the final report once it is finished, please leave your email below.

☐ Email

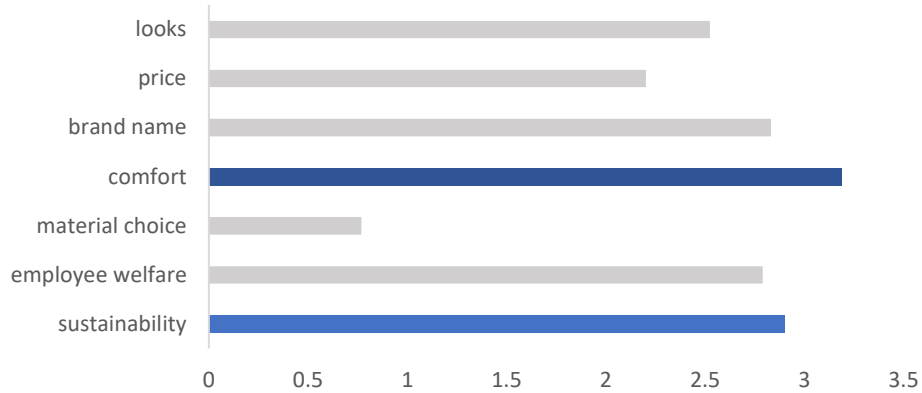
End of Block: Questions

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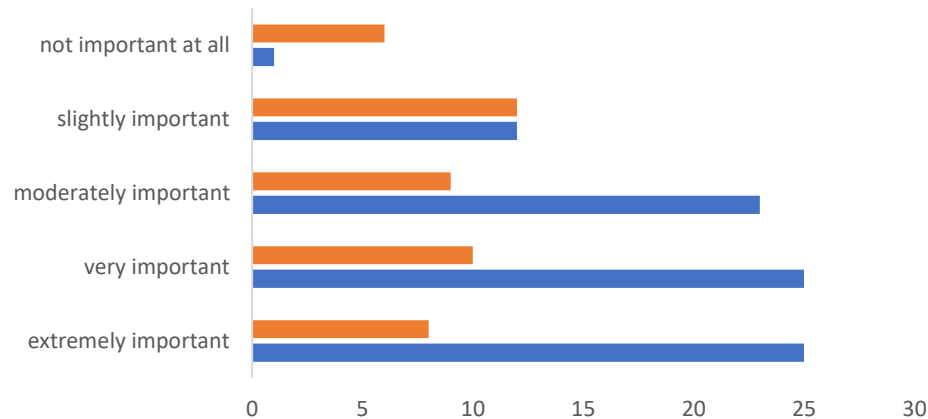


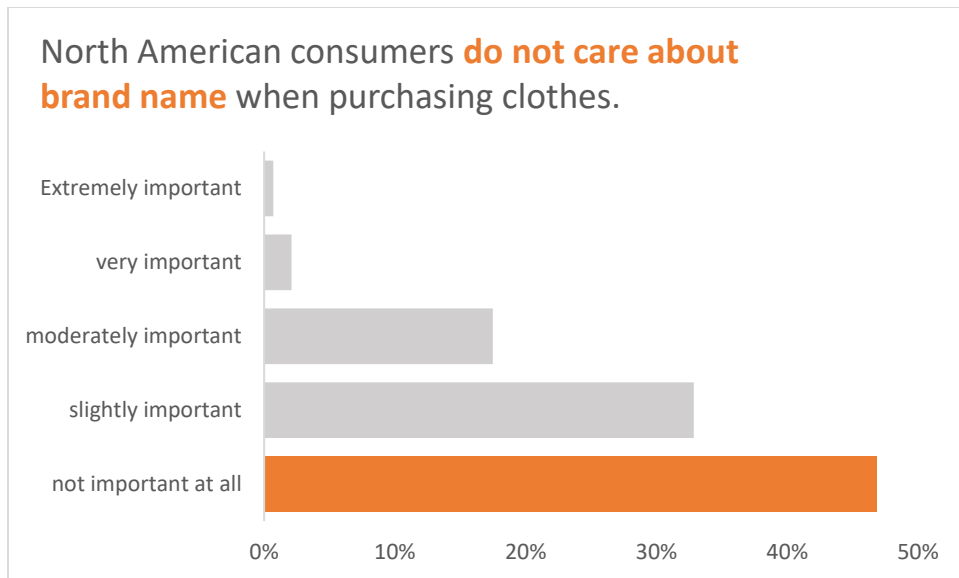
## Quantitative Data Analysis

**Comfort level** and **sustainability** are the top two **important factors** to North American consumers when purchasing clothes.



**Sustainability** is more important to **female consumers** rather than **male consumers**.





t-Test: Two-Sample Assuming Unequal Variances (employee welfare)

	employeeW_o	employeeW_i
Mean	2.777778	2.575758
Variance	0.676768	1.189394
Observations	45	33
Hypothesized Mean Difference	0	
df	57	
t Stat	0.893846	
P(T<=t) one-tail	0.187581	
t Critical one-tail	1.672029	
P(T<=t) two-tail	0.375163	
t Critical two-tail	2.002465	

t-Test: Two-Sample Assuming Unequal Variances (comfort)

	comfort_o	comfort_i
Mean	3.266667	3.090909
Variance	0.654545	0.397727
Observations	45	33
Hypothesized Mean Difference	0	
df	76	
t Stat	1.077683	
P(T<=t) one-tail	0.142292	
t Critical one-tail	1.665151	
P(T<=t) two-tail	0.284584	
t Critical two-tail	1.991673	

t-Test: Two-Sample Assuming Unequal Variances (sustainability)

	sustainability_o	sustainability_i
Mean	3.2	3.151515
Variance	0.663636	0.945076
Observations	45	33
Hypothesized Mean Difference	0	
df	62	

t Stat	0.232772
P(T<=t) one-tail	0.408353
t Critical one-tail	1.669804
P(T<=t) two-tail	0.816705
t Critical two-tail	1.998972

---

t-Test: Two-Sample Assuming Unequal Variances  
(price)

	price_o	price_i
Mean	2.666667	2.757576
Variance	0.772727	0.876894
Observations	45	33
Hypothesized Mean Difference	0	
df	67	
t Stat	-0.43466	
P(T<=t) one-tail	0.332604	
t Critical one-tail	1.667916	
P(T<=t) two-tail	0.665208	
t Critical two-tail	1.996008	

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t-Test: Two-Sample Assuming Unequal Variances  
(brand)

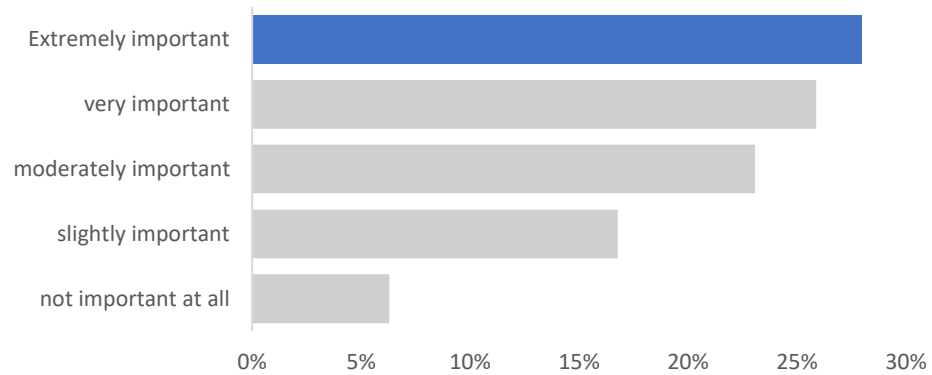
	brand_o	brand_i
Mean	0.866667	0.606061
Variance	0.890909	0.621212
Observations	45	33
Hypothesized Mean Difference	0	
df	75	
t Stat	1.326062	
P(T<=t) one-tail	0.094422	
t Critical one-tail	1.665425	
P(T<=t) two-tail	0.188844	
t Critical two-tail	1.992102	

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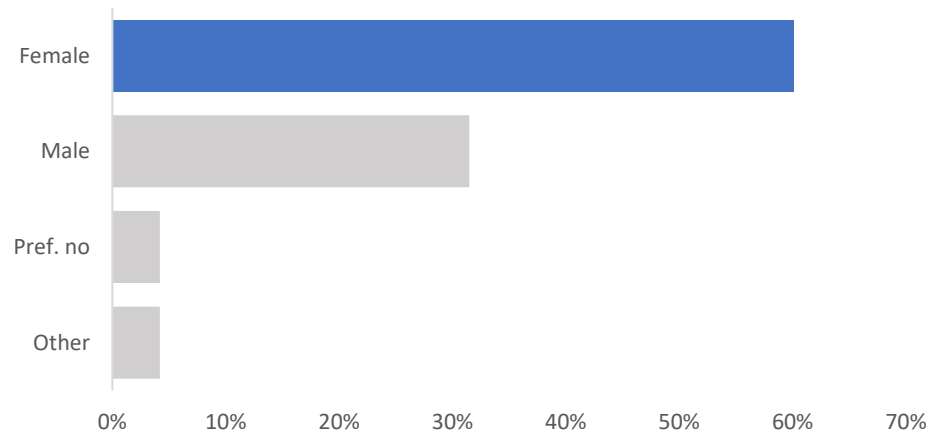
t-Test: Two-Sample Assuming Unequal Variances  
(material choice)

	material_o	material_i
Mean	3.133333	2.818182
Variance	0.572727	1.215909
Observations	45	33
Hypothesized Mean Difference	0	
df	53	
t Stat	1.415457	
P(T<=t) one-tail	0.081392	
t Critical one-tail	1.674116	
P(T<=t) two-tail	0.162784	
t Critical two-tail	2.005746	

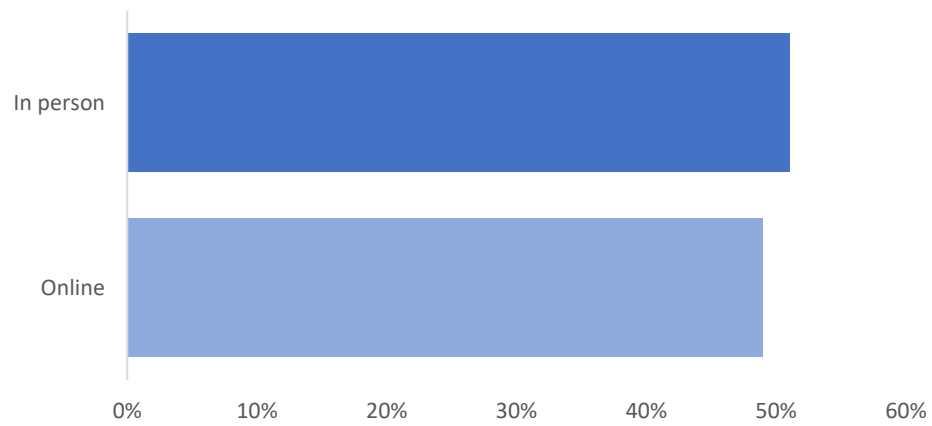
North American **consumers highly value sustainability** when purchasing plant dyed clothes.



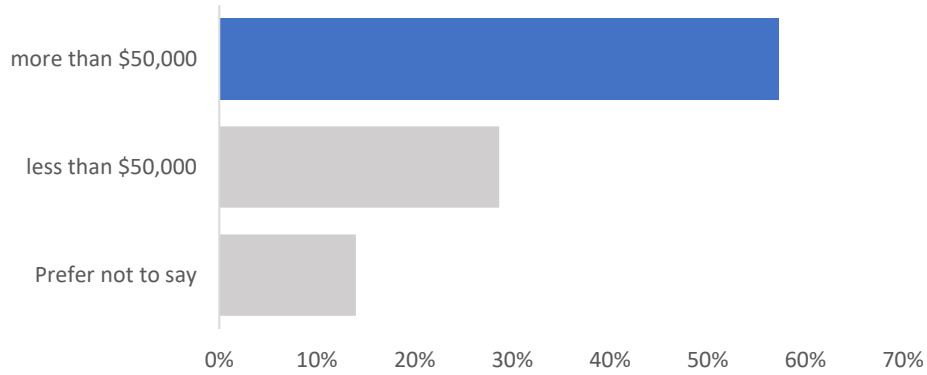
The **majority** of consumers who buy plant dyed clothing **identify as female**.



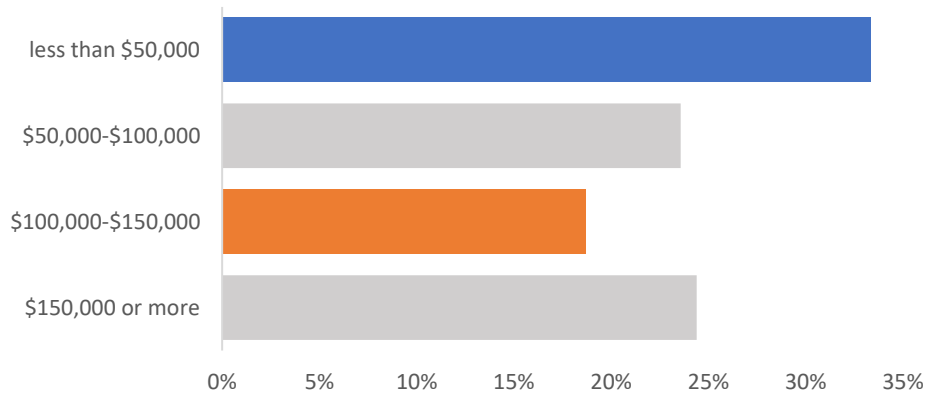
Plant dyed clothing consumers **prefer shopping in person**; however, **online is very close behind**.



The **majority** of North American consumers who buy plant dyed clothing **make more than \$50,000 a year.**

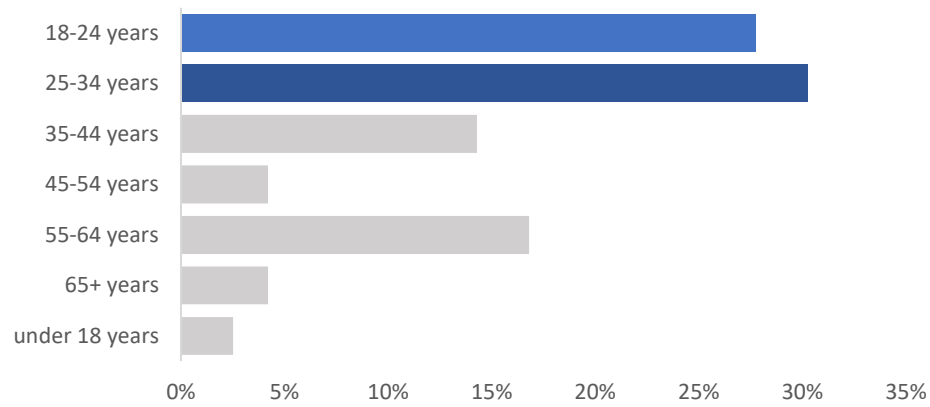


The distribution of North American consumers' incomes are spread, with **less than \$50,000 being more common** and **\$100,000-\$150,000 being last.**





The majority of consumers who buy plant dyed, sustainable, and/or artisanal clothing are **between 25-34 and 18-24 years old.**



## Appendix 4: Testimonials

In this appendix we have compiled various quotes from both the survey and responses to our Reddit and Facebook posts. Little analysis was done with these as we did not have the time and we believed that there were not many confident conclusions we could reach from analyzing these, but we have included these as ZAMX might find them interesting or helpful.

### Reddit

“I’ll get to the survey in a moment. I do want to mention a few bad experiences I’ve had buying naturally dyed clothing and this is the big reason why I shy away from it. I think the idea is wonderful. It should work. It’s just people locally don’t do it well. Choice of dye plants - either they import stuff that has an uncertain history or inconsistent supply, or they grow plants locally that require a lot of extra support to grow in our climate.

For example growing indigo which requires irrigation and climate control here, instead of growing Woad that grows as a weed and is excellent at revitalizing compacted soil. Sure per weight, woad has like half the dye stuff, but the plant grows way bigger and it requires zero care after planting. till soil lightly, plant seed, come back and harvest the plants. So much easier than fancy irrigation and heated greenhouses. The small-time dyers aren’t always good at washing the dyed cloth, so the beautiful colour is lost with the first wash. I don’t mind the colour shifting when I wash it, but washing all the colour away completely makes me sad. Some of it is mordanting issues. When I dye, I wash the yarn or fabric worse than I expect it to ever be washed again. If the colour comes out, I want it out now not later. When they do wash, it’s often with soy-based or scented soaps. Now I get hives. Yuck! I do a bit of dyeing at home and the one thing I think would do really well here is to use invasive and unwanted plant species as a dye source. The local farms and parks have to put effort into removing these and then either burn or pay to have the invasive plants taken away. Huge public pressure to remove these plants. Why not turn them into money? They make some lovely dyes. I would spend money on that if the other issues were taken care of.”

“As long as they [the companies] put out the specific dyed used in fabric and sewing thread and the material itself and if they say if it has finishing like silicon or polyurethane or regular. that’s pretty much it if they tick can all the box i would say they are ahead in the business of transparency.”

## Survey Responses

### **Are there any other factors you consider when you buy clothes?**

“washing instructions, how easy it looks to alter and/or repair”

“If I already own something similar to it or not”

“The FIT?!? Seriously, how did you miss “fit.” I have a long torso and it’s hard to find dresses with a low waist. I have a small waist and large hips, it’s difficult to find pants with a good ratio, and even then I’ll always need a belt. It limits my options a lot.”

“Brand reputation (fast fashion brands vs brands that have more of an emphasis on ethical practices)”

“wether i like the store (shopping experience) or the reputation of the company”

“Sizing (I am very tall and thin, most adult sizing is too big, and children's sizes are too short)”

“Natural fibers, higher quality pieces that will last longer”

“Will the clothes stay in style for a long time? I don't want trends that will go out of style in a year.”

“Type of fabric and whether it’s natural and breathes well”

“Shipping costs if purchased online”

“environmental impacts”

“Clothes must be ethical + vegan (ie. No leather, fur, animal testing, etc). Also the company cannot be transphobic. I prefer when clothes aren't gendered as well.”

“Durability and ability to tailor or repair”

“I try to buy small business or local”

“Minority owned/sole proprietors/artists are preferred”

“I try to choose secondhand clothing first.”

“Quality of the make”

“Quality and how long it will last. I prefer thrifting but I’m autistic so material comes first before sustainability because texture matters to me. However I prefer clothing handmade or sustainable and lately I have been only buying thrifted or handmade pieces. Also a lot of vegan clothing simply does not fit by body type (petite/curvy) and looks too boxy on me.”

“Buy most clothes second hand with natural fibers. Avoid polyester.”

“I try to thrift the most”

“Perceived quality”

“durability”

“Durability”

“i look for brands that are based in my country if possible”

“Specific features like a pattern that lines up across a shirt, snap shirts, button fly.”

“I try to prioritise Australian owned brands where possible”

“i refuse to buy mass-produced/imported/synthetics”

“I try to buy as many clothes as I can secondhand so that new production wasn't involved. But I'm also willing to buy new things sometimes if the sustainability/ethics are good. I also would prefer to buy items that were completely grown/manufactured in the USA (less environmental impact from shipping, easier to actually verify ethical workplace conditions/pay)..”

“Try to avoid synthetic materials and clothing from third world countries”

“Natural materials (wool, hemp, cotton, etc.)”

“Compostability”

“The quality of the fabric used. If the seams are well sewn.”

“longevity”

“Can go along with price, but i prefer to buy from a company that at least keeps inventory in my country. I don’t like to order from across the ocean because of price, shipping, possible return issues.”

“Durability practicality”

“Must be natural fiber”

“I prefer thrifted clothes”

“Vegan materials. Leather or wool is an immediate and absolute no.”

“Longevity”

“Natural fibres”

“Overall construction quality”

“Greenwashing, textile content, manufacturing and supplies ethics”

“Pockets!”

“I try to only buy natural fibers now because I worry about landfills, plastic consumption, the fact that beaches are filling with clothes (Financial Times article yesterday).”

“Always look for something second-hand first”

**Do you have any other comments related to the topics covered in this survey?**

“I like naturally dyed materials because of the compost ability of them. However, tags often don’t include information about trim, which often might not be natural. Also natural dyes are immediately destroyed by bleach and some other washing chemicals, so the care instructions are also something I think about”

“I should think about these factors more when buying clothes”

“Typically I don't buy naturally dyed clothing. As a dyer myself, I am more interested in clothing that is undyed that I can dye myself!

Also, it's so cool that you guys are studying this. Best of luck!!”

“No questions were asked about longevity, which is a big determining factor for me.”

“I'm plus sized and in a high cost of living area. Many artisanal brands don't carry my size and none are made locally. I buy fast fashion because it is often the only thing that fits.”

“I’m honestly trying to make my own clothing”

“I tend to buy sustainable clothing and naturally dye it myself”

“In terms of naturally dyed products, i think it’s also important to consider how well/long the color will remain. Some natural dyes can produce a lovely color but it may not remain for many washes.”

“I dislike clothes shopping, so buy what I need”

“All these things are extremely important to me but sustainable fashion isn’t accessible enough for me to realistically practice these values.”

“We truly need an overhaul of our clothing production system! I think it's great that more people are reselling clothing online and small businesses who make naturally dyed/ethical/sustainable clothing are also able to be found online (even though shipping has environmental impacts that need to be considered too). Thanks for doing this research!”

“those of us who actually care, are small, ethical and local.”

“I think it's also worth looking at sustainable fashion from the perspective of second hand purchasing. Sustainable packaging is very important to me because I mostly purchase second hand clothing from independent sellers. And that is one of the environmental factors I can control in that transaction.”

“The color palette is somewhat limited with natural dyes like blacks are hard. But restrictions breed creativity.”

“i found that what i look for in brands to shop clothes from is inclusivity in sizes just as much as in the policies the brand adopts and also the inclusivity between the workers. i do consider clothing a human right, therefore those brands who do not offer inclusive sizing or those brands that i know from reports that do have discriminating policies or behavior going on toward workers are a 'no, thanks' for me. i don't have much money to spend but those i do have i wanna spend well in products that are worth it, which is why i don't own too many clothes but those i do own im very happy of (both because i know the impact i had in buying them and because they clearly are well made and extremely comfy tbh)”

“I would love to learn more as a consumer to better inform my choices. Getting resources out to uninformed consumers like myself would be an enormous benefit to raising further awareness.”

“It would be nice to have more accessibility to what’s out there in terms of naturally dyed”

“If I knew more, I would definitely try to buy sustainable clothing. I’m just not sure how to identify those brands.”

“The ability to easily launder base layers is also a big consideration when I buy new clothing”

“Recyclability and certifications are very rare in clothing so not really considered (yet!) at least for me”

“usually buy from charity shops”

“Sometimes I make my own clothes from natural materials and plan this year on growing my own dye plants and foraging for local lichens and things to use. So I don't buy a huge amount of clothes.

I've never seen a clothing brand declare what plants and minerals they use for dyes and mordants. As well as other chemicals used in the manufacturing process.

It'd be nice to see brands with clear descriptions of these things."

"The vast majority of human beings cannot afford to buy these types of clothing, though many of us would like to. Because of this, cost comes before any of these other factors — how can I worry about the “historical production methods” of a t-shirt if the cost is prohibitive?

Obviously this is a structural issue, not the fault of artisanal clothing producers. But if you’re trying to figure out what would encourage me to buy these clothes, it’s COST above all else. Once it’s in my price range, THEN I might be able to prioritize water consumption over packaging materials (or whatever). But the comparison is fairly meaningless when it’s completely hypothetical."

“Not totally sure what the term "artisanal" means in the context of clothing, so for further IQP research, I'd suggest clarifying and specifying. I assumed what this meant when taking the survey. It is really easy in IQP to get carried away with medium-big words, make sure that when you use them their meaning is clear.”

“i buy secondhand, so it is lower quality, but it saves energy and water and i try aiming for recyclable packaging”

“Most sustainable clothing brands are very expensive and as much I want to be able to not buy synthetic clothes and contribute to fast fashion waste, price is a barrier”

“Definitely include fit for reasons you choose clothing. Most important to me is: fit, comfort, and look/the vibe.”

“I don’t really know what naturally dyed clothing is (I can guess based off the name but I just don’t know enough about the process to really comment on/answer the questions I was asked)”

“I hate clothes shopping so I spend more money on stuff that lasts a long time.”

“I would be interested in purchasing sustainable/natural clothing but I have no idea where to start.”

“I believe in wool supremacy”

“It's all about quality and craftsmanship of the product. I'll pay a premium for quality sustainable good.”

“I have started to get used clothes on thred up and poshmark. Does getting used clothes need to be considered for your survey?”

“I am familiar with people who buy used clothing, and change them up for re-sale. When pricing is fair and the methods used to upcycle these items are sustainable, this can make a big impact.”

“Just because somebody wants something, has very little to do with if they will buy it or change their habits for it.

I WANT to be fit and athletic, but I'm not willing to pay the money or spend the time to get it..

I SUPPORT plant based burgers for lots of reasons, but I will always choose to eat a beef burger.

Anyway... Have fun! Figure out how to figure it out, and you will achieve all the success you want."



“I apologize before hand for my lack of significant knowledge in the field of fashion. And feel people of a similar mindset might find some of the wording slightly confusing but a pretty good poll otherwise.”

“Should say i no longer buy a great deal as i am 66 and determined to wear out/swap/adjust/restyle etc what i have now.”

## Appendix 5: Interview Process

This is an example of what one of our interviews would look like had we been able to get in contact with an interviewee.

At the beginning of the interview, we will introduce ourselves to the interviewee and restate the purpose of our project,

Once done with the quick introduction, we started asking the interview questions. Included below are the questions which we will be asking along with the reasoning behind asking it. These are in the order that they will be asked

<p>What drew you to running an artisanal/plant dyed/sustainable clothing company?</p> <p>The people we interviewed liked this industry and these types of clothes so much that they decided to open a business in it. This question is meant to learn what they specifically liked so much, and it will also allow them to open up more to us as people like talking about themselves and their passions</p>
<p>What draws people to your brand?</p> <p>We are asking this question to learn what the interviewee believes are the main selling points of their product is. We are curious to see what they believe is most important to their customers and how that compares to the results of the survey</p>
<p>Who buys your brand? What is your target demographic?</p> <p>By asking this question, we hope to learn who is buying sustainable, artisanal, and plant dyed clothing. We will also be interested to see how the perception of the manufacturers and retailers differs from the online survey. They may be marketing to a demographic which is not as interested in their products, or there may be an untapped market which companies are not marketing towards</p>
<p>How did you choose this demographic?</p>

We would like to know if they chose their target demographic because of what they were interested in making, who bought what they were already making, or what the open market was.

Do you do most of your business online or in retail stores?

We will only be asking this question to companies which we know have both online and physical locations. We believe it will be useful to know whether online sales or in-person sales should be prioritized.

To get a broader range of participants for our survey, we plan to ask the interviewee if they can put a link to our survey in their next regularly scheduled newsletter or mailing list. We will only ask this question if it seems like we had a good survey session, and the interviewee enjoyed the interview. This is to make sure that we can ask follow-up questions if needed as we don't want to alienate or scare off the interviewee by asking them to contact their customers. We will emphasize that it will be helpful to our study to get as many responses as possible and sending the email to their customers would be greatly appreciated. We will also have the survey up and ready to show them if they ask to see it beforehand.