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Demographic implications on Sustainable Consumption: An Indian case study.

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Abstract:

Sustainable consumption refers to a mind-set where the consumers adopt environmentally and socially responsible consumption behaviour with the focus on meeting one has needs and simultaneously reducing its impact on society and the environment at large. Literature review suggests that sustainable consumption is a very flexible concept that incorporates various factors and these factors can differ among consumers. As a result, this paper aims to study if consumers with different demographics in India differ in sustainable consumption behaviour. Specifically, consumers of different genders, age groups, and income groups differ in their consumption behaviour due to factors such as Quality of Life, Environmental Concerns, and Care for Future Generations. Quantitative research was undertaken for this study and data was collected through a structured questionnaire from 281 samples selected via a non-probability sampling method. The data was analysed using ANNOVA (normally distributed data) and Mann Whitney U Test/Wallis H test (not normally distributed data). Findings indicate that men and women significantly differ in their consumer behaviour on factors of quality of life, care for the environment, and care for future generations. Quality of life also significantly affects sustainable consumption behaviour among the various income groups and age groups. These findings therefore can in the future support marketers in adopting various sustainable practices according to the importance attached to their target audience.

Keywords: Sustainable Consumption, Quality of Life, Care for Environment, Care for Future Generation, Consumer Behaviour, India.

1. Introduction:

Considering human behavior is the root cause of environmental issues, changing individual, organizational, and group behavior as well as influencing people's lifestyle and culture are the only real ways to address them (Arslan et al., 2011). Through their consumption habits, consumers have a significant impact on environmental issues. By modifying their daily consuming routines and embracing consumption behavior that is environmentally and socially responsible, consumers can reduce adverse environmental effects. Simply defined, consumers must consume less to reduce their influence on the environment (composition) as well as the quantity of products and services they consume (volume) (Thrift, 2011). A deeper comprehension of the psychological underpinnings of a transition toward sustainable consumption is crucial to implementing such behavioral and lifestyle changes.

The previous 10 years have seen a significant amount of progress made in the literature and organizational practice domains on the idea of sustainable consumption, which has emerged as a strategy for addressing numerous environmental problems. A thorough grasp of the issues surrounding sustainable consumption is necessary because these issues can be resolved by encouraging consumers to make small behavioral changes that will result in more sustainable lifestyles and product choices.

Sustainable consumption refers to a consumer mindset of caring for self, society, and our environment. This mindset encourages consumers to avoid excess consumption driven by greed, repetition, and aspirations (Sheth, 2017 as cited in Gupta & Verma, 2020). In recent years, the notion of sustainable consumption has gained lots of relevance due to its impact on the economy, society, and environment (Abdulrazak and Quoquab, 2018; Kumar, 2017; Minton et al., 2018; Zhao and Schroeder, 2010). It is considered one of the major catalysts of a country's sustainable development (Peattie and Collins, 2009; UNEP, 2014). Adopting a sustainable consumption pattern represents care for environmental welfare (Hobson, 2004; Lee, 2014; Quoquab and Mohammad, 2017; Wolff and Schönherr, 2011).

The primary cause of climate change has been identified as humanity's collective resource demand. It is clear that excessive use and abuse of environmental resources are on the rise, which has led to an alarming level of depletion of the planet's essential resources (Alisat and Reimer, 2015; Bogueva et al., 2017)

Consumers have a substantial influence on environmental issues through their consumption patterns. They can reduce negative environmental impact by adopting more environmentally and socially responsible forms of consumption. It is therefore apparent that for sustainable consumption behavior, there needs to be a paradigm shift from conventional consumption habits. Consumers need to consume less, both in terms of products/services that impact the environment considerably (quality) and in terms of the volume consumed (quantity). Government and/or social marketers cannot alone aid this movement. Consumers also need to take a certain level of responsibility to make this environmental movement stronger (Quoquab and Mohammad, 2016). A better understanding of the psychological foundations of sustainable consumption is essential for a transition to achieve such behavior. Therefore, this paper tries to understand the effect of demographic factors on sustainable consumption. The research tries to examine the effect of demographic variables like age, gender, and income on the factors of sustainable consumption. This study also looks at how other factors, such as materialism, perceived consumer efficacy, and environmental concern, mitigate the effects of diverse demographics on sustainable purchase patterns.

A value or belief system encompassing the preservation of the natural environment is known as an environmental concern (Schultz, P.W., 2000). The notion that one's personal decision can make a difference in fixing social and environmental issues is known as perceived consumer effectiveness (PCE) (Berger, I.E., and Corbin, R.M., 1992). These two concepts have been recognized as key factors in sustainable consumption. The primary distinction is that whereas environmental concern reflects people's perceptions of environmental problems, PCE reflects people's effectiveness or function within the context of the issue (Berger, I.E., and Corbin, R.M., 1992). Materialism, or people's opinions regarding the significance of possessions in their lives, is the third possible mediator (Richins, M.L., and Dawson, S., 1992). To acquire social prestige, people with strong materialistic values prioritize the act of acquisition over the use or simple possession of objects, and they reject compassion for other people and the environment. The research tries to comprehend the differences in how the demographic factors impact these three variables. By doing so, it becomes easier to determine whether demographic factors like gender, age, or income levels have a differential effect on customers' perceptions of their efficacy as consumers and their level of materialism and environmental concerns. As a result, the study significantly advances our understanding of overconsumption as a major issue across a range of demographics and its greater influence on the three variables that were found. Thus, this study gives a more nuanced view of sustainable consumption across various demography in India.

The results of the research coincide with the hypothesis. The research suggests that the impact of demographics varies on the constructs of sustainable consumption. The results confirm that quality of life, care for the environment, and care for future generation varies significantly across gender, age group, and income group. However, the results show the impact on these constructs to be different across these demographics. In caring for quality of life caring for the environment and caring for future generations men are shown to be more careful in consumption over women. However, when the constructs were tested for other demographics results showed varied results. Thus concluding that marketers should be very careful in segmenting targeting and positioning their brands in the market.

2. Literature Review:

Consumption worldwide plays a pivotal role in deciding the identity and social status of a consumer. Social status and prestige are mostly associated with the exclusive consumption of goods. Therefore, consumers in today’s world compete to acquire even more goods than they need. This creates a vicious circle of unmindful consumption.

Consumption has great importance in research, given its importance in affecting the environment. Therefore, a burgeoning wave of social awareness and environmental impact have led consumers to change their consumption patterns. In the early-industrialized countries, consumers have become more conscious of changing their consumption patterns towards more environmentally friendly and socially beneficial products (Seyfang, 2011). Hence, the concept of sustainability plays a major part in understanding the social role of consumers in protecting the environment.

Sustainability in consumption refers to “the consumption of goods and services that meet basic needs and quality of life without jeopardizing the needs of future generations” (Organisation for Economic Co-operation and Development, 2002). Though the global world and the United Nations had agreed on sustainable consumption, its reflections on consumer consumption patterns have been observed lately in early-industrialized countries. In the newly industrialized nations, sustainable consumption is still in a nascent state. Therefore, to promote sustainability amongst consumers in newly developed nations, the drivers and impediments of sustainable consumption need to be understood (Guarin and Knnoringa, 2014). Sustainable consumption is the use of goods and services that meet personal basic needs and

provide a better quality of life, minimizing the use of natural resources and toxic substances and waste emissions (Lim, 2017). Sustainability in consumption involves decision-making in the buying process, which adds social responsibility in consumption beyond needs and wants (Verke, 2006). In the paradigm of sustainability definitions, few researchers define sustainability as the consumption skill of meeting the wants and demands of the present and future generations without harming the environment (Jackson, 2003). The idea of "sustainable consumption" had been firmly established in policy, and one of the three "overarching objectives" for sustainable development had been named "changing consumption and production patterns."(UN, 2002).

Studies conducted on sustainable consumption behavior suggest that sustainable consumption is a complex concept that incorporates various factors which vary across different countries, demographic characteristics, religion, parental values and family upbringing, culture, consumer associations, information availability to consumers, and their awareness to mention a few (Ceglia et. al, 2015 and Vargas-Merino et. al, 2023). This indicates that the concept of sustainable consumption behavior is very flexible.

However, there is a contradiction in the term sustainable consumption as highlighted by Haider et. al (2022); while the former encourages the preservation and discourages waste, the latter tends to result in destruction and wastefulness. Further, it has been studied that sustainable consumption depends on how society tries to meet its needs while trying to balance ecological problems. Hence, in society, as people with different backgrounds may have different needs and sensibilities regarding the impact of their needs on the environment, there could be a difference in their consumption behavior (Scott, K. A. and Weaver, S. T., 2018 Hsueh, 2019). As a result, sustainable consumption among different consumers could encompass different concepts such as green consumption, ethical consumption, mindful consumption, moderate consumption, reuse and recycling of products, and appropriately disposed of products among others (Shao, 2019 Haider et. al, 2022).

Margaça, et. al (2021) in their paper analyzed the validity and reliability of the Sustainable Consumption Scale (SC-S) in Spain to understand the consumer's awareness of the issues associated with the excessive use of resources. The findings indicated three factors of sustainable consumption: (a) Cognitive Factors - one’s mental state and its impact on behavior, (b) Affective Dimension – the impact of another person on one’s emotional state and behavior and (c) Conative Dimension – the impact of knowledge, affect, drives, desires and instincts to behaviour. Further studies also indicate that a mindful consumer is more likely to be a sustainable consumer and that in turn improves the consumer's well-being (Resnik, 2022). Also, many times a crisis can influence sustainable consumption behaviour among the consumers. As seen during Covid -19 situation, the immediate impact of the pandemic saw irresponsible consumer behaviours. These behaviours were linked to panic buying, unnecessary hoarding of products, impulsive and hasty purchases, and excessive use of credit cards among others which goes against the concept of sustainable consumption (Vargas-Merino et. al, 2023); in the long term, there seems to be a shift towards more sustainable consumption due to the pandemic (Leal Filhi et. al, 2022). Sustainable consumption can also be studied by understanding the consumer's attitude towards factors such as how intelligently a consumer uses a product, how he/she tries to extend the shelf life of the product and its components, and how well he/she can apply the components/material of the products instead of disposing of the products (Vargas-Merino et. al, 2023). Previous research has explained that sustainable consumption is measured through quality of life, care for the environment, and care for future generations. Stern (1997) points out that consumption-related environmental harm puts human health, welfare, and other things we value in danger.

3. Research Problem

The research problem of this study is to understand the effect of demography on sustainable consumption among Indians.

4. Research Objectives

The research objectives of this study are as follows:

1. To understand if Quality of Life varies across demographic variables (gender, age, and income group).
2. To study if Environmental Concerns vary across demographic variables (gender, age, and income groups).
3. To analyse if Care for Future Generation varies across demographic variables (gender, age, and income groups).

5. Hypotheses

The hypotheses being tested in this study are as follows:

H1: Demographic variables like gender, age, and income group have a significant impact on Quality of Life.

H2: Demographic variables like gender, age, and income group have a significant impact on Environmental Care

H3: There is a significant difference between the Care for Future Generation among genders, among different age groups, and different income groups.

6. Research Methodology:

The methodology of the paper is guided by the research objectives. To understand the effect of demographics on sustainable consumption, factors like age, gender, and income were used. Quantitative research was undertaken to understand the impact of these factors on the constructs of sustainable consumption. Primary data was obtained using a structured questionnaire from consumers across India. While determining the sample size for the research, the calculation suggested by Krejcie and Morgan (1970) was used. Further, the samples were selected using the non-probability convenience sampling method, which generated 281 responses for the study. The questionnaire consisted of two sections, the former section consisted of demographic questions and the latter part included 20 questions on sustainable consumption behavior adapted from Quoquab, Mohammad, and Sukari (2019) on a 6-point scale (1 – almost always and 6 – rarely).

In this paper, we looked at three constructs—quality of life, environmental concerns, and concern for future generations—to better understand the effect of demography on sustainable consumption. To determine whether sustainable consumption varies across various demographics, the effects of demographics on each of the three constructs were examined individually. Before deciding whether to run a parametric or non-parametric test to check the hypothesis, the Shapiro-Wilk test of normality was conducted to see whether the variable is normally distributed or not as normal data is an underlying assumption in parametric testing. If the data was found to be normally distributed, the parametric test of ANNOVA was conducted and where the data was not normally distributed, either Mann Whitney U Test or Wallis H test was conducted.

7. Findings

7.1 Demographics

Out of 281 samples surveyed for this study, 100 were male and 181 were female.

Further, 68 (24%) respondents belong to the age group of 21-30 years, 48 (17%) respondents fall under the age group of 31 – 40 years, 70 (25%) respondents belong to the category of 41 – 50 years, 84 (30%) respondents belong to the age group of 51 – 60 years and 11 (4%) respondents are above 61 years of age.

Finally, out of all the samples, 130 (46%) respondents have a yearly household income of Rs 12 – 24 lakhs, followed by 58 (21%) respondents who have a yearly household income greater than Rs 60 lakhs and 93 (33%) respondents have a yearly household income between Rs 24 – 60 lakhs.

7.2 Sustainable Consumption among Different Demographics

H1: Demographic variables like gender, age, and income group have a significant impact on Quality of Life

To understand the impact, the first Shapiro-Wilk test was performed to check the normalcy of the dependent variable, quality of life. In examining across demographics, it was observed that quality of life does not have a normal distribution across gender age group, and income. However, normalcy was observed in the age group of 61 years except for the income group of 49 to 60 lakh.

To confirm the variances across genders, the study used a non-parametric test as the group sizes are not equal and the test results may be affected due to unequal group size. Independent-Samples Mann-Whitney U Test was done to check whether there is a significant difference between the Quality of Life among genders. Quality of Life (Factor 1 – Sustainable Consumption Behaviour) in the male group was found to be statistically higher than the female group with U= 6951.500, p=.001. So the p-value was found to be less than 0.05, which concludes that the null hypothesis has to be rejected and confirms significant differences between the Quality of Life across genders.

Table 1-Tests of Normality

	Gender	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Quality of Life (Factor 1 – Sustainable Consumption Behaviour)	Male	.108	100	.006	.942	100	.000
	Female	.125	181	.000	.875	181	.000

a. Lilliefors Significance Correction

Table 2- Ranks

	Gender	N	Mean Rank	Sum of Ranks
Quality of Life (Factor 1 – Sustainable Consumption Behaviour)	Male	100	161.99	16198.50
	Female	181	129.41	23422.50
	Total	281		

Table 3-Test Statistics	
	Quality of Life (Factor 1 – Sustainable Consumption Behaviour)
Mann-Whitney U	6951.500
Wilcoxon W	23422.500
Z	-3.221
Asymp. Sig. (2-tailed)	.001
a. Grouping Variable: Gender	

However, one of the age groups and income groups reflects normal distribution in the population. Therefore, for this age group and income level, the null hypothesis was retained. To confirm further, a parametric test (ANOVA) is used to find whether there is a significant difference in sustainable consumption in terms of quality of life among different age groups and income levels.

ANOVA analysis indicates that there is a statistically significant difference between age group means. The significance value is 0.046, which is less than 0.05. Therefore, there is a statistically significant difference in the mean value of Quality of Life between the different age groups. Hence, rejecting the null hypothesis.

Table 4- Tests of Normality							
	Age (In Years)	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Quality of Life (Factor 1 - Sustainable Consumption Behaviour)	21-30	.137	68	.003	.870	68	.000
	31-40	.122	48	.073	.926	48	.005
	41-50	.114	70	.024	.936	70	.001
	51-60	.126	84	.002	.936	84	.000
	61+	.157	11	.200*	.915	11	.279
*. This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

Table 5- Descriptives							
Quality of Life (Factor 1 - Sustainable Consumption Behaviour)							
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	Minimum	Maximum
					Lower Bound / Upper Bound		

21-30	68	25.4412	11.04588	1.33951	22.7675	28.1148	11.00	66.00
31-40	48	21.6458	8.54896	1.23394	19.1635	24.1282	11.00	49.00
41-50	70	21.3000	7.23788	.86509	19.5742	23.0258	11.00	47.00
51-60	84	21.8452	8.04280	.87754	20.0998	23.5906	11.00	49.00
61+	11	22.4545	8.57162	2.58444	16.6961	28.2130	11.00	34.00
Total	281	22.5694	8.88154	.52983	21.5264	23.6123	11.00	66.00

Table 6- ANOVA

Quality of Life (Factor 1 – Sustainable Consumption Behaviour)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	758.738	4	189.684	2.455	.046
Within Groups	21328.159	276	77.276		
Total	22086.897	280			

In the case of different income levels, ANOVA analysis indicates that there is a statistically significant difference between the group means. We can see that the significance value is 0.000, which is less than 0.05. Therefore, we reject the null hypothesis and conclude that there is a statistically significant difference in the mean value of Quality between the different income groups.

Table 7- Tests of Normality

	Yearly Household Income (In INR)	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Quality of Life (Factor 1 – Sustainable	Rs 12 to 24 Lakhs	.126	130	.000	.886	130	.000
	Rs 25 – 36 Lakhs	.134	43	.051	.937	43	.021
	Rs 37 – 48 lakhs	.208	25	.007	.836	25	.001

Consumption Behaviour)	Rs 49-60 lakhs	.085	24	.200*	.979	24	.886
	Above 60 lakhs	.102	59	.200*	.886	59	.000
*. This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

Table 8- Descriptives

Quality of Life (Factor 1 – Sustainable Consumption Behaviour)

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Rs 12 to 24 Lakhs	130	20.1846	8.01044	.70256	18.7946	21.5747	11.00	55.00
Rs 25 – 36 Lakhs	43	23.7209	9.01144	1.37423	20.9476	26.4942	11.00	49.00
Rs 37 – 48 lakhs	25	23.8400	10.77683	2.15537	19.3915	28.2885	11.00	61.00
Rs 49-60 lakhs	24	23.7083	6.89347	1.40712	20.7975	26.6192	12.00	38.00
Above 60 lakhs	59	25.9831	9.25033	1.20429	23.5724	28.3937	11.00	66.00
Total	281	22.5694	8.88154	.52983	21.5264	23.6123	11.00	66.00

Table 9- ANOVA

Quality of Life (Factor 1 – Sustainable Consumption Behaviour)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1555.375	4	388.844	5.227	.000
Within Groups	20531.522	276	74.390		
Total	22086.897	280			

H2: Demographic variables like gender, age, and income group have a significant impact on Environmental Care

Shapiro-Wilk test was initially performed to check if the data for Environmental Care was normally distributed. It was observed that environmental care is not normally distributed across genders. Further, among age groups, the data is not normally distributed; except for the age group of 61 plus. Finally, normalcy was observed in the income group of Rs. 37 - 48 lakh, Rs 49 - 60 lakhs, and above 60 lakh.

To test whether there is a significant difference between Environmental Care among genders, the study used non-parametric independent samples Mann-Whitney U Test as the group sizes are unequal and the test results may be affected on account of the same. Care for Environment (Factor 2 – Sustainable

Consumption Behaviour) in the male group was statistically higher than the female group with U= 7642.500, p=.031. As the p-value was found to be less than 0.05, it can be concluded that the null hypothesis has to be rejected and there a significant differences between the Care for Environment (Factor 2 – Sustainable Consumption Behaviour)

Table 10- Tests of Normality

	Gender	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Care for Environment (Factor 2 – Sustainable Consumption Behaviour)	Male	.080	100	.120	.968	100	.014
	Female	.114	181	.000	.936	181	.000
a. Lilliefors Significance Correction							

Table 11- Ranks

	Gender	N	Mean Rank	Sum of Ranks
Care for Environment (Factor 2 – Sustainable Consumption Behaviour)	Male	100	155.08	15507.50
	Female	181	133.22	24113.50
	Total	281		

Table 12- Test Statistics

	Care for Environment (Factor 2 – Sustainable Consumption Behaviour)
Mann-Whitney U	7642.500
Wilcoxon W	24113.500
Z	-2.162
Asymp. Sig. (2-tailed)	.031
a. Grouping Variable: Gender	

However, the age group of 61 plus and income groups of Rs. 37 - 48 lakh, Rs 49 - 60 lakhs, and above 60 lakh reflect normal distribution in the population. There is a reasonable chance that the non-normality of the other groups is solely due to sampling error and hence we retain the null hypothesis that the data is normally distributed. To analyze further, a parametric test of ANOVA is used to find whether there is a significant difference in environmental care among different age groups and income levels.

ANOVA analysis indicates that there is no statistically significant difference between the group means of different age groups. We can see that the significance value is 0.138, which is more than 0.05. Therefore, we fail to reject the null hypothesis and conclude that there is no statistically significant difference in the mean value of care for the environment (Factor 2 – Sustainable Consumption Behaviour) between the different age groups.

Table 13- Tests of Normality

	Age (In Years)	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Care for Environment (Factor 2 – Sustainable Consumption Behaviour)	21-30	.116	68	.023	.966	68	.057
	31-40	.156	48	.005	.918	48	.002
	41-50	.098	70	.091	.940	70	.002
	51-60	.094	84	.064	.958	84	.008
	61+	.182	11	.200*	.944	11	.566

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table 14- Descriptives

Care for Environment (Factor 2 – Sustainable Consumption Behaviour)

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
21-30	68	15.2059	6.08781	.73826	13.7323	16.6794	5.00	30.00
31-40	48	13.2500	6.52817	.94226	11.3544	15.1456	5.00	30.00
41-50	70	13.9143	5.88967	.70395	12.5099	15.3186	5.00	28.00
51-60	84	12.8333	5.04637	.55060	11.7382	13.9285	5.00	30.00
61+	11	12.9091	5.39360	1.62623	9.2856	16.5326	6.00	23.00
Total	281	13.7509	5.83112	.34786	13.0661	14.4356	5.00	30.00

Table 15- ANOVA

Care for Environment (Factor 2- Sustainable Consumption Behaviour)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	236.383	4	59.096	1.757	.138
Within Groups	9284.179	276	33.638		
Total	9520.562	280			

ANOVA analysis indicates that there is no statistically significant difference between the group means of different income groups. We can see that the significance value is 0.080, which is more than 0.05. Therefore, we fail to reject the null hypothesis and conclude that there is no statistically significant difference in the mean value of care for the environment (Factor 2 – Sustainable Consumption Behaviour) between the different income groups.

Table 16- Tests of Normality

	Yearly Household Income (In INR)	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Care for Environment (Factor 2 – Sustainable Consumption Behaviour)	Rs 12 to 24 Lakhs	.138	130	.000	.920	130	.000
	Rs 25 – 36 Lakhs	.113	43	.200*	.943	43	.034
	Rs 37 – 48 lakhs	.137	25	.200*	.925	25	.066
	Rs 49-60 lakhs	.146	24	.200*	.921	24	.062
	Above 60 lakhs	.089	59	.200*	.960	59	.053

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table 17- Descriptive Statistics

Care for Environment (Factor 2 – Sustainable Consumption Behaviour)

Yearly Household Income (In INR)	N	Minimum	Maximum	Mean	Std. Deviation
Rs 12 – 24 Lakhs	130	5.00	30.00	12.7846	5.57261
Rs 24 – 36 Lakhs	43	5.00	25.00	14.1395	6.10457
Rs 36 – 48 lakhs	25	5.00	30.00	13.6000	6.42262
Rs 48-60 lakhs	24	8.00	25.00	14.9167	5.54755
Above 60 lakhs	59	6.00	30.00	15.1864	5.82644

Table 18- ANOVA

Care for Environment (Factor 2- Sustainable Consumption Behaviour)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	282.648	4	70.662	2.111	.080

Within Groups	9237.915	276	33.471		
Total	9520.562	280			

H3: Demographic variables like gender, age, and income group have a significant impact on Care for Future Generation

Shapiro-Wilk test of normality was first performed to see if Care for Future Generation (Factor 3 – Sustainable Consumption Behaviour) (dependent variable) is normally distributed among demographics or not. It was observed that environmental care is not normally distributed across genders. Further, among age groups and income groups, the data is not normally distributed; except for the age group of 61 plus and income group of Rs 49 - 60 lakh.

As the group sizes are unequal and the results may be affected on account of the same, the study used a non-parametric test (Independent-Samples Mann-Whitney U test) to test whether there is a significant difference between Care for Future Generation among genders. Care for Future Generation (Factor 3 – Sustainable Consumption Behaviour) in the male group was statistically higher than the female group with U= 7071.500, p=.002. As the p-value was found to be less than 0.05, it concludes that the null hypothesis has to be rejected and there is a significant difference between the Care for Future Generation (Factor 3 - Sustainable Consumption Behaviour) among Gender.

Table 19- Tests of Normality

	Gender	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Care for Future Generation (Factor 3 – Sustainable Consumption Behaviour)	Male	.162	100	.000	.923	100	.000
	Female	.171	181	.000	.881	181	.000

a. Lilliefors Significance Correction

Table 20- Ranks

	Gender	N	Mean Rank	Sum of Ranks
Care for Future Generation (Factor 3 – Sustainable Consumption Behaviour)	Male	100	160.79	16078.50
	Female	181	130.07	23542.50
	Total	281		

Table 21- Test Statistics

	Care for Future Generation (Factor 3 – Sustainable Consumption Behaviour)

Mann-Whitney U	7071.500
Wilcoxon W	23542.500
Z	-3.054
Asymp. Sig. (2-tailed)	.002
a. Grouping Variable: Gender	

However, as the age group of 61 plus and income groups of Rs 49 - 60 lakhs is normally distributed in the population, the chances of non-normality of the other groups could be solely due to sampling error and hence we retain the null hypothesis that the data is normally distributed. To analyze further, a parametric test of ANOVA is used to find whether there is a significant difference in care for future generations among different age groups and income levels.

ANOVA analysis indicates that there is no statistically significant difference between our group means. We can see that the significance value is 0.300, which is more than 0.05. Therefore, we fail to reject the null hypothesis and conclude that there is no statistically significant difference in the mean value of Care for Future generation (Factor 3 – Sustainable Consumption Behaviour) between the different age groups.

Table 22- Tests of Normality

	Age (In Years)	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Care for Future Generation (Factor 3 – Sustainable Consumption Behaviour)	21-30	.176	68	.000	.907	68	.000
	31-40	.172	48	.001	.866	48	.000
	41-50	.145	70	.001	.899	70	.000
	51-60	.220	84	.000	.873	84	.000
	61+	.194	11	.200*	.909	11	.238
*. This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

Table 23- Descriptives

Care for Future Generation (Factor 3 – Sustainable Consumption Behaviour)

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
21-30	68	10.1471	5.14931	.62445	8.9007	11.3935	4.00	24.00
31-40	48	8.8125	5.08086	.73336	7.3372	10.2878	4.00	24.00
41-50	70	8.8714	4.56490	.54561	7.7830	9.9599	4.00	24.00
51-60	84	8.5714	4.23493	.46207	7.6524	9.4905	4.00	22.00
61+	11	8.6364	3.80191	1.14632	6.0822	11.1905	4.00	15.00
Total	281	9.0712	4.69368	.28000	8.5200	9.6223	4.00	24.00

Table 24- ANOVA

Care for Future Generations (Factor 3 – Sustainable Consumption Behaviour)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	107.775	4	26.944	1.227	.300
Within Groups	6060.802	276	21.959		
Total	6168.577	280			

ANOVA analysis indicates that there is a statistically significant difference between our group means. We can see that the significance value is 0.010, which is less than 0.05. Therefore, we reject the null hypothesis and conclude that there is a statistically significant difference in the mean value of Care for Future Generation (Factor 3 – Sustainable Consumption Behaviour) between the different income groups.

Table 25- Tests of Normality

	Yearly Household Income (In INR)	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
	Rs 12 to 24 Lakhs	.161	130	.000	.873	130	.000

Care for Future Generation (Factor 3- Sustainable Consumption Behaviour)	Rs 25 – 36 Lakhs	.215	43	.000	.874	43	.000
	Rs 37 – 48 lakhs	.175	25	.048	.898	25	.017
	Rs 49-60 lakhs	.164	24	.092	.943	24	.193
	Above 60 lakhs	.184	59	.000	.917	59	.001
a. Lilliefors Significance Correction							

Table 26- Descriptives

Care for Future Generation (Factor 3- Sustainable Consumption Behaviour)

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Rs 12 to 24 Lakhs	130	8.0462	4.09360	.35903	7.3358	8.7565	4.00	22.00
Rs 25 – 36 Lakhs	43	9.3953	4.99590	.76187	7.8578	10.9329	4.00	24.00
Rs 37 – 48 lakhs	25	9.4800	5.08363	1.01673	7.3816	11.5784	4.00	24.00
Rs 49-60 lakhs	24	10.3750	4.38190	.89445	8.5247	12.2253	4.00	19.00
Above 60 lakhs	59	10.3898	5.26543	.68550	9.0177	11.7620	4.00	24.00
Total	281	9.0712	4.69368	.28000	8.5200	9.6223	4.00	24.00

Table 27- ANOVA

Care for Future Generation (Factor 3 – Sustainable Consumption Behaviour)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	288.675	4	72.169	3.388	.010
Within Groups	5879.901	276	21.304		
Total	6168.577	280			

6. FINDINGS AND DISCUSSIONS

Numerous stakeholders, including investors, customers, and governments, today view sustainability as a very important business aim. (Pfeffer 2010). The previous decade has seen a significant amount of progress made in the literature and organizational practice domains around the idea of sustainable consumption, which has emerged as a method for addressing numerous environmental concerns. A thorough grasp of the issues surrounding sustainable consumption is necessary because these issues can be resolved by encouraging consumers to make small behavioral changes that will result in more

sustainable lifestyles and product choices. (World Economic Forum Report, 2014). As a result, this study attempted to assess the variation in demographic factors related to sustainable practices. The article will therefore assist marketers in comprehending the various sustainable practices that can be tailored for various stakeholders. The study aims to understand how demographic variables like gender, age, and income group variances affect the constructs of sustainable consumption. The test results confirm that quality of life is significantly different amongst the different genders. According to the findings, men are more concerned about sustainable consumption in terms of their quality of life. The findings indicate that Indian men are more aware of recurrent purchases than Indian women are. However, men are a sustainable consumer group, but they are not a potential market for marketers. Therefore, marketers should focus more on women and work to provide value for them. The study's findings assist us to realise that, the business should favor women because only they can adequately explain an organization's sustainability; however, consumption sustainability is more strongly skewed towards men. As a result, among the four P's of marketing, product, and promotion should be geared towards women to encourage repeat sales, while pricing should reflect male expectations to encourage purchases.

In understanding the difference in sustainable consumption among different ages, it was observed that there was a significant difference among different age groups. However, it was found that those between the ages of 21 and 30 showed the highest level of consumption sustainability. These findings suggest that the current generation is keenly aware of the negative repercussions of consuming. Thus, it is advised that businesses create sustainable value. This makes sense considering the growing popularity of organic foods. The findings imply that the younger generation places a high importance on quality of life. The rise in lifestyle goods consumption is evidence of this. Contrarily, the data reveal that those over the age of 60 are also more concerned with sustainable consumption to improve their quality of life. This age group of consumers places a high priority on responsible consumption. Therefore, companies marketing to both young and old consumers should create goods that are more sustainable and contribute to a higher standard of living. For these target populations, lifestyle products will be more commercially viable.

The quality of life varies significantly among socioeconomic categories as well. According to the findings, those with income levels above 60 lacs are more worried about using sustainable items since they raise their standard of living. This discusses how a product's price can be kept higher while maintaining quality for these things. Again, sustainable products that enhance quality of life are valued less for income groups between 12 and 24 lacs per year. This explains why these things are so expensive for this group of customers. As a result, marketers should very carefully plan their marketing strategy to offer sustainable products to various economic groups. In a price-sensitive market, this sustainable consumption is a niche consumption. Therefore, marketers should segment the market demographically when targeting price-sensitive markets.

According to the research's findings, women in younger or older age groups with an annual income of 60 lacs should be the target market for products that increase quality of life. This implies that businesses should create value enhancements to their products according to upper-class women's tastes. Although consumption should be sustainable, people who are aware of their consumption habits cannot be the target market for businesses.

Men and younger generations were found to be more responsible when it came to the concern for environmental disruptions, according to research on the influence of demographic factors on environmental care. It is concluded that men of the younger age are more conscientious and responsible consumers of goods. Therefore, businesses that make environmentally friendly products ought to target

this demographic. Contrarily, research indicates that women's consumption patterns show less concern about environmental deterioration. Therefore, it implies that women are less concerned about the environment's impact on their consumption and are more focused on meeting their wants. The findings revealed a wide range of differences in our understanding of how demographic trends affect how we care for future generations. When it comes to the consumption of things that may have an impact on future generations, women are more worried. This suggests that their maternal instincts and caregiving tendencies make them aware of the dangers of using things that could harm their offspring. However, it was found that younger generation women had the highest levels of this consciousness. On the other hand, it was shown that those in high-income groups were more aware than others while trying to grasp the influence across economic categories. As a result, the study's findings enable us to conclude that sustainable consumption patterns change dramatically. Therefore, businesses should be careful to create their products for the appropriate target markets.

In understanding the effect of demographic variables on care for future generations, it was shown that the impact on men and women differed significantly. It was discovered that men were more conscious about their consumption effects on future generations than women were. This outcome is in direct accordance with the female market's observed consumption trend. The needs of women are more important to them than the sustainability of the items. However, it was discovered that younger generations were more concerned about their consumption when it came to caring for future generations across all age groups. This demonstrates unequivocally that marketers should target younger male generations with sustainable products. As a result, businesses in the automotive, hospitality, and consumer goods industries are selecting items that are more environmentally friendly and promote lowering carbon footprints. However, these products are expensive, which is also consistent with research showing that people with higher incomes are more drawn to goods that consider the needs of future generations.

Therefore, the findings of the study will aid marketers from various industries in understanding the significance of various demographic characteristics. Given that different product categories will affect parameters related to sustainable consumption differently, it is possible to understand these impacts and use them in product marketing.

To close the gap, research reveals that, depending on the impact consuming has sustainable consumption behaviors vary greatly across different groups. As a result, marketers should take great care when designing products to consider the customer demographics. Different demographic groups view sustainable consumption differently. These views have a significant impact on how consumers choose to consume. Therefore, to design and promote items to the appropriate consumer category, marketers should be aware of the significance of these demographic disparities. Value additions should be more demographically than psychologically intended for sustainable consumption.

The research results will help different sectors understand what demographic factors need to be considered while designing and marketing the products. In every industry the impact of the product is different; therefore, considering the differential influence of the products on consumers, the companies should design the four P’s of marketing based on the target consumers. The research gives a direction to the companies in customizing their products as per the preferences of the target consumers. Understanding the demographic differences helps brands to be included in the evoked set of brands.

However, the study limits itself to only three constructs of sustainable consumption (Quality of Life, Environmental Care, and Care for Future Generations) against only three demographic factors. So future studies can extend the demographics as well as the constructs. Since a non-probability

convenience sampling method was used, the sample may not be a true representation of the population. However, the study paves the way for future research in understanding the effect of demographics on customization for sustainable consumption of goods and products. In addition, research can be conducted to understand the differential effects of demography on goods and service sectors for sustainable consumption.

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