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Driving Sustainable Fashion Through Recycling: A Study of Consumer Behavior in India

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Abstract

Sustainability and the concept of circular economy are gaining global recognition at a fast rate, which makes it essential to understand the behaviour of consumers, specifically in recycling and sustainable fashion. This study explores consumer behaviour about clothes recycling and investigates its impact on purchase intentions for sustainable fashion. The research is based on a survey conducted at Vmart collection stores, one of India's biggest value fashion retail companies, which accepts old clothes in exchange for incentives. The data of a total of 196 participants from Delhi NCR, Jaipur, Agra, and Dehradun, India, was analyzed using graphs, t-tests, Levene's test, and a correlation analysis. The results revealed a clear pattern. Most of the respondents discard their old clothes due to a change in fashion and taste. The majority of the participants prefer to donate their old clothes to those in need. It was also observed that the participants were motivated to donate their clothes due to the incentives they were receiving and the convenience. Moreover, a significant difference exists in recycling habits and purchase intentions of sustainable clothes between males and females. On average, females usually exhibit higher recycling habits and tend to purchase sustainable clothing more than males. There is a high correlation between the recycling habits and purchase intentions of sustainable clothing, which can be depicted through the upward-sloping scatter diagram. The findings likewise offer practical implications for government officials, businesses, and consumers. It highlights the need for specialized environmental initiatives and incentive-based activities. Overall, the study highlights how significant factors can affect the growth of sustainable fashion and the circular economy.

Keywords: *Circular Economy; Consumer Behavior; Recycling; Sustainability; Textiles*

Introduction

In contemporary consumerism, sustainability has gained much importance, with consumers increasingly preferring products and services that are environmentally and ethically friendly (Larranaga &

Valor, 2022). Sustainability is the process of reusing and recycling resources to minimize environmental harm. It includes environmental conservation, social justice, and economic sustainability. This change is motivated by a growing concern for the environment and a desire to support companies that benefit society. One of the most common sustainability practices is recycling (Kostadinova, 2016). Recycling is at the core of environmental sustainability (Lamma, 2021) by preventing waste, conserving natural resources, and reducing greenhouse gas emissions (*Recycling Basics and Benefits | US EPA*, 2025). Recycling also transforms used material into a new product, thus avoiding the use of new materials and reducing environmental impacts resulting from manufacturing. For instance, recycling aluminum cans saves up to 95% of the energy (Das et al., 2010) used to produce an equal amount of aluminum from raw materials. By recycling as a practice, businesses can minimize their environmental impact and promote a circular economy. The circular economy is a system that minimizes the waste of resources and keeps products in use for as long as possible by recycling and reusing (The OECD Centre for Entrepreneurship, n.d.). However, despite the environmental benefits of recycling and reusing, the global waste management problem is still unresolved.

The growing volume of international textile waste has created serious challenges to waste management in the entire world. Consumers in reaction are changing their behaviour by trying to change their shopping habits to become more environmentally friendly. This includes purchasing clothes made from recycled materials and patronizing companies with green initiatives (Matsapola, 2021). This shows a much broader commitment made by society as a whole towards waste reduction, reusing, and promoting sustainability, specifically in the textile sector. While these concerns have led to an increase in eco-conscious consumption patterns, there remains a gap between consumer behaviors among shoppers (Islam & Khan, 2024).

Over the past few years, media coverage, school circulars, and corporate sustainability messages have increased environmental awareness, but there remains a "value-action gap" (*The Elusive Green Consumer*, 2019) between consumer pro-environmental attitudes and recycling behavior. This indicates that pro-sustainability attitudes are not necessarily converted into corresponding behavior, and more effort in active participation is required. The main cause of this gap is the practical and physical barriers to fully committing to sustainability practices (O'Rourke & Ringer, 2015). One of the biggest factors that affect recycling among consumers is a lack of awareness. There is insufficient awareness of recyclable materials, which leads to the wrong disposal procedures. Even with sufficient information, there are convenience issues such as limited access to centers where they can recycle or inconvenient recycling practices, which can deter participation (Jane, 2025). Some consumers face a lack of incentive to recycle, thus causing a lower likelihood to recycle repeatedly, and some individuals also believe that their recycling efforts do not make a significant impact on society and the general environmental condition (Chris et. al., 2024). By recognizing these barriers, we can explore how they influence consumer recycling behavior.

Overcoming these challenges requires a thorough understanding of the drivers of consumer recycling behavior. As the fashion and textile industry is facing increased scrutiny for its environmental impact, recycling has become a critical solution for reducing wastage and resource consumption. The recycling of textiles is now going through a significant transformation, which is sparked by technological developments, changing values among consumers, and regulatory action. Strategies like increasing public awareness, which can be done by educational awareness and labelling of products with instructions to recycle, simplifying recycling processes, which can be done by providing drop-off bins or curbside pickups, and implementing successful incentive schemes, are fundamental such as consumers donating their clothes in exchange for vouchers or something else in return (Wang & Udall, 2023).

Literature Review

The concept of circular economy and sustainability in the textile industry is explored in the existing literature. A study conducted by Fernandopulle (n.d.) aimed to analyze the impact of upcycling textiles on consumer behavior and help pass on eco-friendly brand messages in the UK apparel industry. Using a systematic review based on qualitative secondary data in the form of credible journal papers, the study assessed the data following PRISMA methodology for selecting articles and thematic analysis to judge the data. Based on the results, they have concluded that UK shoppers pay extra for sustainable goods, showing a behaviour change fueled by green issues. The research highlights that young people are more aware of sustainability and require brands to use environmentally friendly techniques. Upcycling is perceived as a prominent strategy for companies to improve brand image, develop consumer confidence, and stand out in the aggressive fashion industry. Besides, if brands incorporate environmentally friendly activities such as upcycling, their long-term brand loyalty can improve and enhance the corporate image of the firm.

In the same realm, Yu and Lee (2019) explored a study that investigated how consumer-perceived values affect how people perceive and want to buy upcycled products. The study used a survey of 413 people in the United States to examine the data and figure out how different perceived values affect how people feel about a product and whether they want to buy it. The study found that consumers' attitudes towards products and their intentions to buy them were mostly based on green, affective, and aesthetic values. The study shows that a product's environmental friendliness, emotional appeal, and visual appeal all work together to make people want to buy it. Also, past purchase experience has an enormous impact on these effects. People who have bought similar products in the past are more concerned with green and functional values. This means that observing eco-friendly products makes people feel more confident about them.

Ma et al. (2024) took a different approach and used the Technology Acceptance Model and the Theory of Planned Behaviour to find out how people who upcycle act. The study used 336 full questionnaires that were filled out by people who went to a sustainable design show in Beijing. Then, the data were looked at to see how people's attitudes, perceived behaviour control, perceived usefulness, and subjective norms affected how they acted when it came to upcycling. The results showed that subjective norms, perceived control, perceived usefulness, and attitudes all have a big effect on whether or not people upcycle. Also, social pressure is very important; people are more likely to upcycle if they think it's okay and good for their community. People are more likely to do upcycling if they think they can control it and that it will be useful. The study also found that people who have more education and make a certain amount of money are more likely to upcycle. This means that being aware of and doing well with money can make people act in ways that are better for the environment. Lastly, it was discovered that consumers need to be more involved, especially those who don't feel like they have much control or knowledge about how to gain through awareness campaigns and solutions to upcycle that are made available.

Kim et al. (2021) conducted a primary survey in Korea in order to examine the data and determine how people felt about different circular fashion products. They focused on what people thought were both positive and negative characteristics about them. The study's results showed that people think upcycled fashion is more unique and seems better, which appeals to people who care about sustainability and standing out in fashion. On the other hand, is concerned about quality, durability, and cleanliness are a problem, especially for people who don't know much about upcycled products. Getting rid of consumer doubt is mostly about brand trust, and these contradictory emotions are directly related to purchase intention and brand loyalty. The study found that being transparent about quality standards, where materials come from, and how upcycling is good for the environment can help people trust the product and get them to use it. Brands that can solve these problems by being honest and telling good stories can also improve their market position and build long-term customer loyalty in the circular fashion market.

Lastly, Tryphena and Aram started a study in 2023 to find out how urban Indian shoppers think and act when it comes to eco-friendly clothing and how that affects their choices to buy eco-friendly products. The Theory of Planned Behaviour was applied to find out what makes people decide to buy sustainable clothing. By surveying 460 people from Chennai and Bengaluru, the data was collected. It was concluded that urban Indians' plans to buy sustainable clothing are greatly affected by what they know about the environment, how they feel about it, and how good they suppose they are as consumers. When city-dwelling Indians choose to buy eco-friendly clothes, what they know about the environment, how they feel about consumers, and how effective they think consumers are all play a big role. The study found that people are more likely to buy eco-friendly clothes if they know more about environmental issues and think their actions will make a difference. Younger consumers, particularly millennials and Gen Z, demonstrate a higher preference for sustainable clothing, viewing it as both an ethical and lifestyle choice. However, barriers such as perceived high costs, lack of variety, and limited availability in mainstream retail channels prevent wider adoption. Additionally, trust in brand messaging and clear communication about sustainability initiatives strongly influence consumer confidence. Therefore, the research suggests that brands can enhance consumer engagement by offering affordability, increasing product visibility, and transparently educating consumers about the environmental benefits of sustainable clothing.

Literature Gap and Rationale of the Study

While existing studies analyze consumer behavior and sustainability, few have examined how incentives and awareness influence environmentally conscious behavior. This is a significant factor that is ignored, as the two factors tend to occur and jointly influence behavioral change. Also, most studies are geographically restricted, and they study mainly urban or developed markets, with little interest in Tier 2 and Tier 3 cities, where consumer behavior and accessibility vary significantly. Lastly, even though upcycling is commonly advocated as an environmentally friendly activity, there is not much work done on the impact of upcycling on the purchase intentions of sustainable clothing. Most studies that have been done so far investigate the environmental benefits of upcycling. Very few look at whether people who know about or are exposed to upcycling choose to buy sustainable fashion. This gap shows a need to learn more about upcycling, not just as an interest, but also as a way to make people more aware of their buying choices.

This study is dedicated to the contribution of recycling to a circular economy in terms of what it can do to minimize waste, enhance the efficiency of resources, and ensure sustainable consumption. One of the key areas of study is the impact of incentives on consumer recycling behavior, that is, what impact reward, ease, and awareness have on individuals' recycling intentions and the intention to donate clothing. Regardless of these areas of study, the research aims to provide insights that can be applied to inform business practices and sustainability policies. Specifically, this research explores the factors that influence recycling habits and the relationship between these habits and the adoption of sustainable fashion. Moreover, it also aims to analyze the gender differences in recycling habits and purchase intentions of sustainable clothing.

Methodology

Research Aim and Objectives

This research examines consumer behavior related to clothing recycling and explores how it influences their purchase intentions toward sustainable fashion. To explore this concept, the following objectives are considered in the study.

- Assessing the factors influencing clothing recycling habits among consumers
- Evaluating the gender differences in consumers' recycling habits between males and females
- Investigating the gender differences in purchase intentions of sustainable clothing between males and females
- Analysing the relationship between consumers' recycling habits and their purchase intentions toward sustainable clothing

Research Hypotheses

To examine the above objectives, the following hypotheses are assumed in the research.

- H_1: There are no significant gender differences in consumers' recycling habits between males and females.
- H_2: There are no significant gender differences in the purchase intentions of sustainable clothing between males and females
- H_3: There is no significant relationship between consumers' recycling habits and their purchase intentions toward sustainable clothing

Scales and Tools Used

For this research, information is being gathered through a structured survey provided to individuals who visit the donation collection points to donate used clothing in cities like Delhi NCR, Jaipur, Agra, and Dehradun. The survey consists of three sections. The first section collects general demographic data, such as age, gender, education level, occupation, and annual income. The second section contains research-related questions to investigate the respondents' attitudes and motivations concerning the disposal of old clothes. The third portion evaluates the respondents' recycling behaviors and purchase intentions of sustainable clothes, to which a 5-point Likert scale is employed, 1 (Strongly Disagree) up to 5 (Strongly Agree). Such a scale can be used in measuring frequency as well as the degree of agreement of statements about convenience, incentives, and awareness regarding recycling behavior. The scale for purchase intentions to buy sustainable clothes has been sourced from Jalil & Shaharuddin (2019), with a Cronbach's alpha of 0.75. Moreover, the scale for recycling habits has used 4 standard statements from Mason et. al. (2022), with a Cronbach's alpha of greater than 0.7. Hence, these scales imply high reliability.

Data Collection Procedure

The data for this study were collected through a Google form, which was provided to people who visited designated clothing collection drives at V-mart Stores in different regions, like Delhi NCR, Jaipur, Agra, and Dehradun, to donate their old clothes. The participants were asked for their mobile numbers and were sent a link to the Google form. Employees were appointed to help out and assist the participants if they had any issues filling out the form. The collected data is then cleaned, organised, and imported into the software for the analysis.

Sampling and Sample Characteristics

This study used random sampling to ensure an unbiased and representative selection of individuals participating in clothing donation drives. The final sample size comprised 207 respondents, all of whom completed the structured survey administered at various collection points. The sample reflects a

mix of demographic backgrounds. In terms of gender, the respondents included 50.5% males and 49.5% females. The age distribution was also varied, with 10.2% aged between 0-20, 47.5% aged between 21-30, which was the highest among all, 29.6% between 31-40, and 12.8% aged 41 and above. In terms of education, respondents reported the following qualifications: 23% below or equivalent to high school, 37.2% bachelor's or equivalent, which was the highest among all of them, 17.9% master's or equivalent, 9.2% higher than master's, and 9.2% with a professional degree. Regarding occupation, the sample included 15.3% professionals, 14.8% business owners, 9.2% government employees, 26.0% private employees, which was the most out of all, 16.3% students, 15.8% housewives, and 1% others. For annual income, respondents were distributed across 40.8% below ₹5 lakhs, which was the most represented group, 22.4% ₹5-10 lakhs, 7.7% ₹10-20 lakhs, 3.1% above ₹20 lakhs, and 24% were either not earning or students.

Statistical Tools and Techniques

The collected data is imported into DataTab software for the analysis. To determine whether there is a significant difference between the two groups, a t-test was conducted. A t-test is used to examine the comparison of the mean of two groups to determine if there's a statistically significant difference between them (T. K. Kim, 2015). The null hypothesis stated that "there is no significant difference between the two groups, specifically in terms of recycling habits and purchase intentions of sustainable clothes." Before conducting the t-test, Levene's test was applied to check equality of variances in the two groups. The null hypothesis for Levene's test is that "the variances of the groups being compared are equal" (Gastwirth et al., 2009).

To explore the relationship between recycling habits and purchase intentions of sustainable clothing, a correlation analysis was performed using "Pearson's correlation coefficient"; which measures the magnitude and direction of relationship between the two variables. The coefficient of correlation ranged from -1 to +1. When the coefficient is closer to +1, it implies a "high positive correlation", and when it is closer to -1, then there is a "high negative correlation" (Yang et al., 2021). A "scatter diagram" was used to visualize the relationship between Recycling Habits and Purchase Intentions of sustainable clothes. If the graph is upward-sloping, then there is a positive correlation; if it is downward-sloping, then there is a negative correlation.

Ethical Considerations

The present research maintains the traditional research ethics from the perspective of safeguarding the participants' rights, privacy, and autonomy. The participants are first introduced to an informed consent document stating the research intent, the voluntariness of the exercise, and that they are free to withdraw from the study at any time without any penalty. The participation is fully voluntary, and the respondents do not have to provide personally identifiable information, with a complete level of anonymity offered. For confidentiality purposes, all answers are kept securely and will be used exclusively for study purposes according to this research. No information shall be disclosed or presented in any form that can lead to individuals' identification. Such practices facilitate a secure and respectful environment for participants to encourage sincere and objective answers while retaining research integrity.

Results

Consumers' Patterns and Motivations in Clothing Disposal and Recycling

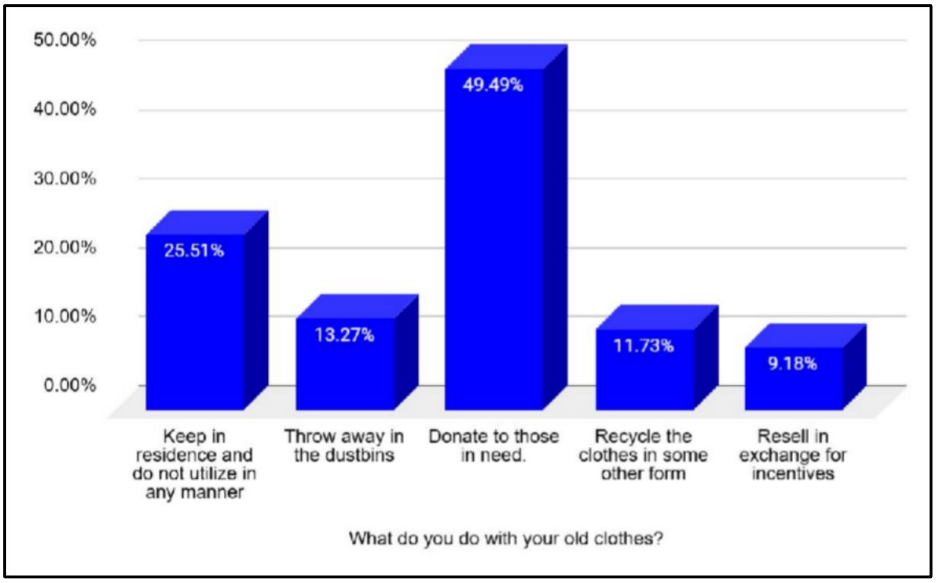

Figure 1. How Respondents Handle Old Clothes (percentage of respondents)

Figure 1 depicts what people do with their old clothes. Among the sample of 196, 49.49% donate their old clothes to those in need, 25.51% keep them in residence and do not utilize them in any manner, 13.27% throw them away in the dustbins, 11.73% recycle the clothes in some other form, and 9.18% resell them in exchange for incentives. Therefore, it can be concluded that most individuals prefer to donate their old clothes to those in need or keep them in their residences. Typically, a limited number of individuals engage in reselling for rewards.

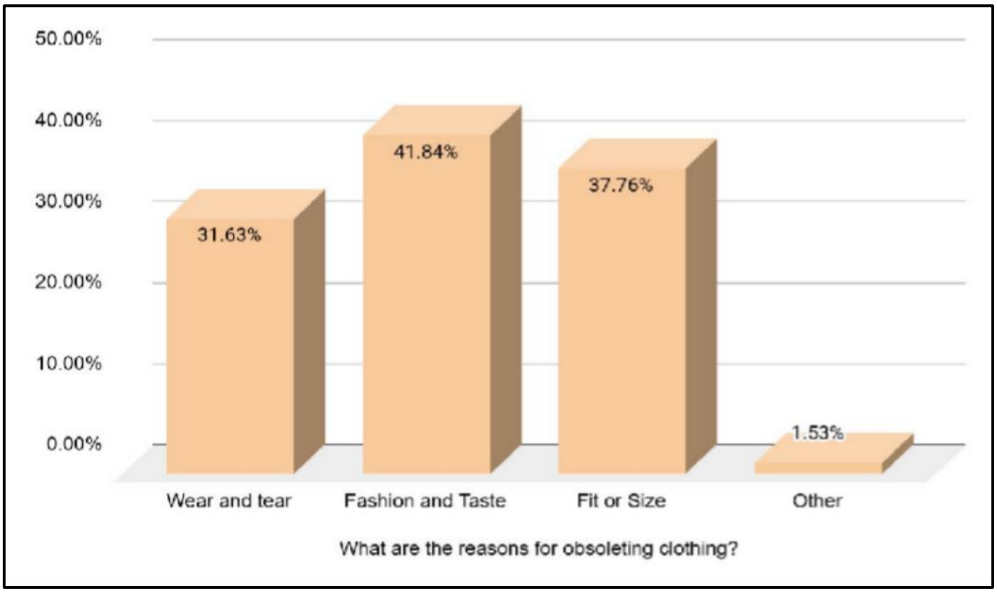

Figure 2. Reasons for obseleting clothing (percentage of respondents)

The chart in Figure 2 represents the reasons for which people dispose of their old clothes. Out of the 196 participants surveyed, 41.84% obsolesce their clothes because of a change in fashion and taste, 37.76% so because of uncomfortable Fit or Size, 31.63% discard their clothes due to wear and tear, and 1.53% have other reasons. Therefore, it can be seen that the majority of people dispose of their clothes because of newer and evolving trends in fashion and taste.

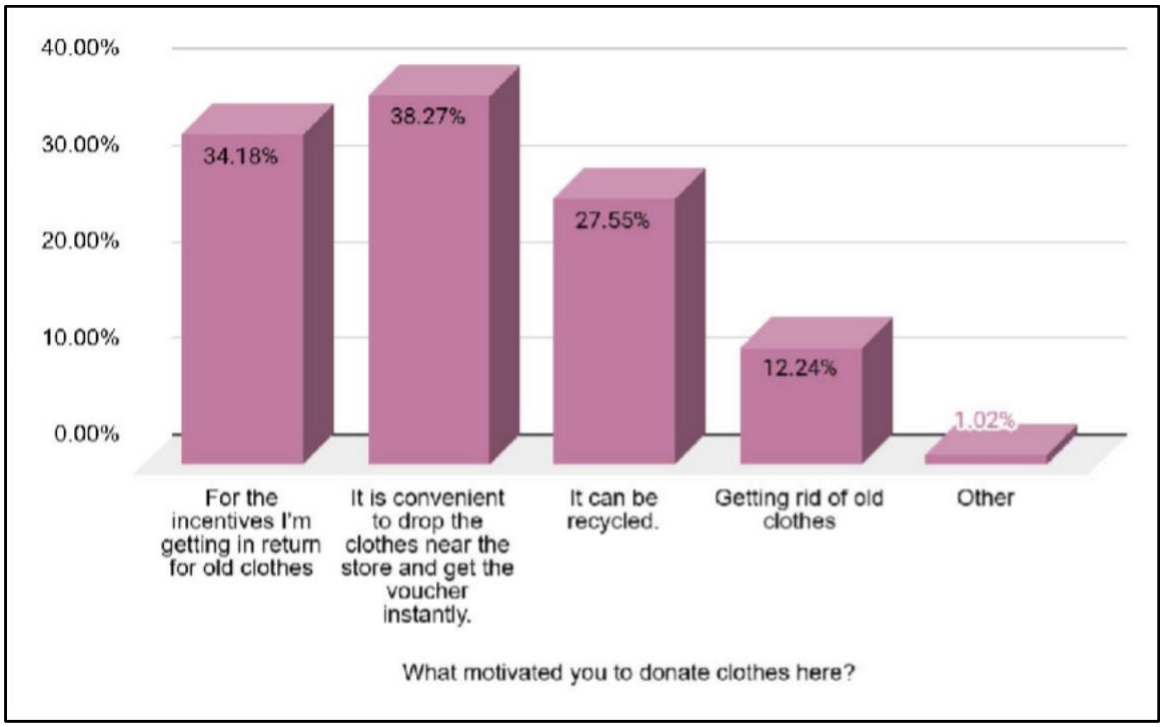

Figure 3. Motivations to donate clothes (percentage of respondents)

The above graph (Figure 3) shows what motivated the participants to donate their clothes at the recycling drive near the supermarket retail stores. Based on data collected from 196 participants, 38.27% believe it is convenient to drop their clothes near the store and get the incentives instantly, 34.18% donated their clothes for the incentives they were receiving in return, 27.55% donated their clothes as they believe it can be recycled, 12.24% donated their old clothes to get rid of them and 1.02% donated for other reasons. Hence, it is observed that the major factors of motivation to donate clothes are the convenience of exchanging them with a voucher and receiving incentives instantly.

The bar graph in Figure 4 shows the sources from which participants first heard about the recycling drive. Based on the responses from 196 participants, 38.27% were informed by the store team while purchasing from the supermarket stores, 21.43% were either recommended by family or friends, or saw it while passing by. Moreover, 18.88% got to know about it from the random WhatsApp/SMS messages sent to them by the supermarket stores. Lastly, 1.53% saw an INSAT or a Facebook ad about this drive, and 1.02% had other sources of information. Therefore, it can be concluded that the majority of the participants were informed by the employees of the store, recommended by family or friends, or noticed it while passing by the store. Furthermore, only a limited number of individuals engaged in the drive as a result of the advertisements they had observed, implying a need for revising the advertising strategy.

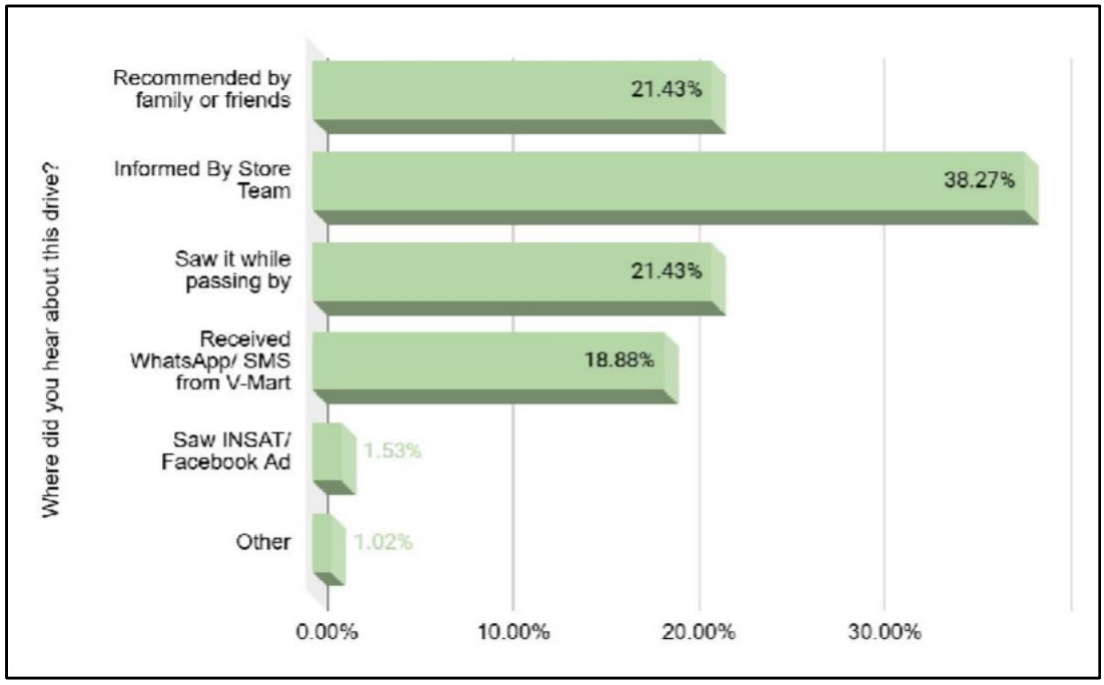

Figure 4. Sources from which participants heard about the recycling drive (percentage of respondents)

Statistical Analysis of Recycling and Sustainable Clothing Behaviors

Table 1. Results for Independent t-test and Levene's Test Results for Gender-Based Differences in Recycling habits and Sustainable Purchase Intentions

Hypotheses	Groups	N	Mean	SD	Levene's test p-value	t-statistic	T-test p-value
RHM - RHF	**RHM**	**99**	**9.14**	**5.87**	**0.125**	**-2.13**	**0.035**
	RHF	**97**	**10.98**	**6.23**	**0.125**	**-2.13**	**0.035**
PIM - PIF	**PIM**	**99**	**9.25**	**5.74**	**0.038**	**-2.3**	**0.023**
	PIF	**97**	**11.23**	**6.28**	**0.038**	**-2.3**	**0.023**

Table 1 represents the results of Levene's test and the independent t-test for the two proposed hypotheses. In the table, RH stands for recycling habits, and PI stands for purchase intentions for sustainable clothing. Additionally, the subscript M stands for Males, and the subscript F stands for Females.

In the table, the p-value for Levene's test for recycling habits is greater than 0.05. Hence, according to Levene's test, the hypothesis for Recycling habits considered the p-value with equal variances for the t-test. For Recycling Habits, the p-value of the t-test is 0.035, which is less than 0.05; hence, the null hypothesis is rejected at a 5% level of significance. This indicates that there is a notable difference between the two groups in regard to recycling habits. It can be depicted from the table that females(m=10.98, sd=6.23) are engaged more in recycling habits as compared to Males(m=9.14, sd=5.87).

On the other hand, the p-value for Levene's test for purchase intentions of sustainable clothing is less than 0.05. Hence, according to Levene's test, the hypothesis of Purchase Intentions of sustainable clothing considered the p-value with unequal variances for the t-test. Moreover, for Purchase Intentions, the p-value of the t-test is 0.023, which is less than 0.05; hence, the null hypothesis is rejected at a 5% level of significance. This indicates that there is a notable difference between the two groups regarding the purchase intentions of sustainable clothing. Hence, similar to recycling habits, females (m = 11.23, sd = 6.28) are more likely to buy sustainable clothes compared to males (m = 9.25, sd = 5.74). Therefore, the t-tests for both variables indicate that females exhibit higher recycling habits and intend to purchase more sustainable clothes as compared to males.

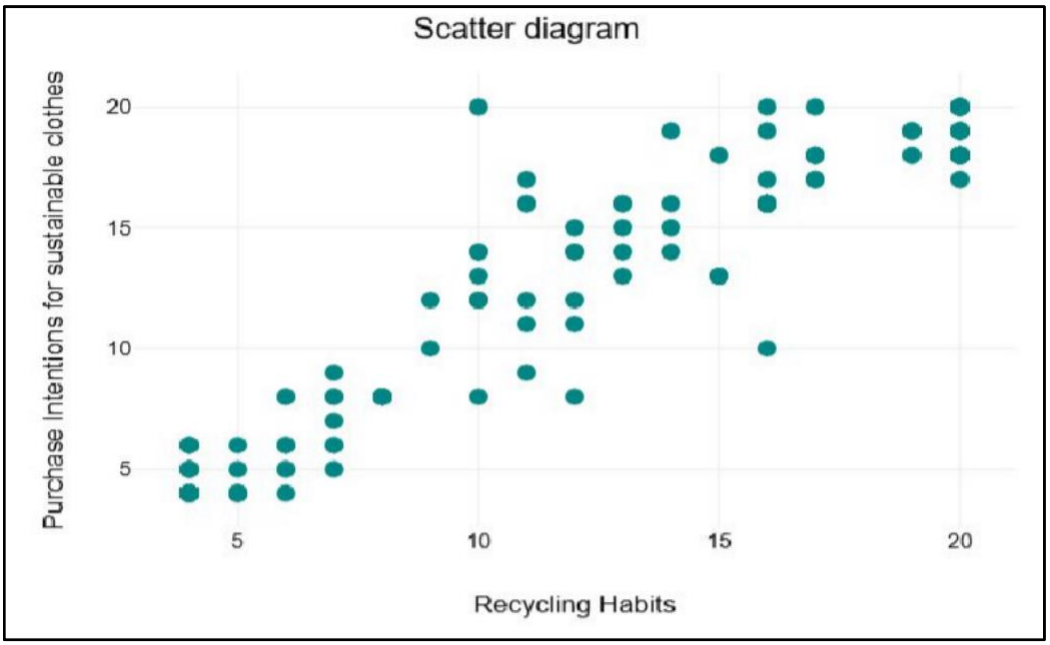

Figure 5. Scatter Chart representing the relationship between recycling habits and purchase intentions of sustainable clothes

Following the t-tests, correlation analysis is done to measure the relationship between recycling habits and purchase intentions towards sustainable clothing. The correlational value between the variables is estimated by Pearson's coefficient of correlation. The coefficient value of 0.96 indicates that there is a strong positive correlation between Recycling Habits and Purchase Intentions of Sustainable clothing. Additionally, the p-value was less than 0.001, implying that this association is statistically significant. This implies that as recycling habits among consumers rise, their purchasing intentions towards sustainable clothing increase with a high amount. This claim is also supported by a scatter diagram in Figure 5. The x-axis showed "the Recycling Habits", and the y-axis showed "the Purchase Intentions for sustainable clothes". It is evident in the chart that there is an upward-sloping graph, which shows a strong positive correlation.

Discussion

Research indicated that women exhibit strong pro-environmental behavior and attitude than men, particularly in areas of apparel and clothing recycling. Women are more likely to demonstrate high economic apparel consumption, fashion awareness, and eco-conscious consumption, which resulted in higher sustainable apparel divestment (Cho et al., 2015). Factors contributing to this disparity encompass

socialisation theories, which proposed that women reveal greater inclination towards social responsibility and caregiving (Zelezny et al., 2000). Social role theory asserted that gender roles affect environmental attitudes, with women considered as more nurturing and susceptible to social influence (Plavsic, 2013). Because of difference in attitude, motivation, and social influence, women are more likely to recycle as compared to their male counterparts. According to research, recycling is often seen by women as natural, responsible behaviour motivated by sense of obligation and environmental concern. On the other hand, men are more likely to embrace recycling practices because they believe that it will be efficient or useful, which means that their participation is more reliant on prior experiences and real-world results (Oztekin et al., 2017).

Along with this, research has consistently proved that women have stronger purchase intentions for sustainable clothing than men (Cho et al., 2015). Women show higher levels of economic consciousness and consumption, which lead to higher levels of style clothing and sustainable purchasing habits. Depending on their pro-environmental self-identity, women also show increased intention to buy sustainable clothing when exposed to affective attitudes and descriptive and moral norms(Carfora et al., 2024). However, while price sensitivity can differ by gender, some research shows that gender has very little bearing on the interplay between factors that impact intentions to purchase sustainable clothes (Pang et al., 2025). Ideally, sustainable clothes tend to be expensive. Women are more willing to pay more for clothes that are made ethically and are less bothered by higher prices. Men, on the other hand, are more sensitive to price. All of these things together help explain why men and women want to buy sustainable clothing at different rates.

Subsequently, researches show a strong correlation between recycling habits and purchase intentions for sustainable clothing. Positive attitudes towards the environment and recycling are associated with greater intentions to engage in sustainable behavior and purchase sustainable clothing (La Rosa & Jorgensen, 2021). Participating in recycling reinforces the link between intentions and behaviour in specific cases, for individuals with high environmental attitudes (Mason et al., 2021). Additionally, sustainable attributes for apparel, such as recycled materials, positively affect purchase intentions. These findings imply that consumers who enjoy participating in recycling are more likely to purchase sustainable clothing. Furthermore, sustainable clothing often comes with attributes like recycled materials, which creates perceptions of warmth and sincerity in brands, which further influences consumers' decisions (Grazzini et al., 2020). Beyond this, when companies convert their sustainability efforts clearly to their customers through certifications or recycling initiatives, they build trust, which incentivizes the customers to support them.

Conclusion

As the circular economy and sustainability practices grow globally, it has become crucial to understand the drivers behind consumer recycling behaviour. This study discussed and aimed to understand how incentives, awareness, and convenience influence the recycling habits and purchase intentions for sustainable clothing. To do this, a survey was conducted in which there were 196 participants at the old cloth collection centres at V-mart Stores. The data that was collected from different regions, like Delhi NCR, Jaipur, Agra, and Dehradun, was analyzed using graphs and statistical tests, such as a t-test, a Levene’s test, and a Pearson's correlation test. This study also made use of visual graphs and scatter diagrams. The results revealed a clear pattern. The majority of the participants prefer to donate their old clothes to those in need. Most of them throw out their old clothes due to reasons of Fashion and taste. It was also observed that the participants were motivated to donate their clothes due to the incentives like discount vouchers they were receiving from Vmart, the convenience, and most of the people heard about the drive with the help of the store's staff. A significant difference exists in recycling habits and purchase intentions of sustainable clothes between males and females. On average, females usually have higher

recycling habits and tend to purchase sustainable clothing more than males. There also exists a high correlation between the recycling habits and purchase intentions of sustainable clothing, which can be depicted through the upward-sloping scatter diagram. The discussion further reveals that females' stronger environmental personality and greater responsiveness to sustainable measures lead to their higher engagement. Recycling and sustainable fashion choices are dependent on each other and have a linked behaviour. Those who tend to recycle more and pay attention to sustainable practices as well and participate in them are more likely to value the companies that use recycled materials. These statements suggest that consumer behaviour is both driven by values and influenced by strategic brand communication. In conclusion, this study highlights the importance of understanding behavioral motivations towards sustainability efforts and promoting circular practices.

Policy Implications and Limitations

This study can give insights to three main stakeholder groups: Government Policymakers, Retailers, and Consumers. The policymakers can use the strong link between incentives and recycling habits to create a structured reward-based recycling program and awareness campaigns, especially in Tier 2 and Tier 3 cities. For instance, a loyalty-based system could be set up to keep track of donors and reward them based on how much they contribute to these drives. Donors could earn loyalty points that they could use to get rewards like discount vouchers, exclusive merchandise, or early access to sales. Retailers can also use this paper to design more effective and modern sustainability initiatives, such as loyalty incentives and in-store recycling drives. This falls in line with customer motivations as well. Consumers can also be directly involved in the circular economy and take part in awareness campaigns that guide them about sustainable practices, giving them the knowledge they need to take part in these kinds of initiatives in a meaningful way. Moreover, they can better understand how their recycling habits and purchasing intentions towards sustainable clothes can contribute to the environment and brand loyalty.

However, this study has some limitations. The sample size of 196 may limit the generalizability. Sample sizes of this number may not be truly representative of a wider population of India. Moreover, the survey given to the participants was self-reported, which can lead to the exploitation of data minimally. This can cause some potential bias in results due to inaccurate responses. Additionally, the data collection was limited to a few regions, most of them being urban, and the behaviour may differ in other parts of India, particularly in rural or less developed areas.

References

Carfora, V., Buscicchio, G., & Catellani, P. (2024). Proenvironmental self identity as a moderator of psychosocial predictors in the purchase of sustainable clothing. *Scientific Reports*, *14*(1). https://doi.org/10.1038/s41598-024-74234-6.

Cho, E., Gupta, S., & Kim, Y. (2015). Style consumption: its drivers and role in sustainable apparel consumption. *International Journal of Consumer Studies*, *39*(6), 661–669. https://doi.org/10.1111/ijcs.12185.

Chris, E., Loyyd, P., & Giddton, L. (2024). Consumer behavior and education.

Das, S. K., Green, J. A. S., & Kau, J. G. (2010). Aluminum recycling: economic and environmental benefits. In *LIGHT METAL AGE*. https://static1.squarespace.com/static/5fecb6479b54c51485875e10/t/60ac1db2e0db640cb17e0eef/1621892530735/Aluminum+Recycling_+Economic+and+Environmental+...+-+Phinix%2C+LLC.pdf.

Fernandopulle, S. (n.d.) The impact of textile upcycling on consumers' perception to deliver the sustainable brand message in the UK fashion industry.

Gastwirth, J. L., Gel, Y. R., & Miao, W. (2009). The impact of Levene's test of equality of variances on statistical theory and practice. *Statistical Science*, *24*(3). https://doi.org/10.1214/09-sts301.

Grazzini, L., Acuti, D., & Aiello, G. (2020). Solving the puzzle of sustainable fashion consumption: The role of consumers' implicit attitudes and perceived warmth. *Journal of Cleaner Production*, *287*, 125579. https://doi.org/10.1016/j.jclepro.2020.125579.

Islam, Q., & Khan, S. M. F. A. (2024). Assessing Consumer Behavior in Sustainable Product Markets: A Structural Equation Modeling Approach with Partial Least Squares Analysis. *Sustainability*, *16*(8), 3400. https://doi.org/10.3390/su16083400.

Jalil, M. H., & Shaharuddin, S. S. (2019). Consumer purchase behavior of Eco-Fashion clothes as a trend to reduce clothing waste. *International Journal of Innovative Technology and Exploring Engineering*, *8*(12), 4224–4233. https://doi.org/10.35940/ijitee.l2693.1081219.

Jane, K. (2025). Behavioral Economics of Recycling: Incentives and Barriers.

Kim, I., Jung, H. J., & Lee, Y. (2021). Consumers' Value and Risk Perceptions of Circular Fashion: Comparison between Secondhand, Upcycled, and Recycled Clothing. *Sustainability*, *13*(3), 1208. https://doi.org/10.3390/su13031208.

Kim, T. K. (2015). T test as a parametric statistic. *Korean Journal of Anesthesiology*, *68*(6), 540. https://doi.org/10.4097/kjae.2015.68.6.540.

Kostadinova, E. (2016). Sustainable consumer behavior: Literature overview. Economic Alternatives, 2, 224-234.

La Rosa, A., & Jorgensen, J. J. (2021). Influences on Consumer Engagement with Sustainability and the Purchase Intention of Apparel Products. *Sustainability*, *13*(19), 10655. https://doi.org/10.3390/su131910655.

Lamma, O. A. (2021). The impact of recycling in preserving the environment. IJAR, 7(11), 297-302.

Larranaga, A., & Valor, C. (2022). Consumers' categorization of eco-friendly consumer goods: An integrative review and research agenda. *Sustainable Production and Consumption*, *34*, 518–527. https://doi.org/10.1016/j.spc.2022.10.005.

Ma, K., Liu, B., & Zhang, J. (2024). Factors Influencing Consumer Upcycling Behavior—A study based on an integrated model of the theory of planned Behavior and the Technology Acceptance Model. *Sustainability*, *16*(21), 9179. https://doi.org/10.3390/su16219179.

Mason, M. C., Pauluzzo, R., & Umar, R. M. (2022). Recycling habits and environmental responses to fast-fashion consumption: Enhancing the theory of planned behavior to predict Generation Y consumers' purchase decisions. *Waste Management*, *139*, 146–157. https://doi.org/10.1016/j.wasman.2021.12.012.

Matsapola, E. (2021). Consumer behaviour towards sustainable clothing. Research Gate.

O'Rourke, D., & Ringer, A. (2015). The impact of sustainability information on consumer decision making. *Journal of Industrial Ecology*, *20*(4), 882–892. https://doi.org/10.1111/jiec.12310.

Oztekin, C., Teksöz, G., Pamuk, S., Sahin, E., & Kilic, D. S. (2017). Gender perspective on the factors predicting recycling behavior: Implications from the theory of planned behavior. *Waste Management*, *62*, 290–302. https://doi.org/10.1016/j.wasman.2016.12.036.

Pang, S. M., Lee, Y., Shiyam, A. S., & Anthonysamy, L. (2025). Gender differences in sustainable clothing purchase intention. *International Journal of Innovative Research and Scientific Studies*, *8*(2), 2733–2748. https://doi.org/10.53894/ijirss.v8i2.5789.

Phau, I., Akintimehin, O. O., & Lee, S. (2022). Investigating consumers' brand desirability for upcycled luxury brands. *Strategic Change*, *31*(5), 523–531. https://doi.org/10.1002/jsc.2523.

Plavsic, S. (2013). An investigation of gender differences in pro-environmental attitudes and behaviors.

Recycling Basics and Benefits | US EPA. (2025, May 14). US EPA. https://www.epa.gov/recycle/recycling-basics-and-benefits.

The elusive green consumer. (2019, July 1). Harvard Business Review. https://hbr.org/2019/07/the-elusive-green-consumer.

The OECD Centre for Entrepreneurship. (n.d.). *The Circular Economy: What, why, how and where - UCL Discovery*. https://discovery.ucl.ac.uk/id/eprint/10093965/.

Tryphena, R., & Aram, I. A. (2023). Consumer perception on sustainable clothing among urban Indians. *Journal of Engineered Fibers and Fabrics*, *18*. https://doi.org/10.1177/15589250231168964.

Wang, B., & Udall, A. M. (2023). Sustainable Consumer Behaviors: the effects of identity, environment value and marketing promotion. *Sustainability*, *15*(2), 1129. https://doi.org/10.3390/su15021129.

Yang, Q., Kang, Q., Huang, Q., Cui, Z., Bai, Y., & Wei, H. (2021). Linear correlation analysis of ammunition storage environment based on Pearson correlation analysis. *Journal of Physics Conference Series*, *1948*(1), 012064. https://doi.org/10.1088/1742-6596/1948/1/012064.

Yu, S., & Lee, J. (2019). The effects of consumers' perceived values on intention to purchase upcycled products. *Sustainability*, *11*(4), 1034. https://doi.org/10.3390/su11041034.

Zelezny, L. C., Chua, P., & Aldrich, C. (2000). New Ways of Thinking about Environmentalism: Elaborating on Gender Differences in Environmentalism. *Journal of Social Issues*, *56*(3), 443–457. https://doi.org/10.1111/0022-4537.00177.