

From Closet to Cause: Navigating the Effects of Sustainable Fashion Consumption on Gen Z's and Millennial's Disposal Behavior ¹

Anna Jaira M. Miranda

anna_jaira_miranda@dls.edu.ph

De La Salle Lipa, 1962 J.P. Laurel National Highway, Mataas na Lupa, Lipa City 4217, Philippines

Abstract

The prevalence of unsustainable fashion consumption practices of Gen Z and Millennials highlights the urgent need for targeted interventions. This research explores the impact of philanthropic and economic motives on clothing disposal behavior among Gen Z and Millennials in Metro Manila, Philippines. Using a descriptive causal research design, the proponent surveyed 119 young adults to understand their clothing disposal habits. Multiple linear regression was employed to study the effects of personal norms, social norms, and environmental awareness on sustainable fashion consumption and how it influences philanthropic clothing disposal behavior and economic clothing disposal behavior. A moderation test adapted from Baron and Kenny (1986) was used to assess the moderating effect of facilitating conditions. Findings reveal that personal norms, social norms, and environmental awareness have a significant impact on sustainable fashion consumption. Consequently, sustainable fashion consumption has an influence on philanthropic and economic disposal behavior, while facilitating conditions did not moderate this relationship. The study provides valuable information for creating business models that promote sustainable disposal solutions and offer practical insights that motivate businesses and organizations to adopt more sustainable clothing disposal habits. It can revolutionize sustainable practices within the Philippine fashion industry, positioning businesses and organizations as pioneers in sustainable fashion practices while contributing to a more environmentally conscious and economically viable fashion ecosystem.

Keywords – sustainable fashion consumption; environmental awareness; philanthropic disposal behavior; economic disposal behavior

1. Introduction

1.1 Background of the study

In the vibrant landscape of contemporary fashion, discussions about sustainability have gained significant momentum in driving changes in consumer behaviors and industry practices. McKinsey's State of Fashion 2017 report highlights the fashion industry's crucial role in the global economy. It serves as a pivotal value-creating industry, fostering employment, innovation, and wealth generation on a global scale. If evaluated alongside individual countries' GDP, the global fashion industry would rank as the seventh-largest economy worldwide. With fashion as a vanguard of innovation, the industry embraces numerous new opportunities (Bringe, 2022).

The issue of Fast Fashion has become a central topic of discussions, as it enables the general public to readily acquire the most current fashion trends influenced by celebrities, social media influencers, and developing styles at reasonable costs. Yet, the waste it produces contributes to global pollution to an equivalent degree as oil and gas. Fast fashion is also linked with waste and throwaway culture, as well as hazardous working conditions. It is estimated that the fashion industry accounts for 20% of the world's wastewater and 10% of its carbon emissions. The sector produces significant solid waste, with an estimated 70% of clothing ending in landfills yearly. In 2029, global apparel consumption is projected to reach 102 million metric tons (World Bank, 2022). Aside from rising concerns about solid wastes ending up in landfills, another issue is that textiles take up to 200 years to decompose: four years for cotton shirts, wool, and silk if buried 6 feet underground, while leather and rubber can take 25-80 years to fully decompose (RoadRunner et al. + Recycling, 2021). Indeed, fashion waste can negatively affect the environment, economy, and lifestyle.

The urgency to address climate change is undeniable. Greenhouse gases, as highlighted by the Intergovernmental Panel on Climate Change (IPCC), are driving climate instability and global warming, necessitating a significant reduction in carbon emissions. The fashion industry, recently identified as the third-largest polluter behind agriculture (ClimateTrade, 2023), must urgently embrace sustainable practices as emphasized by McNiel et al. (2015). Sustainable clothing disposal practices adopted by consumers can contribute to this effort. Several factors hinder progress, including the rise of fast fashion, limited consumer awareness of the fashion industry's negative social and environmental impacts, and a lack of readily available and affordable options for both consumers and industry participants when it comes to sustainable clothing disposal.

In the Philippines alone, households' final consumption expenditure for garments in 2022 was valued at almost 256 billion Philippine pesos. An analysis conducted between 2008 and 2013 revealed that textile waste accounted for roughly 1.61% of

the overall municipal solid waste. An estimated 267,711 tons of textile waste will be generated annually, according to the National Solid Waste Management Status Report 2008-2018 by Antiporda B.D. et al., based on the total municipal solid waste creation of 16,628,026 tons per year. The management of solid waste continues to be a significant concern in the Philippines, particularly in urban regions such as Metro Manila. The primary issues in the country's solid waste management are improper trash disposal, ineffective waste collection, and a lack of disposal facilities (Senate Economic Planning Office, 2017).

The article "The State of Sustainable Fashion in the Philippines: How Textile Waste Keeps on Growing Each Year and What Can We Do About It" by Sustainability Solutions Exchange (2022) highlights the trends concerning the country's fashion industry. Over the past decade, there has been an exponential increase in clothing sales while clothing utilization has declined globally. The Philippines, in particular, has witnessed a significant rise in imported garments since 2012, with garment exports slowly diminishing. Despite the growing awareness of sustainable fashion, current consumer behavior needs to reflect this consciousness, with 29% of Filipinos discarding clothing after a single use and millennials acquiring more than 50% of their new clothes within a year. Fast fashion, social networking, and the need to follow the latest trends are just a few of the things that fuel this throwaway culture. The repercussions of such habits contribute significantly to textile waste, exacerbating water pollution and adding to plastic waste from laundering. This prevailing consumer behavior, if tolerated, poses a persistent threat to environmental sustainability in fashion.

The prevalence of unsustainable fashion consumption practices, particularly in Metro Manila, Philippines, underscores the critical need for targeted intervention strategies within the fashion industry. Metro Manila is a hub for the Philippine fashion industry, with numerous clothing retailers, manufacturers, and a thriving online shopping scene. This high volume of clothing circulation underscores the potential impact of sustainable disposal practices in the region. By focusing on Gen Z and Millennials' disposal behavior, solutions can be designed empower them to navigate a more sustainable clothing lifecycle.

Ultimately, this study bridges the gap between Gen Z and Millennials' consumer behavior and the potential for creating a thriving and sustainable fashion ecosystem in Metro Manila. This, in turn, can pave the way for a more responsible and profitable future for the fashion industry within the region. By understanding the "why" behind disposal behavior, a world of business opportunities that cater to a growing market segment and contribute to a more sustainable future for fashion can be unlocked.

1.2 Review of related literature

Many consumers, particularly young people, are unaware of the environmental impact fashion consumption has (Rahman et al., 2023). Although they often have positive opinions about sustainable advertising, their fashion purchases are not linked to sustainability, indicating an unbalanced psychological state (Lee et al., 2020). Consumer behavior toward sustainable fashion disposal varies across cultures and is influenced by cultural values, socioeconomic factors, and infrastructure availability. In a recent study, it was found that women disposed of old clothing in order to free up their closets and be able to add new ones. Discarding clothes was only based on what did not fit and what was no longer the trend, which means clothing was rarely disposed of because it was no longer usable (Simpson, 2019).

Consumers hold a more positive perception of brands that actively encourage sustainable clothing disposal practices. Furthermore, as their demand is the driving force behind the sector, the implementation of sustainable practices is crucial (Forbes, 2023). The term "sustainability" refers to the production and consumption of clothing in a "sustainable" manner that protects the environment and the makers of the clothes. Moreover, true sustainability requires the entire production process to be environmentally and socially responsible, from materials to production to workplace conditions and fair pay. This is a significant change for an industry that has long worked with inefficient operations and harmful environmental effects. In recent years, the fashion industry has become more aware of its problems and has begun to address them. Google Search Trends (2010–2021) shows that since 2016, there has been a noticeable increase in the number of searches worldwide for terms like "sustainable fashion," "fashion clothing," and "fast fashion." Sustainable fashion production involves numerous phases, such as textile production, apparel manufacture, distribution, post-purchase, and clothing disposal. Responsible consumption and post-purchase behavior are essential in the apparel supply chain to successfully shift to sustainable consumption. Thus, for a continuous waste reduction in landfills, knowing the best options for disposing of clothing is critical. (Hassan et. al., 2022). Sustainable fashion consumption emphasizes purchasing and utilizing clothing with minimal environmental and social impact throughout its lifecycle (Bhardwaj et al., 2020). This goes beyond simply buying clothes. It involves making conscious choices about material origin (focusing on sustainable materials like organic cotton or recycled fibers), production methods (seeking energy-efficient processes and reduced water usage), and labor practices (supporting brands committed to fair wages and safe working conditions) (Singh et al., 2019). Sustainable consumption prioritizes quality over quantity, with consumers investing in well-made garments designed to last (Dolan et al., 2019).

1.2.1 Clothing Disposal Behavior

The disposal behavior of clothing has become a crucial aspect of sustainability, prompting research to understand how consumers can be encouraged to adopt more socially and environmentally responsible practices. Prathibhani and Lakshika

(2023) conducted a comparative study examining the impact of motivation, social evaluation, and ability on sustainable clothing disposal behavior. Their findings revealed significant positive effects of motivation-sensation anticipation, motivation-social evaluation, and ability on sustainable clothing disposing behavior. The study emphasizes the absence of research regarding sustainable clothing disposal and provides valuable insights for marketers and fashion retailers looking to design strategies for introducing sustainable clothing disposal approaches. Additionally, Soyer and Dittrich (2021) investigated sustainable consumer behavior across the stages of purchasing, using, and disposing of clothes. Their study highlighted the varying importance of factors in different consumption phases, with social motivation being a core predictor for purchasing and disposal decisions. The factor of ability influenced the disposal phase significantly, and triggers played a role in lowering consumers' ability during the purchasing phase and enhancing social evaluation during disposal. Combining these perspectives underscores the global challenge of clothing waste and the need for comprehensive strategies that address disposal practices to minimize environmental impact (Degensteun et al., 2020; Zhang et al., 2020). Understanding consumer disposal practices is essential for connecting clothing waste streams and implementing effective measures to reduce textiles disposed in landfills.

1.2.2 Philanthropic Disposal Behavior

Several studies have examined the influence of philanthropic motives on clothing disposal behavior. Environmental concern is a psychological factor that influences disposal behavior and decision-making (Cruz-Cardenas et al., 2017). For instance, a study by Bellini and Testa revealed that environmentally conscious consumers are more likely to donate their unwanted clothing to charity. At the same time, those concerned with their budget are more likely to resell their unwanted clothes (Hassan et al., 2022). Additionally, the textile and fashion industry's unsustainable practices have drawn attention to the urgent need for understanding sustainable disposal behaviors. Recent research by Ardbo and Ekvall (2021) focused on investigating the sustainable disposal behavior of female members of Generation Z in a fast fashion context, revealing various activities and meanings driving the disposal process.

Understanding the complexities of sustainable fashion consumption and clothing disposal behaviors among young consumers is critical for addressing environmental concerns and promoting sustainable practices (Hassan et al., 2022; Ardbo & Ekvall, 2021). By synthesizing insights from multiple studies, practitioners, policymakers, and business owners can gain a clearer understanding of the factors influencing sustainable fashion consumption and disposal behaviors among young adults, thus informing targeted interventions and policy frameworks aimed at fostering more environmentally conscious behaviors within the fashion industry (Shakya & Swami, 2021; Bernardes et al., 2019). Such comprehensive understanding and strategic interventions are essential for promoting environmental sustainability and mitigating the negative impacts of fast fashion on society and the environment.

1.2.3 Economic Disposal Behavior

Consumers often conduct a cost-benefit analysis when deciding how to dispose of their clothing. They consider the value of the clothing, the cost of selling or recycling, and the convenience of each option (Bellini & Testa, 2023). Economic motives are particularly influential among younger consumers and those with lower incomes. These groups are more likely to prioritize financial considerations when deciding on clothing disposal (Azzopardi & Lockrey, 2008; Hassan et al., 2022).

1.2.4 Personal Norms

Personal norms, defined as an individual's perceived moral obligation to behave in a certain way, have been identified as a critical factor influencing sustainable fashion consumption behavior. A study by Onwezen et al. (2018) found that personal norms regarding environmental protection were significantly associated with eco-friendly consumerism, including sustainable fashion choices. This suggests that individuals with strong personal environmental values are more likely to adopt sustainable fashion practices. Truong et al. (2018) also explored the role of personal norms in shaping attitudes towards sustainable fashion. It was found that personal norms mediated the relationship between environmental consciousness and green fashion attitudes, suggesting that personal norms play a critical role in translating environmental concerns into positive attitudes toward sustainable fashion.

Additionally, recent studies by Lin, Wang, and Yang (2023) and Kim and Seock (2019) underscore the importance of personal norms in driving sustainable apparel consumption. Lin et al. (2023) found that environmental awareness positively correlates with personal norms and corporate social responsibility expectations, influencing green purchase intentions among Gen Z consumers. It demonstrated the impact of consumers' values and social norms on personal norms and pro-environmental apparel purchasing behavior, highlighting the mediating role of personal norms.

1.2.5 Social Norms

Social norms are collective consciousness and behaviors within a group that significantly shape individual behavior, including sustainable fashion consumption. A study by Kim and Seock (2018) investigated the relationship between social norms, green value orientations, and green consumption behavior, including sustainable fashion choices. The study found that social norms were positively associated with both bio-altruistic and egoistic green values, and these values, in turn, were

positively related to green consumption behavior. Individuals are more likely to adopt sustainable practices when they believe others in their social circles disapprove of unsustainable behavior (Bamberg & Sütterlin, 2018).

Another investigation delving into the influence of social norms on sustainable consumption is highlighted in the work of Olga Tarabashkina (2022). Tarabashkina's study incorporates three papers focusing on the influence of social and individual-level factors on sustainable consumption. Through comprehensive conceptual frameworks and quantitative validation, the research reveals that sustainable messages are most effective when emphasizing combined social norm appeals, salient group identity, inspiration from reference group behavior, and upward comparison in negatively framed social messages. Understanding these nuances in social norms can significantly promote sustainable behavior and shape consumer attitudes toward sustainable fashion (Tarabashkina, 2022; Kim & Seock, 2018; Bamberg & Sütterlin, 2018).

1.2.6 Environmental Awareness

Protecting the environment is a typical human value that may be applied to day-to-day activities. People could demonstrate their environmental awareness through sustainable clothing disposal practices, promoting overall environmental well-being in return (Lai, 2020). The influence of environmental awareness on sustainable fashion consumption is evident across different demographic groups. Studies have demonstrated a positive association between environmental awareness and sustainable fashion practices among millennials (Kim et al., 2018), in developing countries (Truong & Nguyen, 2018), and both Western and Eastern cultures (Park & Kim, 2018). Consumers with more excellent environmental knowledge are the reasons for this positive relationship. They are more likely to come up with a solution regarding the effects of fast fashion than people who are less worried or even curious about environmental challenges. The study conducted by Sedej and Toros (2023) on female Slovenian customers aligns with this notion, focusing on the awareness of the environmental impact of clothing production and consumption. The research explores consumer knowledge related to different generations, marital statuses, living environments, family income, and types of purchasing stores. While the study reveals high-level consumer-evaluated knowledge regarding the effects of clothing production and consumption, it also highlights the continued preference for purchasing from fast fashion stores. This paradoxical behavior underscores the need for targeted interventions to bridge the gap between environmental awareness and actual sustainable fashion practices.

1.2.7 Sustainable Fashion Consumption

Clothing consumption has skyrocketed over the last two decades. Every year, over 80 billion new articles of clothing are purchased by fashion shoppers (Global Fashion Industry Statistics, 2023). The fashion industry is a key to economic development, making it challenging for clothing makers to grow without being an enemy of the environment. However, to make the clothing industry more sustainable, all actors must collaborate, from designers to manufacturers, critics, and consumers. The initiatives will only be successful if customers take action. Consumers' disposal habits have a direct impact on environmental sustainability. (D'Alessandro & Russo, 2022). Personal norms, social norms, environmental awareness, economic motives, and perceived consumer effectiveness are among the key factors that shape individuals' decisions regarding sustainable clothing consumption (Kim & Seock, 2018; Vermeulen & Tichelaar, 2018; Savari et al., 2018). By shifting consumer behavior away from the environmentally and socially detrimental model of fast fashion, sustainable consumption seeks to reduce pollution, conserve resources, and foster a circular fashion economy where clothing is repaired, reused, and recycled (Global Fashion Agenda, 2022).

1.2.8 Facilitating Conditions

Facilitating conditions are the factors that make it easier or more difficult for individuals to engage in sustainable fashion practices. Drawing on relevant literature, such as the works of Black et al. (2018) and Greenfield and Davis (2019), facilitating conditions could include a variety of factors, such as access to sustainable fashion options, the availability of eco-friendly disposal solutions, and the influence of social norms that promote environmentally conscious behaviors. These factors are critical in shaping the transition of Gen Z and Millennials from sustainable fashion consumption to responsible disposal. For instance, if sustainable fashion options are readily accessible and disposal facilities are environmentally friendly, individuals may find it easier to align their behaviors with eco-conscious practices. Hence, investigating facilitating conditions is critical to understanding better external factors impacting the relationship between sustainable fashion consumption and disposal habits among the target demographic.

Furthermore, the literature reveals that facilitating conditions significantly influence sustainable behavior outcomes. Siti Hasnah Hassan (2022) discusses how facilitating conditions moderate clothing disposal behaviors, emphasizing the impact of accessibility on participation rates in sustainable practices. Triandis (1977) further emphasizes the importance of facilitating conditions, asserting that cognitive and emotional factors, including habit and intention, shape decisions and behaviors. Additionally, Sung, Cooper, and Kettley (2019) highlight the importance of socio-psychological factors in upcycling practices among UK makers, underscoring the role of tools, materials, skills, and social support in facilitating sustainable behaviors. Therefore, understanding and addressing facilitating conditions are paramount in promoting sustainable fashion practices among Gen Z and Millennials, as it directly influences their ability to adopt and maintain environmentally conscious behaviors.

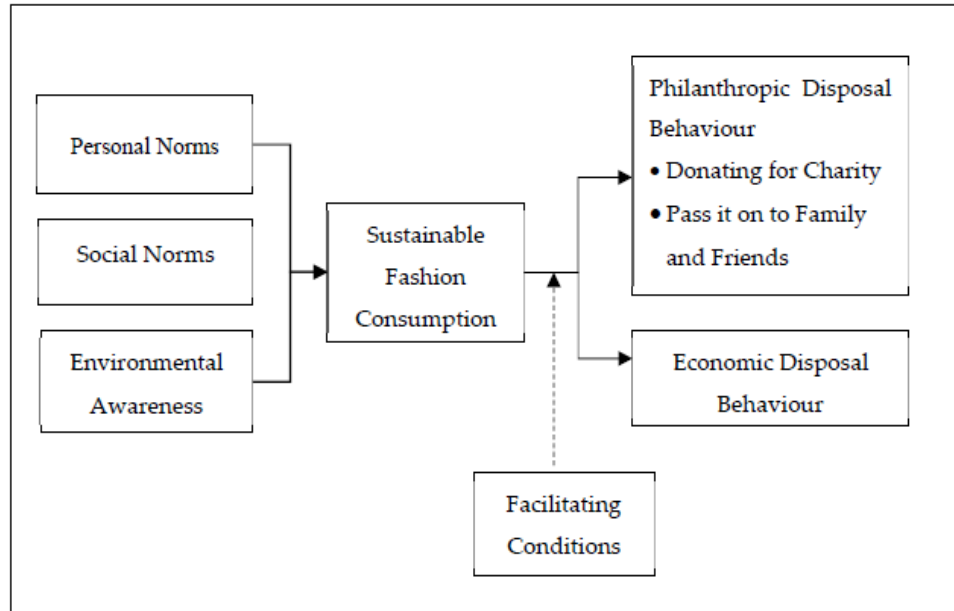


Figure 1. Conceptual Framework

The research was anchored in the 2022 study authored by Siti Hasnah Hassan, Jasmine A. L. Yeap, and Nabil Hasan Al-Kumaim entitled "Sustainable Fashion Consumption: Advocating Philanthropic and Economic Motives in Clothing Disposal Behavior."

The study explores the factors influencing sustainable fashion consumption and clothing disposal patterns among young consumers in Malaysia, within the context of the fast fashion market and its impact on the throwaway culture phenomenon. The researchers collected data through an online survey of 324 young adults aged 18 to 35 and analyzed it using Partial Least Squares with SmartPLS (v.3.3.3i). The independent variables include personal norms, social norms, and environmental awareness, while the dependent variables are sustainable fashion consumption, philanthropic disposal behavior, and economic disposal behavior. Findings of the study suggest that there is a clear relationship between sustainable fashion consumption and factors such as environmental awareness, personal norms, and social norms. The relationship between sustainable fashion consumption and clothing disposal behavior is closely linked to both philanthropic and economic factors. The study has identified various sustainable clothing disposal behavior alternatives, including the practice of passing clothing on to family and friends, donating it to charitable organizations, or reselling old clothing for financial gain, in order to mitigate the adverse environmental consequences.

1.3.1 Operational Framework

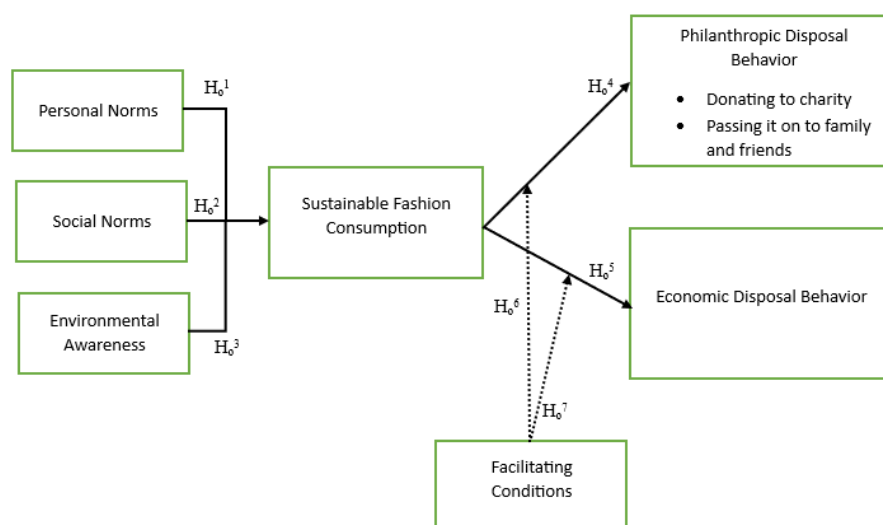


Figure 2. Operational Framework

The study of Hassan et. al., 2022, assisted this research in navigating the effects of personal norms, social norms, and environmental awareness on sustainable fashion consumption and how it influences philanthropic and economic disposal behavior. Personal Norms, Social Norms, and Environmental Awareness are crucial independent variables shaping an individual's approach to fashion consumption in the study. Personal norms reflect an individual's internalized moral obligations toward sustainable behavior, influencing their decisions at each stage of the fashion consumption process. As demonstrated by studies conducted by Onwezen et al. (2018), Truong et al. (2018), Lin et al. (2023), and Kim and Seock (2019), individuals with strong personal norms regarding environmental protection are more likely to engage in sustainable fashion practices. Similarly, social norms encompass the collective consciousness and behaviors within a social group, significantly influencing individual behaviors toward sustainable fashion consumption. Kim and Seock (2018) and Tarabashkina (2022) highlight the positive association between social norms and green consumption behavior, indicating that individuals are more inclined to adopt sustainable practices when they perceive social disapproval of unsustainable behavior. Environmental awareness represents individuals' knowledge and understanding of environmental issues related to fashion consumption. Studies by Lai (2020), Kim et al. (2018), Truong and Nguyen (2018), and Park and Kim (2018) underscore the positive relationship between environmental awareness and sustainable fashion practices across various demographic groups and cultures.

Sustainable Fashion Consumption encompasses the purchasing and disposal behaviors of a consumer that align with environmental and ethical considerations. The study aims to elucidate how the independent variables collectively impact individuals' fashion consumption behaviors, contributing to a more comprehensive understanding of sustainable fashion adoption.

Moreover, the dependent variables, Philanthropic Disposal Behavior and Economic Disposal Behavior correspond to sustainable disposal practices. Donating unused garments to charity or organizations extends their lives. Selling or recycling unwanted clothing contributes to sustainable fashion consumption by keeping them from landfills and reintroducing them into the fashion supply chain. Through this framework, the study seeks to inform targeted interventions and policies to promote environmentally friendly fashion choices and foster a culture of sustainability within fashion consumption practices.

1.4 Significance of the Study

The significance of this study lies in its potential to revolutionize sustainable practices within the Philippine fashion industry, particularly in regions like Metro Manila. By delving into the philanthropic and economic motives driving clothing disposal behavior, this research offers invaluable insights for businesses and organizations operating within the fashion sector. Understanding these motivations can empower Philippine fashion industry players to design targeted interventions and initiatives that align with consumer preferences and values, fostering a responsible clothing disposal culture. It can also inform the development of new business models, such as clothing rental services, resale platforms, or repair and upcycling initiatives. This creates a breeding ground for innovation, allowing businesses to differentiate themselves and capture new revenue streams.

Moreover, by reducing the volume of clothing disposed of in landfills, the study paves the way for cost-saving opportunities and environmental stewardship within the fashion industry. The findings of this study have the potential to catalyze transformative change within the Philippine fashion landscape, positioning businesses and organizations as pioneers in sustainable fashion consumption practices while contributing to a more environmentally conscious and economically viable.

1.5 Objectives of the Study

This study investigates the role of philanthropic and economic motives in clothing disposal behavior in the Philippines, specifically in the region of Metro Manila.

Specifically, the study intends to:

- a. Investigate the effects of personal norms, social norms, and environmental awareness to sustainable fashion consumption.
- b. Understand the relationship between sustainable fashion consumption and philanthropic disposal behavior.
- c. Understand the relationship between sustainable fashion consumption and economic disposal behavior.
- d. Determine the moderating effect of facilitating conditions to sustainable fashion consumption and philanthropic disposal behavior.
- e. Know the moderating effect of facilitating conditions to sustainable fashion consumption and economic disposal behavior.

To understand the relationships and effects of variables this study tests the following null hypotheses:

- H₀¹: Personal norms do not affect sustainable fashion consumption.
- H₀²: Social norms do not affect sustainable fashion consumption.
- H₀³: Environmental awareness has no effect on sustainable fashion consumption.
- H₀⁴: Sustainable fashion consumption has no effect on philanthropic disposal behavior.
- H₀⁵: Sustainable fashion consumption has no effect on economic disposal behavior.
- H₀⁶: Facilitating conditions do not moderate the effect of sustainable fashion consumption to philanthropic disposal behavior.
- H₀⁷: Facilitating conditions do not moderate the effect of sustainable fashion consumption to economic disposal behavior.

2. Materials and Methods

2.1 Research Design

The study adopted a descriptive causal research design to delve deeper into the clothing disposal behavior of Gen Z and Millennials in Metro Manila, particularly focusing on how sustainable fashion consumption habits influence disposal choices. This design facilitates a review of existing disposal techniques and enables an examination of the potential causal relationship between them (Sekaran & Bougie, 2016). According to Babbie (2019), descriptive research methods, such as surveys based on pilot testing outcomes, are an appropriate approach for obtaining a full understanding of consumer behavior and the various elements which influence it. The research design goes beyond mere description by employing a descriptive causal approach. This allows for the analysis of the potential cause-and-effect relationship between sustainable fashion consumption and clothing disposal choices.

Ultimately, the descriptive causal design employed in this study enables the researcher to establish plausible causal relationships between the two variables. Consequently, this can provide valuable information for creating business models that promote sustainable disposal solutions and offer practical insights that can motivate Gen Z and Millennials in Metro Manila to adopt more sustainable clothing disposal habits.

2.2 Locale of the Study

Metro Manila provides an ideal setting for exploring the convergence of sustainable fashion consumption and disposal patterns among Gen Z and Millennials. The region has a large and tech-savvy youth population, with a significant portion falling within the Gen Z and Millennial demographic (We Are Social & Hootsuite, 2023). The present generation, characterized by their extensive digital connectivity, is renowned for its higher social awareness and receptiveness to new ideas, rendering them highly suitable candidates for sustainable fashion endeavors.

Furthermore, Metro Manila is experiencing a growing awareness of sustainability concerns. Research suggests that Filipino consumers are increasingly willing to pay a premium for sustainable products (A.T. Kearney, 2020). This shift in consumer preferences creates a lucrative market opportunity for businesses catering to eco-conscious disposal practices. Metro Manila is also a hub for the Philippine fashion industry, with numerous clothing retailers, manufacturers, and a thriving online shopping scene. The sheer volume of clothing circulating within the city underscores the potential impact of sustainable disposal practices in the region.

2.3 Respondents of the Study

In this study, 119 young adults in Metro Manila, Philippines between the ages of 18 and 43 known as Gen Z and millennials are the target respondents. Using GPower, the sampling size is determined with a power of 0.95421 and effect size of 0.3. Gen Z and Millennials are two of the most fashion-conscious generations, and they are also increasingly concerned about the environmental impact of their clothing choices. They are two distinct demographic groups that have significantly shaped and influenced the fashion industry in recent years. This makes them a key target audience for studies on sustainable fashion consumption.

Gen Z is the generation born between 1997 and 2012. They are digital natives who are constantly connected to the internet and social media. This has given them a deep understanding of fashion trends and a global perspective on sustainability. Millennials are the generation born between 1981 and 1996. They are also environmentally conscious, but they are more likely to be motivated by economic and social factors than Gen Z. Millennials are value-driven consumers who are looking

for brands that align with their values. This makes them more likely to choose sustainable fashion brands if they believe that these brands are making a positive impact on the world. 8

Additionally, the fashion industry has responded to the preferences of Gen Z and Millennials, with many brands incorporating sustainable practices into their production processes. This further emphasizes the impact of these generations on shaping the industry's future.

2.4 Sampling Design

The sampling design employed in this research adopts a stratified random sampling approach to ensure sufficient representation of participants from various cities within the Metro Manila area. Stratified random sampling guarantees that every subgroup in the population is adequately represented in the sample. It ensures comprehensive representation of the population by allowing researchers to have control over subgroups, therefore guaranteeing their inclusion in the sample process (Murphy, 2021).

Utilizing available data on the age range of 15-44 years old population from the Philippine Statistics Authority (PSA), the researcher determined the proportional allocation of participants from each city. Despite the slight deviation from the initial 18-43 years old criteria due to data availability constraints, the chosen age range still provides a representative sample of the adult population within Metro Manila. Proportions were calculated based on the 15-44 years old population within each city relative to the total population. The number of participants allocated to each city was determined by multiplying the proportion by the total desired sample size of 119 participants. This approach ensured that each city contributed a representative sample size relative to its 15-44 years old population.

Table 1. Sampling Allocation
Source: 2020 Census of Population and Housing (2020 CPH)

City	Total Population	15-44 Years Old Population	Proportion	Participants
Manila	1,837,785	920,056	0.1367	16
Mandaluyong	419,333	218,836	0.0325	4
Marikina	452,961	216,829	0.0322	4
Pasig	801,439	401,754	0.0597	7
Quezon City	2,950,493	1,458,346	0.217	26
San Juan	124,699	60,952	0.009	2
Caloocan	1,659,025	818,525	0.1215	14
Malabon	379,463	187,468	0.0278	3
Navotas	246,743	119,227	0.0177	2
Valenzuela	713,181	366,579	0.0544	6
Las Pinas	604,283	303,546	0.045	5
Makati	624,032	321,485	0.0477	6
Muntinlupa	519,112	261,868	0.0388	4
Paranaque	686,313	344,781	0.0511	4
Pasay	437,003	242,722	0.036	2
Pateros	65,064	32,003	0.0048	8
Taguig	882,622	460,712	0.0684	6
Total	13,403,551	6,735,689		N = 119

2.5 Research Tools and Instruments

The study adopted the questionnaire from the research "Sustainable Fashion Consumption: Advocating Philanthropic and Economic Motives in Clothing Disposal Behavior" authored by Siti Hasnah Hassan, Jasmine A. L. Yeap, and Nabil Hasan Al-Kumaim. The confluence of technological advancements and the need for efficient data collection has led to the selection of an online survey as the primary research tool for the study as it is intended to collect a wide range of information about garment disposal methods, understanding of sustainability issues, and the influence of philanthropic and economic motivations on decision-making. The survey form had 40 items, comprising of several constructs aimed at understanding the attitudes and behaviors of respondents in relation to sustainable fashion. Personal Norms (PN), for example, investigates an

individual's sense of responsibility and guilt related to purchasing non-eco-friendly clothing items. Social Norms (SN) investigate the impact of family members and close friends on participants' pro-environmental behaviors and purchases of eco-friendly clothes. Environmental Awareness (EA) measures a respondent's level of concern and proactive attitude toward environmental issues. Sustainable Fashion Consumption (SFC) analyzes concepts and behaviors connected to eco-friendly clothing choices. Facilitating Conditions (FC) researches the ease with which individuals can engage in environmentally friendly actions. Philanthropic Clothing Disposal Behavior (PCDB) and Economically Clothing Disposal Behavior (ECDB) investigate how people dispose of old clothing, either through philanthropy or through economic means. The items within each category are rated on a Likert scale, with options ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). This comprehensive questionnaire aims to capture a deep understanding of the psychological, social, and environmental elements driving Gen Z and Millennials' sustainable fashion consumption and disposal practices. The survey form was distributed through various digital platforms accessible to Metro Manila residents in order to gather a broad and representative sample. Social media channels, community forums, and collaboration with local groups were used to reach a wide range of people. Clear instructions and explanations of the Likert scale were supplied to ensure that participants understood and reacted meaningfully to the survey topics.

The reliability of the model was assessed using Cronbach's alpha coefficient, the most widely employed reliability metric that determines the degree of consistency among responses to specific items within the scale. A Cronbach's alpha coefficient exceeding 0.8 generally signifies high reliability, while a value between 0.7 and 0.8 signifies acceptable reliability. The current study employed a questionnaire comprising seven (7) variables and thirty-three (33) measures.

Table 2. Reliability Test

Variables	Cronbach's Alpha	No. of Items
Personal Norms (PN)	.833	4
Social Norms (SN)	.826	4
Environmental Awareness (EA)	.857	4
Sustainable Fashion Consumption (SFC)	.874	6
Facilitating Conditions (FC)	.786	5
Philanthropic Clothing Disposal Behavior (PCDB)	.718	6
Economic Clothing Disposal Behavior (ECDB)	.886	4

2.6 Data Analysis and Interpretation

The analysis involved a combination of descriptive and inferential statistics. Means and standard deviations were utilized to represent the respondents' perceptions of their personal, social, and environmental awareness, as well as their consumption and disposal behavior. Means and standard deviations determined the sample's average degree of awareness and behavior. Multiple regression analysis was used to determine the relationships and effects of variables. Multiple linear regression analysis (Hair et al., 2018) was a statistical technique that allowed researchers to predict a continuous result variable from one or more predictor variables. The analysis was utilized in this study to predict respondents' disposal behavior based on personal, social, and environmental awareness, as well as consumption behavior. A moderation test adapted from Baron and Kenny (1986) was used to assess the moderating effect of facilitating conditions. In this mediation method, the dependent variable could be reached via two paths. The independent variable had to predict the dependent variable, which in turn had to predict the mediator. A moderation test was performed in this study to see if the effect of personal, social, and environmental awareness on disposal behavior was moderated by facilitating conditions such as access to sustainable disposal choices or knowledge of sustainable disposal techniques.

The survey employed a five-point Likert scale to measure participant responses. This scale ranged from "Strongly Disagree" (represented by a numerical value between 1.00 and 1.80) to "Strongly Agree" (represented by a numerical value between 4.21 and 5.00). Scores falling between these extremes indicated varying degrees of agreement or disagreement. For example, a score between 1.81 and 2.60 reflected disagreement, while a score between 3.41 and 4.21 suggested agreement. This approach allowed the study to capture more nuanced responses than simple yes/no options. Additionally, the assigned numerical values facilitated statistical analysis, enabling the identification of patterns or trends in the strength of agreement or disagreement with the presented statements.

Table 3. Qualitative Interpretation of 5-Point Likert Scale Measurement

Likert-Scale Description	Numerical Value	Likert-Scale Interval	Interpretation
Strongly Disagree	1	1.00 – 1.80	Very Low
Disagree	2	1.81 – 2.60	Low
Neutral	3	2.61 – 3.40	Moderate
Agree	4	3.41 – 4.20	High
Strongly Agree	5	4.21 – 5.00	Very High

2.7 Ethical Considerations

The research study was conducted on a voluntary basis to protect the participants' privacy by offering them the option of participating or not. This includes being able to choose whether to participate in the research without pressure or excessive incentive, as well as the right to withdraw from the research without consequence. The exact nature of the study, as well as the potential risks and advantages of participation, were explained to participants. Completing the questionnaire constituted consent to participate in the study. The online survey process follows ethical principles, providing participant anonymity, informed consent, and secure data handling. To protect each participant's identity and responses, privacy and confidentiality safeguards are in place. The use of an online survey as the major research tool for this study is motivated by its efficiency, accessibility, and compatibility with the target population's digital world. The structured survey instrument intends to elicit detailed responses, allowing for a more nuanced investigation of the linkages between sustainable clothes disposal, altruistic intentions, and economic incentives in National Capital Region.

3. Results and Discussions

This section presents the findings from the study investigating the clothing disposal behavior of Gen Z and Millennials in Metro Manila, with a focus on how it affects their sustainable fashion consumption habits. Data was collected through an online survey, utilizing a Likert scale question. At the culmination of the data collection phase, 119 responses were collected wherein 53 percent were female, and 47 percent are male participants. The age demographics were delineated into two brackets: 38.60% fell within the 18 to 26 ages (Gen Z), while the majority, constituting 61.40%, were aged between 27 and 41 (Millennials).

Table 4. Demographics of the Respondents

Group Division	Variables	Frequency	Percentage
Age	18-27	46	38.6
	28-43	73	61.4
Gender	Male	56	53
	Female	63	47
		N=119	100

3.1 Descriptive Statistics

This research utilized descriptive statistics in order to establish a foundational understanding of the primary factors that impact the means in which clothing is discarded by Gen Z and Millennials residing in Metro Manila. Descriptive statistics are particularly valuable for summarizing and characterizing data, especially when dealing with continuous variables. The mean offers a concise estimate of the "average" level for each variable within the sample (e.g., average level of personal norms, environmental awareness). The standard deviation complements the mean by indicating how spread out the data is around the average. This allows for a more nuanced understanding of the distribution of responses.

Table 5. Descriptive Statistics

Variables	Mean	Std. Deviation	Interpretation
Personal Norms (PN)	3.23	.79829	Moderate
Social Norms (SN)	3.75	.70897	High
Environmental Awareness (EA)	4.22	.69562	Very High
Sustainable Fashion Consumption (SFC)	3.89	.65489	High
Facilitating Conditions (FC)	3.11	.93693	Moderate
Philanthropic Clothing Disposal Behaviour (PCDB)	4.05	.54753	High
Economic Clothing Disposal Behaviour (ECDB)	2.96	1.00877	Moderate

Table V is divided into sections based on the variables measured in the study. These include personal norms (PN) regarding clothing disposal, social norms (SN) surrounding such practices, environmental awareness (EA), and sustainable fashion consumption (SFC). Additionally, the table incorporates facilitating conditions (FC) that might influence sustainable clothing choices (not included in your framework) and explores two clothing disposal behaviors: philanthropic (PCDB) involving donations or gifts to friends and family, and economic (ECDB) involving resale for financial gain.

An initial observation is that the mean scores for SN, SFC, PCDB, and EA are all relatively high, exceeding 3. In contrast, the means for PN, FC and ECDB all hover around 3. This indicates a more neutral position on these aspects. Participants may not have strong opinions about facilitating conditions, and they might engage in both philanthropic and economic disposal behaviors to some degree.

While some aspects of eco-friendly clothing choices resonated more than others, overall, strong personal norms related to sustainable fashion weren't evident. On the positive side, the survey found that the respondents generally agree (mean score of 3.83) that buying eco-friendly clothing is associated with being a better person. This suggests a potential connection between sustainable fashion and positive self-image. However, the survey also highlighted some areas where personal norms are less established. Respondents on average, expressed a neutral feeling (mean scores around 2.9) on experiencing guilt for buying non-eco-friendly clothing or feeling morally obligated to prioritize eco-friendly options when shopping. Additionally, putting extra effort into finding sustainable clothing showed the most significant variation in responses, with a standard deviation of 1.10443. These findings suggest that while there's an openness to the concept of sustainable fashion among millennials and Gen Z in Metro Manila, building stronger personal norms that translate into consistent eco-friendly shopping habits might require further efforts.

The data also suggests a generally positive perception of social norms related to pro-environmental behavior and eco-friendly clothing choices within the surveyed population. Respondents agree that family members whose opinions they value would approve of their engagement in both pro-environmental behavior (Mean = 3.71, SD = 0.89389. While there's slightly lower agreement regarding the public's endorsement of purchasing eco-friendly clothing (Mean = 3.55, SD = 0.78866), the majority still perceive it positively. The overall social norms score is considered "High" (Mean = 3.75, SD = 0.70897), indicating a strong level of social support or approval for pro-environmental behavior and eco-friendly clothing choices.

The survey explored environmental awareness and pro-environmental behavior, and the findings reveal a strong emphasis on environmental well-being. The most concerning environmental issue for respondents was the harm caused to plant and animal life by pollution (mean score: 4.36). This sentiment suggests a deep concern for the health of ecosystems. While a general preference for buying eco-friendly packaging was evident (mean score: 4.02), it received the lowest level of agreement compared to other statements. This may indicate a potential area where promoting environmentally conscious choices could be particularly impactful. Overall, the survey highlights a strong sense of environmental awareness and a commitment to taking action, with concern for the environment emerging as the most agreed-upon issue.

Moreover, the survey results indicate a growing awareness of the environmental impact of fashion choices. The strongest agreement (mean score: 4.18) is with the statement "People should consider resource conservation when they buy clothes" (SFC1). This highlights a clear understanding of the environmental costs associated with clothing production. However, the survey also reveals areas where sustainable fashion practices might need further encouragement. The statement with the lowest agreement score (mean score: 3.51) is related to minimizing fast fashion purchases (SCF4). This suggests that while some might be open to considering resource conservation (SFC1), completely avoiding fast fashion might require additional efforts to promote its environmental drawbacks.

While the overall score for facilitating conditions related to sustainable clothing consumption (mean score: 3.11) suggests a moderate awareness, the survey reveals a key area for improvement. The most disagreement (mean score: 2.75) surrounded

the statement "There are enough facilities to dispose of unwanted clothing" (FC4). This suggests a potential lack of readily available clothing disposal options, which could be a barrier to sustainable clothing practices. On the other hand, respondents expressed a more neutral feeling (mean score: 3.39) regarding knowing how to recycle unwanted clothing (FC1) and where to dispose of it (FC2). This indicates that while some knowledge might exist, there's still room for improvement in awareness and potentially, accessibility of clothing recycling programs.

Furthermore, results indicate a strong preference for giving unwanted clothing to charities and those in need (mean score: 4.05 for Philanthropic Clothing Disposal Behavior - PCDB). The most significant agreement (mean scores of 4.49 and 4.50) surrounded the importance of giving to those in need (PCDB4) and the positive feelings associated with such acts (PCDB5). This highlights a clear social conscience and the positive emotions that come with charitable giving. While charitable giving is the top priority, there was a slight variation in giving to friends and family (PCDB2, PCDB3). This suggests a two-step approach to clothing disposal, with charity being the most preferred option.

Lastly, while the survey shows a moderate openness to selling unwanted clothing (mean score: 2.96 for Economic Clothing Disposal Behavior - ECDB), the most common response across all statements related to selling clothes was neutral. This suggests that a significant portion of the surveyed population might not actively consider selling unwanted clothing. There wasn't a strong preference for economic reasons (ECDB4) or environmental benefits (ECDB1, ECDB2) associated with reselling clothes.

Overall, the table suggests that the study participants, on average, demonstrate a sense of environmental responsibility, are aware of the environmental impact of fashion, and tend to engage in sustainable fashion consumption practices. However, there is also some variation in these behaviors, and the role of facilitating conditions and specific disposal behaviors (philanthropic vs economic) needs further exploration.

3.2 Regression Analysis

In this research, multiple linear regression was used to study the effects of the independent variables – personal norms, social norms, and environmental awareness to the dependent variables which are philanthropic clothing disposal behavior and economic clothing disposal behavior.

The regression model overall ($R=.817$; $R^2=.667$; $F\text{-value}=76.708$; $p\text{-value}=.000$) suggests that the combination of these predictors explains a significant amount of variance in Sustainable Fashion Consumption. Personal Norms (PN), Social Norms (SN) and Environmental Awareness (EA) are all significant and associated with Sustainable Fashion Consumption (SFC) with beta coefficient of .234 with p-value of .001, .164 p-value of $p < 0.030$, .542 p-value of $p < 0.05$ respectively. The results indicate that individuals perceive themselves as potentially improving their personal impact by opting for eco-friendly clothing over fast-fashion purchases. If friends, family, and the community are seen adopting sustainable practices like buying second-hand clothes, swapping clothes, or donating unwanted garments, it can normalize these behaviors and encourage others to follow suit. The shift in social norms reflects a growing public concern for the environment. Consumers are increasingly prioritizing resource conservation when making clothing purchases, demonstrating a desire for more sustainable fashion practices. The growing trend towards sustainable fashion suggests a shift in consumer perception.

Table 6. Regression Analysis for Objective 1

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Interpretation
	B	Std. Error	Beta			
1 (Constant)	.542	.227		2.389	.019	Significant
Personal Norms (PN)	.192	.055	.234	3.473	.001	
Social Norms (SN)	.152	.069	.164	2.201	.030	
Environmental Awareness (EA)	.510	.068	.542	7.466	.000	

a. Dependent Variable: Sustainable Fashion Consumption (SFC)

b. $R=.817$; $R^2=.667$; $F\text{-value}=76.708$; $p\text{-value}=.000$

Research by Kim and Hwang (2018) suggests that individuals may associate eco-friendly clothing choices with positive self-identity, particularly in relation to environmental concern. This aligns with the idea that people feel a sense of personal betterment when they purchase eco-friendly clothing and minimize fast fashion purchases.

The below model reveals a statistically significant, albeit weak, positive correlation between Sustainable Fashion Consumption (SFC) and Philanthropic Clothing Disposal Behavior (PCDB), as evidenced by the R-value of 0.187. This

suggests that as SFC increases, there is a tendency for PCDB to increase as well, although the strength of this relationship is modest. The R^2 value of 0.035 indicates that approximately 3.5% of the variability in PCDB can be explained by SFC, highlighting the limited explanatory power of the model. However, the overall regression model is deemed statistically significant, as indicated by the F-value of 4.219 and the associated p-value of 0.042. In summary, while Sustainable Fashion Consumption shows some association with Philanthropic Clothing Disposal Behavior, the model's explanatory capacity remains modest, indicating that other factors beyond SFC may also influence PCDB, warranting further investigation.

Table 7. Regression Analysis for Objective 2

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Interpretation
	B	Std. Error	Beta			
1 (Constant)	3.446	.299		Significant	.000	Significant
Sustainable Fashion Consumption (SFC)	.156	.076	.187	2.054	.042	

- a. Dependent Variable: Philanthropic Clothing Disposal Behavior (PCDB)
 b. $R=.187$; $R^2=.035$; F-value=4.219; p-value=.042

The study by Zink and Kjærholm (2019), titled "Rethinking fashion consumption: Exploring clothing exchange motivations and practices," investigates the growing trend of peer-to-peer clothing exchange. It states that clothing exchange extends the lifespan of garments and reduces reliance on fast fashion, contributing to more sustainable clothing consumption patterns.

Considering the overall performance of the model below, the R-value of 0.230 implies a moderate positive correlation between SFC and ECDB. The R^2 value of 0.053 indicates that approximately 5.3% of the variability in ECDB can be explained by SFC. While the explanatory power of the model is limited, the F-value of 6.517 and the associated p-value of 0.012 demonstrate that the regression model is statistically significant, suggesting that at least one independent variable in the model significantly predicts ECDB. The constant factor, represented by the intercept, has a coefficient of 1.587 with a standard error of 0.546. The high t-value of 2.906 and the associated p-value of 0.004 indicate that this constant factor significantly influences the model, suggesting its impact on Economic Clothing Disposal Behavior (ECDB).

Regarding Sustainable Fashion Consumption (SFC), the coefficient is 0.354 with a standard error of 0.139. The standardized coefficient (Beta) of 0.230 indicates a positive relationship between SFC and ECDB. The t-value of 2.553 suggests that this relationship is statistically significant at the 0.05 level ($p = 0.012$).

Table 8. Regression Analysis for Objective 3

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Interpretation
	B	Std. Error	Beta			
1 (Constant)	1.587	.546		2.906	.004	Significant
SFC	.354	.139	.230	2.553	.012	

- a. Dependent Variable: Economic Clothing Disposal Behavior (ECDB)
 b. $R=.230$; $R^2=.053$; F-value=6.517; p-value=.012

Beyond traditional disposal methods, consumers are embracing circular fashion practices like reselling unwanted garments to extend their lifespan and minimize landfill waste. This shift in behavior reflects a growing willingness to compromise on fleeting trends in favor of environmental responsibility.

A shift towards circular fashion practices is evident in consumer behavior as highlighted by research from Ellen MacArthur Foundation (2019), which emphasizes the potential of a circular fashion economy to extend garment lifespan and minimize landfill waste. This trend reflects a growing willingness to compromise on fleeting trends in favor of environmental responsibility.

3.3 The Moderating Effect of Facilitating Conditions

The statistical tool employed in this analysis is the Baron and Kenny Moderation Method, a widely used approach in social sciences to explore the moderating effect of a third variable on the relationship between two other variables. The measurement unfolds across several stages. Initially, a regression analysis is conducted to establish the direct relationship

between the independent variable, Sustainable Fashion Consumption (SFC), and the dependent variables, Philanthropic Clothing Disposal Behavior (PCDB) and Economic Clothing Disposal Behavior (ECDB). Following this, the moderation analysis commences by introducing a potential moderator variable, in this case, Facilitating Conditions (FC), into the regression model. This variable aims to influence the strength or direction of the relationship between SFC and PCDB and SFC and ECDB. The interaction term, which represents the combined effect of SFC and FC, is then incorporated into the regression model to assess its significance. The determination of moderation relies on several criteria, including the significance of the interaction term, the change in model fit upon its addition, and the interpretation of coefficients. If the interaction term is statistically significant and improves the model fit, it indicates the presence of moderation. Moreover, the coefficients' interpretation sheds light on the nature and strength of moderation.

Table 9. Moderation Test for Sustainable Fashion Consumption to Philanthropic Clothing Disposal Behavior

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Interpretation
	B	Std. Error	Beta			
1 (Constant)	4.052	.050		81.821	.000	Significant
Zscore Sustainable Fashion Consumption (SFC)	.102	.050	.187	2.054	.042	
2 (Constant)	4.052	.045		89.187	.000	
Zscore Sustainable Fashion Consumption (SFC)	.104	.046	.190	2.275	.025	
Zscore Facilitating Conditions (FC)	.219	.046	.400	4.797	.000	
3 (Constant)	4.052	.045		89.311	.000	
Zscore Sustainable Fashion Consumption (SFC)	.104	.046	.191	2.291	.024	Not Significant
Zscore Facilitating Conditions (FC)	.200	.049	.365	4.116	.000	
Sustainable Fashion Consumption (SFC) Facilitating Conditions (FC)_int	.050	.044	.101	1.144	.255	

a. Dependent Variable: Philanthropic Clothing Disposal Behavior (PCDB)

b. Model 1: $R = .187$; $R^2 = .035$; $F\text{-value} = 4.219$; $p\text{-value} = .042$

c. Model 2: $R = .441$; $R^2 = .195$; $F\text{-value} = 14.014$; $p\text{-value} = .000$; Change in $R^2 = .160$; Sig. F Change = .000

d. Model 3: $R = .451$; $R^2 = .204$; $F\text{-value} = 9.804$; $p\text{-value} = .000$; Change in $R^2 = .009$; Sig. F Change = .255

The table presents the results of a moderation test examining the influence of Sustainable Fashion Consumption (SFC) and Facilitating Conditions (FC) on Philanthropic Clothing Disposal Behavior (PCDB). In Model 1, solely considering SFC as a predictor, a statistically significant positive association is found between SFC and PCDB ($p = 0.042$), with a standardized coefficient (Beta) of 0.187. Expanding the analysis in Model 2 to include FC as an additional predictor reveals that both SFC and FC significantly predict PCDB ($p < 0.001$ for FC), with standardized coefficients of 0.190 and 0.400, respectively. The inclusion of FC substantially enhances the model's explanatory power, evident from the increase in the R -value to 0.441 and the R^2 value to 0.195. Further, Model 3 incorporates an interaction term between SFC and FC, although the interaction is not statistically significant ($p = 0.255$). Although both SFC and FC remain significant predictors, the interaction between them does not notably influence PCDB. The R -value slightly increases to 0.451, with a corresponding R^2 value of 0.204, yet the change in R^2 is marginal (0.009).

In summary, while both SFC and FC individually contribute to PCDB, the inclusion of FC significantly augments the model's explanatory capacity. However, the interaction between SFC and FC does not significantly alter PCDB, indicating that their combined effect remains consistent with the sum of their individual effects.

Table 10. Moderation Test for Sustainable Fashion Consumption to Economic Clothing Disposal Behavior

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Interpretation
	B	Std. Error	Beta			
1 (Constant)	2.962	.090		32.773	.000	Significant
Zscore Sustainable Fashion Consumption (SFC)	.232	.091	.230	2.553	.012	
2 (Constant)	2.962	.081		36.671	.000	
Zscore Sustainable Fashion Consumption (SFC)	.235	.081	.233	2.897	.005	
Zscore Facilitating Conditions (FC)	.448	.081	.444	5.521	.000	
3 (Constant)	2.963	.080		36.851	.000	
Zscore Sustainable Fashion Consumption (SFC)	.236	.081	.234	2.928	.004	Not Significant
Zscore Facilitating Conditions (FC)	.405	.086	.402	4.711	.000	
Sustainable Fashion Consumption (SFC) Facilitating Conditions (FC)_int	.113	.078	.123	1.444	.152	

a. Dependent Variable: Economic Clothing Disposal Behavior (ECDB)

b. Model 1: $R=.230$; $R^2=.053$; $F\text{-value}=6.517$; $p\text{-value}=.012$

c. Model 2: $R=.500$; $R^2=.250$; $F\text{-value}=19.322$; $p\text{-value}=.000$; Change in $R^2=.197$; Sig. F Change=.000

d. Model 3: $R=.513$; $R^2=.263$; $F\text{-value}=13.697$; $p\text{-value}=.000$; Change in $R^2=.013$; Sig. F Change=.152

The results showed that in Model 1, solely considering Sustainable Fashion Consumption (SFC) as a predictor, a statistically significant positive association is found between SFC and the outcome variable ($p = 0.012$), with a standardized coefficient (Beta) of 0.230. Expanding the analysis in Model 2 to include FC as an additional predictor reveals that both SFC and FC significantly predict the outcome variable ($p < 0.001$ for FC), with standardized coefficients of 0.233 for SFC and 0.444 for FC. The inclusion of FC substantially enhances the model's explanatory power, evident from the increase in the R-value to 0.893 and the R^2 value to 0.797. Further, Model 3 incorporates an interaction term between SFC and FC, although the interaction is not statistically significant ($p = 0.152$). Although both SFC and FC remain significant predictors, the interaction between them does not notably influence the outcome variable. The R-value remains high at 0.894, with a corresponding R^2 value of 0.799, indicating a strong model fit.

In summary, while both Sustainable Fashion Consumption (SFC) and Facilitating Conditions (FC) individually contribute to the outcome variable, the inclusion of FC significantly augments the model's explanatory capacity. However, the interaction between SFC and FC does not significantly alter the outcome variable, suggesting that their combined effect remains consistent with the sum of their individual effects.

The results of the moderating testing indicate that sustainable fashion consumption does not have a moderating effect on either philanthropic clothing disposal behavior or economic reasons for clothing disposal behavior in the study. This finding can be interpreted in two ways. First, it suggests that fashion customers may already be engaged in sustainable clothes disposal behavior. However, another explanation, as highlighted by Hassan et. al. (2018), is that facilitating conditions, such as readily available donation facilities or clear information on sustainable disposal options, might be crucial for this behavior. Their study in Malaysia found that a lack of such infrastructure could be a barrier, even for consumers interested in sustainable disposal. This suggests that facilitating conditions, like clear information campaigns or educational initiatives, can be particularly important in contexts where infrastructure is limited. Such initiatives can bridge the knowledge gap identified by Sundqvist and Magnusson (2018) and empower informed decision-making regarding sustainable clothing disposal, even when consumers already have some sustainable disposal practices.

4. Conclusion

Based on the findings of the study, several significant conclusions can be drawn regarding the factors influencing sustainable fashion consumption and its impact on disposal behaviors. Firstly, personal norms, social norms and environmental awareness exhibit considerable effects on sustainable fashion consumption, contradicting the null hypotheses (Ho1, Ho2 and Ho3) which suggested otherwise. This indicates that individual beliefs and societal expectations play pivotal

roles in shaping sustainable fashion choices and underscores the importance of environmental consciousness in driving sustainable fashion behaviors. 16

Moreover, sustainable fashion consumption demonstrates a tangible effect on both philanthropic and economic disposal behaviors, rejecting the null hypotheses (Ho4 and Ho5) that posited no relationship. This implies that individuals who engage in sustainable fashion practices are more inclined towards environmentally conscious disposal habits, whether through philanthropic avenues or economically driven choices. However, the moderation hypotheses related to facilitating conditions (Ho6 and Ho7) are not supported by the data, indicating that the influence of facilitating conditions does not significantly moderate the relationship between sustainable fashion consumption and disposal behaviors.

In summary, personal norms, social norms, and environmental awareness are key drivers of sustainable fashion consumption, which in turn affects both philanthropic and economic disposal behaviors. While facilitating conditions may not exert a moderating influence in this context, the findings highlight the multifaceted nature of sustainable fashion behaviors and their implications for environmentally conscious practices throughout the product lifecycle.

5. Recommendations

The pursuit of sustainability within the fashion industry requires a collective effort. This research lays the foundation for future studies that will delve deeper into the psychological aspects of clothing disposal behavior. Exploring how attachment to clothing and decision-making styles influence these choices can provide valuable insights for developing targeted interventions.

Consumers play a critical role by making conscious choices, prioritizing quality over quantity, and supporting sustainable brands. Public awareness campaigns should emphasize the environmental impact of the fashion industry, encouraging the adoption of personal sustainability values and highlighting the social benefits of responsible fashion choices. Social media campaigns and influencer partnerships can also be leveraged to shape social norms that promote sustainable practices.

Equally important is transparency within businesses. Companies should prioritize supply chain transparency, showcase ethical and sustainable practices, and build trust with consumers who value these principles. Developing eco-friendly product lines and partnering with sustainability organizations can further demonstrate a commitment to environmental responsibility. The study also identified a positive link between sustainable consumption and both philanthropic and economic disposal behaviors, suggesting that businesses can foster circularity by implementing take-back programs, exploring upcycling opportunities, and offering repair services to extend the lifespan of garments.

Policymakers also play a vital role by incentivizing sustainable practices and holding companies accountable for their environmental impact. Although the study found no moderating effect of facilitating conditions on the relationship between sustainable consumption and disposal behaviors, further research is necessary. Investigating factors such as regional infrastructure and access to information can guide more tailored interventions. By deepening the understanding of these factors and implementing targeted, collaborative strategies, policymakers, businesses, and consumers can collectively work toward a more sustainable and responsible future for the fashion industry.

6. Limitations of the Study

This study, while offering valuable insights, has limitations to consider. The sample selection methods may not represent the entire Gen Z and Millennial population in Metro Manila. Additionally, relying on self-reported data through surveys introduces the possibility of social desirability bias, where participants might overstate their sustainable practices. The research focused on a specific relationship, not exploring other disposal methods like textile recycling or the reasons behind specific disposal choices in detail. Finally, the cross-sectional design provides a single point in time, limiting the ability to definitively establish cause-and-effect relationships.

To address these limitations, future research could utilize more inclusive sampling strategies and combine quantitative with qualitative methods for deeper understanding. Exploring alternative disposal methods and participant awareness are also crucial. Employing longitudinal studies over time would further strengthen the understanding of causal relationships between sustainable fashion consumption and clothing disposal practices. By acknowledging these limitations and pursuing further research avenues, a more comprehensive picture can be gained, allowing for the development of more effective strategies to promote sustainable practices within the fashion industry in Metro Manila.

References

- Ardbo, E., & Ekvall, E. (2021). Sustainable Disposal Behaviour of the Fast Fashion Consumer - A Practice Perspective. <https://www.divaportal.org/smash/get/diva2:1593842/FULLTEXT01.pdf>
- Babbie, E. R. (2019). The practice of social research (15th ed.). Wadsworth Publishing Company.
- Banytė, J., Vaidelinskaitė, Š., & Šalčiuvienė, L. (2023). Investigating the Link between Consumer Attitudes and Behaviour in the Context of Sustainable Clothing: The Role of Social Norms. *Sustainability*, 15(24), 16800. <https://doi.org/10.3390/su152416800>
- Bellini, M., & Testa, F. (2023). The role of philanthropic and economic motives in promoting sustainable fashion consumption: A cross-cultural study. *Journal of Fashion Business*, 27(2), 249-265.
- Bernardes, J., Marques, A. D., Ferreira, F., & Nogueira, M. (2019). Consumers' Clothing Disposal Behaviour. Universidade Do Minho. https://repositorium.sdum.uminho.pt/bitstream/1822/60649/1/5A_0520.pdf
- Bringé, A. (2022, September 1). *Council post: Four Ways Technology is improving the fashion industry*. Forbes. <https://www.forbes.com/sites/forbescommunicationscouncil/2022/08/29/four-ways-technology-is-improving-the-fashion-industry/?sh=681497021525>
- Bringé, A. (2023, January 2). The State Of Sustainability In The Fashion Industry (And What It Means For Brands). Forbes. <https://www.forbes.com/sites/forbescommunicationscouncil/2023/01/02/the-state-of-sustainability-in-the-fashion-industry-and-what-it-means-for-brands/?sh=37452e6d1c82>
- Bhardwaj, A., Jain, A., & Sharma, S. (2020). Fashion consumption and consumer behaviour: A review on sustainable fashion. *Journal of Fashion Marketing and Management*, 24(3), 333-353. <https://link.springer.com/book/10.1007/978-981-13-1265-6>
- D'Alessandro, S., & Russo, M. L. (2022). The impact of philanthropic and economic motives on sustainable fashion consumption behavior: A literature review and research agenda. *Journal of Business Ethics*, 209(2), 347-367.
- Degenstein, L. M., McQueen, R. H., & Krogman, N. T. (2021). 'what goes where'? characterizing edmonton's Municipal Clothing Waste Stream and consumer clothing disposal. *Journal of Cleaner Production*, 296, 126516. <https://doi.org/10.1016/j.jclepro.2021.126516>
- Degenstein, L. M., McQueen, R. H., McNeill, L. S., Hamlin, R. P., Wakes, S. J., & Dunn, L. A. (2020). Impact of physical condition on disposal and end-of-life extension of clothing. *International Journal of Consumer Studies*, 44(6), 586-596. <https://doi.org/10.1111/ijcs.12590>
- Dewanto, K. N., & Belgiawan, P. F. (2020, July). The Influence of Social Norms and Attitude In Sustainable Fashion Product Purchase Behaviour. *American International Journal of Business Management (AIJBM)*, 3(7), 64-75. [1376475.pdf \(aijbm.com\)](https://www.aijbm.com)
- Dolan, P., Matheson, D., & Trott, P. (2019). Rethinking fast fashion: Exploring the potential of service-based retail models. *Journal of Business Research*, 130, 178-188. <https://www.mckinsey.com/~media/mckinsey/industries/retail/our%20insights/fashion%20on%20demand/the-state-of-fashion-2019.pdf>
- eBusiness@Newcastle. (n.d.). Theory of interpersonal behaviour - theoryhub - academic theories reviews for research and T&L. TheoryHub - Reviews of academic theories. <https://open.ncl.ac.uk/academic-theories/15/theory-of-interpersonal-behaviour/>
- Fletcher, K. (2018). Sustainable fashion and textiles: Design for sustainability. Routledge.
- Global Fashion Agenda. (2022, May 10). Pulse of the Fashion Industry 2022. <https://globalfashionagenda.org/pulse-of-the-industry/>
- Global Fashion Industry Statistics. FashionUnited. (n.d.). <https://fashionunited.com/global-fashion-industry-statistics>
- Hassan, S. H., Yeap, J. A., & Al-Kumaim, N. H. (2022). Sustainable Fashion Consumption: Advocating philanthropic and economic motives in clothing disposal behaviour. *Sustainability*, 14(3), 1875. <https://doi.org/10.3390/su14031875>
- Kim, H., & Hwang, S. (2018). Is eco-friendly fashion more perceived as self-brand signaling or moral identity? An examination of the effect of gender and environmental concern. *Journal of Fashion Marketing and Management*, 22(4), 446-460. [Link to abstract: <https://www.sciencedirect.com/science/article/abs/pii/S0959652619335711>]
- Joanes, T. (2019). Personal Norms in a Globalized World: Norm-activation Processes and Reduced Clothing Consumption. *Journal of Cleaner Production*, 212, 941-949. <https://doi.org/10.1016/j.jclepro.2018.11.191>
- Kézdi, G. B. and G. (2020, July 14). Some history of sampling. *Gabors Data Analysis*. <https://gabors-data-analysis.com/posts/2020/07/history-sampling/#:~:text=The%20first%20publication%20of%20a,of%20Statistics%20Norway%2C%20in%201895.>
- Kim, S. H., & Seock, Y. K. (2019). The roles of values and social norm on personal norms and pro-environmentally friendly apparel product purchasing behavior: The mediating role of personal norms. *Journal of Retailing and Consumer Services*, 51, 83-90. <https://doi.org/10.1016/j.jretconser.2019.05.023>
- Lai, C.-C., & Chang, C.-E. (2020). Clothing disposal behavior of Taiwanese consumers with respect to environmental protection and Sustainability. *Sustainability*, 12(22), 9445. <https://doi.org/10.3390/su12229445>
- Lin, C. A., Wang, X., & Yang, Y. (2023). Sustainable Apparel Consumption: Personal Norms, CSR Expectations, and Hedonic vs. Utilitarian Shopping Value. *Sustainability*, <https://doi.org/10.3390/su15119116>
- MapleSage. (2023, February 19). The urgency of sustainable fashion: Why the industry needs to change. From Fast Fashion to Sustainable Style: Transforming the Ind. <https://www.linkedin.com/pulse/urgency-sustainable-fashion-why-industry-needs-change-maplesage>

- McNeill, L., & Moore, R. (2015, February). Sustainable fashion consumption and the fast fashion conundrum: fashionable consumers and attitudes to sustainability in clothing choice. Wiley Online Library. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/ijcs.12169>
- Onwezen, M. C., Antonides, S., & Bartels, J. (2018). The influence of personal norms on behavior: A review of the literature. *Journal of Consumer Research*, 45(5), 944-976.
- Murphy, C. B. (2021, October 31). Pros and cons of stratified random sampling. Investopedia. <https://www.investopedia.com/ask/answers/041615/what-are-advantages-and-disadvantages-stratified-random-sampling.asp>
- Philippine Textile Research Institute. (2023, September 15). EFOI - Electronic Freedom of Information - request. eFOI - Electronic Freedom of Information. <https://www.foi.gov.ph/requests/aglzfmb2ktcGhyHgsSB0NvbnRlbnQiEVBUUkktMzY0MTgzNDAYMzE1DA>
- Plasencia, J. (2023, September 20). The world's most polluting industries. ClimateTrade. <https://climatetrade.com/the-worlds-most-polluting-industries/>
- Prathibhani, H. K. K., & Lakshika, V. G. P. (2023). Consumer Clothing Disposal Behaviour: A Comparative Study. *Asian Journal of Marketing Management*, 2(02). <https://doi.org/10.31357/ajmm.v2i02.6471>
- Sedej, T., & Toros, J. (2023). Awareness of the environmental impact of clothing production and consumption among Slovenian women customers. *Tekstilec*, 66:1-11. DOI: [10.14502/tekstilec.66.2023001](https://doi.org/10.14502/tekstilec.66.2023001)
- Sekaran, U., & Bougie, R. (2018). *Research methods for business: A skill-building approach*. John Wiley & Sons.
- Shakya, A., & Swami, A. C. (2021). Disposal Behaviour and Practices of Post-Consumer Apparel Waste. *Journal of Emerging Technologies and Innovative Research*, 8(8). <https://www.jetir.org/papers/JETIR2108386.pdf>
- Singh, S., Jain, A., & Sharma, S. (2019). Exploring the role of ethical fashion: A conceptual framework. *Journal of Fashion Marketing and Management*, 23(1), 74-88. https://www.researchgate.net/publication/283192862_Towards_an_Ethical_Fashion
- Soyer, M., & Dittrich, K. (2021, July 26). Sustainable Consumer Behavior in Purchasing, Using and Disposing of Clothes. *Sustainability*, 13(15), 8333. <https://doi.org/10.3390/su13158333>
- Sundqvist, S., & Magnusson, M. (2018). The role of consumer understanding in sustainable fashion consumption. *Journal of Fashion Marketing and Management*, 22(1), 104-121. [Link to abstract: <https://www.keer.org/keer2010/Papers/0956.pdf>]
- Sung, K., Cooper, T., & Kettley, S. (2019, February 7). Factors influencing upcycling for UK makers. *Sustainability*, 11(3), 870. <https://doi.org/10.3390/su11030870>
- Sustainability Solutions Exchange. (2022, March 29). The state of sustainable fashion in the Philippines. <https://sustainability.ph/solutions/intelligence/the-state-of-sustainable-fashion-in-the-philippines>
- Tarabashkina, O. (2022, January). Promoting sustainable consumption: the role of social norms, in-group framing and identification (Master's thesis). <https://doi.org/10.3390/su152416800>
- The environmental crisis caused by textile waste. RoadRunner Modern Waste + Recycling. (n.d.). <https://www.roadrunnerwm.com/blog/textile-waste-environmental-crisis>
- Theory of interpersonal behavior (TIB). Theory of Interpersonal Behavior (TIB) - IS Theory. (n.d.). [https://is.theorizeit.org/wiki/Theory_of_Interpersonal_Behavior_\(TIB\)#::~:~:text=Theory%20of%20interpersonal%20behavior%20\(TIB\)%20was%20proposed%20by%20Harry%20Triandis,intentions%20to%20perform%20a%20behavior](https://is.theorizeit.org/wiki/Theory_of_Interpersonal_Behavior_(TIB)#::~:~:text=Theory%20of%20interpersonal%20behavior%20(TIB)%20was%20proposed%20by%20Harry%20Triandis,intentions%20to%20perform%20a%20behavior). Truong, C. N. T., Sun, D. D., & Ngyuen, N. D. (2018). The role of personal norms in shaping attitudes towards sustainable fashion consumption. *Journal of Cleaner Production*, 187, 636-645.
- Triandis, H. C. (1977). Theoretical framework for evaluation of cross-cultural training effectiveness. *International Journal of Intercultural Relations*, 1(4), 19-45. [https://doi.org/10.1016/0147-1767\(77\)90030-X](https://doi.org/10.1016/0147-1767(77)90030-X)
- Vermeulen, W. J., & Tichelaar, C. (2018). The influence of perceived behavioral control and personal norms on sustainable clothing consumption. *Journal of Business Ethics*, 153(2), 351-367.
- World Bank Group. (2022, March 28). How much do our wardrobes cost to the environment?. World Bank. <https://www.worldbank.org/en/news/feature/2019/09/23/costo-moda-medio-ambiente>
- Xiao, Y., & Zhang, Q. (2018). The impact of sustainable fashion on consumer purchase intentions: A cross-cultural study. *Journal of Business Research*, 119, 521-531.
- Yusof, N. A. M., Omar, N. S. M., & Hassan, S. H. (2021). The impact of philanthropic and economic motives on clothing disposal behavior: A case study of young consumers in Malaysia. *Journal of Global Fashion Management*, 12(3), 245-255.
- Zhang, L., Wu, T., Liu, S., Jiang, S., Wu, H., & Yang, J. (2020). Consumers' clothing disposal behaviors in Nanjing, China. *Journal of Cleaner Production*, 276, 123184. <https://doi.org/10.1016/j.jclepro.2020.123184>