

Sole Searching: Exploring Taiwanese Consumer Values Towards Footwear

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Sole Searching: Exploring Taiwanese Consumer Values Towards Footwear

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Abstract

Current trends show a lack of engagement with sustainable products among Taiwanese consumers despite high behavioral intent toward sustainability. Our team worked with Feebees, a sustainability-oriented shoe company located in Taichung, Taiwan, to understand consumer perceptions of sustainability primarily by conducting surveys and focus groups. Originally, we planned to conduct focus groups with Feebees consumers, but instead had to collect data from students at our host school, Soochow University. While this is not the target audience of Feebees, these focus groups were still able to offer valuable information about trends in consumer values and perceptions of sustainability in Taiwan. We found that although consumers show high behavioral intent toward sustainability and have a favorable view of sustainability itself, many are skeptical of the authenticity of sustainable products. Consumers also do not prioritize sustainability when buying shoes and are not receptive to purchasing shoes online. We presented these findings to our sponsor in the form of a presentation and a brief report followed by recommendations.

1.0 Introduction

We first met Kuming Chen roughly one week into our IQP in Taiwan. The day of our first meeting, we had started traveling at 8 am from our host university in Taipei to Taichung, the home of Mr. Chen and his company, Feebees. Naturally, we were tired from our many bus, train, and taxi transfers of the past few hours. Still, we were eager to meet our sponsor, with whom we would spend the next seven weeks working. We had met Mr. Chen via zoom call previously, but the online format and time made it impossible to really gauge him.

When we stepped out of our taxi, we were hit with the heat, humidity, and glare of the Taichung spring day. We quickly stepped into the Feebees store (the only one of its kind), and were welcomed by the shade and coolness inside. The interior was more reminiscent of a tech outlet than a shoe store: floor to ceiling windows allowed light to stream in from the street to the clean, minimalist room. Several of the walls were covered by large promotional photographs. The center of the store was occupied by a singular row of light wooden tables. The only evidence of the store's purpose was a display of shoes along one wall. Figures 1 and 2 show the interior and exterior of the Feebees store, respectively. Figure 3 shows a typical Feebees sock sneaker.



Figure 1: Exterior of the Feebees Store in Taichung City

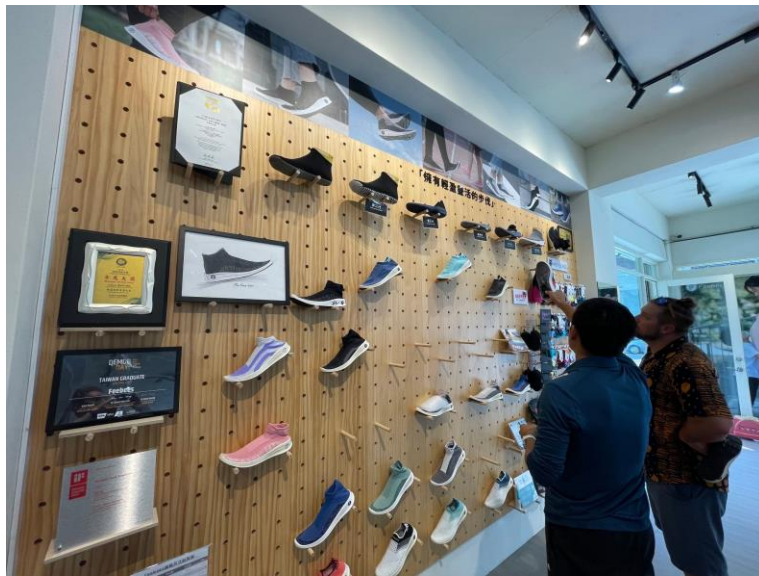


Figure 2: Interior of the Feebees store, featuring the shoe display wall. Kuming Chen (left) explains the iterations of shoe designs to Professor Grant Burrier (right)



Figure 3: Feebees sock sneaker (<https://www.feebees.com.tw/pages/about-feebees-1>)

The way Mr. Chen has set up his store tracks with his vision of Feebees. He sees his company not as a shoe company, but as a vehicle for sustainable innovation. The fact that the subject of this innovation is footwear is less important: Mr. Chen emphasized that he does not want Feebees to be defined solely as a footwear brand. His vision is more akin to a Silicon Valley entrepreneur than a shoemaker.

Our online meetings did not prepare us for Mr. Chen's intensity. Perhaps we should have expected it based on his backstory: years ago, he was (by his own description) overweight and out of shape, and suffered a serious accident in which he broke his spine. He took recovery as an opportunity to train hard and come out stronger than he had been before. By the end of his recovery, he had completed a triathlon. His experience with physical therapy found its way into the way he designed his shoes. Not only would Feebees shoes be sustainable and comfortable, but also be ergonomic and supportive. The shoes mimic the experience of walking barefoot to encourage healthy muscle development.

Mr. Chen's (and by extension Feebees') goal is to revolutionize the shoe industry with an innovative, sustainable manufacturing process while producing ergonomic, comfortable shoes with health benefits. However, lower consumer interest has limited Feebees' growth. Our goal for this project is to get a better understanding of Taiwanese consumer values and motives related to footwear purchasing decisions. Understanding the consumer perspective allows Feebees to more effectively promote its products and motivate consumers to make more sustainable purchasing decisions.

“The equivalent of one garbage truck full of clothes is burned or dumped in a landfill every second” (Geneva Environment Network). The fashion industry uses 70 trillion liters of water annually which is enough to help five million people, while polyester and textile production account for 8-10% of global CO₂ emissions, and the textile industry accounts for 35% of all microplastics in the ocean. In a developing world with an extensively linked global economy, demand for affordable, stylish clothing has spurred on the growth of the fast fashion industry. Companies like Zara and H&M have capitalized on the fast fashion demand which has led to the overconsumption of resources and the production of short life cycle products. The manufacturing processes that create fast fashion are energy-intensive and have a massive environmental impact.

And now, to counter the environmental impacts of fast fashion, we must shift our focus to understanding consumer perceptions of sustainability. Consumers must understand the environmental impact of each purchasing decision. Furthermore, information about responsible resource consumption and production needs to be communicated to combat the effects of climate change and pollution, however it is impossible for companies to effectively do this without understanding their customers' knowledge and opinions on the matter.

Efforts by companies to explain their sustainable practices are often lost on skeptical consumers. Therefore, companies must develop better ways to communicate and improve transparency about sustainable products with consumers. A company that is able to better communicate its sustainable practices may be able to sway consumers' purchasing decisions to more sustainable alternatives.

The goal of our project is to gain an understanding of consumer values and perceptions of sustainability, allowing us to make suggestions regarding Feebees' promotion of their eco-friendly practices in a way that resonates with consumers. When consumers learn about how Feebees' shoes reduce carbon emissions and are made of entirely recycled material, they may have misconceptions about the manufacturing process and how Feebees' products compare to other shoemaking companies. This confusion leads to hesitation from consumers and, ultimately, they do not purchase Feebees' products despite how much better they are for the environment than their competition.

We hope that our results bring a new perspective to Feebees, allowing the company to better understand the perspective of its consumers and more effectively cater to them. We assessed the level of understanding of sustainability amongst Taiwanese consumers by conducting and analyzing the results of interviews, surveys, and focus groups. Once we were able to understand the factors that influence consumers' footwear purchasing decisions, why they hold these values, and their perceptions of sustainability, we made recommendations to Feebees to more effectively communicate with consumers. Our results were delivered in the form of a report culminating in a series of these recommendations presented to our contact Kuming Chen, the Chief Executive Officer (CEO) of Feebees.

2.0 Background

Our sponsor is Feebees and we worked directly with Kuming Chen—the founder and CEO of the company. Feebees was created in 2011 with the goal to manufacture a new type of shoes that are functional, fashionable, and comfortable by combining the qualities of socks with shoes. Chen designed this shoe after recognizing how rigid traditional sneakers were to his young daughter. In order to achieve this goal, he created an entirely new manufacturing system that greatly reduced the environmental impact of standard shoemaking processes. After creating these shoes, Feebees' goals have evolved: the company now focuses on contributing sustainable innovation while also focusing on fitness outreach and education. Feebees' current mission is to expand their manufacturing system to create a shoe that adapts and grows with the consumer and their life, while also prioritizing the sustainability of their shoes. Feebees' process results in the emission of 60% to 90% less carbon than more conventional methods, with each shoe being made of 100% recycled materials. One challenge Feebees has faced is a lack of consumer engagement with sustainable products. Ultimately, many consumers display hesitancy over switching to Feebees' footwear which hinders the change that Chen wants to enact in the shoemaking industry. Other companies focused on producing sustainable fashion likely suffer from the same problems, hindering the adoption of sustainable production patterns globally.

3.0 Literature Review: Sustainability and Fashion

Continuing global development has caused grave concerns about management of the world's resources and our ability to meet the demands of future generations. Issues resulting from unsustainable practices have become so urgent that the United Nations (UN) blueprinted the Sustainable Development Goals (SDGs) for all its members. These SDGs are goals that are meant to ensure “[...] peace and prosperity for people and the planet, now and into the future” (“The 17 Goals | Sustainable Development”). By adopting these SDGs, all 193 UN member countries have agreed that sustainability must be addressed by actively researching new solutions and developing infrastructure that can prevent the worst outcomes of climate change while maintaining economic growth.

We believe that our project contributes meaningfully to the discussion around the UN's sustainable goals—specifically the twelfth sustainable development goal. This goal highlights the UN's mission to reduce resource consumption and waste by encouraging sustainable consumption and production patterns (“The 17 Goals | Sustainable Development”). The UN recognizes that waste produced by industrial manufacturing has a negative impact on the biodiversity of the planet, and the pollution produced by these processes harms humans and expands the effects of climate change.

Specifically, target 12.5 details that the UN hopes to significantly reduce waste production in industrial manufacturing processes by 2030 through the use of recycling and reuse programs (“The 17 Goals | Sustainable Development”). By encouraging companies to create more reusable products, the UN hopes to increase the national recycling rate in developed nations. Companies like Feebees can assist with target 12.5 by expanding the outreach of their sustainable shoe design which would help the UN counter resource overconsumption.

The phenomenon of fast fashion has counteracted the goals laid out in the UN's SDGs. In the 21st century, the fast fashion industry has accelerated and intensified the environmental impacts of clothing and footwear. Fast fashion is the mass marketing and manufacturing of affordable, disposable apparel aimed at satisfying demand for popular fashion trends in the marketplace (Claudio). The seemingly endless production of shirts, pants, and shoes makes "[...] the purchase tempting and the disposal painless" (Claudio) as consumers see no reason to recycle their apparel which could be easily replaced. Fast fashion created the concept of waste culture in many developed nations as it encouraged the overconsumption of natural resources for the production of short life cycle goods.

The production of cheap disposable apparel negatively impacts human health and the environment due to its large resource consumption and pollution footprint. The fashion industry alone consumes around 79 trillion liters of water annually to run factories and clean products (Niinimäki et al.). Furthermore, the production of polyester and textiles is an energy-intensive process that produces 8-10% of global CO₂ emissions (Niinimäki et al.). Research also shows that production of fast fashion has doubled from 2000 to 2020, and demand continues to increase throughout 2020 (Niinimäki et al.). Ultimately, to meet the demand of fast fashion, manufacturing industries have resorted to unsustainable usage of resources that intensify the effects of climate change.

In order to combat the effects of fast fashion, focus must be shifted towards promotion of recycling and eco-friendly products. Promotion of recyclable products can influence consumers to reuse the materials in their clothes while promotion of eco-friendly products encourages consumers to reduce their carbon and pollution footprint. Both recycling and eco-friendly

manufacturing practices align with the twelfth sustainable development goal to encourage responsible production and consumption of industrial goods.

While the promotion of recyclable and eco-friendly products can reduce the waste created by the fashion industry, persuading consumers to actually purchase sustainable apparel presents a challenge. Fast fashion markets highly appealing clothing to consumers that desire fashionable and cheap apparel. This apparel tempts consumers to purchase low quality and short life cycle goods that quickly arrive in landfills. Sustainable clothing can reduce the waste created by fast fashion; however, its long life cycle limits its ability to conform to rapidly shifting trends. Ultimately, consumers must choose between purchasing clothing that satisfies their personal preferences or clothing that can reduce waste. This challenge of persuading consumers to switch to sustainable clothing requires research surrounding sustainable promotion and consumer attitudes.

Our project contributes to the goal of promoting sustainability in apparel by understanding consumer motivations. The results of our project provide further insight on how to properly promote sustainable fashion by highlighting material and nonmaterial benefits in Feebees' footwear that aligns with values held by consumers. Furthermore, our research introduces new ideas that may move the world one step closer to achieving the goals of the UN's twelfth sustainable development goal by reducing resource usage in the shoemaking industry.

3.1 Demographics as a Context for Sustainability

Understanding the demographic and economic background of Taiwan gives us valuable insight into the consumers of Feebee's products. A study by T.-C. Lin (2001) on the educational, technological, and economic growth of Taiwan found that Taiwan has seen precipitous economic

growth over the past 70 years, largely due to a growing labor force, technological progress, and increased education (Lin). Despite its small area, Taiwan has a population over 23,580,000, mostly concentrated in cities on the west coast of the island. This distribution of population makes Taiwan a very urban nation, with over 80% of the population concentrated in urban centers (CIA World Factbook).

However, despite its growth over the last 70 years, Taiwan today has a very low fertility rate (1.08) which contributes to its currently low economic growth rate of about 3% annually and leads to an aging population where labor shortages and decreased domestic demand could become problems in the future (CIA World Factbook).

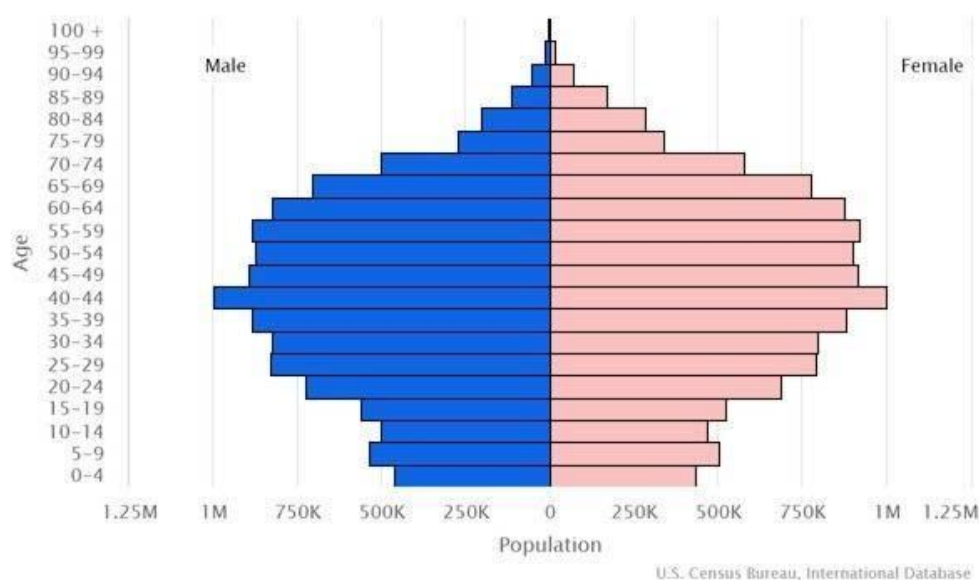


Figure 4: 2022 Taiwan population pyramid. The bulk of the population of Taiwan is in the age range of 40-70 years old. The lack of young people in Taiwan suggests future concerns over labor shortages (CIA World Factbook. 2023)

Both the CIA World Factbook and Lin's data provide insight into the economic life of Taiwanese consumers. Taiwan is an urban country where the youth have access to educational opportunities and resources which are bolstered by a steadily growing economy that allows for

financial mobility. This data gives us a foundation to better understand consumers in Taiwan. For example, we understand concerns exist over labor shortages and future resource allocation.

Therefore, consumers may place an emphasis on products that are perceived to support Taiwan's economic prospects. Messages of alleviating resource usage and creating more domestic jobs in Taiwan while decreasing emissions as waste in urban areas may be likely to resonate more with consumers. Ultimately, such strategies give us a starting point for further investigation into Taiwanese consumer motivation, and provide helpful context for the rest of our project.

3.2 Environmental Impacts of Conventional Shoemaking

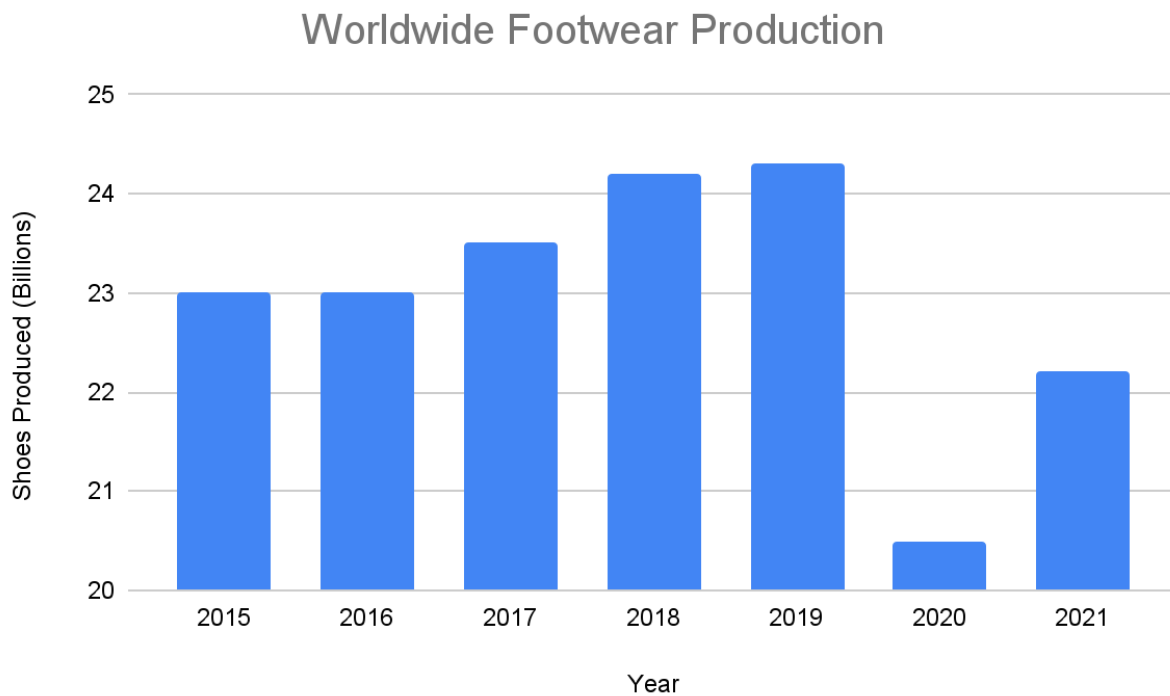


Figure 5: The growth of the footwear industry over the last 7 years by showing the changes in billions of shoes produced Source: Smith 2019.

In 2021, Muthu and Li researched the environmental impacts of the conventional shoemaking process. Although all pairs of shoes do not follow identical lifecycles, “all products have potentially negative environmental consequences” (Muthu and Li, 305). These negative impacts range from emissions created by the extraction and processing of natural materials to the disposal of footwear into landfills. The overconsumption of resources has only worsened due to the rapid increase in shoe production in recent years, growing from 23 billion pairs manufactured in 2015 to peaking at 24.3 billion in 2019. This was followed by a slight decrease to 20.5 billion pairs of shoes being manufactured in 2020, followed by another increase to 22.2 billion pairs manufactured in 2021. This increase in production also means an increase in waste of vital resources such as energy, water, and eventually each of the “[...] billion pairs of footwear will reach the end of their useful lives and need to be disposed of” (Muthu and Li, 307).

In 1998, a Spanish study used the Life Cycle Impact Assessment (LCIA) to explore different steps in the leather shoe production process and measure the corresponding environmental impacts. This study analyzed the entire life cycle chain of leather footwear to find which phases had the greatest environmental impact by assessing nine main impact categories which includes “[...] nonrenewable prime materials depletion, nonrenewable energy source depletion, global warming potential, acidification potential, eutrophication potential, and human toxicity potential” (Muthu and Li, 311). This study found that roughly 40% of the life cycle impact stemmed from the agricultural aspect of footwear production which caused global warming, acidification, and eutrophication. Additionally, they found that the electricity used in the production phase and waste management phase had an enormous environmental impact.

Muthu and Li also analyzed multiple studies regarding LCIA and the viability of reducing the environmental impact of the shoemaking process. In these studies, researchers

found that the shoemaking process increased radioactive radiation, acidification, and global warming potential the most out of the numerous categories measured to find where manufacturing was doing the most damage to the environment. Furthermore, studies found that 90% of the total environmental impacts stemming from the shoemaking process were rooted in material production and the manufacturing process (Muthu and Li, 312). One specific study conducted by a shoe company in California compared four shoes made of different materials to identify if using green materials was a viable solution to refine their practices which had been damaging the environment. Green materials are identified as being composed of renewable, rather than nonrenewable resources. The four shoes were two Green Toe Shoes and one ecoSNEAK shoe which were all made of green materials, and then a more traditional pair of shoes made almost entirely of leather and synthetics. This study compared the four shoes in ten different impact categories, similar to the study conducted in Spain, and found that the traditional shoe had significantly greater impacts in eight out of ten of these categories. Therefore, the study concluded that green materials were better suited to preserving the environment than synthetic counterparts.

Another study conducted by Gottfridsson and Zhang (2015) observed the environmental and economic impacts of shoemaking in Sweden. The use of leather in traditional shoes created increases in carbon emissions and eutrophication rates due to the large number of resources that are necessary for animal production (Gottfridsson and Zhang). Furthermore, companies that produce conventional footwear show a trend of moving the production of “[...] goods to less developed countries with poor working conditions, health issues and lack of proper environmental legislation” (Gottfridsson and Zhang). The data Gottfridsson and Zhang collected

provides evidence about the environmental and social impacts related to the leather shoe industry.

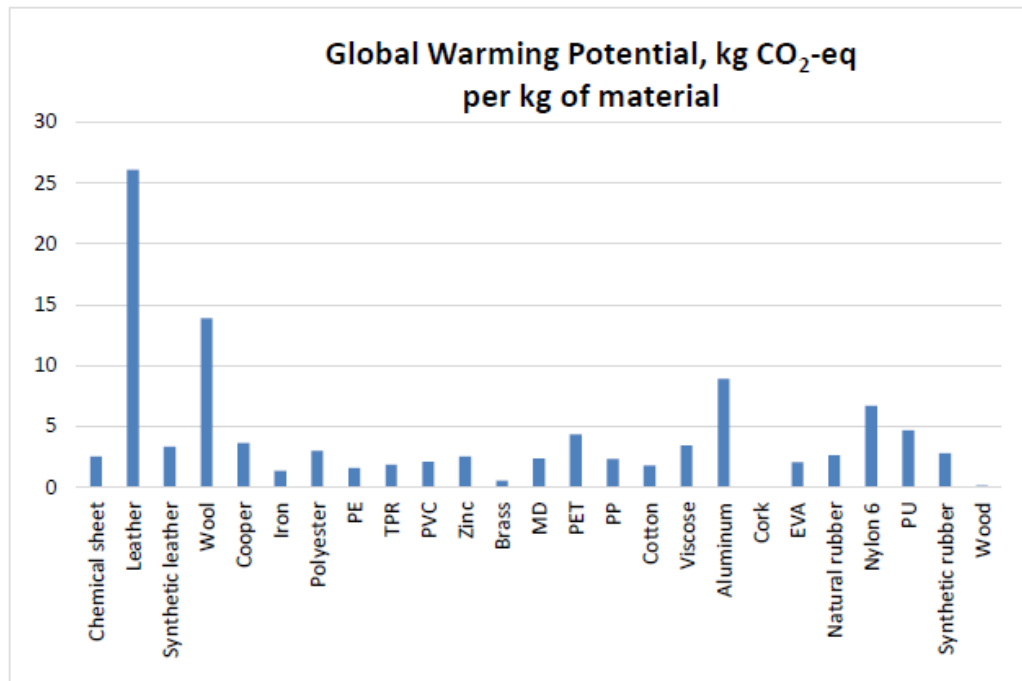


Figure 6: Global warming potential per one kilogram of various shoe materials (Gottfridsson and Zhang)

The differences highlighted in these studies help us understand how conventional shoemaking processes impact the environment. Identifying these consequences allows us to better understand Feebees' mission of creating eco-friendly footwear, which is vital to our success in achieving our project goal. With this greater understanding, we can also reflect on these environmental impacts to more effectively identify the benefits of switching to sustainable alternatives for their shoes. Highlighting the health impacts of traditional shoemaking processes may contribute to better consumer understanding of sustainability by making the concept more personally relatable.

3.3 Sustainability Certification

Feebees has developed a novel system that can produce fully recyclable shoes through eco-friendly and sustainable production methods. The system's ability to reduce fossil fuel consumption and minimize impacts on the environment qualifies Feebees' footwear for sustainable certification. For any product, a sustainable certification can help a company promote and spread awareness of sustainable practices and strategies to consumers.



Figure 7: EU Ecolabel logo

Many countries and organizations distribute certificates to products that promote sustainable manufacturing processes. The European Union (EU) is one of many organizations that provides their own unique certificate for sustainable products across the world. The EU Ecolabel is the official certificate of the EU that recognizes the environmental excellence of a product. More specifically, the EU Ecolabel is awarded to products with a “[...] guaranteed, independently-verified low environmental impact” where the product maintains high environmental standards from “[...] raw material extraction through production and distribution to disposal” (EU Ecolabel - Home). Furthermore, the EU Ecolabel can be awarded to products

that incorporate innovative designs which are “[...] durable, easy to repair and recyclable” (EU Ecolabel - Home).

A product with an ecolabel can experience higher levels of demand as consumers will recognize the certification. These certifications can empower a consumer to easily make an informed decision and help transition the world towards greener production patterns (EU Ecolabel - Home). A study conducted by Tahir (2021) examined the correlation between ecolabel fashion products and consumer interest by analyzing data from 332 survey respondents in Canada. Tahir’s study collected data about participants’ concern for social, ethical, and environmental responsibility when purchasing fashion related products and how an ecolabel influenced these responsibilities. The study discovered that 48% and 30% of respondents were concerned about ethical and social responsibility respectively; furthermore, 73% of participants were concerned with environmental responsibility when purchasing fashion related products (Tahir). Overall, respondents were highly concerned about the protection of the environment and were willing to purchase ecolabel products to reduce harm. Using a regression model, Tahir discovered that respondents “[...] considered certified eco-label products helpful in making purchasing decisions regarding fashion related products,” (Tahir) and awareness of each responsibility increased when ecolabelling was present. Ultimately, consumers want to engage in environmentally friendly practices, and ecolabels can help consumers quickly resonate with the company’s product to both increase sales and protect the environment.

Another study conducted by Mufidah et al. (2018) assessed the behavioral intention of Indonesian and Taiwanese citizens on ecolabel product usage. In this study, behavioral intention refers to a consumer’s willingness to purchase an ecolabel product and then use the product. The study found that a consumer’s attitude towards environmental friendliness is the driving factor of

behavioral intention towards sustainable products. Driven by this attitude, Mufidah et al. identified that 49% of Taiwanese consumers displayed a positive behavioral intention towards ecolabel products while 72% of Indonesian consumers displayed a positive behavioral intention towards ecolabel products (Mufidah et al.). Furthermore, a study conducted by Yu et al. (2017) showed a high correlation between behavioral intent and purchasing eco-friendly products to combat climate change among Taiwanese undergraduates. Overall, the studies conducted by Tahir, Yu et al., and Mufidah et al. corroborate each others' conclusions. Consumers are very willing to make an eco-friendly purchase at higher expense. And, with ecolabels, companies can easily meet the demand of consumers as the certification allows citizens to quickly identify the impacts of their purchases. Ultimately, with ecolabels, both the consumer and company benefit as ecolabels can increase purchase and usage of a product while a consumer can actively participate in improving sustainable production patterns.

With its innovative process, Feebees has minimized the energy cost to create the vamp, midsole, and outsole of a shoe by reducing the amount of fossil fuel consumption in the heating process. Furthermore, Feebees has reworked footwear design to create an entirely recyclable shoe created from old socks and shoes. Based on the criteria of the EU Ecolabel, Feebees' footwear qualifies for sustainable certification. With this certification, Feebees would enjoy the benefits of outreach to its consumers and promoting its innovative system to the world. However, Taiwan's international status and complicated relationship with China hampers the company's ability to obtain sustainable certification from the EU.

Currently, Taiwan is an independently governed island across the Taiwan Strait from China. China views Taiwan as a renegade province that must be reunified with the mainland. China has employed aggressive tactics to coerce Taiwan into reunification. Over the last decade,

China has increased military incursions into Taiwanese territory and firmly denies Taiwan's participation "[...] in UN agencies and other international organizations" (Maizland). China's denial of Taiwanese independence has forced countries to choose sides when conducting business with either China or Taiwan, and no country can choose to internationally recognize both parties (Maizland). Specifically, for international business, dealing with Taiwanese companies could insinuate recognition of Taiwanese sovereignty. This offense to China could result in the isolation of a country from China's economic system, which is the second largest in the world. Therefore, most countries and international organizations choose to maintain relations with China and actively avoid any formal relations with Taiwan, including Taiwanese businesses.

As an international organization, the EU and its ecolabel cannot afford to damage relations with China by certifying products from Taiwanese businesses. Therefore, Feebees has little chance of acquiring the EU Ecolabel or similar certificates from international organizations and benefiting from the resultant boost in consumer interest. Feebees can apply for domestic ecolabels like the Energy Label that the Taiwanese government awards to energy efficient products ("Energy Label"). However, the Energy Label does not carry the same reputation as the EU Ecolabel, and many consumers fail to recognize and respond to the Energy Label. Therefore, Feebees must explore alternative methods to communicate its innovative, eco-friendly footwear to consumers, considering the features of shoes that consumers actively pursue when purchasing footwear. Properly identifying and highlighting these features in Feebees' footwear can showcase a product that consumers resonate with—mimicking the effects of an internationally recognized ecolabel.

By exploring the EU Ecolabel and studies associated with sustainable certification, we now have a better understanding of the problems that hinder Feebees' mission to change the shoemaking industry. The EU Ecolabel can help consumers easily identify eco-friendly and sustainable products; however, due to Taiwan's relationship with China, we must identify other components of the shoe design that resonate with consumers to generate a similar response as the ecolabel. The studies conducted by Tahir and Mufidah et al. showcase the other factors that influence consumer interest in fashion. Factors such as affordability, style, and comfort all play a role in consumer behavioral intent. Furthermore, social values and ethical responsibilities can be leveraged to increase demand for certain products. The Tahir and Mufidah et al. studies have shown that consumers are truly invested in protecting the environment and sacrificing their preferences for more sustainable options. The intent is present, but consumers need to identify other benefits in Feebees' footwear to finally support more sustainable production patterns. We must then work to identify what other benefits exist in the shoes and which benefits are best suited to sway consumer attitudes.

3.4 Promoting Sustainable Choices

Comparing Feebees' current shoemaking methods to more conventional methods discussed in previous sections highlights the economic, social, and environmental benefits of Feebee's model. In their research about the concepts surrounding sustainability, Kuhlman and Farrington (2010) defined sustainability as "maintaining well-being over a long, perhaps even indefinite period" (Kuhlman and Farrington). Most importantly, sustainability involves more than just the environment; it describes the relationship between resources, the economy, and public happiness where both the economy and ecology are considered to improve the well-being

and welfare of humanity (Kuhlman and Farrington). The study conducted by Kuhlman and Farrington provides some insight for understanding sustainability in the context of the shoe industry.

Utilizing Kuhlman and Farrington's ideas surrounding sustainability, we can describe how conventional shoe manufacturing methods affect consumers environmentally, socially, and economically to illuminate a fuller image of sustainability. A study by Chih-Chun Lai and Ching-Erh Chang (2020) further strengthens the idea to promote sustainability in a multifaceted manner. Lai and Chang gathered over 400 responses from undergraduate and post-graduate students in Taiwan then evaluated the influence of prosocial (supporting common wellbeing) and environmental values on consumer clothing disposal behavior. Environmental values were found to have a small positive influence on clothing donation, but little to no impact on clothing reuse or resale. Prosocial values were found to have a negative impact on resale, positive impact on donation, and negligible impact on reuse (Lai, Chang). These results highlight how consumers in Taiwan have a strong connection to environmental and prosocial values, yet these values do not have a significant impact on clothing reuse patterns. Lai and Chang's study shows that environmental and prosocial values might not have a significant impact on clothing reuse, but these values do noticeably impact clothing donation patterns. The results of this study clearly show that social and environmental values impact consumers' clothing disposal patterns. Our project can add depth to this conclusion by investigating the link between these same values and purchasing decisions.

In conclusion, promoting sustainability through environmental, social, and economic lenses presents a strong case to influence consumer behavior related to sustainability. Focusing solely on environmental benefits of sustainability may alienate consumers who cannot relate to

the impacts. Likewise, promoting solely on personal or social benefits of sustainable shoes takes away from the Feebees' goal of showcasing the advantages of their innovative manufacturing process. Combining the results of these studies with the information gained in our investigation allows us to understand the link between consumer values and purchasing decisions, and make recommendations on how to best motivate consumers to make more sustainable choices.

Promoting sustainability through the three facets of environment, economy, and personal well-being can be applied to other sustainable promotions outside of Taiwan and the shoemaking industry.

3.5 Understanding Taiwanese perceptions of sustainability

Having built an understanding of sustainability as well as of Taiwan and its culture, we now turn to the people to learn how their education and values intertwine when it comes to being sustainability conscious. Understanding the intersections of cultural values and environmental education in Taiwan allows us to better understand consumers.

In 2000, the Democratic Progressive Party (DPP) candidate Chen Shui-ban was elected President of Taiwan which ended a fifty-five year rule by the Kuomintang (KMT) party. This marked the first successful transition of power between parties in their newly established democracy. Unlike the KMT, the DPP holds Taiwan-centric beliefs seeking to strengthen Taiwan's democracy, international standing, and economy to ensure their future success. These Taiwan-centric beliefs have been a defining feature in the DPP's approach to governance and policy-making. Of all political parties in Taiwan, the DPP has made the greatest effort to be an active supporter of environmentalism. For example, the DPP pushed for reducing carbon emissions and promoting renewable energy, implementing a range of policies to increase the use

of solar and wind power while actively taking steps to phase out nuclear power (Rigger). The DPP has also prioritized waste reduction and recycling in their policy making, specifically targeting single-use plastics while promoting composting (Rigger). Additionally they have launched initiatives to preserve natural habitats and wildlife. Prior to the DPP taking control of the government, the KMT had often opted for economic development over environmental preservation. For example, during its period of authoritarian rule, the KMT promoted industrialization and infrastructure development at the expense of environmental concerns. In more recent years the KMT has pledged to promote renewable energy, reduce carbon emissions, and protect Taiwan's natural resources, however many critics have argued that this commitment is not nearly as strong as the DPP's.

The DPP's beliefs are crucial to Taiwan's development moving forward, because these Taiwan-centric ideas brought forth caught the attention of the younger generations whose main priority was the Taiwanese identity after years of being under China's control. This influence is vital to Taiwan's long-term success because young voters are the future leaders, entrepreneurs, and workers of a society, and their interests and values will shape the direction of the country for years to come.

The Green School Partnership Program in Taiwan (GPPT) was implemented in 2014 during the United Nations decade of environmental education. Schools may voluntarily join this initiative to become a certified green school, meaning they must, "engage students in environmental inquiry to increase students' environmental knowledge, attitude and skills and to act harmoniously with people and nature," (Olson et al.). In 2019, Olsson et al. compared three different grades from GPPT and non-GPPT schools to analyze the differences in sustainability consciousness by issuing a survey to 1741 students in grades six, nine, and twelve. The results of

this survey showed that regardless of school, geographic location, and socio-economic area, the environmental education of the students was relatively the same, and therefore the investment in GPPT schools was futile seeing as it made little to no difference.

In 2020, Berglund et al. conducted a similar study in which they surveyed 617 Taiwanese students from GPPT schools and 583 Swedish students from the equivalent ESD (Education for Sustainable Development) schools. They found significant differences in the results, which they correlated to cultural differences between Western Europe and Eastern Asia. They established a link among Taiwanese students between an environmental way of thinking and altruistic values which corresponded to Taiwanese traditional values. Taiwanese values reflect Confucius beliefs and filial piety and Taoist beliefs of naturalism and harmony which have had a large impact on the enthusiastic environmental attitude amongst Taiwanese consumers. According to the CIA world factbook, 33% of Taiwanese are Taoist, while another 10% follow folk religions, including Confucianism. These views can be specifically connected to the Confucian concept of “harmony with nature” which emphasizes the importance of maintaining a balanced relationship between humans and nature, therefore recognizing the interconnectedness of all things in the world and thus avoiding anything that may cause harm to the environment. Taiwanese families also place a strong emphasis on respect for elders and their community by teaching children to prioritize their family’s well-being above their individual desires. This emphasis on respect for authority figures fosters a sense of responsibility towards one’s family and more specifically their family’s Confucius beliefs and practices, which translates to their environmental views.

As these environmental issues become more pressing and sustainability awareness grows there is a growing movement in Taiwan to instill environmental values in children from a young age so that they may help their family and community make strides to respect and care for the

environment. Many parents have taken steps to teach their children to make more sustainable conscious decisions by modeling environmentally friendly behaviors.

In October of 1996, following the economic boom of Taiwan and resultant environmental degradation, Koon Kwai Wong conducted a study at the National Taiwan University, in which 345 students completed a survey questionnaire regarding their perceptions of the environment, resource sustainability, and green consumerism. Wong chose these university students because they were the future elite members and decision-makers of Taiwan. From this study, Wong observed that many of the students were concerned for the environment. These fears led to individual responsible behavior, and many even went as far as to advocate that a fundamental change needed to be made to their wasteful lifestyle to make Taiwan more sustainable. However, there was a lack of knowledge regarding how to connect these concerns to policy to make environmentally responsible behavior a standard practice. Now that these students are the leaders and decision makers of Taiwan, we can still see this lack of initiative and the education to back their environmental concerns and consciousness.

Another important conclusion from the study by Berglund et. al. is that environmental knowledge and behavioral intention had a weak correlation amongst Taiwanese students. However, environmental attitude and behavioral intention had a very strong correlation. This lack of environmental knowledge led to a declined sustainability attitude seeing as Taiwanese citizens lack environmental attitude and behavioral intention (Berglund, T. et al.)

From these studies we can see a clear pattern amongst Taiwanese students of an enthusiastic attitude when it comes to helping the environment, but many lack the knowledge or resources to back this enthusiasm. Based on these results, promotion of sustainable shoes should

focus on filling in these gaps and presenting information that educates Taiwanese consumers and encourages sustainability-conscious decisions.

3.6 Personal and social benefits of sustainability

Consumers in Taiwan lack education in sustainability, yet they possess strong environmental and prosocial values, creating an environment in which improved sustainability messaging has the potential to be very influential. Cummins et al. suggest a distinction between environmental and sustainability messages. Environmental messages relate to the environmental effects of a product, while sustainability messages are future-oriented and contain statements about resource usage practices that allow for future use of that resource or statements about striking a sustainable or natural relationship with the planet. Sustainability messaging often contains environmental aspects, yet the reverse is not frequently true. Their study found that messages of sustainability both increased consumer engagement with the message and elicited more positive responses (Cummins et al.). This shows that it may be advantageous for advertisements to include sustainability messaging within environmental statements, as opposed to environmental statements alone.



Figure 8: An example of sustainable messaging (left) versus environmental messaging (right) (Cummins et al.)

Communicating Sustainability by Margaret Robertson describes methods to actually accomplish the messaging described by Cummins et al. Visual representations of environmental problems may be particularly effective. For example, visually representing waste produced by a process makes the environmental issues associated with that process much easier to understand (Robertson, 88). These studies showcase how visual design in promotional material can influence and persuade consumers to make more eco-friendly purchases. Similar to the ecolabel, visualization of sustainability can serve as a reminder of environmental values and help consumers identify an eco-friendly choice when purchasing products.

Alongside the use of visual examples, Visser et al. (2015) highlighted the use of green and blue in promotional material surrounding sustainability. The use of these colors can help

construct easy identifiers with sustainable content and produce a positive sustainable brand image (Visser et al.). Furthermore, Visser et al. found that promoting health benefits that shoes can provide to individuals produced higher consumer interest over environmental benefits due to the “[...] low importance given to the environment as a buying criterion for shoes” (Visser et al.) The results of the Visser et al. study combined with the ideas of the Cummins et al. study suggests that there is an unequal balance between the promotion of environmental and prosocial values in shoes. Promotional content might display better results if personal benefits are highlighted over other benefits.

The focus of consumers on the personal benefits of fashion over environmental benefits is further emphasized by a study conducted by Blasi et al, which analyzed consumers' priorities when purchasing clothes. Blasi et al. discovered that the fashion and glamor of clothing showed the highest correlation with consumer interest (Blasi et al.) However, social pressures on purchasing environment-friendly apparel also showed a positive correlation with increasing consumer interest (Blasi et al.). Ultimately, most consumers focus on how they are perceived visually by others over environmental impacts when purchasing clothing. The conclusions of the Blasi et al. study once again emphasizes that consumers lean towards prosocial benefits when purchasing apparel. While environmental benefits can help increase consumer interest, highlighting environmental impacts alone is not sufficient to promote sustainable footwear. Prosocial and environmental benefits must be combined where the personal gains of shoes take the forefront of promotion.

Our project builds off these strategies defined by Visser et al. and Robertson. Exploring the impact of prosocial benefits mixed with environmental benefits in promotional content provides a promising method to increase consumer interest in sustainable fashion and awareness

of eco-friendly options, thus supporting the UN's 12th SDG. Furthermore, these benefits can be applied outside of shoes and Taiwan to identify a bigger pattern in sustainable fashion benefits around the world.

3.7 Conclusion

Fast fashion has contributed to massive resource consumption and environmental degradation, undermining the twelfth UN SDG. The footwear industry is not immune to such issues: shoe production by itself has a massive environmental impact. Feebees' innovative manufacturing process is a promising model for a sustainable apparel industry. However, this novel approach to sustainable manufacturing is faced with major obstacles which have limited its adoption. One such obstacle is consumer interest: before sustainable shoe manufacturing can become commonplace, the product must be appealing to consumers, and it must be successfully marketed. Therefore, understanding consumer values and how they translate into purchasing decisions is vital to achieve sustainability.

Our archival research has shown that Taiwanese consumers care about the environment and the future, yet often lack understanding about how to actually make environmentally friendly or sustainable choices. These factors indicate that advertising the eco-friendliness of a product may be a good strategy, but the effectiveness is limited by the ability of the consumer to understand such claims. Sustainability certifications such as the EU ecolabel address this issue by clearly indicating sustainable products to consumers, but are largely out of reach for Taiwanese companies like Feebees. Domestic labels, such as the Taiwanese Energy Label may be accessible to Feebees, but lack the weight and authority of the EU certification. In order to

successfully market sustainable footwear, messages of sustainability must be simple and credible in the absence of certification.

Eco-friendliness alone is often not enough to sell a product, particularly in the highly competitive, fashion-oriented apparel industry. Therefore, other consumer values stemming from prosocial motivations, religious beliefs, and health and aesthetic considerations must be leveraged to successfully market sustainable footwear. This archival research has allowed us to understand the basis and limitations of consumer values in Taiwan, but fails to directly connect these values to footwear purchasing decisions. Accomplishing this requires personal study of the consumers themselves through other methods.

4.0 Methods

Our project goal is to understand the values and motivations of shoe consumers in Taiwan, allowing Feebees to more effectively promote its shoes and motivate consumers to make more sustainable purchasing decisions. We used multi-method research design to investigate Taiwanese consumers' values with Feebees' shoes as a case study. Prior to traveling to Taiwan, we conducted archival research. We used information from numerous peer reviewed journals to set the basis of our knowledge, specifically focusing on how Taiwanese citizens perceive sustainability based on their level of education and societal values.

While in Taiwan, we used employee interviews to provide a richer image of Feebees itself. These interviews were conducted with employees individually and helped us obtain a better sense of Feebees' mission and practices as well as a picture of Feebees' typical consumer base. A tour of the Feebees factory in Taichung helped us understand the innovative sustainable shoemaking process at the heart of Feebees. We also conducted an unstandardized interview with a store owner who sells Feebees products, but is unaffiliated with Feebees, giving us a different perspective on Feebees shoes. While these methods provided a helpful backdrop to the rest of our project, we had to get to know the consumers directly before we could understand their values and motivations. To accomplish our project goal, we used surveys in conjunction with focus groups.

Data collection requires a multi-method approach to increase the robustness of results. We employed a wide range of strategies to validate the data collected from each method. Comparison between results of different methods allows us to triangulate our findings and identify commonalities between the data, leading to stronger evidence. In our project, we used

archival research, interviews, surveys, and focus groups to investigate perceptions of sustainability and consumer values in Taiwan.

4.1 Archival Research on Taiwanese Perceptions of Sustainability

Before using other methods of data collection, we established background knowledge by conducting archival research using numerous sources. Archival research is an unobtrusive study where human records and texts are analyzed to gain a better understanding of previous work pertaining to a research topic (Berg and Lune, 146). While completing this research, we familiarized ourselves with Taiwan: its people, its economy, and its approach to sustainability. Additionally, we focused on sources about the Taiwanese people's perspective on sustainability and how their level of education influenced these views. We examined a wide variety of academic journals to compare results and conclusions in order to reduce potential bias in our research. Bias such as selection bias occurs when the non-random or noninclusive selection of cases leads to inferences that are not statistically representative of the population (Lustick, 606). Comparing the work of multiple sources allowed us to reduce selection bias by identifying commonalities and divergences between results. Every source likely has some level of bias, so the truth should be sought out by finding overlap or agreement between sources. The agreement between multiple sources can serve as a stronger base for formulating our own conclusions.

Archival research provided us with an in-depth understanding of the subject matter from other scholars who had similar research questions. Collecting data from other researchers, who have already conducted experiments related to perceptions of sustainability, allows us to learn from their experiences and retest their conclusions. The in-depth analysis of their experiments helps shape our expectations and goals of the project; it provides insight on which practices we

should follow or avoid to achieve the most successful version of our project. Furthermore, archival research helps us identify how our project can add to the discussion surrounding promotion of sustainable fashion without reiterating past conclusions. Online publishing platforms like ScienceDirect and SpringerLink provide a wide variety of peer reviewed academic journals where we can identify untouched and debated areas of research. By looking at other researchers' results, we understand how our project can add data to the scholarly debate surrounding perceptions of sustainability in Taiwan.

Although archival research can provide direction and details for our project, “[...] not all research questions can be answered through the use of archival data, or at least not archival data alone” (Berg and Lune, 150). For example, researchers must summarize their findings and reports, and they cannot provide us with the same experiences while we collect our own data. Some important information is lost in this process of summarization. The only way to truly understand Feebees' consumers is to interact with them directly through surveys, interviews, and focus groups. Another drawback is the seemingly unlimited supply of resources which prevents us from analyzing every source on the topic. Despite all the time devoted to gathering reputable sources we can never be absolutely certain we have the best and most applicable sources. For Taiwan specifically, information is limited due to China's long-standing opposition to Taiwanese independence. Furthermore, relevant Taiwanese sources cannot be analyzed due to language differences. These barriers created a setback when researching the demographics, culture, and economy of Taiwan.

Archival research raises several ethical concerns that researchers must be mindful of when conducting their work. Researchers must respect the rights of archives by adhering to their access policies and guidelines and avoiding any actions that could damage or destroy the

materials. Since we exclusively used online databases for our research, damage to the source materials is not a concern. A major ethical concern is the potential for misrepresentation of the information contained within the archives. Researchers must accurately represent the information and give credit to the original source while creating reports that avoid any intentional manipulation, misleading interpretation, or plagiarism of the data. Finally, researchers must also consider the impact of their research on the communities and individuals represented in the archives and take steps to ensure that their work does not cause harm or offense. Taiwan is a democratic country with guaranteed freedom of speech which relieves pressure around publishing reports; however, researchers must gauge how inclusion of sources could harm individuals participating in the research (Berg and Lune, 62). Overall, archival research requires a high level of ethical responsibility and sensitivity to ensure that the materials and information are used in a responsible and respectful manner.

4.2 Semistandardized Interviews with Feebees' Employees

Proper discussion of Feebees' sustainable footwear requires us to obtain an in-depth understanding of the manufacturing process and the company values. We obtained better knowledge of the manufacturing process by conducting semistandardized interviews with the employees at Feebees. A semistandardized interview involves "[...] questions [which] are typically asked of each interviewee in a systematic and consistent order, but the interviewers are allowed freedom to digress" (Berg and Lune, 69). This freedom allows researchers to probe beyond their questions to discover more personal experiences and opinions from the participants. Furthermore, the knowledge that these participants possess can help researchers gain a better understanding of concepts surrounding their area of work. With semistandardized interviews, we

can learn “[...] important aspects of our topics that we had not known at the start,” as it allows us to, “[...] develop, adapt, and generate questions and follow-up probes appropriate to each given situation and the central purpose of the investigation,” (Berg and Lune, 69).

Excluding Kuming Chen, our sponsor contact and the CEO of Feebees, the company has five employees. We spoke with four of these employees to obtain deeper insight into Feebees’ mission and a better understanding of Feebees’ consumers. Learning who these trusted employees are, why they are working for Feebees, and how they view the company mission can offer us a deeper understanding of the company culture. The semistandardized format of these interviews allowed us to tailor the questions to the knowledge and skills of the individual employee, maximizing the usefulness of the interview. Additionally, interviewing Feebees founder Kuming Chen provided us with detailed information about the company’s history, mission, practices, and primary consumer base. Using data gathered in these interviews, we identified topics that our sponsor wants to address in the focus groups. These interviews also directed us toward new topics that require archival research, such as sustainability certification. Ultimately, semistandardized interviews provide the benefit of bolstering our project with concrete details and background on Feebees while providing research topics to other forms of data collection.

Like any other method, semistandardized interviews have their own limitations. Conversations may be unpredictable which can provide for more authentic responses; however, unpredictability creates a lack of focus which could lead to insufficient data when covering all necessary topics as “not all surprises or forms of improvisation are without risk” (Berg and Lune, 69). The freedom of semistandardized interviews can also create difficulties when comparing subject responses as “separate respondents who have similar experiences to share may have very

different interviews, which makes it difficult to aggregate the data” (Berg and Lune, 93). However, obtaining accounts of the same events from separate respondents may still be helpful, allowing the researcher to find commonalities in responses and establish “important patterns among informants,” (Berg and Lune, 93). With the limitless directions an interview may take, remaining on the desired topic can sometimes become very difficult. This inconsistency increases with the number of interviewees; however, since Feebees only has five employees to interview, inconsistencies can be minimized.

Additionally, there is a notable concern with self-reported data when it comes to reliability. For example, social desirability bias may lead subjects to give answers that they think are more socially acceptable, yet inaccurate. There is no guarantee that subjects answer questions truthfully during these conversations, whether that be intentional or not. However, “people’s intentions are data in their own right,” (Berg and Lune, 93). While subjects may not answer questions truthfully, even their inaccuracies are illustrative.

A main ethical concern around interviews is the confidentiality of the interviewee, and security of the collected data during and after the completion of the project. Maintaining confidentiality requires us to remove “[...] any elements that might indicate the subjects’ identities,” (Berg and Lune, 48) from the published results of the study. We maintained confidentiality by storing all interview recordings and other information on a secure drive that can only be accessed by members of the research group. Furthermore, the names and identities of participants, aside from our sponsor and company CEO, Kuming Chen, are not explicitly mentioned in the deliverable of this project. Pseudonyms are used to identify focus group participants when necessary. All recordings and transcripts will be deleted after a period of two months after the completion of this project. Each participant received a written consent form

(shown in sections 8.2 and 8.3 of the appendix) that explains “[...] the nature of the research in this informed consent document, as well as offer an assurance of confidentiality” (Berg and Lune, 46) before the interview is conducted. Additionally, interviewees were informed that they may leave the interview at any time if they so choose. Therefore, before the beginning of each interview, each participant was made aware of how the interview data would be used and what data remains confidential.

4.3 Feebees’ Factory Tour

Our sponsor’s goal is to revolutionize the footwear industry using Feebees’ sustainable manufacturing process. This novel process is the heart of the company, so touring Feebees’ factory allowed us to gain an understanding of the system firsthand. We had the opportunity to tour the Feebees shoe factory, guided by CEO Kuming Chen. We conducted an interview with Mr. Chen concurrently with the tour. Feebees is a small company, so we were able to see the entirety of the factory and warehouse during our visit, which were located on different floors of the same building. The interview and tour were audio recorded. We did not take any video or photographs during the visit to preserve sensitive company information.

While this method of investigation is not directly linked to consumer values and motivation, it provides crucial background about Feebees’ shoemaking process. Visiting the factory allowed us to witness the process in person. Simultaneously interviewing Mr. Chen allowed us to clarify points as we progressed through the tour, helping us obtain a more in-depth understanding.

4.4 Feebees' Retailer Visit

To further our understanding of Feebees' image and their target audience, we visited a store that sells Feebees' footwear called Bao Bei Wan (English translation: King Baby), located in Taipei. Bao Bei Wan specializes in children's shoes and apparel, but they also have a section targeted at adults. Upon visiting the store, we were able to speak with the employee working at the store to get some insight on how they market Feebees, any consumer feedback they have received, and their own thoughts about the shoes.

This conversation allowed us to get an unbiased opinion from someone who also sells their products without direct affiliation with the company. Bao Bei Wan sells products other than Feebees, so not only do they have insight on how Feebees' shoes sell, but also how they compare to other shoes of a similar caliber. This insight involves how frequently consumers purchase Feebees over their other products and vice versa, and any consumer feedback they have received.

4.5 Pre-Focus Group Surveys

In order to gain an understanding of consumer demographics, values, and motivations, we used standardized interviews in the form of printed surveys. This method of data collection was used in conjunction with focus groups: surveys were passed out as a printed document for focus group participants to complete prior to the discussion. In standardized interviews, participants receive “[...] a set of predetermined questions that are expected to elicit the subjects' thoughts, opinions, and attitudes about study-related issues” (Berg and Lune, 68). This standardized format allowed us to create “[...] the same stimulus so that responses to questions, ideally, will be comparable,” (Babbie). Ultimately, these surveys allowed us to gather basic information about focus group participants in a time-effective manner.

We used these surveys to gain a basic understanding of what motivates shoe consumers. The survey included questions about demographics and consumer motivations and values. A copy of the survey may be found in section 8.4 of the appendix. These surveys gave us a quantitative representation of consumer values and motivations which may be used in combination with results from the focus groups to provide a more accurate picture of the general factors that drive Taiwanese footwear consumers.

We administered surveys in-person prior to the focus group discussions. The survey was printed out on paper, which was passed out to participants. This practice allowed us to bypass concerns of survey distribution as the survey distribution was conducted in-person to focus group participants who have already agreed to share their opinions. The method of selection for the focus groups will be discussed in the following section. We asked for identifying information in our survey, in the form of a name or pseudonym, that allowed us to correlate survey responses to specific members of the focus group.

The primary target of our surveys and focus groups was Taiwanese consumers. Data gathered by surveying focus group participants allowed us to determine if the group is representative of the target of our overall research: Feebee's consumers. Additionally, Qualtrics (available through WPI) was used to visualize survey data. Written survey responses were input manually into the online survey, allowing us to take advantage of the suite of analysis tools available through Qualtrics.

Additionally, administering the survey in person allowed us to address any confusion about the questions immediately to ensure participant comprehension, allowing us to confirm "[...] that all questions have been worded in a manner that allows subjects to understand clearly what they are being asked" (Berg and Lune, 67.) Before the survey was administered,

participants were encouraged to ask questions if they found any of the questions unclear. This decreases the chances of misunderstandings that would negatively impact the quality of our data.

Surveys fail to capture the nuances of consumer values and motivations, which limits their effectiveness. Therefore, surveys were used in conjunction with focus groups. The strengths of each of these two methods compensates for the weaknesses of the other. Survey respondents are not anonymous, since they are responding to the survey in person, and their responses were linked to their focus group participation. Participants were given a consent form before beginning the survey and focus group process which covered both the survey and the focus group. This consent form includes a synopsis of the questions that we asked, what we use the data for, and how the data is protected.

4.6 Focus Groups

Since Feebees wants to obtain a better understanding of its customers, we hosted open discussion fora where consumers were encouraged to express their main considerations when purchasing shoes and their views on Feebees' products. Focus groups are interviews with "[...] small groups of unrelated individuals, formed by an investigator and led in a group discussion on some particular topic or topics," (Barbour, 2008). This method of data collection "[...] is most useful for research involving beliefs, impressions, and emotional concerns," (Berg and Lune, 94) and helps gauge public opinion of a topic. Focus groups helped us query the perceptions of multiple consumer groups then find overlapping themes.

Using focus groups, we identified the core beliefs that drive shoe purchasing decisions and explored attitudes towards alternative, eco-friendly footwear. We started focus group sessions with an introduction and asked each participant to talk about the shoes they were

wearing that day, and explain why they purchased them. The discussion was then allowed to expand to include the qualities of shoes that participants actively pursue. After discussing the participants' values for some time, the discussion was shifted to sustainability. We asked participants about their impressions of sustainability, and investigated their willingness to try sustainable footwear. The dialogue generated by focus groups helped explain why the conventional shoemaking process is so popular and how Feebees can better target consumer values. Ultimately, the discussion around Feebees and their shoes helped determine the willingness of consumers to make more environmentally-friendly decisions by supporting more sustainable shoe manufacturing patterns.

Focus groups were conducted in-person and took place on the Soochow University campus in Taipei. The focus groups were composed of an uncontrolled sample of Taiwanese students. This sampling strategy is not representative of either Feebee's consumers or shoe consumers as a whole. Additionally, compared to the older generations, university students align more with the values of the DPP. As addressed in the literature review (section 3.5), of all political parties, the DPP has made the greatest efforts to actively support environmentalism. Hence, our sampling population consisted of a majority with similar political beliefs and is therefore nonrepresentative of Taiwanese consumers as a whole. However, our results still provide meaningful insight into the motivations of the target audience of Feebees.

Each focus group session was both audio and video recorded. These recordings were used to analyze and partially transcribe each discussion. We chose to transcribe the sections of the discussions involving sustainability to specifically investigate consumer perceptions of sustainable products. We then used Voyant to create visualizations from these transcriptions. Voyant allowed us to employ content analysis on our interview data and perform "a careful,

detailed, systematic examination and interpretation of a particular body of material... to identify patterns, themes, assumptions, and meanings” (Berg & Latin, 2008; Leedy & Ormrod, 2005; Neuendorf, 2002). Voyant measures word frequency and word collocation while displaying common themes in the text. The text analysis application displays all this information through tables and graphs which effectively transform the qualitative data into quantitative data that can be compared and analyzed. Voyant also performs comparative analysis between two different transcripts which allows us to identify common perspectives among consumers. Ultimately, the data provided by Voyant helped us identify key terminology and themes of interest from the discussions that can improve our understanding of the respondents’ opinions.

Focus groups provide the benefit of identifying the societal ideas surrounding a topic and showing how public opinion can persuade each individual. Most importantly, focus groups highlight the core beliefs around a certain topic. Each participant “[...] often genuinely [tries] to express their feelings, opinions, and ideas” (Berg and Lune, 105) which allows for very meaningful conversation around a topic.

While focus groups provide valuable insight, discussions are easily influenced by group dynamics: some participants’ viewpoints may become extreme and others less verbalized as the group opinion is swayed by a dominant participant (Berg and Lune, 101). Therefore, a moderator must be active in controlling conversation and guiding discussion. Furthermore, focus groups can be influenced by aggressive participants who can suppress debate, “[...] silence many participants and raise questions about validity of the data” (Berg and Lune, 106). Likewise, participants could conform to conventional opinions due to social desirability bias, which is when people do not accurately portray their own beliefs but rather agree with what is deemed socially acceptable.

Social desirability bias can influence people to hold back their opinions out of fear of confrontation with other participants.

Like many other methods of data collection, ethical concerns for focus groups arise over the confidentiality of participant responses. As a result, our reports do not contain any information linking a participant to their response. Additionally, in a focus group, agreements must be made amongst the group where each participant agrees to maintain the confidentiality of all other members (Berg and Lune, 105). Therefore, each participant was required to sign a consent form detailing their commitment to the confidentiality of the group. We also informed participants about how focus group data would be used in our report and what data remains confidential.

4.7 Limitations

Every case study has limitations, so it is important to try to identify these limitations early in the process to avoid possible inaccuracies. We identify several such limitations in our current methodology, which we will break down and address by section.

While archival research has the advantage of peer-review, the method by which archives are used may present issues. The most obvious limitation of archival research is the possibility of selection bias, which is often difficult to spot. We attempted to mitigate this possibility by using triangulation: comparing and connecting claims of various researchers in order to counteract possible issues in individual sources (Berg and Lune, 14). For our overall project, we are using a multi-method approach, which adds another layer of shielding from possible inaccuracies. Aside from the possibility for selection bias, archival research is limited to the scope of existing publications, which may be inapplicable to the particular case or out of date. In a relatively

unexplored field, the usefulness of archival research may be decreased. Therefore, additional methods of data collection are necessary. While sustainability in Taiwan and consumer perceptions of sustainability are relatively well-researched, our project requires additional, more detailed data.

Semi-standardized interviews pose various limitations due to their somewhat unstructured nature. Representativeness of the data gathered by this method is not guaranteed. However, the issue was mitigated as these interviews were limited to employees of Feebees, and the data gathered was used to gain information about the company rather than assessing consumer trends or perceptions. The language barrier was a serious hurdle: no member of our group speaks Mandarin Chinese, and none of the Feebees employees (excluding our sponsor, Kuming Chen) were fluent in English. This necessitated the use of a translator, which may have caused loss of information in the interview. We also have no way to guarantee that the interviewee fully understood our questions and have no way to know if we fully understood their responses. To mitigate mistranslations, we asked simple, straightforward questions about their opinions, goals, and experience that allowed us to gain consistent information, but allowed the employees to elaborate on topics they found important.

The store we visited has no affiliation with Feebees, so we were unable to contact them beforehand, presenting some limitations to this method. This lack of coordination with the shop prior to visiting caused the worker we spoke with to run out of time so our conversation was cut short. Also, had we planned with the store ahead of time they could have been more prepared for the questions that we were going to ask. This would have been helpful in this specific situation because there were some misunderstandings due to the language barrier.

Although it is a relatively straightforward method, the factory tour still presents some minor limitations. Our understanding of the process itself was limited by our technical knowledge of material processing. We had to take Mr. Chen's descriptions at face value, so misunderstandings about the process could have occurred. The most significant limitation of this method is preserving sensitive company information. We were unable to take any video recordings or photographs, which limits our ability to convey details of the process in this report, and, therefore, the usefulness of the method as a whole. To minimize this limitation, we have transcribed our findings as accurately as possible in this report. All details disclosed here have been cleared with our sponsor prior to release in order to prevent inadvertently sharing sensitive details.

While surveys are capable of obtaining quantifiable information quickly, this method fails to capture the nuances of complex topics like consumer values. This limitation is mitigated by the use of focus groups to more deeply investigate these values. Typically, the method of survey distribution has a heavy impact on the representativeness of the data collected. Distributing the survey only to focus group participants bypasses this issue, though it must be acknowledged that the survey data is sourced from a relatively small sample.

Focus groups also have limitations regarding representativeness. Attitudes and beliefs in certain focus groups can be skewed towards biases held by a single participant who dominates the conversation. Furthermore, focus groups consist of a handful of participants who can never fully represent the beliefs of the group that they are associated with. We attempted to counter certain biases by running multiple focus groups that provided us with a larger sample size. For each focus group session, one member of our group was selected to actively moderate discussions to ensure that dialogue stays on topic and that each participant feels free to express

their opinion. The most significant limitation of the focus groups and pre-survey methods is the representativeness of the sample. Our project goal is to investigate Taiwanese consumer values, but we were only able to conduct focus group sessions with university students. University students compose a small fraction of footwear consumers, so our results may not be applicable to Taiwanese consumers as a whole.

The overall structure of our research presents some limitations as well. Our data focuses on consumer perceptions of eco-friendliness and sustainable footwear in Taiwan. Because of the location, limitations exist on how our findings can be applied to other regions. Our results are only truly applicable to college students at Soochow University. However, the results may still serve as a useful case study for future research if properly framed.

5.0 Results

5.1 Employee Interviews

We conducted interviews with employees to better understand the motivations and aspirations of the team at Feebees. Through these interviews, we identified common ideas and perceptions of features in Feebees' products useful for further investigation in our focus groups. These interviews consisted of two parts. The first part of each interview was guided by a standardized set of questions where each participant was given the same prompt to answer. The second part used an unstandardized approach where we expanded upon the standardized set of questions to obtain a more detailed response to the participant's initial answer. Complete transcription of each interview was not useful, as the responses were translated. However, translated responses were still analyzed.

The standardized set of questions consisted of prompts that encouraged participants to share their experiences with Feebees, their goals, and their role in the company. These questions were designed to provide basic information about each employee and identify a unified mission within the company. A table comparing each of the interviewees' responses can be found below:

Employee	Reason for Joining Feebees	Goals	Role
1	Previous experience with shoemaking and found job offer at Feebees	Spread the message of eco-friendliness and sustainability and improve awareness of the company and its product	Sales & Management
2	Liked the vision of the company and studied topics related to sustainability	Spread the message of eco-friendliness and sustainability and improve awareness of the company and its product	Marketing
3	Previous experience with human resources and found job offer at Feebees	Making money	Human Resources & Website Management
4	Introduced to job offer by a friend	Spread the message of eco-friendliness and sustainability and improve awareness of the company and its product	Product Design

Figure 9: A table summarizing each of the employees' responses to the standardized set of questions. Employee names remain confidential.

By comparing responses, we have identified a common trend among the participants. Figure 5.1.1 indicates that most employees at Feebees share the goal of promoting the sustainability of Feebees' footwear to others. Furthermore, almost all employees believe in the eco-friendliness of the product and aspire to improve brand outreach to consumers. The goal to inspire consumers to wear Feebees' products exists among all roles and indicates that employees at Feebees have a unified understanding of the company's future and mission. Through these questions, we have also identified that the employees of Feebees consider the eco-friendliness

and sustainability of the shoe to be one of the most important features of the product. Therefore, to align with Feebees' mission, we added questions to the focus group that addresses consumer attitudes towards eco-friendly and sustainable shoes.

The second set of questions expanded on the employees' responses to the standardized set of questions. Based on the employee's role and goals, we asked for more detail about their personal experiences. Although these questions were asked in different ways, they followed a similar purpose of exploring the employee's beliefs about consumer attitudes and their own opinion about the shoes. More specifically, we asked what feature they believe consumers resonated best with and which features the employees thought were the best.

We took note of each feature that was mentioned in each interview. After identifying each feature, we counted the amount of times the feature was mentioned as one of the best features of Feebees shoes. Figure 5.1.2 below shows the frequency at which different features were mentioned in the employee interviews.

Feebees employee commonly mentioned features

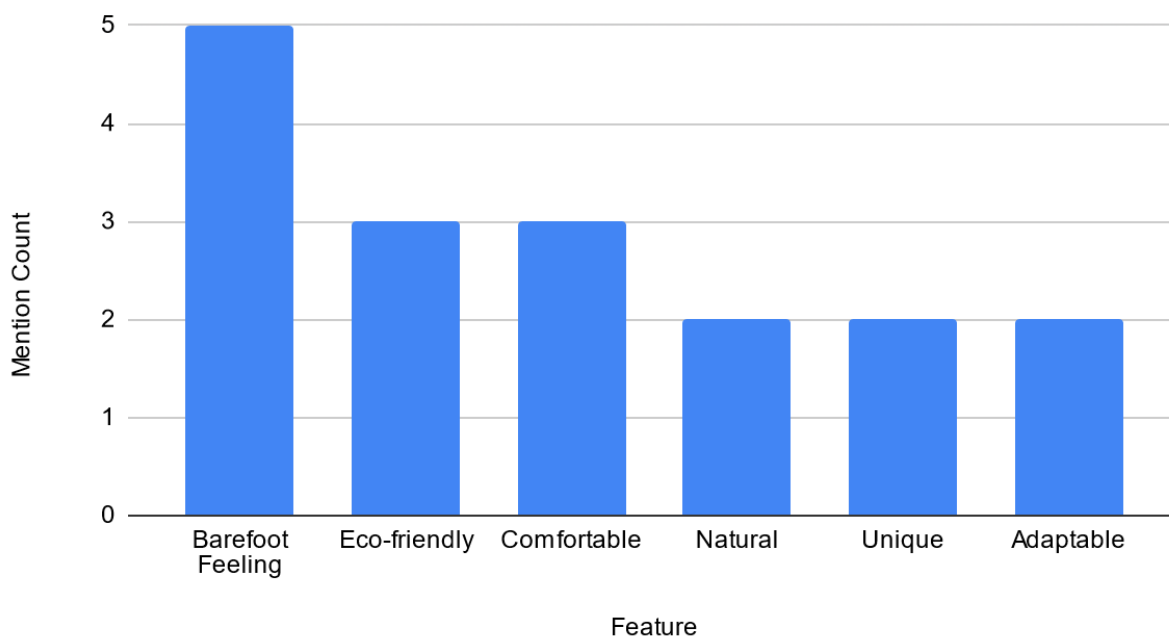


Figure 10: A chart showing the number of times a feature was mentioned during employee interviews after employees were asked what they believe is the best feature of Feebees footwear.

After inquiring about the best feature of Feebees' footwear, we identified common phrases from the participant's responses. Figure 5.1.2 indicates that the barefoot feeling of the shoes was the most prominent feature when employee's thought about the product. Other common features were the eco-friendliness and comfort of the footwear. While discussing the barefoot feeling, employees stressed that consumers must try on the shoes to truly understand the product. Furthermore, the employees mentioned that consumers typically valued Feebees shoes much more highly after trying them on, suggesting that the comfort of the shoe may have a stronger positive impact on consumers than the shoe's appearance. The discussions from these interviews highlight the features that Feebee's employees resonate with. We incorporated these features into our focus group discussion to determine if consumers held the same beliefs about

shoes. Additionally, we added questions around online shopping to obtain specific consumer attitudes towards testing footwear before making a purchase.

5.2 Factory Tour

During one of our visits to Taichung City, we had the opportunity to tour the Feebees factory. This tour was conducted concurrently with our interview with Kuming Chen. The tour and interview were audio recorded, but Mr. Chen requested that we not take any photographs or video recordings. The factory was located in one small building, separated across multiple floors.

The shoemaking process begins on the fourth floor of the building, which houses the circular knitting machine and several sewing machines. Feebees shoes fall under three main categories: sock sneakers, casual shoes, and children's shoes. The first step in the construction of a sock sneaker is sock knitting, which takes about 6 minutes per shoe on Feebees' specialized circular knitting machine. The flexible vamp of the casual and children's shoes are stitched together into a sock from pieces of flat knitted fabric, the production of which is outsourced due to its simplicity.

Next, the knitted socks are brought to the first floor of the facility to be equipped with a sole. For the adult shoes, the outsole is made first by injecting high-density recycled polyurethane into a thin mold and allowing it to cure. Once the outsole is ready, it is joined with the sock by the midsole. The outsole is placed into the bottom of one half of the main mold. The sock is fitted over a model foot, which helps form the other half of the main mold. These two halves are put together, forming a cavity into which medium density recycled polyurethane is injected, forming the midsole. After curing, the shoe is ready for after-processing.

The childrens' shoes are produced slightly differently. These shoes have no midsole, so the process does not require separate injection molding steps for the midsole and outsole. Instead, the sock is fitted to a model foot, which is incorporated into the mold. A thermoplastic elastomer is injected over the bottom of the sock, then the shoes are allowed to cure before proceeding to after-processing. This process takes about 10 minutes for an adult shoe, and 3 minutes for a childrens' shoe.

For after-processing, the shoes return to the fourth floor of the building. Defects are trimmed away for quality control, which typically takes under five minutes per shoe. Next, the shoes are packaged and transported to the shoe warehouse in the neighboring room. The shoes will then be purchased online or transported to one of Feebees' affiliated shoe vendors for sale.

While the involvement of an average shoe manufacturer ends here, Feebees uses a circular model. After consumer use, the shoes may be returned to the company for recycling. Used shoes are brought to a shredder on the first floor, which minces the shoes into chunks. The high and low density polyurethane chunks of shoe sole are separated by density so that they may be recycled into the outsole and midsole of new shoes, respectively.

The entire Feebees process is optimized to reduce resource consumption and waste, serving as a good model for sustainable footwear production. Each step of the process takes very little time to complete, allowing the company to keep a relatively small inventory of shoes stocked in the warehouse. Additionally, the company relies on online orders for more than 60% of sales. Online orders may be fulfilled on demand, eliminating the need to keep stock on hand, thus reducing storage cost. However, this model also limits the company's ability to expand their brand as consumers can only discover Feebees if they can locate the company's website.

The shoes themselves are only composed of two or three components, simplifying the manufacturing process, and cutting down on resource usage. The injection molding approach allows Feebees to manufacture shoes without using glue or energy intensive heating: the midsole itself serves as the glue that holds the shoe together, binding directly to the outsole and sock.

Touring the manufacturing facility at Feebees helped us truly understand the sustainable practices and eco-friendly procedures that Feebees incorporates into their footwear. Throughout the entire tour, we could see the pride that Mr. Chen feels for his product and the achievements of his company. By touring the factory, we gained a better understanding about the aspirations of our sponsor and learning about the function and creation of the shoes provided more questions that we asked during the focus groups.

5.3 Store Visit

In Taipei, we were able to visit one of the few unaffiliated stores that carry Feebees' shoes. At the store, we were able to take numerous pictures, and we conducted an unstandardized interview with an employee who was working the store at the time. The vendor was Bao Bei Wan (King Baby in English) located in the Zhongshan District of Taipei City. Bao Bei Wan specializes in childrens' shoes and apparel and has a smaller section targeted at adults, who may be shopping there for their children. The store carries both Feebees adult shoes and Feebees children's shoes. In the childrens' section, the store carried mostly slipper type shoes to be worn inside a house. The placement of Feebees' children shoes in the store reflect how the store owners view the shoes: they believe Feebees' children footwear are comfortable shoes comparable to slippers. The adult section was much smaller since the store specifically caters to

children's products. This section was stocked with some larger, stiffer sneakers as well as some nice flats and dress shoes.



Figure 11: Interior of Bao Bei Wan: Feebees' childrens' shoes (left), childrens' slippers (middle), and Feebees' adult sneakers (right)

Feebees shoes occupied the top shelf of the display, and were placed alongside other shoes of very different styles, as seen in figure 5.3.1. The display bore no additional information about any of the shoes in stock. Furthermore, the shoes were unboxed, so none of the messaging typically present on Feebees' shoe boxes was visible to consumers. Figure 5.3.2 shows a typical Feebees shoebox, continuing messages about the sustainability of the shoe in the bottom left corner.



Figure 12: Typical Feebees shoebox design.

Speaking with the employee also provided us with valuable information since they get to directly interact with customers so they can offer valuable insights and feedback on the products. They often hear what customers like or dislike about their products, and they experience situations where consumers will choose a different option over Feebees or vice versa due to benefits they view in the shoes. In this specific store, a majority of the sales come from the children's section since that is the store's main purpose. The employee noted that many children enjoy wearing Feebees' shoes as the shoes were "very soft [and] comfortable" and that they felt as if they were running barefoot. However, the adult shoes did not sell as well as the children shoes. Men were more likely to purchase Feebees than women. Specifically, the employee mentioned that men purchase them for running, walking and training purposes. Adult male consumers enjoyed the softness of the shoes while performing their activities; however, female consumers often disliked the shoes due to how much the shoe clings to their feet. Many women explained that they felt their feet were too exposed in the shoes.

The female employee told us that she has tried Feebees shoes herself, and thought that they were comfortable and "very soft." She also told us many people with wide feet dislike the flexibility of the shoes because, for some consumers, their feet would hang over the sole of the

shoe which caused discomfort and deterred potential customers. She also noted that people who typically purchase Feebees are individuals who prioritize a natural and holistic lifestyle. Specifically, those who show an appreciation for the environment and a sustainable lifestyle were most likely to purchase the shoes.

This store visit provided us with a deeper understanding of consumer perception of Feebees, while allowing us to see first-hand how Feebees products are advertised by an independent vendor. The visit also provided us with an external perspective as we were able to speak with an employee who had no direct affiliation with Feebees. The presentation of the shoes in the store lacked any messaging about the particular benefits of Feebees products. A customer walking into the store would have no idea that the shoes are ergonomically designed or sustainably produced. Instead, they would only be presented with the visual design of the shoe itself and the price. This store visit suggests that the visual appearance of the shoe may be the only first impression on potential consumers. Therefore, the visual design of the shoe, while not the main selling point, may have an outsized effect on consumer interest.

5.4 Pre-Focus Group Surveys

To understand the values of consumers and the reasons behind their skepticism of sustainable products, we administered surveys alongside focus groups to gauge the attitudes of consumers and identify trends. We held 5 focus groups with 19 participants in total, which therefore gave us 19 survey responses. Together, results from the surveys and focus groups highlight core beliefs that consumers hold towards purchasing shoes and sustainability. The surveys provided us with straightforward answers that could also assess the consistency of a participant's answers in the focus groups. The focus groups provided nuanced explanations for

the data collected by the surveys. These two methods bolstered each other and allowed us to obtain a fuller image of a participant's ideas around shoe values and sustainability. While not every field of the survey was used in this analysis, the data may be helpful for future study.

Before conducting focus groups, each participant was asked to fill out a pre-survey. The pre-survey questions can be found in section 8.4 of the appendix. These pre-surveys gathered participant responses about their demographics, consumer activities, and values. The consumer activities questions helped us identify the ways in which consumers interact with their shoes and the consumer value questions helped us identify which factors are most impactful to consumer's shoe purchasing decisions.

In the consumer values section of the survey, all 19 participants were asked to rate how much a given factor impacts their shoe purchasing decisions. Values like comfortability, cost, style, and durability could be given a value from 0 (no influence) to 4 (strong influence). We then took the average score for each shoe value to identify the most and least influential factors when consumers purchase footwear. A gauge chart comparing the average scores of each value can be found below:

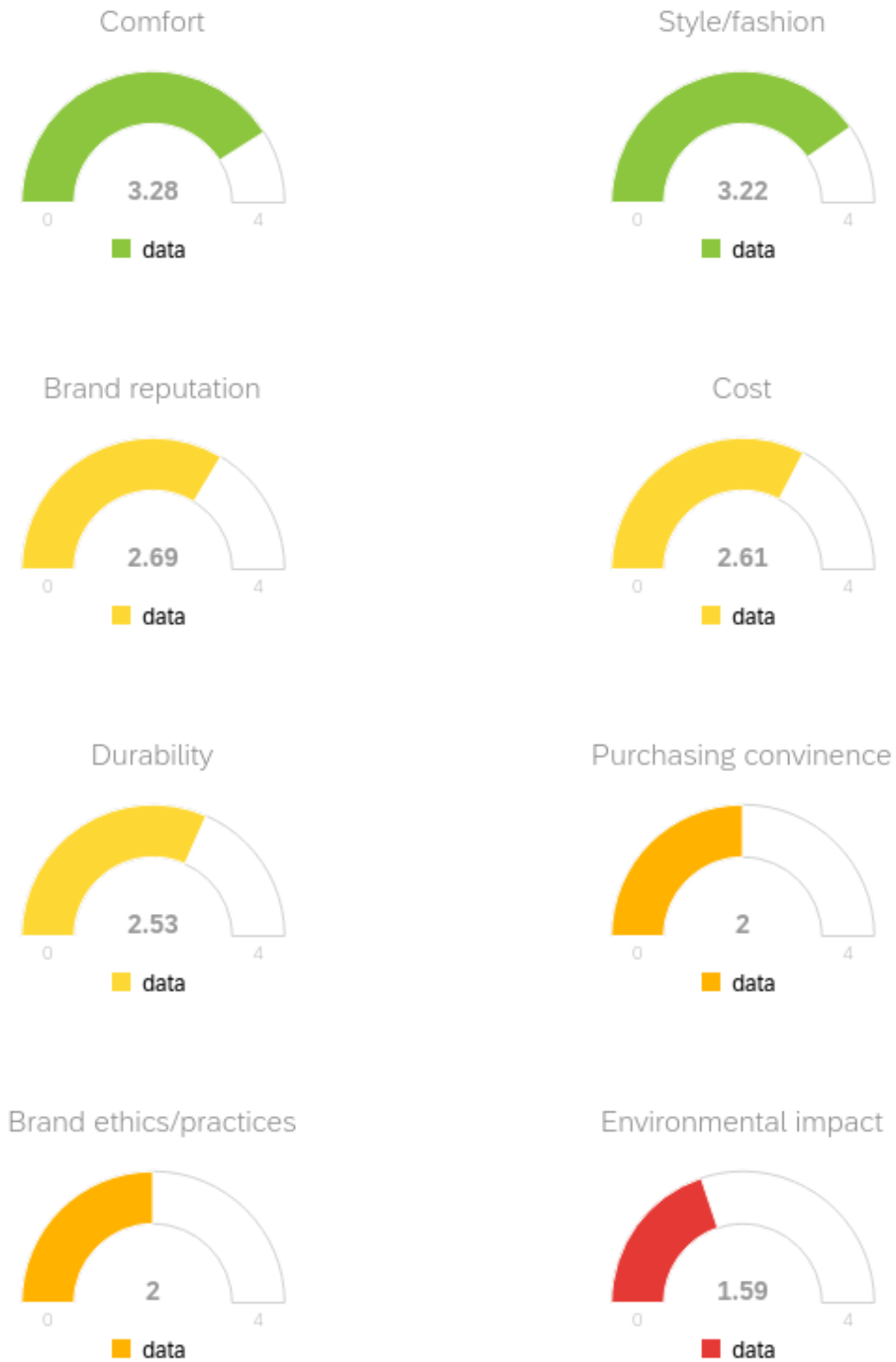


Figure 13: A gauge chart showing the average impact scores of common consumer values. Values range from 0 to 4.

As shown in figure 5.4.1, we identified that consumers value comfort, style, and brand reputation most highly. The high impact values of these factors indicate that these three factors had very strong influences on participants' purchasing decisions. Comfort and style both scored above a 3 which indicates that many participants considered these two factors to be the strongest influences when purchasing footwear. On the other hand, environmental impact had a significantly lower impact than any other factor towards purchasing footwear. With a score of 1.59, environmental impact was the lowest scored factor and the only factor to score below 2. These results indicate that the environmental impacts of a shoe are a very low priority to consumers when they browse for footwear. Participants will consider many other factors before even assessing the environmental impact of their shoe purchase, which is further supported by the results of the focus group discussions.

The lack of sustainability-motivation in participants' shoe practices is evidenced by responses to another one of the survey questions. We asked participants how they most frequently disposed of their shoes, allowing them to choose one of four different options: discarding, donating, recycling, or reselling. The results of this question can be found in the pie chart below:

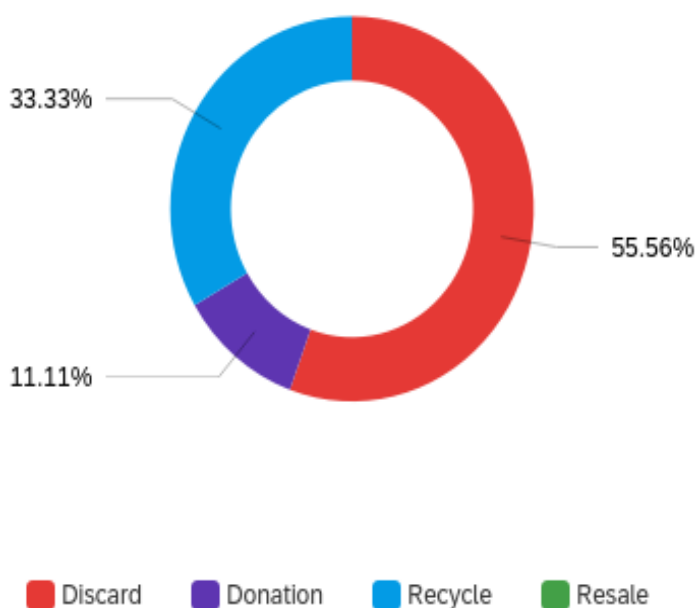


Figure 14: A pie chart showing the disposal methods most frequently used by participants regarding their shoes

More than half of participants surveyed discard their shoes instead of using more sustainable methods of donation, recycle, or resale. The large percentage of participants who choose to discard their shoes suggests that consumers lack opportunities or incentive to participate in programs where footwear can be recycled and reused. Additionally, the 44.44% of participants who engage in sustainable practices of donating and recycling their shoes suggests that awareness of sustainable disposal practices is still present. Overall, the results of this question indicate that participants often do not prioritize sustainability when disposing of footwear. It should be noted that sustainability is not the only motivation for footwear donation or recycling: other prosocial values may play a role here.

While the results of the survey provide early insight into consumer attitudes towards shoes and sustainability, we utilized focus groups to gather more nuanced explanations around

the answers that participants provided. Focus groups were asked about why they place emphasis on certain values more than others. Additionally, groups were asked about their knowledge of sustainability and encouraged to express their thoughts about sustainable products. With these focus groups, we hoped to further explore why consumers are hesitant to adopt more sustainable practices, as shown in the pre-focus group surveys.

5.5 Focus Groups

We used focus group discussions to further investigate trends observed from the results of the pre-focus group surveys. Focus group discussions started with introductions where each member shared details about the shoes they were currently wearing. We then encouraged participants to reflect upon the factors they considered when purchasing their shoes. Almost all groups stressed the importance of comfortable and fashionable shoes, as expected from the survey results. They believed that comfortable shoes would help them perform their activities better. Specifically, when shoes are comfortable, they do not impede the actions of the wearer and any activity of action can be performed if their feet feel uninhibited.

The focus group discussions also highlighted the contribution of social pressures to participants' high priority towards fashionable and stylish shoes. Participants who desired shoes that matched their outfits or appealed their personal tastes prioritized fashionable footwear. They believed that fashionable footwear could enhance their physical image and match well with apparel that is appealing to others. Many focus group members were part of dance teams, where fashion is typically emphasized. Overall, discussions around shoe values helped explain why comfort and style had the highest scores in the pre-survey; participants wanted shoes that could enable their physical activities while building confidence in their appearance.

Alongside the values of style and comfort, brand reputation was another factor that was commonly mentioned during focus groups. During discussion, many participants named the brands they sought out when shopping for new shoes. Brands like Nike, Adidas, Converse, and New Balance were repeatedly mentioned by participants, and many focus groups displayed a positive attitude towards these companies. At least one of these companies came up in every focus group discussion, with Nike being the most frequent company mentioned. The Nike Air Force One sneaker alone came up in three separate discussions. These results indicate a high importance of brand reputation among consumers.

When participants were asked to explain the reasons for their loyalty to a particular brand, three main reasons came up. First, participants interpreted brand popularity as an indication of high quality. As one participant put it, “a lot of people buy this so the quality is good, people do not complain about this so I can trust this brand.” Another participant acknowledged the social pressures that exist alongside reputable brands by stating, “my friends tell me Nike shoes is good, New Balance shoes is good, so I buy it.” Some brands (and sneaker models themselves) are considered stylish, so participants also remain loyal to that brand so that they may be sure that their footwear choices are fashionable. One participant summed up this sentiment, “good to use, good to wear, good to look.” The last motivation was purchasing convenience. Shoes from popular brands are easy to find. Additionally, consumers feel comfortable buying shoes from these brands online, since they can be sure that the shoes will fit comfortably. Participants believed that buying shoes online was convenient and allowed them to get better deals but were typically unwilling to buy online from a brand they were not familiar with and did not fully trust.

Discussions also covered participants' shoe purchasing practices; we wanted to understand the process that consumers use to find shoes to buy. We asked focus groups whether they had purchased shoes online and encouraged them to share their thoughts about footwear e-commerce. Many groups mentioned that they would use websites to help them identify pairs of shoes that they liked, from brands they trusted. However, most participants said that they would never buy shoes that they were unfamiliar with online; they stressed the importance of trying on the shoes before purchasing. One participant stated, "I will always go to the shopping mall to buy and try. I never go online to shop for shoes because every shoe is very different so you need to try before." Many groups also agreed that, for shoes especially, the feeling of each shoe model can be extremely different from another model. Therefore, the only way to find comfortable footwear is to actually try on the shoes. Additionally, having physical shops located around an area allows participants to casually browse around for shoes and discover new brands. Many of the participants said that they preferred to browse different stores to find shoes they like. While websites can help by showcasing shoe reviews and allowing consumers to identify shoes before going to the shop, e-commerce for footwear seems unlikely to replace the need to test out footwear before purchasing.

The second section of the focus group discussions concerned participants' perceptions of sustainable products. Another trend that was identified in the pre-focus group survey was a lack of engagement with sustainable products. Participants consistently ranked environmental impact as one of the least important factors when purchasing new shoes. Furthermore, more than half of participants did not engage in sustainable disposal practices. We wanted to explore why participants lacked engagement with sustainability, so we asked focus groups questions regarding sustainability, sustainable products, and sustainable shoes.

We first asked focus groups how familiar they were with sustainability and to explain their perceptions of sustainability broadly. Most of the participants said that they were not very familiar with sustainability and took some time to gather their thoughts on the topic. However, in the end, many focus groups responded with answers displayed in the chart found below:

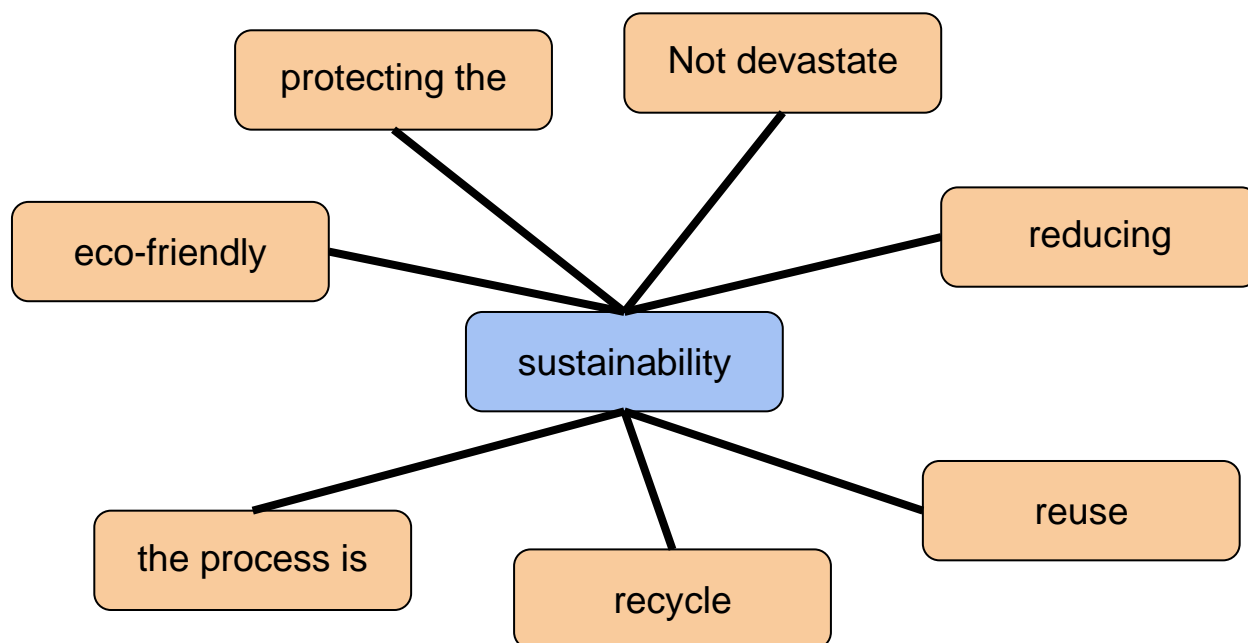


Figure 15: A word link chart showing words and phrases commonly associated with the word “sustainability” in focus group transcripts.

As shown in figure 5.5.1, we identified that focus groups had the correct general idea about sustainability. Phrases such as “protecting the environment” and “reducing emissions” were very common and were ideas that fall under the term sustainability. While focus groups were unfamiliar with more complex topics within sustainability, discussion indicates that participants understood the implications of a sustainable and eco-friendly product. Furthermore, many focus groups added that they believed companies should move towards sustainable production patterns as it protects the environment, and participants also believed that each individual has a moral responsibility to contribute towards sustainable development. From these

discussions, we discovered that—in contrast to the pre-survey results—participants hold positive behavioral intent towards sustainability and want to engage themselves with eco-friendly production patterns. As one participant put it, “I think I need to do something for the environment [...] We destroy this, we need to give something back.”

We wanted to learn more about the attitudes that participants held towards sustainability, so we expanded upon our questions and asked focus groups to describe their experiences with sustainable products. Focus group participants had varied levels of familiarity with sustainability, and discussion around sustainable products included straws, shoes, cups, and clothing. However, core attitudes towards sustainable products remained prevalent throughout all discussions. The word cloud below highlights common ideas that focus groups associated with sustainable products:



Figure 16: A word cloud displaying common ideas associated with sustainable products.

We identified that many focus groups considered these items to be low-quality, expensive, and unstylish, as shown in the word cloud in figure 5.5.2. For example, one focus

group described their experience with eco-friendly, paper straws. One participant mentioned how they believed that these straws “[were] not that useful because they were made out of paper, so if we drink something they will get softer” and tear apart very quickly. Another student stated that, “the material now in environmental products sucks; [the quality] will get bad very, very soon,” when asked about their thoughts on the quality of eco-friendly products. These experiences shape consumer attitudes toward sustainable products: they view sustainable products as low-quality and fragile.

Some participants had experience with sustainable shoes made by Nike and Adidas. They commented that these shoes were more expensive than non-sustainable alternatives and were visually unappealing. When asked if they would be willing to give these products a try, one participant stated, “I would say I wanna try, but based on my knowledge some of the sustainable shoes are more expensive than the other shoes.” Additionally, they believed sustainable shoes were low-quality as the outsole of the shoe would wear down and degrade after a couple months of use. Aside from the lack of durability, many of the participants also expressed a dislike in the style of the shoes. Their dislike is problematic as survey results showed that participants value fashion over eco-friendliness of a product and would therefore not sacrifice style to decrease their environmental impact. When asked about the look and quality of these products, many participants agreed, “Nike has made [sustainable shoes] that are so ugly. So ugly!” Another participant stated that, “some shoes will use recycle[d] plastic [...] but I don’t think [they] are very beautiful, and like so many people didn’t want to buy them.”

Ultimately, the focus group discussions show that participants’ experiences with these low-quality products advertised as sustainable have damaged their perception of sustainable products. Some participants mentioned that they view sustainable products as a “gimmick”

where companies make questionable or fraudulent claims of sustainability with the goal of expanding their market outreach rather than truly helping to battle resource overconsumption, otherwise known as greenwashing. This skepticism of sustainable products helps explain the mixed results we obtained between the pre-surveys and focus groups where consumers displayed high intent towards sustainable patterns in theory but did not engage with these patterns in practice. Consumers believe that sustainable products are poor quality, and question whether the products are sustainable at all.

Despite all the trends that we have identified from our data, we must emphasize the limitations of our focus groups and the extent to which our results apply. Focus groups were conducted solely with students from Soochow University. Almost all participants were around 20 years of age and possessed very similar backgrounds in terms of education and marital status. Furthermore, participants were likely to have very similar beliefs about shoes and sustainability as they attend the same school. Therefore, the trends that we have identified from our focus groups may not be present in Feebees consumers or Taiwanese footwear consumers as a whole. However, we believe that our findings provide insight on the attitudes of Taiwanese youths towards shoes and sustainability, and may serve as an indication of trends present in other demographic groups in Taiwan. If framed correctly, our results can establish early foundations for future discussions in sustainable development and integration of the public in a circular economy.

6.0 Conclusion

6.1 Recommendations

Overall, the results of our research have elucidated trends in consumer views on purchasing shoes and sustainability. Consumers prioritize comfort to facilitate all-day wearing of a shoe and minimize risk of injury during activities. Focus groups also prioritized brand reputation to lower the risk of making a regrettable purchase. Also, participants desired fashionable shoes to appease their own tastes and build confidence in their appearance. If a footwear company desires to expand the outreach of their products to more consumers, our results indicate that the values mentioned above should be the main focus.

By focusing on the comfort and style of their footwear, Feebees may establish a positive reputation with consumers. We have found that sustainability is not an important value to consumers, so promotional content should use sustainable messaging to complement other values like comfort, style, and brand. Every interviewee who has tried Feebees shoes, whether they were affiliated with the company or not, has stressed the comfort of the shoe. Therefore, Feebees is in a good position to emphasize comfort in marketing material.

Furthermore, Feebees should focus on building their brand by creating highly fashionable and comfortable shoes. By targeting these specific values, we believe that Feebees can become a mainstream brand similar to Nike and Adidas. Consumers will then seek out Feebees' products when they hope to purchase high-quality footwear.

While Feebees is focusing on improving their brand reputation, we also suggest that Feebees work with other companies to improve perceptions of sustainability more broadly. We have discovered that expensive, low-quality sustainable products have damaged the progress of

sustainable development. Consumer skepticism of sustainable products does not stem only from the shoemaking industry but a wide range of sustainable products falsely advertised or poorly designed. Consumers view sustainability as a marketing gimmick employed by companies in an attempt to increase sales without actually taking steps to protect the environment. Many consumers want to engage in a circular economy; however, the impacts of green-washing present many roadblocks for sustainable development. Therefore, we suggest that Feebees works with other companies to improve the image around sustainability. Companies need to share information with each other to collectively improve the quality of sustainable products.

Furthermore, Feebees needs to work with government institutions to hold other companies more accountable for producing misleading sustainable products. We believe that marketing sustainability can only occur after consumers experience higher quality, sustainably produced products. One possible strategy for accomplishing this goal is the implementation of stringent sustainability certification in Taiwan. Our research has shown that consumers respond positively to trusted eco-labels, such as the EU ecolabel. Similar labels already exist in Taiwan, but are generally not widespread or well-trusted. If these labels were better known and trusted by consumers, the negative effects of green-washing may be combated.

We also recommend that Feebees consider the implications of an online shopping model. While an e-commerce focused model is more sustainable, it may present problems with brand outreach and promotion. In our focus groups, we identified that consumers strongly desire to test footwear before they make a purchase. This is not possible with online shoe shopping, which causes consumer hesitancy. Furthermore, many consumers like to browse around locations to find the best available shoe. This style of shopping allows them to discover new brands and products. An online model cannot achieve the same outreach as consumers are unlikely to

browse around on the internet, unlike a shopping plaza or mall. If Feebees wants to commit itself to an online model, we suggest making the switch after Feebees has established itself as a mainstream footwear brand. With a strong reputation, many consumers will immediately think of Feebees for high-quality shoes and will seek out Feebees shoes online. While Feebees' online store is useful (and already accounts for most of their purchases), it is likely prudent to focus most on in-person shopping to grow the Feebees brand.

6.2 Future Work

This project simply scratches the surface of consumer perception of sustainability in Taiwan. We relied on students at Soochow University for most of our data collection. This group is not representative of Taiwanese consumers as a whole. While our results still allow us to make some limited recommendations, we must acknowledge the fact that our results may not be fully applicable to Feebees consumers. Future work may extend our investigation, using these same methods to collect data from a more representative sample, confirming whether or not our results are applicable. These future studies could investigate similar attitudes from consumers of a different age group or consumers in other cities within Taiwan.

Our results have shown that Taiwanese university students lack familiarity with sustainability. Future research may investigate the necessary level of understanding of sustainability for sustainability marketing to be effective among this demographic, exploring the relationship between knowledge of sustainability and consumer behavior, particularly in relation to purchasing decisions. By examining the threshold of understanding required for sustainability marketing to be effective, Feebees can tailor their communication strategies to better resonate with the target audience.

Important future work for Feebees may include deeper investigation of their consumers. While Feebees has run consumer focus groups in the past, there is currently no data about who Feebees consumers really are. In the future, it may be useful to survey Feebees consumers to identify the specific demographic groups that most frequently purchase Feebees products. Understanding the typical consumers of Feebees would allow for further investigation into the values held by these groups.

6.3 Project Summary

The fashion industry has massive detrimental effects on the environment forcing companies and consumers alike to rethink sustainability. Sustainability may be defined as a relationship in which resources, the economy, and public happiness achieve a balanced relationship. It is difficult to be sustainability conscious because balancing this relationship is extremely complex. In order to achieve this, consumers must be aware of environmental impacts of their purchasing decisions, which is complicated by the issue of green washing. Green washing, which is when companies make false claims of sustainability as a marketing ploy, makes it extremely difficult for consumers to decipher which products are actually eco-friendly, and leads to consumer skepticism.

Our project goal was to understand consumer values and purchasing motivations to gauge views of sustainability so that we can make suggestions on alternative ways sustainability-conscious companies may communicate with consumers more effectively. To achieve our goal, we worked with the Taiwanese shoe company Feebees collect information through interviews, focus groups, and surveys. We conducted a series of interviews with Feebees employees and one unaffiliated shoe vendor to learn more about Feebees products and consumer perceptions of

these products. We also conducted surveys and held focus groups with students at our host school, Soochow University. This group is not one typically targeted by Feebees, however, the focus groups still provided us with valuable information.

First, we discovered that many of the students were skeptical of claims of sustainability, which is a result of green washing. For example, many students agreed that even if a product is 100% recycled material that does not guarantee the production of the product is also eco-friendly. Many of the students also expressed that they cared about sustainability when purchasing shoes, but almost all of them agreed that it was not their top priority, being ranked below comfort, cost, or fashion for most. Another important finding is that Feebees' primary use of an online model is not the most effective strategy, seeing as many students said they would be unwilling to try new brands without being able to visit a store and test the shoes first. Results were presented to Feebees in the form of a report analyzing the data we collected then making recommendations for advertising practices to achieve a better understanding of their company and its practices amongst consumers.

6.4 Personal Takeaways

As we conclude this project, we have taken time to reflect on the data we gathered, which enabled us to draw a range of useful conclusions for our sponsor. However, the most valuable aspect of our work on this project is the personal takeaways we have gained from addressing a real-world issue. We have enriched our understanding of the project material and learned valuable life lessons.

Prior to this project, we all valued sustainability and tried to maintain environmentally friendly practices in our daily lives. For example, we recycled, conserved water, and turned off

electronics when we were not using them to save electricity. However, we had never considered that our purchasing decisions could also be having massive environmental impacts. Therefore, we did not act in ways that reflected sustainability conscious consumer behavior. Moving forward from this project, each of us will be more aware of the environmental impacts of our purchasing decisions by doing research prior to buying products, including but not limited to shoes.

One thing that was discouraging to us when conducting our research was the pattern of ranking environmental impact low amongst different shoe purchasing values in our pre-focus group survey. It was on average the lowest ranked value, with many people saying they would not sacrifice features such as fashion, comfort, or cost for an eco-friendly product. When we elaborated on sustainability within the focus groups we were surprised to hear that many of our participants had negative experiences with eco-friendly products which created a bad reputation for sustainability in the eyes of consumers. We therefore believe we have a responsibility to share the knowledge gained from this project with our peers so that we can reverse the negative outlook on eco-friendly products and make more people aware of how their purchasing habits are affecting the environment.

This project also reminded us of the importance of broadening personal horizons by searching for smaller companies rather than simply defaulting to the mainstream brands. Feebees is a smaller company that has innovated to make advancements to bring the footwear industry closer to a circular economy. Working with Feebees to help push forth this incredible mission opened up our eyes to the fact that we have likely overlooked numerous companies simply because they were not a known brand, and we did not take the time to research them. Thus, in the

future, we will not only research the products that we are buying, but also the brands we are purchasing from so that we can learn about their company mission and values.

We also gained useful experience for our future projects and careers by working on this project with an established business and dealing with their real world problems. Due to the distance between our host school, Soochow University and our sponsor, we were only able to meet in person 3 times throughout our stay in Taiwan. Travel between Soochow University and the Feebees store took about three hours one-way. The difficult travel schedule, accompanied with the lack of proper communication, created numerous misunderstandings regarding the direction of the project between us and our sponsor which resulted in multiple changes to the project plan.

We attempted to limit the possibility of miscommunication in the beginning of our project by highlighting our plan at our first meeting in the form of a powerpoint where we laid out our background research, where we intended to take the project, and what resources we would need from our sponsor. We received clearance on our initial plan with expectations that it would have some slight modifications as we progressed through the project. We communicated our weekly progress to Feebees, however communication is the responsibility of both parties and we continued on with this plan without much clear direction from our sponsor. In the end, the lack of direction created many misunderstandings which shifted our entire project plan multiple times. In the future to avoid this type of situation, we will create a more concrete plan with our supervisors, with distinct goals, timelines, and a discussion around communication styles. These problems will be discussed in more depth in our final reflections.

7.0 Final Reflections

While we were still able to produce a comprehensive final report and deliverable, our project did not end up taking the form that we originally planned. We believe that some final reflections are necessary to explain our decisions and put this report in context.

7.1 Changes to Project Structure

The structure of our project changed multiple times over the course of ID2050 and the IQP itself. We came to Taiwan planning to conduct a simple but thorough investigation of the effectiveness of sustainable advertising in Taiwan, which would help our sponsor more effectively market their sustainable footwear. We planned to rely on an online survey to accomplish most of our data collection. This project center has no language requirement, and none of the team members speak Chinese. We designed our methodology around this limitation: online surveys would be translated ahead of time, and would provide us with usable data without the need for live translation. Surveys would allow us to bypass the issue of the language barrier.

After our first in-person sponsor meeting, our plan shifted dramatically. Our goal changed to investigating consumer values more broadly, and, as a result, our methodology also had to change. Our sponsor believed that focus groups would be a more effective method to investigate consumer values, so we shifted this to be our main method of data collection.

Changing our main project goal required us to make significant changes to our literature review, and changing our main method of data collection required us to rework our methodology. After making the necessary changes and meeting once more with our sponsor, we developed a new plan. Our sponsor offered to gather focus groups from past Feebees consumers,

so we planned to conduct a series of focus groups in Taichung with past consumers.

Additionally, we planned to conduct several focus groups at Soochow University, using a survey to gather demographic data about the student participants. This demographic data would then allow us to check how representative the participants were of Feebees consumers as a whole.

Unfortunately, our plan changed again four weeks into our time in Taiwan. We were unable to solidify an arrangement for focus groups at the Feebees store in Taichung after several sponsor meetings in that week. Without any clear plan to run focus groups two weeks away from the end date of our project, we decided to pivot our project once more to solely focus on university students. Finally, we were able to collect data in the sixth week of our project, after reworking our focus group plan once more.

The frequent changes to our goals and methods made it difficult to retain a clear and focused project plan. Each method change necessitated a re-edit of the rest of our project in an attempt to keep our report cohesive. Artifacts of previous versions of the project may have persisted to the current form, harming the cohesiveness of this project. Additionally, this frequent re-editing required a lot of time which we could have instead used to progress the project

7.2 Factors Limiting Project Success

The success of our project was limited by several factors that were out of our control. These factors are the reason for the frequent changes to our project structure, negatively impacting the quality of our project.

Feebees is based in Taichung, but we stayed at our host university in Taipei. Traveling to the Feebees store took several hours one way and was very expensive. Initially, we understood that our sponsor would cover the cost of transportation, but team members ended up having to

absorb the transportation costs personally. Traveling to Taichung was time-consuming and difficult, so we only had three in-person sponsor meetings over the course of our project, including our final presentation.

The lack of in-person meetings would not have been such a hindrance if other methods of communication were effective. However, this was not the case. The progress of our project was hindered at every point by communication failures. Responses from the sponsor were slow, and typically required multiple follow-up emails and/or texts. We would routinely spend days unable to progress in our project, waiting for a response from our sponsor. While most teams were gathering data, we were stuck trying to plan our focus groups. We submitted several iterations of focus group plans to our sponsor, none of which were accepted. Eventually, we were forced to abandon our plan to hold focus groups in Taichung. We only had two weeks to finish our project, and we realized that we would not be able to rely on focus groups held with Feebees customers in Taichung. We instead had to quickly arrange our own focus groups at Soochow University, exclusively relying on university students for our data collection.

Communication suffered for several reasons. First, no member of our group speaks Chinese, limiting our ability to effectively communicate with others in Taiwan. The lack of engagement from our sponsor also severely impacted our ability to communicate. As mentioned before, responses often took days, and required several follow-ups. We forged ahead in the project without confirmation from our sponsor, which backfired when our work did not meet expectations.

When we did receive feedback from our sponsor, it was often unclear and not constructive. The lack of clear feedback was at times frustrating and caused us to waste valuable time redoing work with no clear goal. This problem was particularly apparent while we were

attempting to plan focus groups at the Feebees store: each iteration of our plan was unsatisfactory despite our best efforts, ultimately forcing us to abandon this plan entirely.

7.3 Final Takeaways and Recommendations for Future Work with Feebees

This project provided the team with valuable experience handling miscommunication and working in the face of strict time constraints. We had to make the call to set up our own focus groups at Soochow University very late into the project, and had to organize these groups with very little notice. Our student buddies at Soochow University proved indispensable, helping us quickly gather enough respondents when other methods of attracting participants failed.

Our experience allows us to make some recommendations regarding future work with Feebees. First, we would recommend establishing immediate and clear communication with the sponsor. The expectations of each stakeholder must be clearly established before the beginning of the project. We would also recommend that future groups design their data-collection methods in a way that does not require significant sponsor involvement. Frequent travel to Taichung is unrealistic, and communication was extremely difficult. This would not have been such a significant issue for us if we did not rely on our sponsor for our main method of data collection. If we had started this IQP with a different plan in mind, we would have had a much more coherent strategy, and we likely would have been able to collect much more data.

It has become apparent to us that the project team, and our sponsor had different expectations going into this IQP. Over the course of our time in Taipei, we have been unclear about the sponsor's goal for our project. Our sponsor expressed more of an interest in helping us learn how to collect data than gaining a useful deliverable from the project, which conflicted

with the structure of the IQP. While we hope that our results do prove to be useful, we believe that our time might have been better spent in a project with a specific objective that is useful to Feebees. This is likely a result of miscommunication beginning before our time in the project, and our research would have benefitted from more clear communication from all parties. Therefore, we reemphasize the importance of establishing expectations before the beginning of future projects.

8.0 Appendix

8.1 Focus Group Moderator Guide

Introduction:

Hello, and thank you for agreeing to participate in this discussion. Our names are Ally, Nathan, and Skyler, and we are students from Worcester Polytechnic Institute. We are here in Taiwan conducting research on consumer motivations around sustainable footwear. We are working with Feebees, which has agreed to let us use their store space for this discussion.

Before we begin, we ask that you review and sign this informed consent agreement. By signing this form, you confirm that you understand the purpose of this discussion, how your data will be used and protected, and that you are free to leave the discussion at any time. The discussion will be both audio and video recorded. We would also like to note that you are free to use a fake name in this discussion and the pre-discussion survey to protect your identity if you choose to do so. Please, take a few minutes to review the document and feel free to ask questions.

Next, we request that you fill out this pre-discussion survey. This survey will help us understand some basic information about you. We will discuss your responses to this survey in more depth during the discussion. Please, take a few minutes to fill out this survey, and do not hesitate to ask questions.

Now we may begin the discussion. Please remember that your responses in this discussion will remain confidential, and our goal is to better understand your experience with Feebees shoes. This is a casual discussion, so be yourself! Your responses will never be used against you, we just want to hear your honest opinions. First, let's begin with introductions. Introduce yourself to the group, and tell us how your day is going.

Questions:

Section 1: Consumer Values

1. Why did you purchase the shoes you were wearing today? What about them appealed to you?
2. How does your physical activity influence the shoes you buy? What type of shoes do you typically purchase, casual, running, training, etc.?
3. What do you value most when making shoe purchasing decisions? Explain why these factors are so important to you.
4. How do you go about purchasing shoes? What process do you use to find new shoes to buy?
5. Would you ever buy a new pair of shoes without first trying them on?

Section 2: Perceptions of Sustainability

1. Are you familiar with sustainability? If so, what comes to mind?
2. Have you ever used products specifically marketed as “sustainable?” If so, what were your impressions of these sustainable products?
3. Would you be interested in trying sustainable footwear? What might motivate you to try sustainable shoes?

8.2 Consent Form for Interviews and Focus Groups

Informed Consent Agreement for Participation in a Research Study

Investigators: Skyler Kauffman (sbkauffman@wpi.edu), Allison McMorrow (ahmcmorrow@wpi.edu), Nathan Wong (nkwong@wpi.edu)

Title of Research Study: Sole Searching: Exploring Taiwanese Consumer Values Toward Footwear

Sponsor: Feebees International

Introduction:

You are being asked to participate in a research study. Before you agree, however, you must be fully informed about the purpose of the study, the procedures to be followed, and any benefits, risks or discomfort that you may experience as a result of your participation.

This form presents information about the study so that you may make a fully informed decision regarding your participation.

Purpose of the study:

This survey is intended to gather information about consumer values and motivations surrounding sustainable footwear. This information may be used by Feebees International to produce and market products that are more appealing to consumers.

Procedures to be followed:

The focus group will require 30-60 minutes of the interviewee's time. Translation services will be used if necessary. No further requirements will be imposed on interviewees outside of the specified interview time.

Risks to study participants:

Interviews will be conducted in a comfortable and secure location to ensure that interviewees will experience no discomfort. Interviewees will face no possible risks.

Benefits to research participants and others:

Data gathered in this interview will be useful to help Feebees International gain a better understanding of its customers, and produce products that are more appealing. This focus group is an opportunity for you to share your perspective in a way that has the potential to have a concrete impact on company practices.

Record keeping and confidentiality:

Data obtained from this focus group will be stored on a drive to which only the investigators listed above have access. Personal information about the interviewee may be recorded, but will not be released as a part of this study. Records of your participation in this study will be held confidential so far as permitted by law. However, the study investigators, the sponsor or its designee and, under certain circumstances, the Worcester Polytechnic Institute Institutional Review Board (WPI IRB) will be able to inspect and have access to confidential data that identify you by name. Any publication or presentation of the data will not identify you.

Further information:

For more information about this research or about the rights of research participants, or in case of research-related injury, contact: (Fill in your contact information or make reference to information provided at top of page.

In addition, include the contact information for the IRB Manager (Ruth McKeogh, Tel. 508 831-6699, Email: irb@wpi.edu) and the Human Protection Administrator (Gabriel Johnson, Tel. 508-831-4989, Email: gjohnson@wpi.edu).

Your participation in this research is voluntary. Your refusal to participate will not result in any penalty to you or any loss of benefits to which you may otherwise be entitled. You may decide to stop participating in the research at any time without penalty or loss of other benefits. The project investigators retain the right to cancel or postpone the experimental procedures at any time they see fit.

By signing below, you acknowledge that you have been informed about and consent to be a participant in the study described above. Make sure that your questions are answered to your satisfaction before signing. You are entitled to retain a copy of this consent agreement.

_____ Date: _____

Study Participant Signature

Study Participant Name (Please print)

_____ Date: _____

Signature of Person who explained this study

8.3 Translated Consent Form

參與研究的知情同意書

調查員: Skyler Kauffman (sbkauffman@wpi.edu), Allison McMorrow (ahmcmorrow@wpi.edu),

Nathan Wong (nkwong@wpi.edu)

研究題目: 鞋底搜索: 探索臺灣消費者對鞋類的價值觀

贊助商: Feebees International

介紹:

您好, 想邀請您參加一項研究。在您同意參與之前, 必須充分了解研究的目的、研究過程, 以及可能因參與得到的利益、風險或不適。此表格提供有關研究的資訊, 以供您覺定是否願意參與研究。

這項研究的目的:

該調查旨在收集有關 Feebees International 的製造和/或廣告實踐的資訊。此資訊將與消費者數據結合使用, 以創建有效營銷策略的建議。

應遵循的程序：

訪談將需要約 30-60 分鐘的時間，會使用電腦輔助翻譯。在規定的訪談時間外，並不會對受訪者提出額外的要求。

研究參與者的風險：

訪談將在舒適安全的地點進行，以確保受訪者不會感到不適。受訪者不會面臨任何可能的風險。

對研究參與者和其他人的好處：

本次採訪中收集的數據將有助於為 Feebees International 建構有效廣告策略的建議。這些建議有可能有助於 Feebees International 持續成功，這將間接使受訪者受益。

訪談紀錄保存和保密：

在這次採訪中獲得的數據只有在上面列出的調查人員可以存取。有關受訪者的個人資訊可能會被記錄下來，但不會作為本研究的一部分發表。在法律允許的範圍內，您參與本研究的記錄將被保密。但是，研究調查員、贊助商或其指定人員，以及在某些情況下，伍斯特理工學院機構審查委

員會 (WPI IRB) 將能夠檢查和使用資料，並透過姓名識別您身份的機密數據。但任何數據相關的發表都沒辦法辨識出您的身份。

更多資訊：

有關本研究或研究參與者的權利更多資訊，或與研究相關的可能導致的傷害，請聯繫：（填寫您的聯繫信息或參考頁面頂部提供的資訊。

此外，包括 IRB 經理（Ruth McKeogh，電話：508 831-6699，電子郵件：irb@wpi.edu）和人類保護管理員（Gabriel Johnson，電話：508-831-4989，電子郵件：gjohnson@wpi.edu）。

您參與這項研究是自願的。如果您拒絕參與，並不會導致您受到任何處罰，或損失任何有權獲得的利益。您可以隨時停止參與研究，而這不會受到處罰或失去其他利益。項目研究人員將保留在他們認為合適的任何時候取消或推遲實驗程序的權利。

通過在下面簽名，明確表示您同意且自願參與本研究。在簽名前，請確保所有疑問已得到滿意的回覆。您有權保留一份本同意協議的副本。

_____ 日期： _____

研究參與者簽名

研究參與者姓名（請列印）

_____ 日期： _____

解釋這項研究的人的簽名

8.4 Pre Focus Group Survey Questions

1. Respondent name: _____

Please circle your responses. You may choose to leave sections blank.

2. Respondent background

a. What is your age?

i. 18-25

ii. 26-35

iii. 35-45

iv. 45-55

v. 55+

b. How do you identify yourself?

i. Female

ii. Male

iii. Other

c. What is your level of education?

- i. Less than high school
 - ii. Some high school
 - iii. High school graduate
 - iv. Associate's degree
 - v. Bachelor's degree
 - vi. More than bachelor's degree
 - d. Approximately how much of your income is disposable per year in NTD?
 - i. Less than 160,000
 - ii. 160,000 - 300,000
 - iii. 300,000 - 600,000
 - iv. 600,000 - 1,000,000
 - v. 1,000,000 - 2,000,000
 - vi. 2,000,000 - 3,000,000
 - vii. More than 3,000,000
 - e. Approximately how much time do you spend exercising per week?
 - i. 0 hours
 - ii. 1-3 hours
 - iii. 3-5 hours
 - iv. 5-10 hours
 - v. 10+ hours
 - f. Are you married?
 - i. Yes
 - ii. No
 - g. How many children do you have?
 - i. 0
 - ii. 1
 - iii. 2
 - iv. 3 or more
3. Consumer Activities
- a. Approximately how frequently do you purchase footwear for yourself or others?
 - i. Less than once per year
 - ii. Once per year
 - iii. Twice per year
 - iv. 3-5 times per year
 - v. More than 5 times per year
 - b. What type of footwear do you most frequently purchase?
 - i. Formal/business footwear
 - ii. Slippers/sandals
 - iii. Active footwear (tennis shoes, running shoes, etc)
 - iv. Casual footwear (sneakers)
 - v. Work footwear (boots)
 - c. How do you most frequently dispose of footwear?
 - i. Discard
 - ii. Donation

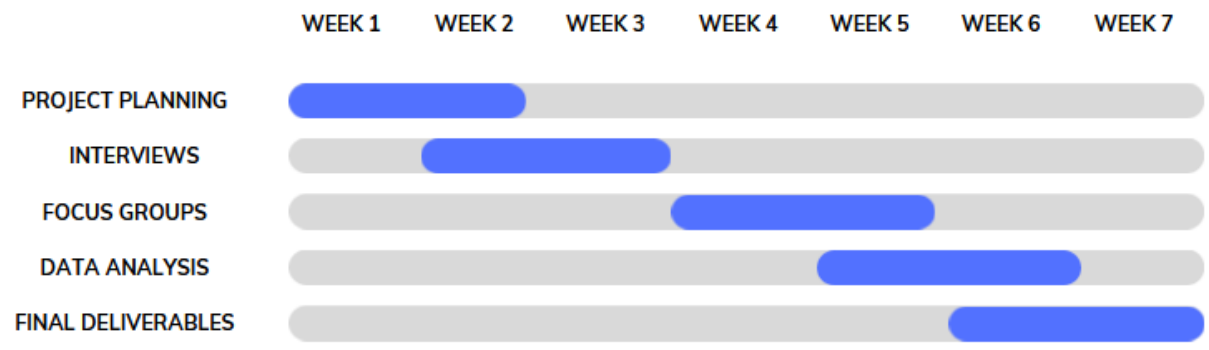
- iii. Recycle
- iv. Resale

4. Consumer Values

a. How strongly do the following values influence your shoe purchasing decisions?
(Please check one box per category row)

	Least Influence		Some Influence		Strong Influence
Cost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comfort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Durability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Style/Fashion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchasing convenience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brand reputation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brand ethics/practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental impact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8.5 Project Timeline



9.0 Acknowledgements

We would like to thank the following people for their support of this project:

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