

Threaded Renewal: Advancing Sustainable Solution In Clothing Upcycling

Mitali Moradiya

POST GRADUATE STUDENT (MSC, CS&IT)
JAIN DEEMED-TO-BE UNIVERSITY, BANGALORE

SHYAN T.S

POST GRADUATE STUDENT (MCOM) JAIN
DEEMED-TO-BE UNIVERSITY, BANGALORE

Lisha V

POST GRADUATE STUDENT (MSC, CS&IT) JAIN
DEEMED-TO-BE UNIVERSITY, BANGALORE

Shelna Chennothu Raj

POST GRADUATE STUDENT (MSC, CS&IT) JAIN
DEEMED-TO-BE UNIVERSITY, BANGALORE

Haripriya V

ASSISTANT PROFESSOR (MSC, CS&IT)
JAIN DEEMED-TO-BE UNIVERSITY, BANGALORE

ABSTRACT

"Threaded Renewal: Advancing Sustainable Solutions in Clothing Upcycling" is dedicated to transforming discarded textiles into unique, wearable art, promoting a sustainable fashion industry. This initiative aims to mitigate the environmental impact of fast fashion by repurposing old garments into stylish, eco-friendly clothing. Through a combination of innovative upcycling techniques, educational resources, and community engagement, Threaded Renewal seeks to inspire individuals and businesses to embrace sustainability. Additionally, the project supports small-scale businesses and provides employment opportunities to household women and creative youngsters, fostering economic growth and skill development within local communities. By showcasing the upcycling process, offering custom services, and fostering a community of environmentally conscious consumers, this project strives to advance sustainable solutions and reduce textile waste globally thereby creating an eco-friendly environment.

Key Words: Threaded Renewal, sustainable solutions, clothing upcycling, sustainable fashion industry, environmental impact, fast fashion.

INTRODUCTION

The current fashion industry contributes to environmental waste, as consumers regularly discard clothing items that are still in good condition or burn them. Additionally, individuals may have sentimental attachments to their old clothes or desire unique, personalized garments that aren't readily available in conventional retail settings. The Upcycling and marketplace website is a revolutionary online platform to reinvent the fashion industry combining sustainability, self-expression and community engagement. This project includes a clothing modification that allows users to design new outfits and to update existing outfits using design tools and inspiring inspiration books curated in collaboration. In addition to platform customization, the system includes a beautiful business area that allows users to showcase, share and potentially sell their new creations. This feature supports the development of strong community of reusable fashion enthusiast who can engage through user data, product listings and social interactions such as likes and comments. Clothing upcycling and marketings websites demonstrate the ability to keep up with their ever-changing fashion industry. Its innovative features and focus on fashion sustainability, social development make it successful in growing business and supporting an eco-friendly environment.

Creating a website for "Threaded Renewal: Advancing Sustainable Solutions in Clothing Upcycling" involves designing an eco-friendly and user-friendly platform that showcases the mission of transforming waste into wearable art. Additional sections include guides on the upcycling process, custom upcycling services, sustainability education,

community engagement through blogs and events, volunteer opportunities, and contact information. The site will feature interactive elements, responsive design, and user-generated content to build a passionate community around sustainable fashion. Continuous feedback and user collaboration, is crucial to the long-term success of the platform. The project not only focuses on environmental benefits but also on social impact by supporting small-scale businesses and providing employment opportunities to household women and youngsters with creative minds.

REVIEW OF LITERATURE:

Dr. M. Arice Mary, Sivasankaran K, Vijayalakshmi M L, Mrs. Rupa P(2024) This article focuses on insights from data analysis, machine learning predictions, and advanced fabric processing techniques. It discusses fabric durability, water repellency, flame retardancy, and the effects of nanotechnology, laser etching, plasma treatment, and digital printing on fabric properties, with a focus on their practical applications in sustainable textile processing. It also discusses potential future research directions, such as improving models, investigating additional fabric properties, and incorporating advanced machine-learning techniques. The section also suggests using reinforcement learning algorithms to optimize textile processing parameters, thereby increasing efficiency, lowering resource consumption, and promoting sustainability in textile manufacturing.

Chukwuebuka C. Okafor, Christian N. Madu(2024) The article provides the information on textile and clothing (T&C) industry is a major polluter and the second largest emitter of greenhouse gases, consuming a significant amount of water, resources, and chemicals. To address this issue, the paper advocates for better waste management and policies. Nigeria requires local solutions due to its unique waste management systems and significant imports of second-hand clothing (SHC). It advocates for a free market system and effective waste management in order to improve recycling. To improve sustainability, key strategies include adopting new business models (slow fashion, resale, rentals, and subscriptions), using sustainable fibers and renewable energy, and implementing effective waste management systems.

Krishnendu Saha, Prasanta Kumar Dey, Vikas Kumar(2024) This research paper provides a comprehensive review of the circular economy in the textile and clothing field, highlighting gaps such as a lack of studies that cover the entire supply chain, particularly the recycling and reuse phases. Future research should fill these gaps, investigate the disruptive effects of CE, and look into potential job displacement due to technology-oriented CE, particularly in developing economies. Understanding these disruptions requires a multilevel approach (firm, industry, and country). The paper emphasizes the importance of frugal innovation and evaluating the CE rebound effect. Methodologies from recent studies can help guide future research. Despite some limitations, such as keyword selection and inherent biases in bibliometric methodologies, the study offers useful insights for future CE-TC research.

Emanuel Boschmeier,(2024) this study helps to understand Textile waste reprocessing, Textile waste reprocessing is critical for aligning with the European Green Deal and promoting the circular economy. Currently, much textile waste is landfilled, incinerated, or exported, endangering sustainability. The EU's revised waste directive requires separate textile waste collection by 2025, which necessitates more collection points and advanced sorting technologies. Fibre-to-fibre recycling has potential, but it faces challenges, including the need for clean, single-material inputs. Market adoption of recycled fibers is hampered by competition, but EU policies, import bans on low-quality apparel, and mandatory certifications can help.

Shaik Anjimoon, Asha V, Jaicky Gurnani(2024) This study focuses on the waste disposal ,a large amount of fabric waste is burned or landfilled, emitting greenhouse gases and contaminants. Textile waste can be recycled and reused to help mitigate these effects. The study identifies major barriers to textile recycling, including logistical, financial, and technological challenges. Life cycle assessments (LCAs) are critical for determining sustainability. A sustainable textile industry requires coordinated efforts from consumers, industry stakeholders, and legislators. Successful initiatives can have a significant environmental impact, support industry sustainability efforts, and contribute to meeting global sustainability targets.

Sooyoen Shim, Jisoo Kim, and Youngjoo Na(2024) The purpose of this study was to propose upcycling fashion designs using guidelines derived from upcycling fashion brand products. The required design elements were divided into six categories: environment, significance, economy, function, design, and material. The guidelines cover

authenticity, product rarity, storytelling, sustainability, experimental features, and adaptability. Using these guidelines, the investigator created upcycling designs from waste materials such as plastic bags, shirts, stockings, neckties, outdoor mats, and backpacks, incorporating a variety of expressive techniques.

Sarwar, Ayushi, Dilip (2022) This study investigates sustainability in the clothing industry through the lens of female consumers. Sustainable clothing aims to reduce environmental impact and promote social responsibility by using eco-friendly materials and waste-reducing manufacturing processes. The study uses purposive sampling and analytical methods such as descriptive techniques, Chi-square, and one-way ANOVA to investigate the awareness and perceptions of sustainable clothing among 100 female consumers in India. The findings show that age, income, and expenditure have a significant impact on purchasing decisions. While there is a high awareness of sustainable clothing, some consumers are still hesitant to buy it.

Mengling Wu, Abdullah Al Mamun, Qing Yang, (2023) This study looks into sustainable disposal methods for second-hand clothing (SHC) donations in China, addressing the environmental impact of excessive consumption. It investigates Chinese consumers' behaviors and identifies psychological factors that influence their willingness to donate SHC. The study incorporates environmental factors into the Theory of Planned Behavior model, emphasizing the significant positive effects of ASC, PRA, ASR, SOC, and PHB on sustainable donation intentions (SDI), providing insights for future strategies in China's textile and garment sector.

OBJECTIVES:

- Create a platform for users to upcycle and restyle their old clothing items.
- Facilitate a marketplace for users to sell and buy upcycled clothing and accessories.
- Promote sustainable fashion practices and reduce textile waste.

RESEARCH METHODOLOGY

In the act of gathering information or evidence for the purpose of analysis, research methods are the strategies, procedures, or techniques that are applied in order to discover new information or develop a better understanding of a topic. The collecting of data may be accomplished by a variety of research methodologies, each of which makes use of a unique set of instruments. In order to determine the level of knowledge that consumers have about "Threaded Renewal: Advancing Sustainable Solutions in Clothing Upcycling" this survey will be conducted.

A procedure known as "convenience sampling" was used in order to pick the samples. The method of sampling known as convenience sampling is a non-probability sampling methodology that includes choosing participants who are conveniently accessible or readily available to the scholar doing the study.

RESEARCH TOOLS: Questionnaire was the investigational instrument that was used for the study.

AREA OF SAMPLING: The city of Bengaluru was selected as the area of sampling.

SAMPLE SIZE: The number of respondents, or the sample size, for this research is hundred.

DATA COLLECTION METHODS:

PRIMARY DATA

Primary data refers to information obtained for the first time from personal experiences or evidence. This type of data is typically collected for research purposes. Raw data and information obtained directly from the source are two other terms for it. Because the analysis is performed by an external entity, the data collection process is costly. Additional financial and human resources are required. Investigators are responsible for directly supervising and controlling data collection processes. Data is typically collected through various methods, including observations,

physical tests, postal surveys, case studies, and focus groups. By using questionnaires, primary Data is being collected for the purposes of this research. A Google form was used to create a 14 question questionnaire for a sample group of customers to complete. Survey respondents provided the majority of the data.

SECONDARY DATA

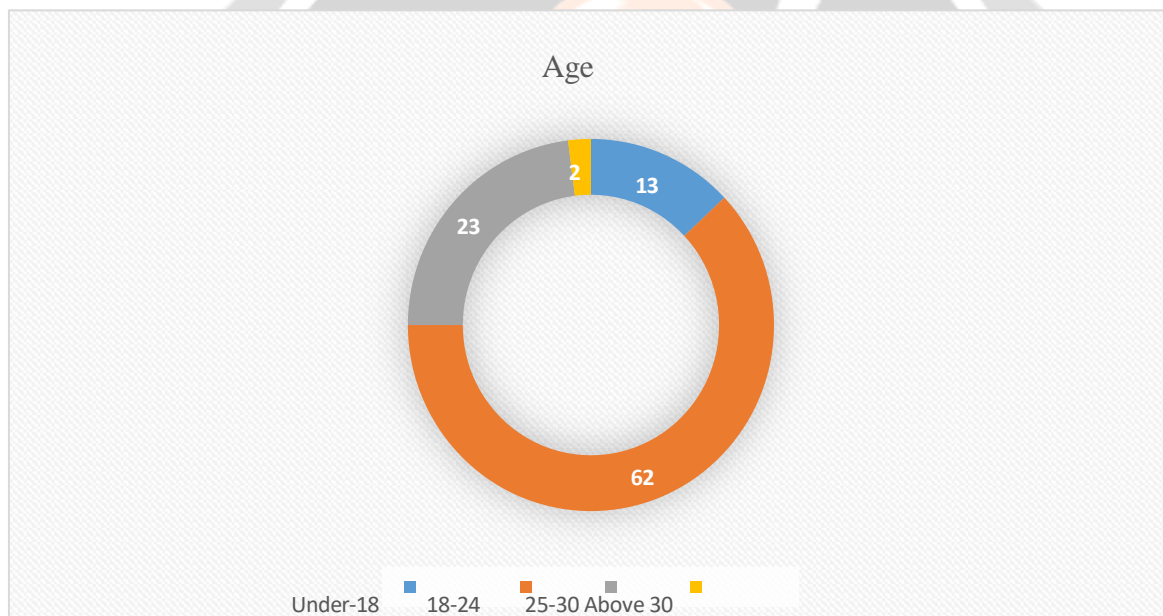
"Secondary data" refers to information gathered and documented by multiple researchers for their own projects, not the current study subject. The information can be gathered from various sources, such as government publications and censuses. Internal records of the organization, books, journal articles, websites, and reports, among other things. This data collection method is cost-effective, convenient, and saves time and money. However, the information gathered may not align with the intended goal due to its origin.

DATA ANALYSIS:

When analyzing data, both quantitative and qualitative approaches to analysis should be employed. Statistical methods are recommended for evaluating survey and clinical data. Used a questionnaire to collect qualitative data.

Based on Age Distribution

➤ **Figure 1.1: Depicting Age Distribution**

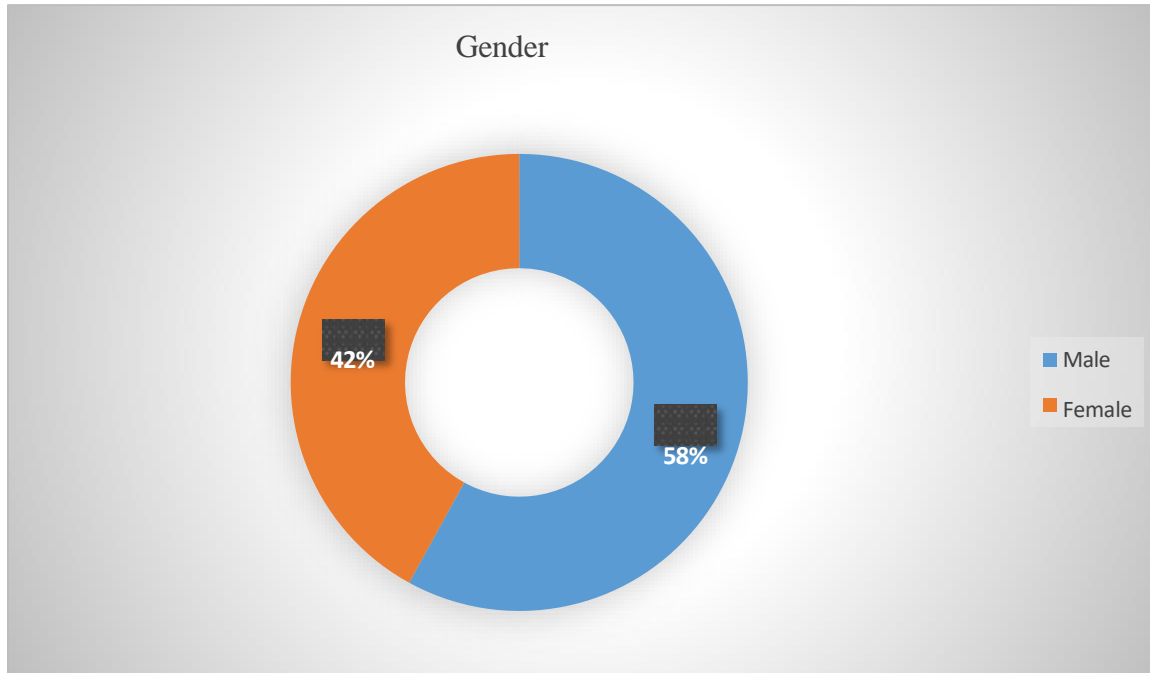


The figure 1.1, pie chart depicts the age distribution of the survey respondents. From the 100 responses received, the survey conducted on "Threaded Renewal (Advancing Sustainable Solutions in Clothing Upcycling)" from the above pie chart 1.1 indicates that the

majority of respondents, comprising 62%, fall within the age range of (18 to 24). Additionally, 23% are between 25 and 30 years old. While 13% are under 18. A small proportion, accounting for 2%, are above 30 years of age. Overall, the sample represents a wide age range, with a significant concentration observed in the 18 to 24 age group.

Based on Gender Breakdown

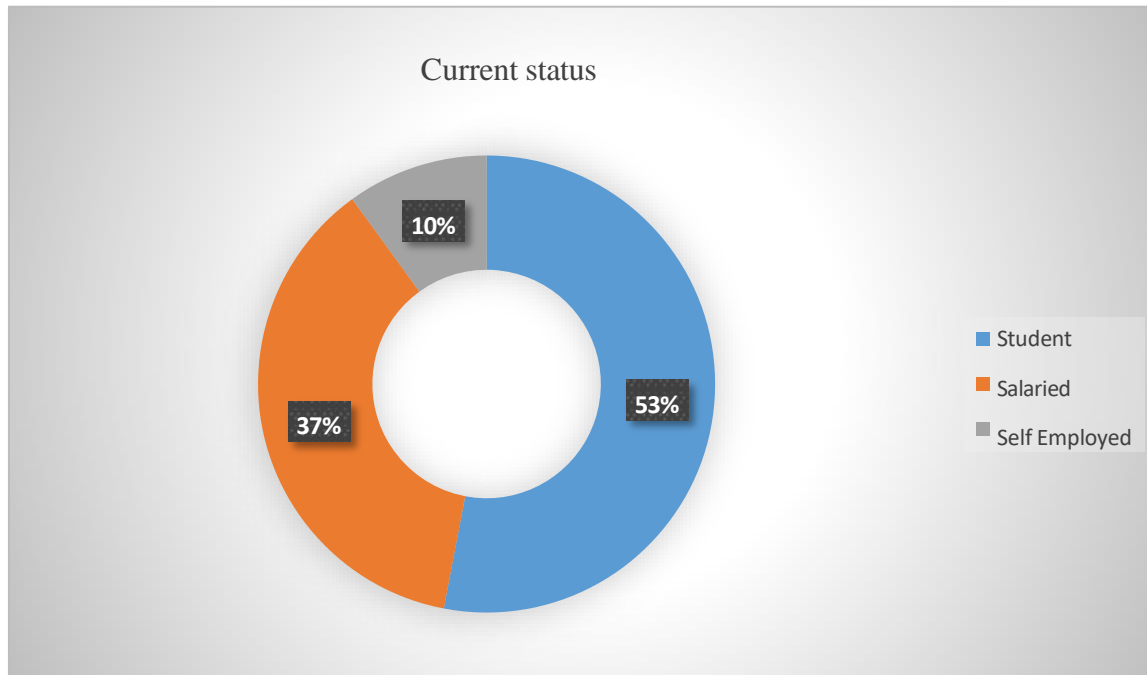
➤ **Figure 1.2: Depicting Gender Breakdown**



The figure 1.2, pie chart 1.2 illustrates the gender distribution of respondents in the survey, with 58 male respondents and 42 female respondents out of a total of 100 surveyed individuals. This data reveals that 58% of the surveyed population identifies as male, while the remaining 42% identify as female. The analysis highlights a noticeable gender imbalance, with male respondents outnumbering female respondents. Understanding this demographic breakdown provides valuable insights into the perspectives represented within the survey.

Current Status

➤ **Figure 1.3: Represents the current status**



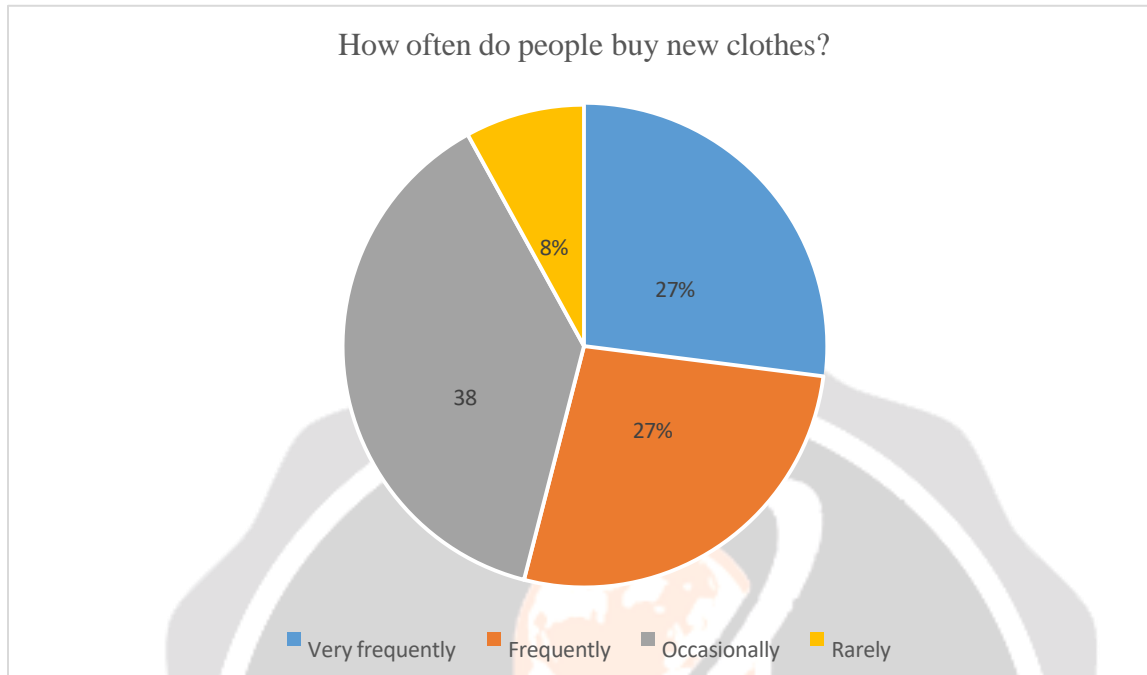
The figure 1.3, pie chart represents the current status or occupation of the survey respondents, categorizing them as students, salaried employees, or self-employed.

It can be inferred from the pie chart 1.3 that an overview of respondents' current situation, classifying them into three groups: students, salaried employees, and self-employed individuals. 53 of the 100 respondents to the survey identified as students, showing a sizable fraction of the population is actively enrolled in school. Furthermore, 37 respondents are categorized as salaried workers, indicating a sizable percentage of those who are regularly employed.

In conclusion, the data highlights the occupational diversity within the surveyed population, encompassing students, salaried workers, and self-employed individuals. This diverse representation enriches the survey findings, offering a comprehensive understanding of various perspectives and experiences.

Frequency of Buying New Clothes

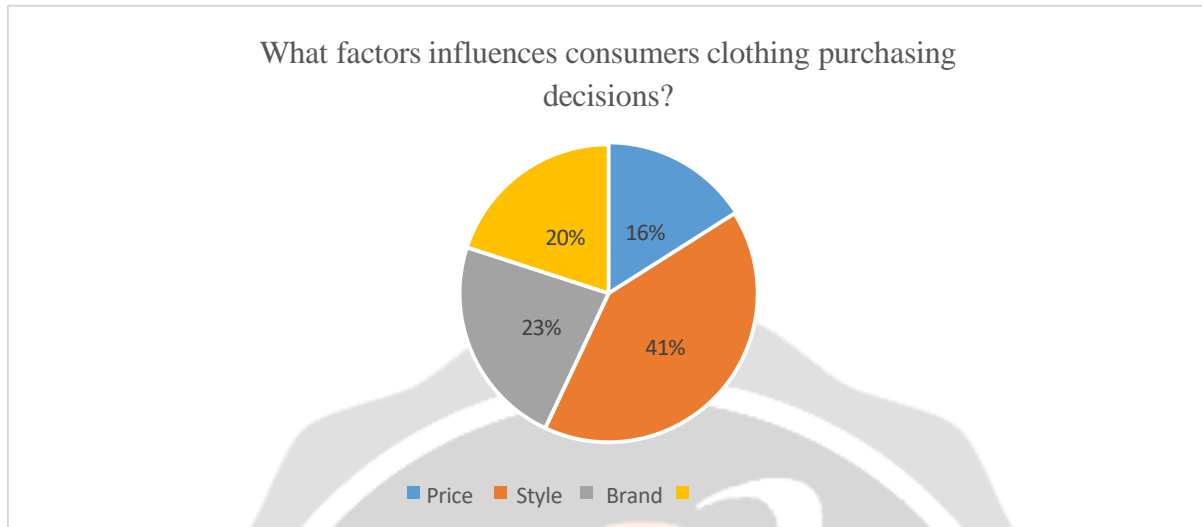
➤ **Figure 1.4: Showing the Frequency of Buying New Clothes**



The figure 1.4, pie chart displays how often the respondents buy new clothes, ranging from "Very frequently" to "Rarely." "The survey delves into respondents purchasing habits concerning new clothes, offering five distinct options ranging from "Very frequently" to "Rarely," with an additional blank option potentially representing "Other" or "None of the above" choices. Examines respondents' frequency of purchasing new clothes, with options ranging from "Very frequently" to "Rarely," including a blank option for alternative responses. Findings reveal that 27% of respondents make purchases "very frequently" or "frequently" suggesting a sizeable percentage regularly purchases clothing. While 38% said they buy garments "occasionally," implying that they only buy them sometimes. A minor 8% purchase that is made "rarely," giving other costs priority. The survey reveals diverse purchasing habits among respondents regarding new clothing acquisitions, with a significant portion making regular purchases while others opt for occasional or rare buys.

Factors Influencing Clothing Purchases

➤ **Figure 1.5: Depicting Factors Influencing Purchase decisions**

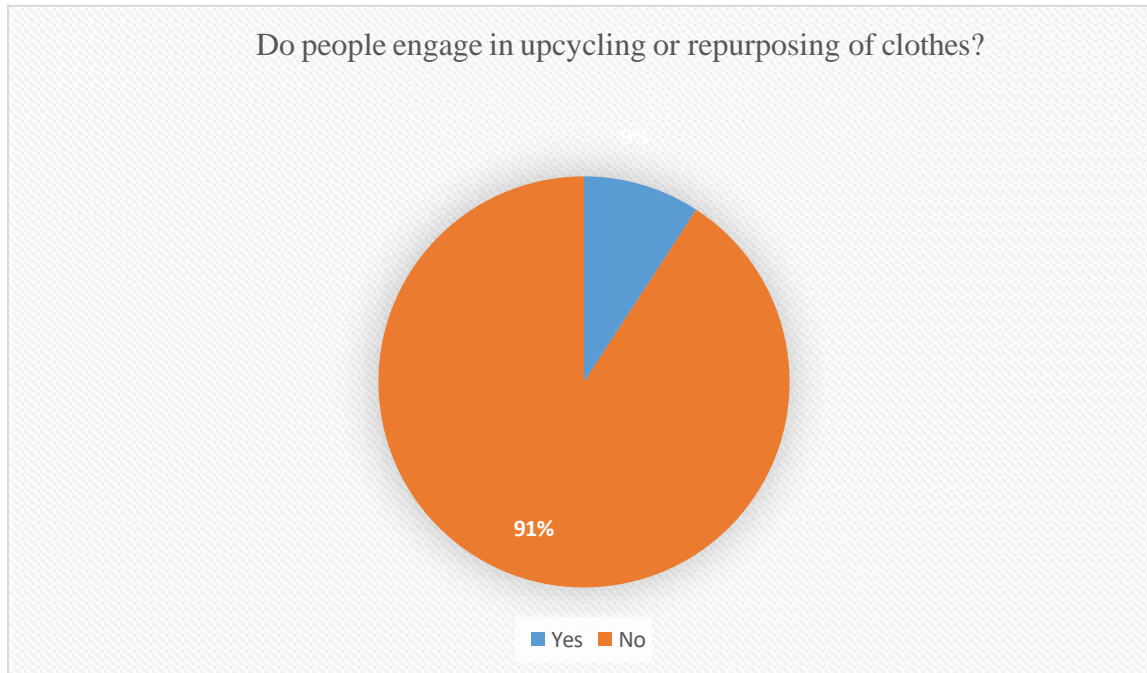


The figure 1.5 pie chart depicts the factors that influence the respondents' clothing purchasing decisions, such as price, style, brand, and sustainability. The survey reveals diverse factors driving clothing purchasing decisions among respondents. Style is the most significant, with 41% prioritizing it, indicating a strong influence of aesthetic appeal. Brand follows with 23%, highlighting the importance of reputation and recognition.

Price impacts 16% of respondents, reflecting affordability and budget constraints. Sustainability is important to 20%, showing growing concern for environmental and ethical issues. Overall, the data underscores the complex interplay of style, brand, price, and sustainability in consumer preferences within the fashion retail landscape.

Engage in Upcycling

➤ **Figure 1.6: Depicts the engagement in upcycling**



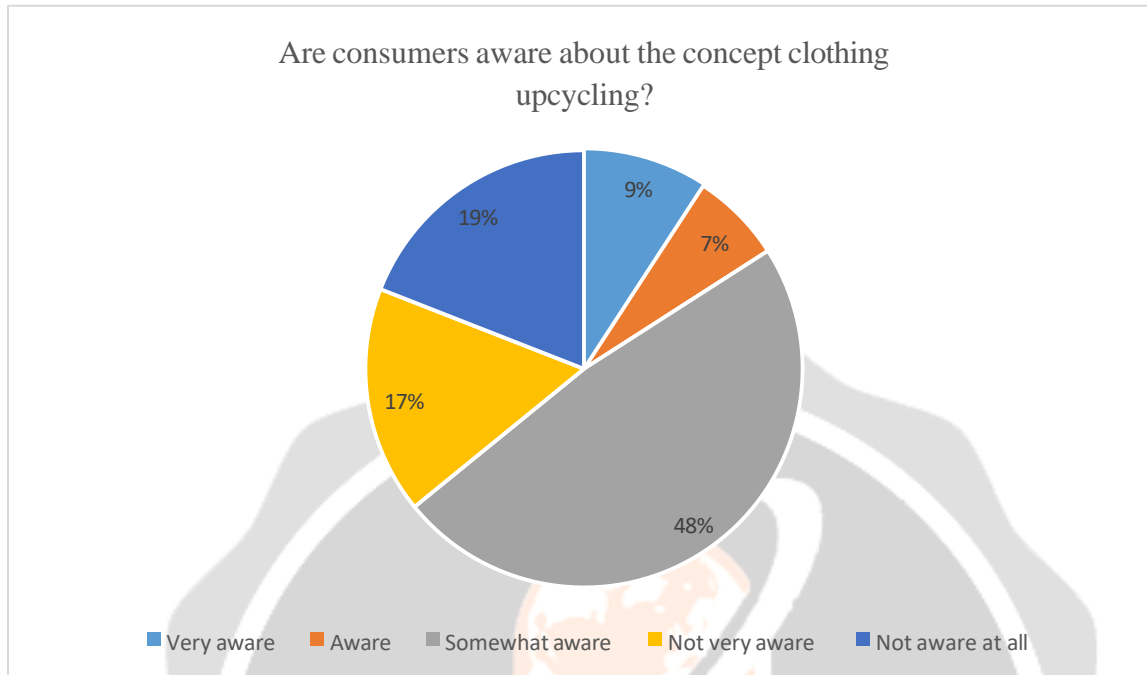
The above figure 1.6, pie chart reveals that 81% of respondents do not engage in upcycling or repurposing clothing items, indicating a lack of participation in altering or reusing garments. Conversely, 19% of respondents do engage in these sustainable practices, showing a growing minority committed to reducing waste and extending the lifespan of clothing through creative reuse.

This data underscores a predominant lack of involvement in upcycling, while highlighting a rising awareness and adoption of sustainable practices among a notable minority.

The data shows varying engagement levels in upcycling clothing, with a majority not involved but a notable minority participating. This suggests a growing awareness and adoption of sustainable practices in the fashion industry, as some individuals aim to reduce waste and minimize their environmental impact by creatively reusing clothing items.

Awareness of Clothing Upcycling

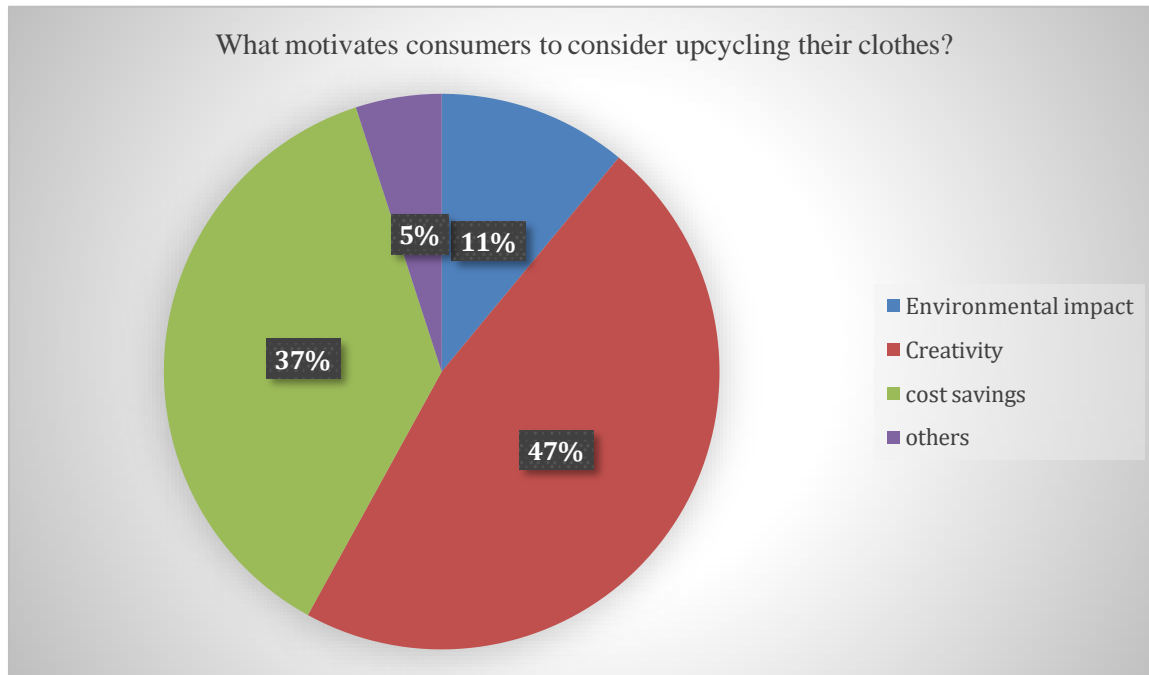
➤ **Figure 1.7: Depicts the extent of awareness of the concept upcycling**



The figure 1.7, pie chart reveals varying levels of awareness about clothing upcycling among respondents. The pie graphic above suggests that A majority, 43%, have some awareness of the concept, though not fully understanding it. Meanwhile, 19% are highly aware and knowledgeable about upcycling and its benefits, and 6% are somewhat knowledgeable. Conversely, 17% know nothing about upcycling, and 15% are not aware at all. This indicates a mix of familiarity with the concept, from well-informed to entirely unaware within the surveyed population. The data reveals a range of respondent’s awareness levels regarding clothes upcycling overall, with the majority having varying degrees of experience with the activity. These findings emphasize the significance of using outreach and education initiatives to encourage more environmentally conscious customer behaviour and to increase public awareness of sustainable fashion industry techniques, such as clothes upcycling.

Interest in Learning Upcycling

➤ **Figure 1.8: Depicts what motivates consumers to consider upcycling**



The figure 1.8, pie chart displays responses to a question regarding reasons why someone would consider upcycling apparel. Four areas comprise the responses: others, cost-savings, inventiveness, and environmental impact. Upcycling clothing items is the most often reported motivator among the respondents, with 37% mentioning creativity as their primary drive.

The survey reveals that environmental impact, cost savings, and personal creativity are key motivators for clothing upcycling. Specifically, 30% of participants upcycle to reduce their environmental impact, reflecting a growing dedication to sustainable fashion. Furthermore, 29% are motivated by cost savings, while 4% cite other personal reasons.

Overall, the data highlights diverse incentives, including environmental concerns, financial considerations, and individual creativity, shaping sustainable consumer behaviour.

Upcycled Before

➤ **Figure 1.9: Depicting the consumer choices**



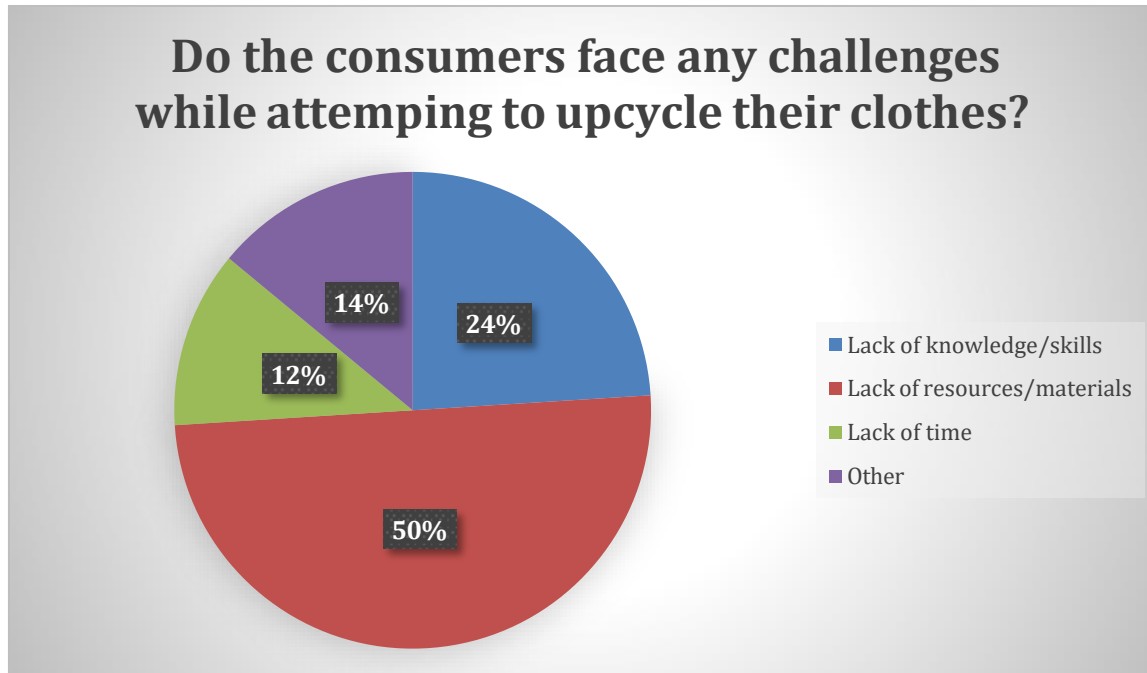
The figure 1.9, pie chart answers to a survey question regarding respondents' prior experience upcycling clothing items are displayed. From the above pie chart, it can be inferred that Eighty-four percent of those surveyed said they have never upcycled any apparel. This suggests that a significant percentage of the population polled has not improved, altered, or recycled clothing pieces to make new ones.

On the other hand, just 17% of respondents said they have previously upcycled clothing, suggesting that a lesser percentage of people have really done it before. This implies that a tiny percentage of the population polled engages in creative repurposing of clothing items as an active part of sustainable practices.

According to the research, most respondents had never upcycled any clothing before, and respondents' interests in upcycling clothing items range widely. On the other hand, the fact that a sizeable minority has participated in upcycling indicates that some individuals are open to and prepared to embrace more environmentally friendly methods within the fashion business.

Challenges with Upcycling

- **Figure 1.10: Depicting the challenges faced while upcycling**

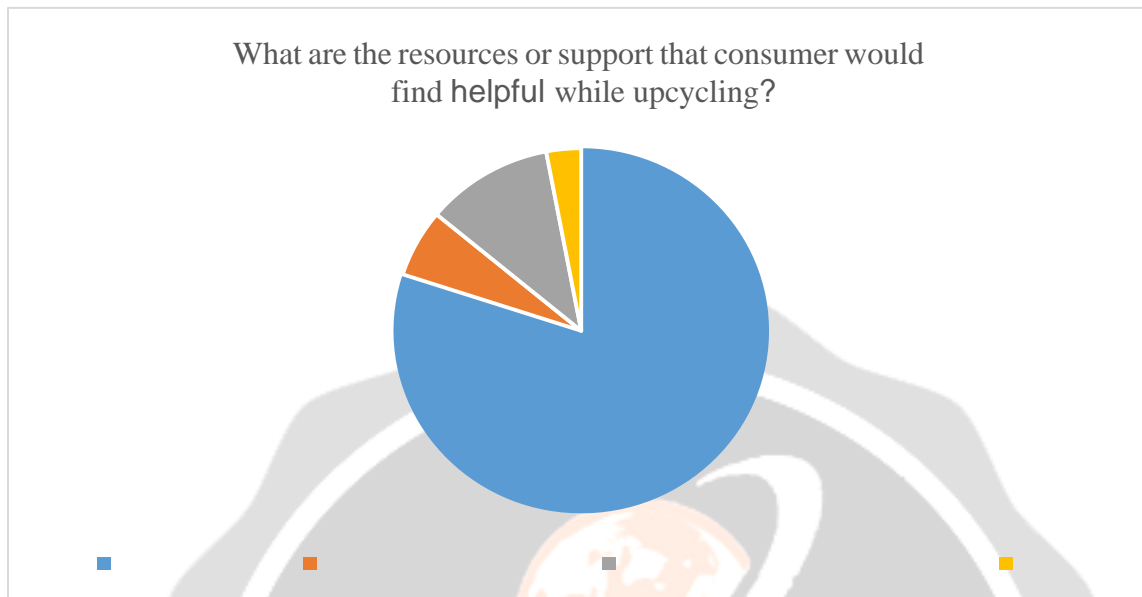


The figure 1.10, pie chart answers to a query on difficulties experienced when trying to upcycle clothing items are displayed in the pie chart above. The survey indicates that 74% of respondents view a lack of knowledge or skills as the biggest obstacle to upcycling clothing, highlighting a significant barrier to successful upcycling due to unfamiliarity with the processes. Furthermore, 17% of respondents say they have trouble locating the materials or resources they need, highlighting the availability of resources as a significant obstacle. This implies that in order to assist upcycling operations, both material and instructional support are required.

The survey identifies a number of difficulties with clothes upcycling: 74% of respondents point to a lack of expertise or abilities, 17% say they have trouble locating resources, 4% say they have time limits, and 5% list additional challenges. These results highlight the necessity of support networks, education, and easily accessible resources in order to remove obstacles and increase the adoption of sustainable fashion methods.

Desired Upcycling Resources

➤ **Figure 2.1: Depicts the resource or support needed while upcycling**



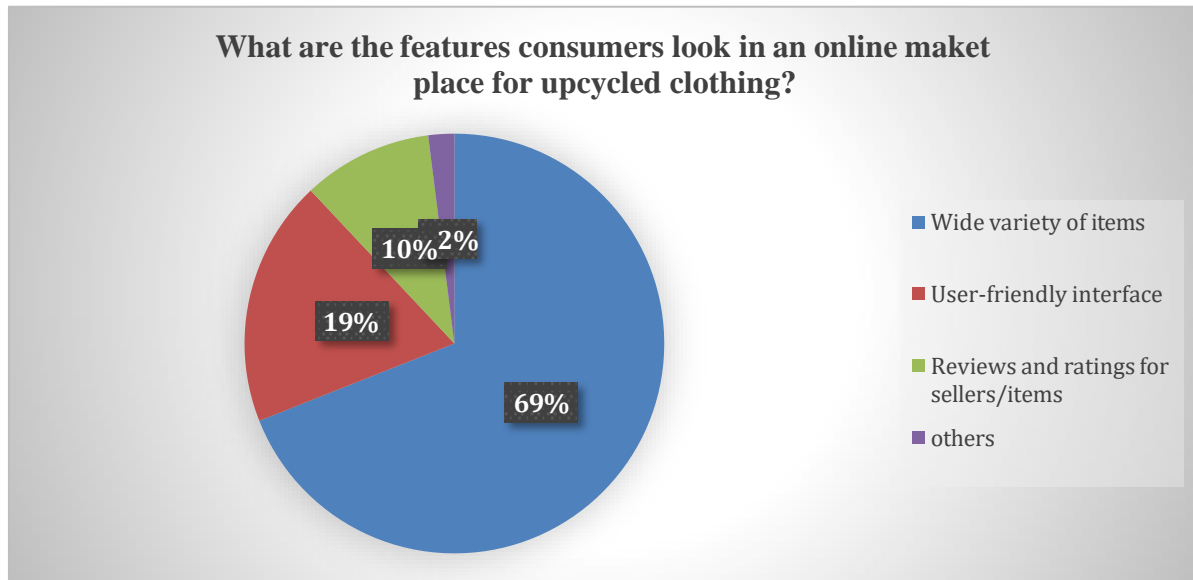
The data visualization in Figure 2.1 reveals that tutorials and videos are the most frequently cited resources among respondents 80% for upcycling clothing items. This indicates that a significant portion of the surveyed population believes that learning upcycling techniques and generating new project ideas can be effectively facilitated by watching tutorials and videos.

The survey indicates that 11% of respondents desire easy access to fabrics, tools, and equipment for upcycling, suggesting that dedicated supply stores could facilitate and support upcycling activities. Detailed instructions, advice, and inspiration resources could aid individuals in repurposing old clothing.

In conclusion, 6% of respondents value workshops for upcycling, highlighting the importance of peer and community support in promoting collaboration among those interested in sustainable fashion. Online connections enable networking, idea sharing, and expertise exchange, while 3% showed minimal interest.

Desired Online Marketplace Features

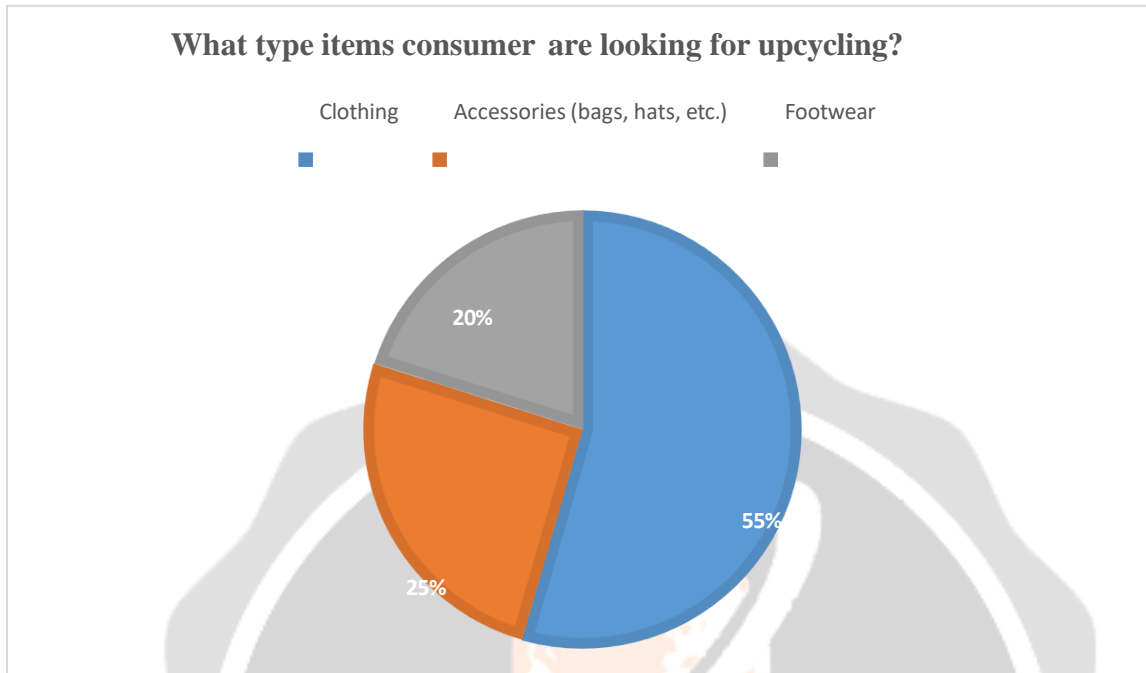
➤ **Figure 2.2: Depicts the requirements for upcycling in the online marketplace.**



The above figure 2.2, pie charts representation shows that, according to 69% of respondents, a large variety of things is the most often desired characteristic in an online marketplace for upcycled clothing. This suggests that having access to a large selection of upcycled clothing options that suit different needs, likes, and styles is important to a significant portion of the questioned population. 19% of respondents desire an easy-to-use interface, underscoring the importance of user-friendly online platforms for browsing and purchasing recycled clothing. A simple interface enhances the overall shopping experience, allowing for easier exploration and discovery of new items. 10% of respondents desire the ability to view ratings, reviews, and filter options for sustainability criteria in an online marketplace for upcycled clothing, indicating a growing need for environmentally responsible purchasing features. This suggests that access to user feedback and ratings may facilitate better decision-making and trust. 2% mentioned other desired features, reflecting a range of preferences among respondents for enhancing their online shopping experience for upcycled clothing. With more focus on 69% requiring a variety in items.

Preferred Items to Upcycle

➤ **Figure 2.3: Depicts the preferences of consumers**



The above figure 2.3, pie chart displays the responses to a survey asking what categories of clothing individuals would be most interested in upcycling. Most respondents to the survey 55% indicated that they would be interested in upcycling clothing. This demonstrates a strong interest in eco-friendly fashion techniques and creative material reuse, as a significant portion of the assessed population is excited about recycling old or unneeded items into new, innovative designs. Moreover, 25% of the respondents indicated that they were curious about repurposing items such as purses, caps, and other accessories. The data suggests a significant interest in repurposing accessories and footwear to reduce waste in the fashion industry, with 20.1% expressing interest in upcycling footwear. Overall, respondents show diverse interests in upcycling clothing, accessories, and footwear, highlighting the creative and sustainable opportunities upcycling offers to contribute to a more environmentally friendly fashion ecosystem. The survey results indicate a strong interest in upcycling clothing items, followed by accessories and footwear, highlighting the diverse opportunities for creative reuse and sustainability efforts within the fashion industry.

Importance of Sustainability

➤ **Figure 2.4: Depicts the sustainability and environmental impacts**

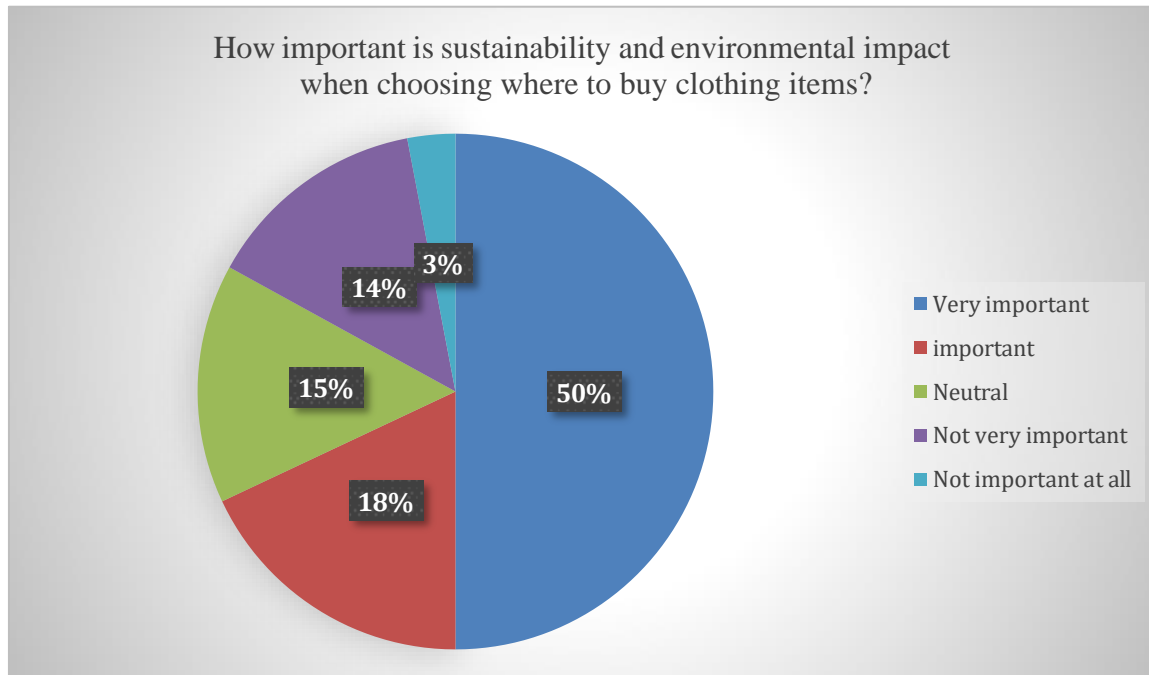


Figure 2.4, a pie chart depicts the findings of a survey on the significance of environmental impact and sustainability in consumers' clothing purchasing decisions. 50% prioritize sustainability in clothing purchases, indicating a strong preference for eco-friendly brands, while 18% consider it significant but less critical, showcasing varying levels of importance placed on sustainability among consumers. 15% of respondents were unsure about the importance of sustainability in clothing purchases, while 14% considered it not very important and 3% found it irrelevant. This suggests varying priorities among consumers, with most considering sustainability important. Retailers and brands should prioritize sustainable practices to align with changing consumer values in the fashion industry. The survey reveals varying levels of importance placed on sustainability in clothing purchases, emphasizing the need for retailers to prioritize eco-friendly practices to meet consumer demands.

FINDINGS FROM THE SURVEY:

Age Distribution: The majority of respondents fell into the age range of 18 to 24, indicating a significant concentration within this demographic. However, there was also representation from other age groups, with smaller proportions under 18 and between 25 to 30, and a minor portion above 30.

Gender Composition: The surveyed population showed a gender imbalance, with male respondents outnumbering female respondents. This suggests the need for strategies to ensure gender inclusivity in future surveys or studies.

Current Status: The occupational landscape within the surveyed population varied, with a sizable portion of students, followed by salaried employees and a minority of self-employed individuals.

Frequency of Clothing Purchases: Respondents displayed varying purchasing habits, ranging from frequent to infrequent clothing purchases, reflecting diverse consumer behaviors within the surveyed population.

Factors Influencing Clothing Purchasing Decisions: Style emerged as the most significant factor influencing purchasing decisions, followed by brand, price, and sustainability. This underscores the importance of aesthetics and personal preferences in consumer choices.

Engagement in Upcycling: A notable portion of respondents indicated they do not currently engage in upcycling, highlighting potential opportunities for education and awareness campaigns to promote sustainable practices.

Awareness of Upcycling: The majority of respondents had at least some awareness of clothing upcycling, indicating a growing familiarity with sustainable fashion practices.

Interest in Upcycling: Respondents showed varying levels of interest in learning more about upcycling techniques and ideas, with a significant proportion expressing interest.

Motivation for Upcycling: Creativity, environmental impact, and cost savings emerged as primary motivators for considering upcycling clothing items, reflecting a mix of personal, environmental, and practical incentives.

Challenges in Upcycling: Lack of knowledge/skills was cited as the most significant challenge, followed by a lack of resources/materials and time constraints, underscoring the need for education and support in upcycling endeavors.

Desired Resources for Upcycling: Tutorials/videos were identified as the most helpful resource for upcycling, highlighting the importance of accessible education and guidance.

Online Marketplace Usage: A minority of respondents currently use online platforms for buying or selling secondhand clothing items, suggesting potential for growth in the online resale market. **Desired Features in Online Marketplaces:** A large selection of items was the most desired feature, emphasizing the importance of variety and choice for consumers in the online marketplace for upcycled clothing.

Importance of Sustainability: The majority of respondents considered sustainability and environmental impact to be important factors when choosing where to buy clothing items, indicating a growing awareness and preference for eco-friendly practices.

Interest in Upcycling Community: A significant portion of respondents expressed interest in participating in an upcycling community, highlighting the potential for community-building efforts to foster collaboration and knowledge-sharing.

Preferred Clothing Items for Upcycling: Clothing items were the most preferred for upcycling, followed by accessories and footwear, indicating diverse opportunities for creative reuse and sustainability efforts.

SUGGESTIONS:

Education and Awareness Campaigns: Implement educational initiatives to increase awareness of sustainable fashion practices, including upcycling, targeting various age groups and demographics. **Skill-Building Programs:** Offer workshops or online courses to enhance skills and knowledge in upcycling techniques, addressing challenges related to lack of knowledge/skills.

Resource Accessibility: Improve access to resources and materials for upcycling projects through supply stores, online platforms, and community initiatives.

Community Engagement: Foster community engagement through online forums, social media groups, and local meetups to facilitate knowledge-sharing and collaboration among upcyclers. **Marketplace Development:** Enhance online marketplaces for upcycled clothing by incorporating desired features such as a wide variety of items, user-friendly interfaces, and sustainability filters. **Sustainability Integration:** Encourage brands and retailers to prioritize sustainability in their practices and product offerings, aligning with consumer preferences for eco-friendly options.

CONCLUSION:

According to the survey on upcycling clothing, there is a lot of room for sustainable fashion practices. Even though a sizable fraction of respondents do not presently upcycle, there is a discernible desire to learn more about it and get involved in communities that are relevant to it. There is a shift in consumer behavior towards eco-consciousness, as evidenced by the strong motivations for considering upcycling, which include cost savings, environmental impact, and creativity. But there are significant obstacles to overcome, such as a lack of resources and expertise, which emphasizes the significance of accessibility and education in supporting upcycling projects. Furthermore, the gender gap in the survey's participant pool and the disparities in spending patterns across age cohorts underscore the necessity of adopting inclusive and focused strategies for promoting sustainable fashion. As we move forward, there are concrete actions that need to be taken, such as creating programs that help people develop their skills, improving online marketplaces, and encouraging the fashion industry to integrate sustainability. Through tackling these obstacles and capitalizing on chances for instruction, community involvement, and industry advancement, interested parties can strive for a more environmentally conscious and socially conscious fashion ecosystem that incorporates upcycling and environmental conservation.

REFERENCES:

Journal Articles:

1. Mary, M. A. (2024). Sustainability in Eco-Friendly Processing in Textiles and Clothing. *Boletin de Literatura Oral-The Literary Journal*, 11(1), 39-48.
2. Okafor, C. C., Madu, C. N., Ajaero, C. C., Ibekwe, J. C., Nzekwe, C. A., Okafor, C., ... & Nzekwe, C. (2021). Sustainable management of textile and clothing. *Clean Technol. Recycl*, 1, 70-87.
3. Saha, K., Dey, P. K., & Papagiannaki, E. (2022). Implementing circular economy in the textile and clothing industry. In *Supply chain sustainability in small and medium sized enterprises* (pp. 239-276). Routledge.
4. Boschmeier, E., Ipsmiller, W., & Bartl, A. (2024). Market assessment to improve fibre recycling within the EU textile sector. *Waste Management & Research*, 42(2), 135-145.

5. Anjmoon, S., Asha, V., Gurnani, J., Khan, I., Paul, S., & Al-Jawahry, H. M. (2024). Innovations and Opportunities in Sustainable Textile Recycling. In *E3S Web of Conferences* (Vol. 507, p. 01065). EDP Sciences.
6. Shim, S., Kim, J., & Na, Y. (2018). An exploratory study on up-cycling as the sustainable clothing life at home. *Fashion and Textiles*, 5, 1-15.
7. Alam, A. S., Goenka, A., & Nandkeolyar, D. (2022). Sustainable Clothing: Exploring the Awareness, Attitudes and Purchase Behavior of Indian Consumers. *South Asian Journal of Management*, 29(5).
8. Wu, M., Al Mamun, A., Yang, Q., & Masud, M. M. (2023). Modeling the reuse intention and practices of secondhand clothing: Evidence from a developing nation. *Humanities and Social Sciences Communications*, 10(1), 1-12.

BOOKS:

9. Iyengar, S. (2014). Upcycling Shakespeare: Crafting Cultural Capital. *Outspeares: Shakespeare, intermedia, and the limits of adaptation*, 764-816.
10. Zacke, S., & Hedengren, S. (2014). *Modern Upcycling: A User-friendly Guide to Inspiring and Repurposed Handicrafts for a Trendy Home*. Simon and Schuster.
11. Santoso, R. E., & Widyamurti, N. (2018, November). Up-Cycle Of Plastic Opp Laminate; From Waste Into Handicraft Products Raw Material. In *3rd International Conference on Creative Media, Design and Technology (REKA 2018)* (pp. 290-294). Atlantis Press.
12. Santulli, C., & Langella, C. (2013). '+ design-waste': a project for upcycling refuse using design tools. *International Journal of Sustainable Design*, 2(2), 105-127.