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COGNITIVE INFLUENCES ON SUSTAINABLE CONSUMER BEHAVIOR: INSIGHTS FROM GENERATIONAL AND URBAN-RURAL DYNAMICS

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ABSTRACT

This study explores how cognitive factors guide consumer behavior toward sustainable practices following a pandemic. By looking into the residential area, age specifics, consumer awareness and perception, preferences and decision-making process, communication strategies, and brand influence, the researchers attempt to lend more light to how consumers behave after the pandemic. The working style is quantitative, based upon an empirical survey linking sustainable business practices with consumer behavior. Data were collected purposively from 241 consumers over four months (October 2023-January 2024) via online platforms and self-administered surveys. Data reliability was ensured using Cronbach's alpha, and parametric methods of analysis were proved justified through normality tests. The questionnaire was subjected to rigorous validation by experts in the field. Statistical tests applied in the analysis included independent sample t-test, one-way ANOVA, multiple correlation analysis, and multiple regression to reveal the existence of predictive relationships. Such ethical guidelines as transparent communication, voluntary participation, and data confidentiality assurance were abided. The research findings demonstrated urban-rural segregation and generational variations in sustainability-related attitudes. Some of these were: transparent communication is vital in building consumer trust; sustainable practices and consumer behaviors share strong correlations; and Millennials and Gen Zs show favorability toward sustainability as opposed to Generation X. These insights suggest ways businesses and policymakers can forge strategies and approaches that will help create both a sustainable and consumer-based world.

Keywords: Sustainable Practices, Consumer Behaviour, Post Pandemic, Generation X, Millennials, Gen Z.

1) INTRODUCTION

Consumer behavior and sustainable practices have witnessed some notable influence after the COVID-19 pandemic; this, in fact, has been made clear by Trujillo et al. (2023), Ledy Gómez-Bayona et al. (2023), Severo et al. (2023), and Trujillo (2022). Woo et al. (2022) highlight the dual impact - positive and negative - that lockdowns and disruptions caused by the pandemic have had on sustainable consumption. Positively, a growing environmental consciousness means people are buying more into the ideology of choosing green products. On the negative side, forced changes in consumption patterns have made it difficult to adhere to sustainable practices. Further to this, the pandemic assisted in a realignment of consumers' value systems, which now give greater prominence to personal well-being and environmental concerns. Thus, this transformation period has speeded the transitions towards a greener and post-consumerist society.

Social entrepreneurship offers innovative solutions for worldwide problems, dealing with environmental and social challenges (Ayyoob & Sajeev, 2024d). ESG and SDGs integration allows corporate plans to be made towards sustainable means for ethical business conduct (Ayyoob & Sajeev, 2024c). Natural Sustainable Business Practices are based on diversity, equity, and inclusion to increase long-term stakeholder value (Ayyoob & Sajeev, 2024b). However, certain issues, such as greenwashing, impede sustainability initiatives, underlining issues of honest communication in sustainability (Ayyoob & Sajeev, 2024a). The set of interrelated concepts serves to understand the cognitive factors influencing sustainable consumer behavior, as discussed herein.

There is a deep impact of sustainable practices on consumer behavior, changing the market choices of contemporary times. Together with environmental and social issues, the consumer's awareness and perceptions of products and brands change. Companies invested in various sustainable initiatives focus on educational campaigns to provide such awareness to the public and encourage a feeling of responsibility. The perceived value of sustainable products is on the rise, with consumers increasingly equating ethical and environmentally friendly choices with a higher value. These behaviors steer preferences and decision-making differently; people prefer products that match their ethical and environmental considerations. Willingness to pay extra for green products showcases deep commitment to sustainable practices.

Best communication mechanisms transparently articulate sustainability efforts to consumers on which trust and loyalty get built, and these also include eco-labels and certifications that help consumers quickly identify sustainable products. In this dynamic interplay between sustainability and consumer behavior, businesses that build and communicate real support for sustainable practices will include the attention and loyalty of the increasingly aware consumer base. The world is going through a transformative shift in consumer behavior in the post-pandemic era, with sustainability emerging as the principal theme taxpayers consider in their life choices. As societies confront the aftermath of unprecedented global events, an understanding of the dynamics of sustainable practices has become necessary. Changes in perceptions and increasingly fast-paced evolutions are constraining dimensions of consumer behavior with a view to sustainability. This study will investigate that complex life holds in understanding how persons make decisions as to whether to adopt a particular kind of sustainable life. Through an analysis of geography, demographics, and cognitions, this paper aims to examine and give an in-depth perspective on how consumers have been working and reacting under the changing paradigm of sustainability in the post-pandemic era.

2) RESEARCH QUESTIONS

- How do residential and age characteristics relate to consumers' adoption or engagement with sustainable practices in the post-pandemic era?
- To what degree does consumer awareness or consumer perception of sustainable practices influence consumer behavior in the aftermath of the pandemic?
- How do consumer preferences and decision-making processes foster the adoption of sustainable practices in the post-pandemic landscape?
- How much can communication strategies and brand influence impact consumer behavior regarding sustainable practices in the aftermath of the pandemic?

3) OBJECTIVES AND HYPOTHESES

Objective 1

- To analyse consumer awareness and perception, consumer preferences and decision-making processes regarding sustainable practices, plus communication strategy and brand influence on consumer behaviour.

Objective 2

- To look into the relationship between residential area and generational attributes and consumers' behaviour concerning sustainable practices.

Hypotheses

- H01: There is no significant difference in consumers behaviour with respect to their residential status
- H02: There is no significant difference in behaviour of consumers with respect to their age characteristics.

Objective 3

- To measure the effect of consumer awareness and perception, consumer preferences and decision-making processes, and communication strategies and brand influence for sustainable practices towards consumer behavior.

Hypotheses

- H03: There is no significant relationship between consumer awareness and perception of sustainable practices and consumer behavior.
- H04: There is no significant relationship between consumer preferences and decision-making processes of sustainable practices and consumer behavior.
- H05: There is no significant relationship between communication strategies and brand influence of sustainable practices and consumer behavior.

4) LITERATURE REVIEW

Consumer behavior during the COVID-19 packaging emerges as a complex tapestry thrown together by various great studies looking at different aspects of this unprecedented period. Sandi Wachyuni & Wiweka, (2020) have set the narrative by delving into finer points of food consumption behavior at varying phases of the pandemic. Their fresh investigation of the local

communities' views presents unique angles on the understanding of how individuals distance themselves from food markets and thus underlines the pertinent need for shifting approaches to understanding consumer dynamics. From this standpoint, Putri et al., (2021) seem to embark on a path to panic buying behavior of demand side, linking the credibility of media, social contagion, and consumer anxiety. The implication of their study broadens the cognition of panic buying, serving as a stepping stone to grasping the complex interaction between external stimuli and consumer reaction in a crisis context. Wawrzyniak (2021) contributes with a modeling approach, constructing a multi-agent simulation model to depict before analyzing the complexity of consumer decision-making during the COVID-19 epidemic. This distinctive viewpoint deepens our understanding of consumer behavior, putting forward a framework whereby the dynamics of decision-making processes can be studied during crises. In Turkey, Güngördü Belbağ (2021) proposes an inclusive framework that integrates many facets of the pandemic's impact on consumer behavior. This panoramic view acts as an underpinning and contextual backdrop for promoting an understanding of how consumers adapt to the "new normal" in various sectors. Vinerean et al. (2021), on the other hand, with their focus on tourism, investigate residents' support for sustainable tourism development. Combining well-established factors with the specific effects of the pandemic, their study enhances our insight into the resident behavior perspective while emphasizing the increased value that sustainability assumes in influencing consumer choices amid crises.

Moving away to materialistic values, Moldes et al. (2022), explore thought-provoking antecedents of materialism influenced by contextual changes brought by the pandemic. Contrary to what some would think, their findings show that throughout the pandemic, attention given to money by people has lessened, so undermining age-old assumptions about what consumers value and indicating that materialistic attitudes could be trained. Dwivedi et al. (2022) may be seen as furthering this argument by looking at consumer behavioral intention toward green hotels during the pandemic. Not only does the study, which considers the moderating role of environmental concern, contribute to the evolution of green consumerism but also provide a framework to analyze ongoing consumer trends in the present pandemic situation. Xu et al. (2022) expand the study beyond the immediate pandemic context and present the idea of sustainable behavior in the post-pandemic world while researching the antecedents of consumers' use of second-hand clothing-sharing platforms. Their work, rooted in the Unified Theory of Acceptance and Use of Technology (UTAUT), attempts to bridge the time during the pandemic and the ongoing consumer landscape, stressing on sustainable notions within consumer decisions after the crisis. From their dataset, Hesham et al. (2021) provide evidence of their influence in underscoring the interdisciplinary nature of research on consumer behavior during the pandemic. These studies form a dense and interwoven tapestry that creates that subtle, more comprehensive, and deeper understanding of myriad changes that consumer behavior undergoes in response to the multifarious challenges emanating from the COVID-19 pandemic.

5) RESEARCH GAP

However, even with the ever-growing number of existing literatures on sustainable consumer behavior, there are some glaring avenues left for research after the pandemic. Most previous studies studied demographic variables in general, without paying detailed attention to specific factors, such as residential status (urban vs. rural) and generational characteristics, that may affect sustainability-oriented behavior. While consumer awareness, consumer preferences, and communication strategies at the brand level have all been separately evaluated, there is little

understanding on how the cognitive and perceptual facets intertwine with one another to influence consumer behavior toward sustainable practices. A further consideration is the lack in the available literature of an integrated analysis of the ways in which communication strategies, brand influence, and decision-making processes may be manifesting behavioral outcomes, especially under varying socio-geographical contexts. A limited number of studies might consider, in a comparative or moderating way, age and location, or how these variables interplay with cognitive ones such as awareness and perception. The present study aims to close these gaps by investigating:

(a) the differential impact of residential area and generational identity on sustainable consumer behavior; and

(b) the influence of consumer cognition and brand communication strategies on pro-environmental consumption choices.

By situating the inquiries within a post-pandemic behavioral environment, this research thus lends itself to an exceedingly more nuanced and comprehensive understanding of sustainable consumer behavior in emerging economies.

6) RESEARCH METHODOLOGY

Using quantitative research methods, this study adopts an empirical survey design, analyzing the interrelationship between sustainable business practices and consumer behavior. The sample consists of 241 customers selected via purposive sampling, given the criteria relevance within the scope of the study. Purposive sampling was preferred to ensure a targeted and representative pool of participants. Over the course of four months, from October 2023 to January 2024, data were collected, and the structured questionnaire was used as the main instrument. Data collection was done in two ways: first, the questionnaire was implemented through a Google Form shared on various social media platforms; second, the questionnaire was self-administered to a sample by the research team. This decision on the method of data collection was so that maximum respondents can be reached and to gather as many responses as possible. Reliability analysis revealed a Cronbach's alpha coefficient value considered acceptable at values greater than 0.7, confirming the reliability of the collected data with good internal consistency. Furthermore, the study tested for normality through one-sample Kolmogorov-Smirnov test, helping analyze if the data were normally distributed. The support for the normalcy assumption which in turn allowed the use of parametric test analysis was the values of skewness and kurtosis lying within acceptable limits. Experts in the field assessed the questionnaire for content validity to make sure that it underpinned the research objectives. The expert panel assessed the face validity of the instrument and ascertained that it indeed measured the essential attributes under the purview. For data analysis purposes, statistical techniques such as means, standard deviation, independent sample t test, one way ANOVA, Multiple correlation, and Multiple regression were executed. Correlation analysis sought to explain the relationship between the aspects of sustainable business practices and consumer behaviour, while regression gave insight into prediction.

The regression equation is stated as follows:

$$Y = \alpha + \beta_1x_1 + \beta_2x_2 + \beta_1x_1 + \varepsilon \quad (\text{Model 1})$$

Where:

- Y= Dependent Variable (Consumer behaviour)
- α is the intercept term.

- X1 (Consumer Awareness and Perception), X2 (Consumer Preferences and Decision-Making), and X3 (Communication and Brand Influence) are independent variables.
- β_1 and β_2 are coefficients describing the extent and direction of each independent variable's relation to Consumer behaviour.
- ϵ is the error term considered for other influences on consumer behaviour not modeled here.

There were ethical considerations involved in this research throughout. Respondents were given full disclosure regarding the study goals before proceeding, along with assurances of confidentiality concerning their participation and responses. The screening process was very thorough, ensuring willing participants with aligned interest in the study were chosen. Rejecting uncompleted questionnaires added to data credibility. The non-compromising stance on genuine participation alongside allowing ample time to fill in the questionnaires was intended to develop real engagement from participants, ultimately contributing to the reliability and validity of results.

7) RESULTS AND DISCUSSIONS

✓ Empirical Results

❖ Sample profile using cross tab

The table 1 represents the distribution of three generations Millennials, Gen Z, and Generation X based on their place of residence, categorized into urban and rural areas. The numbers in the table indicate the count of individuals in each specific group.

TABLE I: Generations and Place of residence of consumers

		Place of Residence		Total
		Urban	Rural	
Generations	Millennials	52	39	91
	Gen Z	58	34	92
	Generation X	25	33	58
Total		135	106	241

Source: Field study, 2023 -24

For instance, 52 Millennials reside in urban areas, while 39 live in rural areas, summing up to a total of 91 Millennials. Similarly, Gen Z has 58 individuals in urban areas and 34 in rural areas, totaling 92. Generation X is represented by 25 individuals in urban areas and 33 in rural areas, resulting in a total of 58. The overall total population is 241 individuals, with 135 residing in urban areas and 106 in rural areas. The table provides a concise overview of the distribution of these generations across different residential settings.

❖ Descriptive statistics of Sustainable business practices

Table 2 gives us the descriptive statistics on consumer perceptions of environmentally sustainable practices, suggesting the trends in awareness, preferences, and the effect of communications on decision-making. With a high average mean of 4.1259 and a low standard deviation of 0.59750, respondents display a strong awareness of and positive disposition toward sustainable practices. As regards preferences and decision-making, the mean of 3.7806 indicates a somewhat favorable orientation, with a relatively narrow standard deviation of

0.53913 exhibiting the uniformity of stance among participants. Communication and brand influence also scored positive responses, reflected in the average of 3.9218; whether response types differ is suggested by the moderate standard deviation of 0.61761.

TABLE II: Descriptive statistics

	Mean	Std. Deviation
I am aware of environmentally sustainable practices adopted by companies in the products and services I consume.	4.13	.846
I believe that companies should prioritize sustainable practices in their business operations.	4.26	.785
I consider the environmental impact of a product or service before making a purchase decision.	4.12	1.117
I actively seek information on companies' sustainability efforts when choosing products or services.	3.87	1.024
I believe that my purchasing choices can contribute to positive environmental outcomes.	3.81	1.022
I prefer to support companies that transparently communicate their commitment to sustainable practices.	4.56	.643
Consumer Awareness and Perception (CAP)	4.1259	.59750
I prefer products or services that are labeled as environmentally friendly or sustainable.	3.61	.968
The use of recyclable or biodegradable packaging influences my purchasing decisions.	3.37	1.095
I am willing to pay a premium for products that are produced using sustainable practices.	3.46	1.049
When choosing between similar products, I prioritize the one with a higher environmental rating.	3.40	1.369
Brand reputation for sustainability is a significant factor in my purchasing decisions.	4.17	.480
I actively seek out information on a company's sustainable practices before making a purchase.	4.38	.782
I am more likely to support companies that have received certifications for their environmental efforts.	4.05	.936
I consider a company's stance on social and environmental issues before deciding to be a loyal customer.	3.80	.836
Consumer Preferences and Decision-Making (CPD)	3.7806	.53913
I am more likely to engage with sustainable practices if they are effectively communicated by brands.	3.89	.820
Brand messaging about environmental initiatives influences my perception of a company's commitment to sustainability.	3.89	1.067
Clear and transparent communication about a brand's sustainable efforts enhances my trust in that brand.	4.16	1.006

The use of eco-friendly labels or symbols on products positively impacts my perception of the brand.	4.04	1.087
Advertisements promoting a brand's sustainable practices influence my purchasing decisions.	3.93	1.195
I am more likely to support brands that actively communicate their commitment to environmental responsibility.	3.70	.919
Effective communication about a brand's sustainability initiatives can significantly influence my brand loyalty.	3.83	1.140
Communication and Brand Influence (CBI)	3.9218	.61761

Source: Field study, 2023 -24

These findings highlight a general consumer willingness to prioritize environmentally friendly products, consider brand reputation, and pay a premium for sustainability. The data underscores the importance of clear and transparent communication in shaping consumer trust and loyalty, providing valuable insights for businesses aiming to align with consumer expectations in the realm of environmental responsibility.

❖ Descriptive statistics of consumer behaviour

The descriptive statistics presented in Table 3 reflect post-COVID consumer behavior with respect to sustainability-related choices. Consumers display a moderate tendency to actively searching for products that follow sustainable procedures, as shown by a mean score of 3.59 and a relatively large standard deviation of 1.367. This indicates varying levels of commitment among respondents. The question of the pandemic's impact on the awareness and preference for environmentally-friendly options records a mean value of 3.33 and a standard deviation of 1.024, indicating a moderate effect but highly diverse individual responses. Following the outbreak, commitment to sustainable behavior and purchasing decisions continues to be moderately affected (mean=3.70, SD=1.082 and mean=3.72, SD=1.112), implying a somewhat mixed impact on consumer decisions. A moderate willingness to pay more for sustainability is demonstrated by respondents (mean=3.58, SD=1.046). Since the pandemic, awareness for the environment has drastically increased (mean=4.07, SD=0.612), and generally, there is a high tendency to research a company's sustainable practices (mean: 3.74, standard deviation: 0.633) and prioritize sustainable and ethical brands (mean: 3.74, standard deviation: 0.633).

TABLE III: Descriptive statistics

	Mean	Std. Deviation
I actively look for products or services aligned with sustainable practices in the post-pandemic era.	3.59	1.367
The pandemic has heightened my awareness and preference for environmentally sustainable options.	3.33	1.024
My commitment to sustainable behaviors, such as recycling or reducing waste, has increased after the pandemic.	3.70	1.082
Sustainability significantly influences my purchasing decisions in the post-pandemic landscape.	3.72	1.112

I am willing to pay a premium for environmentally sustainable products or services.	3.58	1.046
The pandemic has raised my awareness of the environmental impact of my consumer choices.	4.07	.612
I research a company's sustainable practices before making a purchase.	3.74	.633
The pandemic has led me to prioritize sustainable and ethical brands over others.	3.74	.633
Consumer Behaviour (CB)	3.6836	.63215

Source: Field study, 2023 -24

Further, the data portrays a nuanced landscape of consumer behavior, indicating a growing emphasis on sustainability post-pandemic, with varying levels of individual commitment and preferences. Businesses can leverage these insights to align their strategies with evolving consumer expectations.

❖ Place of Residence and Consumer Behaviour

Table 4 gives t-test results of independent samples to compare and contrast opinions on consumer behavior, establishing the presence of some statistically significant variance between the urban and rural respondents. Behavior of urban customers is more favorable with a mean of 3.8852 as against their rural counterparts whose mean score of 3.4269 is on the low side. The Levene's test for equality of variances indicates that there might just be some difference in variances between urban and rural groups, though this is not too significant. However, on the contrary, the t-test shows with a very significant value, the t statistic being 5.977 and a p-value of .000, that the means probably differ quite substantially. Different sources of information and other socio-economic factors, cultural distinctions, differences in educational opportunities, and levels of environmental awareness may come in as explanations for such a difference between urban and rural areas. It is in acknowledging such differences that companies and policymakers may begin to tailor strategies and campaigns that would be more in alignment with the very particular consumer attitudes prevailing in both urban and rural settings.

TABLE IV: Independent sample t-test analysis of mean scores of the level of opinion towards consumer behaviour for Urban and Rural customers

Place of residence	N	Mean	Levene's Test for Equality of Variances		t	t-test for Equality of Means		Remarks	Decision
			F	Sig.		df	Sig. (2-tailed)		
Urban	135	3.8852	3.631	.058	5.977	239	.000	Equal variances assumed	H ₀₁ (Reject – difference is significant)
Rural	106	3.4269							

Source: Field study, 2023 -24

❖ Generations and Consumer Behaviour

The analysis from One-Way ANOVA explores mean scores that represent opinions about consumer behavior among Millennials, Gen Z, and Generation X in the strata of employment level; the results are shown in table 5. The significant F of 33.373 at the 0.000 level suggests strong differences in the attitudes of these generations. Pairwise comparisons are then explored in further detail in table 6 through the Post Hoc Tests. In the comparison between Millennials and Gen Z, the 0.06529 mean difference with a standard error of 0.08294 and significance of 0.711 indicate there is no significant difference in the opinions given on consumer behavior. This goes to show some degree of similarity between these younger generations. On the other hand, Generation X comparisons showed significant differences: With a mean difference of -0.72023 and standard error of 0.09426, and significance of 0.000, this suggests that Millennials have more positive opinions about consumer behavior. Similarly, with a mean difference of 0.65494 and standard error of 0.09406 (significance = 0.000), Generation Z tends to be more positive compared to Generation X.

TABLE V: One-way ANOVA analysis of mean scores of the level of opinion towards consumer behaviour for different generations

Generations	N	Mean	ANOVA		Decision
			F	Sig. (2-tailed)	
Millennials	91	3.8819	33.373	.000	H ₀₂ (Reject – difference is significant)
Gen Z	92	3.8166			
Generation X	58	3.1616			
Total	241	3.6836			

Source: Field study, 2023 -24

TABLE VI: Post Hoc Tests

(I) Generations	(J) Generations	Mean Difference (I-J)	Std. Error	Sig.
Millennials	Gen Z	.06529	.08294	.711
	Generation X	.72023*	.09426	.000
Gen Z	Millennials	-.06529	.08294	.711
	Generation X	.65494*	.09406	.000
Generation X	Millennials	-.72023*	.09426	.000
	Gen Z	-.65494*	.09406	.000

Source: Field study, 2023 -24

Some possible reasons for these distinctions could be cultural shifts, technological influences, changes in societal norms, and dynamics in the workplace. Millennials and Gen Z, growing up in a digital information era with high awareness of social and environmental issues, might be inclined

towards positive attitudes. Educational backgrounds, awareness levels, and workplace environments might be other contributors to these generational attitudes. In conclusion, these findings aid in identifying ways by which businesses might engage with various generational groups as consumer attitudes continue to evolve. Being cognizant of these nuances allows one to craft more informed stances for consumer engagement as well as marketing.

❖ **Multiple correlations between Sustainable business practices elements () and consumer behaviour**

Table 7 displays the correlation analysis used to study the relationship that exists between sustainable business practices and consumer behavior. The mean scores and Pearson correlation coefficients indicate the significant relationships between these three variables. Consumer Behavior (CB) had a mean of 3.6836. The relationships of Consumer Awareness and Perception (CAP), Consumer Preferences and Decision-Making (CPD), and Communication and Brand Influence (CBI) appear to be positive in that these factors are rated at 0.572**, 0.537**, and 0.402** respectively, all highly significant at the 0.01 level.

TABLE VII: Descriptive Statistics and Multiple correlation

	Consumer awareness and perception	Consumer preferences and decision-making processes	Communication strategies and brand influence
N	241	241	241
Mean	4.1259	3.7806	3.9218
Std. Deviation	.59750	.53913	.61761
Pearson Correlation	.572**	.537**	.402**
Sig. (2-tailed)	.000	.000	.000
Testing Hypotheses	H ₀₃	H ₀₄	H ₀₅
Decision	Reject	Reject	Reject
Results	Correlation is significant	Correlation is significant	Correlation is significant

Note: **. Correlation is significant at the 0.01 level (2-tailed).

Source: Field data, 2023 -24

The analysis appears to tell us that increasing scores in sustainable business practices result in an increase in favorable consumer behavior. Strong correlations represent a consistent and meaningful link of corporate sustainability practices toward a favorable consumer behavior. Among possibilities, consumer awareness of corporate sustainability principles, increased consumer preference for goods offered by companies that are environmentally responsible, and the creation

of trust and brand loyalty for businesses that openly communicate their commitment to this sustainability stand out. As ethical matters involving the conduct of companies become more prominent, these issues increasingly enter the consumer behavior. Essentially, this reinforces the very findings that sustainable business practices entail positive consumer behavior and require, therefore, that businesses put emphasis on and communicate both their sustainability efforts and their concerns toward the increasingly aware consumer.

❖ **Multiple regressions between Sustainable business practices elements () and consumer behaviour**

The provided tables present the results of a multiple regression analysis assessing the relationship between sustainable business practices elements and consumer behavior (CB). The model's overall performance and the individual predictors are elaborated as follows:

TABLE VIII: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.729 ^a	.532	.526	.43529

Source: Field study, 2023 -24

The multiple regression model shown in table 8 yields an R value of .729, indicating a strong positive correlation between the sustainable business practices elements (CBI, CAP, CPD) and consumer behavior. The R Square of .532 suggests that approximately 53.2% of the variability in consumer behavior can be explained by the model. The Adjusted R Square of .526 considers the number of predictors in the model, providing a more conservative estimate of the explained variance. The Standard Error of the Estimate, at .43529, represents the average difference between the observed and predicted values.

TABLE IX: ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51.001	3	17.000	89.722	.000 ^b
	Residual	44.906	237	.189		
	Total	95.907	240			
a. Dependent Variable: CB						
b. Predictors: (Constant), CBI, CAP, CPD						

Source: Field study, 2023 -24

The ANOVA table 9 evaluates the overall significance of the regression model. The regression sum of squares (51.001) is significantly greater than the residual sum of squares (44.906), leading to a highly significant F-statistic of 89.722 with a p-value of .000. This indicates that the regression model as a whole is statistically significant in predicting consumer behavior. The predictors (CBI, CAP, CPD) collectively contribute to the model's explanatory power.

TABLE X: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.741	.274		2.708	.007
	CAP	.452	.050	.427	9.063	.000
	CPD	.393	.056	.335	6.975	.000
	CBI	.274	.047	.268	5.848	.000
a. Dependent Variable: CB						

Source: Field study, 2023 -24

The coefficients table provides insight into the contribution of each predictor. The constant term is 0.741, and its significance ($t = 2.708$, $p = .007$) suggests that, without the influence of other predictors, there is a significant impact on consumer behavior.

The regression equation (model 1) for the study is solved as:

$$Y = \alpha + \beta x_1 + \beta x_2 + \beta x_3$$

$$CB = .741 + 0.452 \text{ CAP} + .393 \text{ CPD} + .274 \text{ CBI}$$

Each independent variable constituting sustainable business practices (CBI, CAP, and CPD) yields positive and significant parameter estimates. More specifically, with every increase of one unit in Consumer Awareness and Perception (CAP), Consumer Preferences and Decision-Making (CPD), and Communication and Brand Influence (CBI), Consumer Behavior (CB) is expected to be increased by 0.452, 0.393, and 0.274, respectively. The results from the multiple regression indicate a very strong correlation between the elements of sustainable business practices and consumer behavior. All three variables, Consumer Awareness and Perception, Consumer Preferences and Decision-Making, and Communication and Brand Influence, are significant in predicting consumer behavior and, therefore, shed light on the value of sustainable business practices in the consumer decision-making process. The overall model is highly significant and can provide businesses with important insights in understanding and thereby enhancing their impact on consumer behavior through sustainable initiatives.

✓ Discussion

The study's conclusions highlight the crucial role that mental factors play in the process of influencing sustainable consumer behavior, especially in times after a pandemic. The findings suggest that the key factors determining consumer attitudes toward sustainability are brand impact, communication tactics, preferences and choice-making processes, and consumer awareness and perception. Trujillo et al. (2023) and Severo et al. (2023) indicated that this study, thus, strengthened the existing literature emphasizing awareness as the main driver for sustainable consumption behavior. Customers aware of environmental issues are more prone to favor companies that prioritize sustainability, giving credence to this thought that information is actually a very potent factor to influence behavior. One of the major findings is the residential neighborhoods' influence on consumer behavior. The analysis demonstrated that there exist statistically significant differences in the sustainability-related behaviors of consumers from urban and rural areas, wherein urban consumers tend to opt more for eco-friendly decisions. There might be factors like more environmental education in cities, more exposure to sustainability initiatives, and easier availability of eco-friendly goods contributing to this disparity (Woo et al., 2022). In

contrast, rural consumers might be facing problems such as limited presence of eco-friendly products and waning interest toward business sustainability appeals.

Another crucial factor determining sustainable customer behavior is generational difference. The older of two competing statements-to the effect that younger generations, for example, millennials and Gen Z generations, are more environmentally aware and intentional when it comes to buying decisions-millennials-prove more positive sentiments toward sustainability than does Generation X (Lédy Gómez-Bayona et al., 2023). This study, then, advises companies to personalize marketing efforts carefully to appeal to such a group, while placing emphasis on transparency and corporate social responsibility, as this will encourage and support the development of lifelong relationships with the brands.

Branding and communication also, therefore, have been brought to the front as being important in the influencing of consumer behavior. Corporate communication of sustainability measures leads to higher consumer trust and more environmentally conscious choices (Wang & Su, 2022). Transparency in sustainability activities, environmental labels, and certifications increases consumer confidence and influences consumer behavior. These results confirm that strategic communication is one of the very important instruments to foster sustainable consumer behavior. In conclusion, this study provides concise insights into demographic and cognitive determinants of sustainable consumer behavior. These results can be of help to companies and policymakers in fostering targeted interventions that enhance consumer awareness of sustainability and the accessibility of sustainable products while also strengthening communication capacity for the creation of an environmentally aware base population.

8) CONCLUSION

This study thoroughly previews the cognitive determinants of sustainable consumer behavior in the post-pandemic setting, focusing on generational. Drawing on empirical data from 241 respondents, the research delved into the roles played by consumer awareness and consumer perception, along with preference, choice process, communication way, and brand, in fostering behavior that favors sustainability.

The findings show the presence of strong behavioral variations contingent on the place of abode and generational identity. Urban consumers and younger generations (Millennials and Gen Z) manifested the spirit of sustainability as a return of feeling wherein initiation by awareness and access to information becomes a necessity, and communication strategies become a response. The statistical treatment of data proved the existence of a strong positive correlation and predictive relationship between sustainable business practices and consumer behavior, stressing the importance of strategic communication, brand credibility, and perceived value in encouraging sustainable choices.

This underscores the argument that organizations must deliver sustainability messages that are sincere and that resonate with different demographic segments. Fostering a better-informed, more engaged, and sustainability-oriented consumer base is, therefore, a key goal for businesses and policymakers alike. Ultimately, the study serves both theoretical developments and practical understanding about how cognitive and demographic factors together influence sustainable behavior in emerging economies.

9) LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

While this paper contributes to the understanding of cognitive influences on sustainable consumer behavior across generational and urban-rural divides, certain caveats remain with respect to its

scope. The study is self-reported and hence potentially problematic in that there may have been response bias: participants may have answered in the socially desirable way. Again, because of a cross-sectional approach to data collection, the study cannot track changes in behavior over time. Last but not least, its regional focus means findings for the entire population set or other cultural milieu are likely to be excluded.

Future studies can choose to include a longitudinal or mixed-methods approach to track evolving trends in consumerism and to validate these findings over time. A comparative study across different regions or countries would also bring insights to the argument. A deeper focus on possible mediators and moderators, such as digital literacy, income level, or environmental education, could unlock a deeper understanding of the cognitive-behavioral link in sustainability.

10) PRACTICAL AND THEORETICAL IMPLICATIONS

This study has huge practical implications for businesses, policymakers, and sustainability marketers. Understanding the cognitive and demographic differences in sustainable consumer behavior should allow for more efficient marketing, educational outreach, and product positioning. Businesses could tailor sustainability messaging along generational lines, particularly to Millennials and Gen Z, who value transparency and authenticity; trust is built on clear communication and verified eco-labeling. Presently, rural consumers must be made aware of sustainable options and be able to access these options. Policymakers can tailor regional interventions towards creating and fostering environmental literacy and infrastructure.

In theoretical terms, the study enriches literature on post-pandemic consumer behavior linking the cognitive dimensions of awareness, preferences, and communication influence with demographic factors such as age and residential setting. These results enrich a body of literature steeped in legitimacy theory and accountability theory that suggests that businesses must stay transparent concerning changes affecting societal expectations. Future researchers could use this framework to explore other cultural and psychological variables implicated in sustainability behavior in emerging markets.

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