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Paper: 33

Consumer awareness and attitude towards Sustainable consumption of fashion apparels in India

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Abstract—This paper attempts to study about attitude of consumers in India towards sustainable consumption of fashion apparels with respect to clothing. Sustainable consumption includes 3 phases such as purchasing, usage and disposal of clothes. The objective is to find out the variation in consumer behavior in the three phases with respect to demographic variables like age group, gender, employment status etc.. and to find out the factors like Rethinking, Reusing, Retaining, Recycling etc... that drive consumers towards sustainability. A survey was conducted using Google form. The results show that gender is not a significant factor in determining Sustainable purchase, usage and disposal but employment status matters in the sustainable purchase and disposal phase and age group is important in disposal phase. It is found that the consumers have an understanding of the environmental concerns caused by fashion industry and dumping of clothes in landfills but their actions show that they are not adopting sustainable practices.

Keywords— Sustainable fashion, Clothing, Consumer attitude, Sustainable consumption, Sustainable purchase, Sustainable usage, Sustainable disposal.

I. INTRODUCTION

Fashion industries are one of the major polluters of our environment. Right from carbon emissions, excessive water usage and use of harmful dye while manufacturing clothes till releasing microplastics and microfibers into waterbodies while washing clothes and dumping obsolete clothes into the land, the fashion industry contributes more in polluting our environment. (I. Kim et al., 2021)

Fashion is different for each and every person. It reflects an individual's personality, creativity and exclusiveness. People connect fashion with their identity and they create unique style for themselves (Niinimäki, 2010). They have the desire to be in current trend and follows new fashion releases and purchases them. In this way, their collections increases and when they feel that their existing collections are not in trend, they dump it. According to United Nations Environment Programme report titled Putting brakes on fast

fashion (2018), on a regular basis, the amount of textiles that are dumped or burned is equivalent to one garbage truck per second.

In 1987, the term "sustainability" was introduced, and it signifies the act of fulfilling current needs while ensuring that future generations' necessities are not compromised. Sustainability is composed of three dimensions, namely environmental, economic, and social, as highlighted by (Zhang et al., 2021). Sustainable fashion is an emerging idea that encompasses various elements, including societal attitudes and values, appropriate choice of marketing and advertising strategies, distinct industrial processes, and accepting new consumer behaviors.

Most of the studies on sustainable consumer behaviour have focussed on sustainable purchasing. But awareness is needed not only on purchasing stage. Understanding consumption patterns at all stages of consumption is necessary for promoting sustainable consumption behaviour.

However, with the exception of (Gwozdz et al., 2017), (Soyer& Dittrich, 2021) and few studies have examined all consumer phases of purchase, usage and disposal. All these consumer-related phases have implications for clothing's overall environmental impact.

The purpose of the study is to know the level of awareness that consumers have towards sustainable fashion apparels in all three phases which includes purchase, usage and disposal. It is examined by asking questions related to how the respondents rethink, reuse, reduce, retain, repair, refurbish and repurpose the clothes. Further, the study aims to explore the factors that drive them towards sustainable purchase, usage, disposal of clothes.

This study will be very relevant to the present and future generation because it is the topic that is being discussed very frequently and gaining more importance nowadays. It will also be an eye-opener to all the present generation who will



Volume 6- Issue 2, August 2023 Paper : 29

be making decisions and it will create awareness among people to rethink while purchasing fashion apparels and to re-use and dispose clothes properly.

II. LITERATURE REVIEW

A. Sustainable Fashion

Sustainable fashion is an emerging concept and it is gaining more importance nowadays because of the waste that is being generated by fashion industry. Sustainable fashion focusses on using bio-degradable, organic, eco-friendly materials, and it intends to avoid harm to the environment by using these materials to produce clothes which can be used for a longer period of time. Sustainable fashion not only focusses on environment, it also aims to provide proper working conditions for workers and it promotes fair trade. In this way, sustainable fashion is defined with two perspectives namely green fashion and ethical fashion (Mandarić et al., 2021).

B. Disruption in Fashion Industry

In the past decade, fashion industry has undergone a disruptive change. It is the reduction in the lifecycle of fashion apparel chain. Earlier, it took at least six months for a manufacturer to reach his/her products to consumer, it took three months to design a collection, two months to ship it. But now, fashion industry has gone through a rapid change because of fast fashion (Binet et al., 2019).

Over the past two decades, the decline in apparel prices has enabled us to purchase an increasing number of clothes. Consequently, we currently possess five times the amount of clothing that our grandparents had (Charpail Mathilde, 2017).

Fast fashion is the complete opposite of Sustainable fashion. But nowadays fast fashion business strategy has reduced this cycle to three months and some brands like Zara and H&M has cut this cycle to weeks. This has happened due to globalization, technological developments, innovation and improvements in supply chain, logistics and retail (Zhou et al., 2015)

Due to reduction in lifecycle of fashion apparels, demand for new trendy clothes is increasing, at the same time fashion waste is also increasing. To meet the increasing demand, cheap labour and raw materials from third world countries is being utilised. Labours work in poor working conditions with low wage (Saicheua et al., n.d.)

C. Consumer Attitude towards Sustainable Fashion Consumption

Consumers in the present world are aware of the damages caused by fashion industry to the planet Earth and humankind. But still, choices made by consumers are not rational and the decisions made by them does not match with their thoughts.

Earlier research indicated that several factors impede sustainable consumption and influence the formation of favorable attitudes towards environmentally-conscious clothing consumption. Some of the factors that hinder sustainable consumption are inadequate consumer knowledge, scarcity of information availability, restricted economic resources and unfavourable retail environment (Connell, 2010). Furthermore, consumers commonly perceive sustainably produced clothing as unappealing and outdated (Tomolillo D & Shaw D, 2004).

But now, Millennials and Generation Z people are more sustainable conscious and they have more interest towards sustainable fashion apparels. They like to purchase environment friendly, long lasting and sustainable fashion apparels including clothes, shoes and accessories (I. Kim et al., 2021)

D. Major Footprints of Fashion Industry on Environment

Fashion industry uses natural fibres like cotton, wool, jute, silk, linen and man-made fibres like polyester, acrylic, nylon and rayon. All these man-made fibres are made from petroleum and petrochemicals. Majority of the clothes in our wardrobe consists of outfits made from polyester, nylon and rayon. These are cheap and easy to carry but the amount of pollution generated to produce these fibres are very high and lots of green-house gases gets released in the process. According to a study, nylon takes 30 to 40 years to decompose (Allwood et al., 2006)

Another major concern is excessive water usage in fashion industry. Cotton requires lot of water. Research done by Water Footprint Network shows that it takes 22,500 litres of water to make 1 kg of cotton in India. On a global scale, the average water footprint required to produce 1 kilogram *of* cotton is 10,000 liters. And water is becoming very scarce nowadays because the consumption is very high. As a result, ground water resources are also being depleted. ("World Water Day: The Cost of Cotton in Water-Challenged India," n.d.)

Fashion industry is heavily relied on water throughout the production process for textiles. Research shows that spinning and dyeing process of fibres (any fibre) takes at least 100 to 150 litres of water (Mukherjee, 2015).

In the dyeing process, lots of toxic chemicals are used which are highly hazardous for humans, animals and environment. The production of synthetic dye includes strong acids, alkalis and solvents (Claudio, 2007). Most of the companies in fashion industry releases the dye water directly in the land or nearby waterbodies without treating the waste water. This directly affects the ecosystem (Brewer, 2019).

E. Sustainability in Different Countries

From a study conducted in UK, researchers found that those work are more aware of sustainability issues that has been created by fashion industry than students and those who are not working. The research findings indicated that employment status plays a significant role in the attitude of consumers towards sustainability (Zhang et al., 2021).

Research was conducted in Croatia to find the perception of consumers towards sustainability of fashion brands. From the research, it was found that the perception of sustainability



Volume 6- Issue 2, August 2023 Paper : 29

differs from male and female and female generally tend to have more awareness than men in sustainable fashion (Mandarić et al., 2021).

Results from the research conducted in Netherlands showed that consumers do have knowledge about sustainability and they are aware that the decisions made will create a positive impact but it does not result in their behaviour (Soyer& Dittrich, 2021).

F. Sustainable Purchase, Usage and Disposal of Clothes

Awareness and knowledge towards sustainability will result in sustainable purchase, usage and disposal of clothes (H. Kim et al., 2013). As mentioned earlier, the production of clothes consumes lot of water, energy and chemicals. And consumers know when they should buy the new clothing items and in what quantity it has to be purchased.

The purchase phase is highly connected with environment because the type of material a consumer chooses and its quality, maintenance will decide the usage and disposal of it. If the clothing is made of high-quality material, it will last longer, thus it will reduce the number of clothing disposal in environment (Gwozdz et al., 2017).

Sustainable purchasing of clothes is about buying clothes that has social, economic, environment friendly qualities (Joshi & Rahman, 2019). Sustainable purchase includes rethinking about the purchasing decision whether the purchase is really necessary or not; and reusing clothes by giving a new form to it (H. Kim et al., 2013).

Consciousness towards environmental impacts created by fashion industry and harmful detergents used by us to maintain clothes leads towards using garments for longer period of time and repairing it to expand its lifetime. In India, the use of eco-friendly detergents is very rare. And the laundering process consumes lot of energy and water. Also, during the laundering process clothes made from non-biodegradable products like polyester, nylon releases Synthetic microfibers (MF). These microfibers enter into ocean through sewage and poses severe harm for marine life. Slowly it enters into the digestive system and they die due to plastic debris ingestion (Singh et al., 2020).

There are many forms of disposal of clothes including reselling, recycling, donating it to charity, sending it to landfill and using unwanted clothes as rags, etc... Even though, donating unwanted clothes to needy people or to charity is common, disposing clothes by sending it to landfill is customary (Gwozdz et al., 2017) (Jalil &Shaharuddin, 2019). In India, up to 7800 kilo tonnes of textile waste gets accumulated annually, in which, approximately 51% of waste is disposed by Indian consumers as post-consumer waste, 42% of waste is pre-consumer waste which comes from factory, followed by imported waste 7% (Wealth in waste: India's potential to lead circular textile sourcing, 2022).

Knowledge towards societal impacts caused as a result of binning unwanted clothing (sending it to landfills) inspire sustainable disposal of clothes which includes donating clothes to needy people and swapping clothes with friends, relatives (Jalil &Shaharuddin, 2019).

III. RESEARCH OUESTIONS

RQ 1: Is there any variation in consumers behavior related to sustainable purchase, usage and disposal of clothes with respect to demographic factors like age group, gender and employment status?

RQ 2: What is the attitude of consumers towards Sustainable purchase, usage and disposal of clothes?

RQ 3: What are the factors that drive Sustainable purchase, usage and disposal of clothes?

IV. RESEARCH OBJECTIVES

- To study how demographic factors will affect the behavior of consumers' sustainable purchase, usage and disposal practices
- To understand the attitude of consumers towards Sustainable purchase, usage and disposal of clothes
- To know the factors that drive Sustainable purchase, usage and disposal of clothes.

V. HYPOTHESIS

There is no significant variation in responses among respondents belonging various demographic groups pertaining to age, gender, education level, employment status, monthly income, average monthly spending on clothing and area of residence.

VI. RESEARCH METHODOLOGY

To collect data, quantitative method of study was used by conducting a survey online using Google Forms. The sample method used was convenience sampling, which is a non-probability sampling method.

The questionnaire used is a sample questionnaire from (Soyer& Dittrich, 2021). The survey consisted of 3 parts. Respondents were asked a set of questions related to each research objectives. First part consists of demographic questions and the next part consists of questions related to the current practices of consumers during the phase of purchase, usage and disposal of clothes. Last part of questions was framed to know the factors that drive consumers towards sustainable purchase, usage and disposal of clothes.

VII. RESPONDENT PROFILE

The total number of respondents who have completed the survey was 201. Among the 201 respondents, we have 90 (44.8%) male and 111 (55.2%) female respondents. The age range of respondents are very wide and ranges from 18. 141 (70.1%) respondents who took the survey are between the age 18 to 25, 23 (11.4%) respondents between the age 26-35, 24 (11.9%) respondents between the age 36-45, 9 (4.5%)



Volume 6- Issue 2, August 2023

Paper: 29

respondents between the age 46-55 and 4 (2%) respondents are above the age of 55.

Majority of the respondents who took the survey were students. There were 126 (62.7%) students, 49 (24.4%) employees, 14 (7%) professionals, 10 (5%) home-makers and 2 (1%) retired employees.

Around 109 (54.2 %) respondents have PG education, 72 (35.8%) have UG education, 10 (5%) have professional studies, 7 (3.5%) have PhD, 2 (1%) have secondary education and only 1 respondent (0.5%) have primary education.

Around 145(72.1%) respondents reside in Urban area and 56 (27.9%) respondents reside in rural area.

66 (32.8%) respondents have monthly income below Rs. 25,000, 54 (26.9%) respondents have monthly income between the range Rs. 25,000 to Rs. 50,000, 38 (18.9%) respondents between the range of Rs. 50,000 to Rs. 1,00,000 monthly income, 15 (7.5%) respondents between Rs. 1,00,000 to Rs. 1,25,000, 4 (2%) respondents between the range Rs. 1,25,000 to Rs. 1,50,000 and 24 (11.9%) respondents between the monthly income range above Rs. 1,50,000.

Majority of the respondents around 69 (34.3%) respondents average monthly spending on clothing is between Rs.500 to Rs. 1000, 51 (25.4%) respondents spend below Rs. 500 in a month, 36 (17.9%) respondents spend between Rs. 1000 to Rs. 1500, 28 (13.9%) respondents spend between Rs. 1500 to Rs 2000 and 17 (8.5%) respondents spend more than Rs. 2000 in a month.

VIII. ANALYSIS

A. Sustainable Practices for Purchasing, Using and Disposing of Clothes

Around 171 (85.1%) respondents have agreed that they buy quality clothes because that last longer, making it the most used sustainable purchasing practice. Even (Soyer& Dittrich, 2021) research proved the same. While rethinking strategies such as buying clothes made from recycled material (6.5%) and considering sustainability aspects of the clothes that the respondents buy, rent or swap (11.9) are the least favoured.

In usage phase, using damaged clothes for cleaning purpose (81.1%) and repairing small defects in garments by themselves (69.7%) are the most favoured while continuing to wearing garments that do not fit well is least favoured strategy.

In disposal phase, using clothes as rags for cleaning purpose (74.1%) and giving away clothes to others (72.6%) are the

most used strategy and swapping clothes via platform (8.5%) is least favoured.

B. Variations in Factors

For analysis of variations in factors, ANOVA is used to know the variance between groups.

1) Variation in Factors Affecting Sustainable Purchase with respect to Employment Status as Demographic Variable:

There is no significant variation in factors affecting Sustainable purchase with respect to employment status as a differentiating factor except with respect to the factor "reducing" (reducing purchase of clothes). The result shows that home-makers (Mean = 3.25) are good in sustainable purchasing which indicates that they reduce the purchasing of clothes by buying quality clothes that last longer. Respondents who work have the inclination to follow fashion trends so they may not usually re-think before buying clothes. Refer *Appendix 1* for the results.

Table 1: ANOVA – Employment status

		Sum of Squares	df	Mean Square	F	Sig.
SP_ret hinkin	Between Groups	.318	4	.080	.374	.827
g	Within Groups	41.758	196	.213		
	Total	42.076	200			
SP_Re using	Between Groups	1.715	4	.429	.574	.682
	Within Groups	146.364	196	.747		
	Total	148.079	200			
SP_red ucing	Between Groups	15.433	4	3.858	2.499	.044
	Within Groups	302.607	196	1.544		
	Total	318.040	200			

2) Variation in Factors Affecting Sustainable Usage with respect to Monthly Income as Demographic Variable:

There is no significant variation in factors affecting Sustainable usage with respect to monthly income as a differentiating factor except with respect to the factor "repairing". Fashion is an individual's identity. It reflects their personality and people always like to have sharp and perfect look and love to wear clothes that fits well. So, respondents may not continue to wear garments with small defects and clothes that does not fit well and are out of



Volume 6- Issue 2, August 2023

Paper: 29

fashion. Respondents who belong to the income group between Rs. 25,000 to Rs. 50,000 and Rs. 1,00,000 to Rs. 1,25,000 have the higher mean value (Mean = 3.35). Refer *Appendix 2* for the results.

Table 2: ANOVA – Monthly income

		Sum of		Mean		
		Squares	Df	Square	F	Sig.
SU_Retain	Between Groups	.911	4	.228	.378	.824
	Within Groups	118.276	196	.603		
	Total	119.187	200			
SU_repair	Between Groups	12.532	4	3.133	2.016	.094
	Within Groups	304.657	196	1.554		
	Total	317.189	200			
SU_refurbish	Between Groups	2.921	4	.730	.434	.784
	Within Groups	329.633	196	1.682		
	Total	332.555	200			

3) Variation in Factors Affecting Sustainable Usage with respect to Area of Residence as Demographic Variable:

There is no significant variation in factors affecting Sustainable usage with respect to area of residence as a differentiating factor except with respect to the factor "refurbishing". Consumers belonging to rural area (Mean = 3.14) are likely to refurbish clothes more than urban people. Respondents may refurbish their clothes and give another life to it because it may hold a special place in their heart. Refurbishing these clothes allows them to keep the clothes while also restoring them to their original condition. People who have access to resources, such as sewing machines may be more likely to repurpose clothing than those who do not have access to these resources. Refer *Appendix 3* for the results.

Table 3: ANOVA - Area of residence

		Sum of Squares	Df	Mean Square	F	Sig.
SU_Re tain	Between Groups	.562	1	.562	.942	.333
	Within Groups	118.625	199	.596		
	Total	119.187	200			
SU_re pair	Between Groups	2.091	1	2.091	1.321	.252
	Within Groups	315.098	199	1.583		
	Total	317.189	200			
SU_ref urbish	Between Groups	12.363	1	12.363	7.684	.006
	Within Groups	320.192	199	1.609		
	Total	332.555	200			

4) Variation in Factors Affecting Sustainable Disposal with respect to Age Group, Employment Status, and Average Monthly Spending on Clothing as Demographic Variable:

There is no significant variation in factors affecting Sustainable disposal with respect to employment status and monthly income as a differentiating factor except with respect to the factor "reusing". Disposing clothes for other's use is a very popular way of discarding clothes. Donating clothes can be an environmentally-friendly way to dispose of clothes. Instead of throwing clothes away in landfills, donating clothes keeps them out of the waste stream and reduces the environmental impact of fashion. Students have the highest mean value (Mean = 3.03) which indicates that students dispose the clothes more sustainably than other groups. Retired group of people have the lowest mean (Mean = 2.50) which indicates that less sustainable in disposing clothes. Donating clothes can be a way to declutter one's home and simplify one's life. By donating clothes, people can clear out their closets and make space for new items(Soyer& Dittrich, 2021). Refer Appendix 4 for the results.



Volume 6- Issue 2, August 2023 Paper: 29

Table 6: ANOVA – Age group

Table 4: ANOVA -	- Employment status
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		Sum of Squares	Df	Mean Square	F	Sig.
SD_reu se	Between Groups	2.431	4	.608	2.055	.088
	Within Groups	57.960	196	.296		
	Total	60.391	200			
2. Repurp	Between Groups	13.033	4	3.258	1.618	.171
ose	Within Groups	394.788	196	2.014		
	Total	407.821	200			

		Sum of Squares	Df	Mean Square	F	Sig.
SD_reu se	Between Groups	2.431	4	.608	2.055	.088
	Within Groups	57.960	196	.296		
	Total	60.391	200			
2. Repurp	Between Groups	13.033	4	3.258	1.618	.171
ose	Within Groups	394.788	196	2.014		
	Total	407.821	200			

Those average monthly spending on clothing is more than Rs. 2000 have the highest mean (Mean = 3.20) which indicates that those who spend more on clothing also dispose it in a responsible way by donating or swapping the clothes. Refer *Appendix 5* for the results.

Table 5: ANOVA – Average monthly spending on clothing

		Sum of Squares	Df	Mean Square	F	Sig.
SD_re use	Between Groups	2.629	4	.657	2.230	.067
	Within Groups	57.762	196	.295		
	Total	60.391	200			
2. Repur	Between Groups	6.446	4	1.612	.787	.535
pose	Within Groups	401.374	196	2.048		
	Total	407.821	200			

Those who belong to the age group of 46-55 have the highest mean value (Mean = 3.04) followed by 26-35 years age group (Mean = 3.00) which indicates that those who belong to 46-55 years of age group are more inclined towards sustainable disposal with respect to the factor "reducing".

		Sum of Squares	df	Mean Square	F	Sig.
SD_reus e	Between Groups	2.404	4	.601	2.032	.091
	Within Groups	57.987	196	.296		
	Total	60.391	200			
SD_repu rpose	Between Groups	.495	4	.124	.642	.633
	Within Groups	37.811	196	.193		
	Total	38.306	200			

5) Variation in Factors Affecting Sustainable Purchase with respect to Age Group, Gender, Education Level, Monthly Income, Average Monthly Spending on Clothing and Area of Residence as Demographic Variable:

There is no significant variation in factors affecting Sustainable purchase with respect to age group, gender, education level, monthly income, average monthly spending on clothing and area of residence as a differentiating factor. It might be because the respondents like to follow fashion trends so they don't think about sustainability while purchasing clothes. They also might not have awareness towards environmental impacts created by clothing during the process of manufacturing and dyeing. They may not purposely select fibers because they don't consider sustainability aspects of the clothes that they buy. In this fast-pacing world, people don't have time to give new form to clothes, instead they choose to buy new ones. In their research, (Mandarić et al., 2021) have showed that statistically there is no significant difference between the gender with respect to the aspects of sustainability of fashion.

6) Variation in Factors Affecting Sustainable Usage with respect to Gender, Age Group, Education Level, Employment Status and Average Monthly Spending on Clothing as Demographic Variable:



Volume 6- Issue 2, August 2023

Paper: 29

There is no significant variation in factors affecting Sustainable usage with respect to gender, age group, education level, employment status and average monthly spending on clothing as a differentiating factor. May be that the respondents don't like to wear garments that are out of fashion because wearing clothes that are out of fashion may be seen as a reflection of outdated or uncool taste (Valaei&Nikhashemi, 2017) and they may not maintain and repair their clothes because they may think that it is expensive to have someone to maintain and repair clothes and it is time consuming to do it themselves.

7) Variation in Factors Affecting Sustainable Disposal with respect to Gender and Education Level as Demographic Variable:

There is no significant variation in factors affecting Sustainable disposal with respect to gender and as a differentiating factor. The respondents might not know how much it is important to properly dispose the clothes and they might not know which method is more sustainable for disposing clothes.

IX. DISCUSSION

To effectively lessen the ecological footprint caused by clothing consumption, it's essential to develop and execute behavioral factors for all three phases of consumption, taking into account the distinct characteristics and inclinations of various consumer segments. This study aims to enhance the knowledge of such factors by examining and describing the various factors in the three phases of consumption which is purchase, usage and disposal.

A. Demographic factors

Research shows that home-makers are more likely to be interested in sustainable purchase and it reflects in their "reducing" behavior. This means more awareness needs to be created among students and employees regarding the importance of sustainable purchasing. At the same time, it is noticed that sustainable disposable behavior is most common among students and professionals.

And people who live in rural area are more sustainable towards sustainable usage than urban people so as a result of this disposal will be reduced in rural areas because clothes will be retained and repaired.

Respondents whose monthly income is very low and very high exhibit the same behavior towards sustainable usage factor "repairing" which indicates that both the group are conscious in usage of clothes and reduces the disposal by the way of maintaining their clothes.

B. Attitude of Consumers

The research shows that as a part of Sustainable purchase phase, respondents buy quality clothes so that they last longer than fast fashion garments. When people invest in quality clothes, they are less likely to need to replace them frequently, reducing the amount of clothing waste they generate. When respondents choose clothes made from sustainable materials like organic cotton, tencel, linen it can reduce the environmental impact of clothing production. Quality clothes are often made under better working conditions and with fair labor practices. So, this attitude indicates that the respondent's commitment towards sustainability by prioritizing long-term wearability, sustainable materials, and ethical production.

As per the responses, in Sustainable usage phase, majority of the respondents either use damaged clothes for cleaning purpose or repair the defects in the garments to extend its lifetime. By repairing defects in the garments, respondents are becoming less reliant on disposable products. This promotes a more sustainable lifestyle by reducing the demand for new products and resources. By repurposing old or damaged clothes for cleaning, respondents are extending the useful life of the clothes, reducing the amount of clothing waste they generate. This helps to conserve resources and reduce the impact of clothing on environment. This phase shows how respondents are being mindful of how they use clothing and make choices to reduce waste.

In Sustainable disposal phase, by donating clothes to charity and using clothes as rags, respondents are giving new life to it. It is an excellent way to ensure that your clothes are reused and don't end up in a landfill. Many organizations also accept clothing donations online, making it even easier to donate. Even though the research results showed that swapping platforms are least used for disposal of clothes, nowadays swapping platforms are becoming increasingly popular in India as more people are looking for ways to reduce waste and contribute to sustainable living.

C. Factors that Drive Sustainable Purchase, Usage and Disposal:

1) Sustainable Purchase

From the analysis, it is found that there is significant variation in the factor "reducing" with respect to employment status. Respondents are likely to buy quality clothes so that they don't need to replace it frequently. It indicates that the respondents are conscious that frequent clothing purchase will increase the disposal and, in this way, they promote sustainable purchase by reducing their purchase.



Volume 6- Issue 2, August 2023 Paper : 29

The willingness to reuse clothes either by giving a new form to it or swapping clothes via platform is very less among respondents. It conveys that fashion industry have lot of advantages because consumers don't question them regarding the materials and the conditions in which it was produced. The solution to this would be raising awareness among consumers. When awareness increases, the use of natural fibers in clothing will increase and they will opt for sustainable purchase.

2) Sustainable Usage

From the analysis, it is found that there is significant variation in the factor "repairing" with respect to monthly income and "refurbishing" with respect to area of residence. It indicates that the reliance on disposable products is decreasing and by refurbishing they are reducing the impact on environment by clothing waste. So, the less reliance on disposable products will force the manufacturers to reduce the production of fast fashion products.

3) Sustainable Disposal

Analysis shows that there is significant variation in the factor "reusing" and "repurposing". Here reusing denotes the disposal of clothes for others reuse by donating the clothes. Sustainable disposal is very important because if clothes are not disposed properly, it will end in the landfill and release methane, a potent greenhouse gas that contributes to climate change. Clothes often contain synthetic materials and chemicals that can leach into the soil and groundwater when disposed of in landfills. This can pollute the environment and harm human health.

X. CONCLUSION

The objective of the study is to initiate a discussion regarding sustainable fashion and pave the way for further investigation and implementation of sustainable business strategies within the fashion industry.

It is observed that gender is not a significant factor in determining sustainable purchase, usage and disposal, which shows that the sample is a homogenous set across the gender. Employment status plays a major role in determining sustainable purchase and disposal. But, it does not determine the sustainable usage phase. Age group is a significant factor only in Sustainable disposal phase.

The purpose of the study is to increase the awareness among consumers regarding the waste generated by fashion industry and fashion products. The outcome of the study indicates that it is important to increase awareness among consumers because there is a gap between the consumers attitude and behavior. They are aware of the environmental impacts created by clothes but still they are not adopting many sustainable practices. Awareness can be created by stores or by the brand as a part of their Corporate Social

Responsibility activity because purchasing is the first and most important step in the process.

XI. LIMITATIONS AND FUTURE RESEARCH

There are few limitations in this research paper. First limitation is the sample size. Future research can aim at larger number of people. Second limitation is 70.1% of the respondents falls under the age group of 18-25, so most of our respondents are Generation Z. So, future research can conduct the study with larger number of respondents who are from different age groups. Third limitation is the research questionnaire focused only on sustainable clothing so future research can also include sustainable fashion apparels like shoes and other accessories. Future researchers can conduct in-depth interviews to explore more about sustainable purchase, usage and disposal.

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Volume 6- Issue 2, August 2023 Paper : 29

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APPENDIXES

A. Appendix 1:

AnovaandDescriptives - Employment Status withRethinking, Reusing and Retaining

		N	Mean	Std. Deviation
SP_rethinking	1.0	126	3.40	.468
	2.0	49	3.45	.408
	3.0	14	3.42	.262
	4.0	10	3.58	.771
	5.0	2	3.44	.314
	Total	201	3.42	.459
SP_Reusing	1.0	126	2.91	.830
	2.0	49	2.86	.945
	3.0	14	3.13	.801
	4.0	10	3.23	.650
	5.0	2	2.88	2.298
	Total	201	2.93	.860
SP_reducing	1.0	126	2.79	1.330
	2.0	49	2.61	1.091

3.0	14	1.86	.929
4.0	10	3.25	1.184
5.0	2	2.00	.707
Total	201	2.70	1.261

B. Appendix 2:

Anovaand Descriptives Monthly Income with Retain, Repair and Refurbish

		N	Mean	Std. Deviation
SU_Retain	1.0	51	3.32	.732
	2.0	69	3.41	.783
	3.0	36	3.51	.780
	4.0	28	3.49	.795
	5.0	17	3.38	.844
	Total	201	3.42	.772
SU_repair	1.0	51	3.25	1.274
	2.0	69	3.35	1.235
	3.0	36	3.15	1.188
	4.0	28	2.59	1.202
	5.0	17	3.35	1.400
	Total	201	3.18	1.259
SU_refurbish	1.0	51	2.74	1.266
	2.0	69	2.66	1.302
	3.0	36	2.86	1.350
	4.0	28	2.95	1.329
	5.0	17	2.53	1.192
	Total	201	2.74	1.289

C. Appendix 3:

Anova and Descriptives Area of Residence with Retain, Repair and Refurbish

		N	Mean	Std. Deviation
SU_Retain	1.0	56	3.33	.674
	2.0	145	3.45	.806
	Total	201	3.42	.772
SU_repair	1.0	56	3.35	1.243
	2.0	145	3.12	1.264
	Total	201	3.18	1.259
SU_refurbish	1.0	56	3.14	1.264
	2.0	145	2.59	1.270
	Total	201	2.74	1.289



Volume 6- Issue 2, August 2023

Paper: 29

D. Appendix 4:

Anova and Descriptives Emp Status with Reuse and Repurpose

		N	Mean	Std. Deviation
SD_reuse	1.0	126	3.03	.571
	2.0	49	2.85	.481
	3.0	14	2.71	.450
	4.0	10	2.90	.610
	5.0	2	2.50	.236
	Total	201	2.95	.550
SD_repurpose	1.0	126	3.65	.496
	2.0	49	3.53	.374
	3.0	14	3.50	.000
	4.0	10	3.50	.000
	5.0	2	3.50	.000
	Total	201	3.60	.438

		N	Mean	Std. Deviation
SD_reuse	1.0	51	2.96	.540
	2.0	69	3.00	.538
	3.0	36	2.75	.513
	4.0			
		28	2.93	.524
	5.0	17	3.20	.657
	Total	201	2.95	.550
SD_repurpose	1.0	51	3.65	.541
	2.0	69	3.59	.437
	3.0	36	3.50	.000
	4.0	28	3.66	.472
	5.0	17	3.68	.498
	Total	201	3.60	.438

F. Appendix 6:

Anova and Descriptives Age with Reuse and Repurpose

E. Appendix 5:

Anova and Descriptives Average monthly spending on clothing with Reuse and Repurpose

		N	Mean	Std. Deviation
SD_reuse	1.0	141	2.99	.558
	2.0	23	3.00	.603
	3.0	24	2.75	.453
	4.0	9	3.04	.455
	5.0	4	2.42	.167
	Total	201	2.95	.550
SD_repurpose	1.0	141	3.63	.491
	2.0	23	3.63	.432
	3.0	24	3.50	.000
	4.0	9	3.50	.000
	5.0	4	3.50	.000
	Total	201	3.60	.438