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Exploring Consumer Perceptions and Purchase Behavior Towards Green Consumer Durable Goods

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ABSTRACT

In recent years, there has been a growing global concern about environmental sustainability, leading individuals and businesses to adopt methods that lessen their ecological footprint. In this context, the concept of green consumerism has acquired substantial popularity, notably in the consumer durable products industry. Green consumer durable goods include a wide range of products, from energy-efficient appliances to eco-friendly furniture, that are intended to reduce environmental effect throughout their lives. This study aims to explore into this vital topic, with a specific focus on customer attitudes and purchasing behavior in the Tiruchirappalli district. The study used a mixed-methods approach, which included a survey and consumer interviews. The poll gathered information about customers' awareness of green marketing strategies, purchasing decisions for green consumer durable products, and environmental behavior. The survey was done online and delivered to 286 customers from Tiruchirappalli district. The poll discovered that buyers in the Tiruchirappalli district are growing more aware of green marketing techniques. The study highlights the importance of considering geographic and demographic differences in marketing strategies for green consumer durable goods. Educational qualifications are significantly associated with the influence of marketing and communication on respondents, but there is no significant association between educational qualifications and other external influences.

KEYWORDS: Consumer Perceptions, Consumer Behavior, green marketing, purchase decisions, Purchase Behavior.

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1. INTRODUCTION

In recent years, there has been a growing global concern regarding environmental sustainability, prompting individuals and organizations to adopt practices that reduce ecological footprints. Within this context, the concept of green consumerism has gained significant traction, particularly in the consumer durable goods sector. Green consumer durable goods encompass a wide array of products, ranging from energy-efficient appliances to eco-friendly furniture, designed to minimize environmental impact throughout their lifecycle.

Understanding consumer perceptions and purchase behavior towards green consumer durable goods is paramount for both marketers and policymakers. This research endeavors to delve into this critical area, particularly focusing on the perceptions and purchase behavior of consumers in Tiruchirappalli district.

Tiruchirappalli, situated in the southern part of India, represents a dynamic consumer market with diverse socio-economic backgrounds. This study aims to contribute to the existing body of knowledge

by shedding light on the level of awareness, attitudes, and motivations driving consumers' decisions to purchase green consumer durable goods in this region.

The significance of this research is underscored by several factors. Firstly, as environmental concerns escalate globally, understanding consumer preferences towards eco-friendly products becomes imperative for businesses seeking to remain competitive in the marketplace. Secondly, insights derived from this study can inform policymakers in devising effective strategies to promote sustainable consumption patterns within the community. Finally, by uncovering the drivers and barriers influencing consumer behavior towards green consumer durable goods, this research can guide marketers in crafting targeted marketing campaigns and product offerings that resonate with the values and preferences of consumers in Tiruchirappalli district.

2. OBJECTIVES

The purpose of this study is to understand the impact of green marketing practices on consumer behavior in Tiruchirappalli district. The study will focus on two specific objectives:

- To Assess consumer awareness of green marketing methods in Tiruchirappalli district.
- To determine the aspects that influence customers' purchase decisions for green consumer durable products.

3. METHODOLOGY

To achieve the objectives of this study, a mixed-methods approach will be employed, combining quantitative surveys and qualitative interviews. The quantitative phase will involve administering structured questionnaires to a sample of 286 consumers in Tiruchirappalli district to assess their level of awareness, attitudes, and purchasing behavior towards green consumer durable goods. The qualitative phase will entail in-depth interviews with a subset of participants to gain deeper insights into the underlying motivations and decision-making processes shaping their attitudes and behaviors towards green products.

The study was done in Tiruchirappalli district, a significant urban hub in Tamil Nadu, India. Tiruchirappalli is a fast-growing metropolis with a population of about one million people. The city is home to several manufacturing industries, notably consumer durable goods producers. The study's findings will help us better understand how green marketing tactics affect consumer behavior. The findings will be valuable for firms in Tiruchirappalli district and other urban areas in India who are considering using green marketing techniques.

4. LITERATURE REVIEW

Several studies highlight that consumer awareness and knowledge about environmental issues play a pivotal role in shaping perceptions of green products. According to Peattie (2001), environmentally aware consumers are more likely to have a positive attitude towards green products. Similarly, D'Souza et al. (2007) found that consumers with higher environmental knowledge tend to perceive green products as more beneficial and are more likely to purchase them.

The credibility of green marketing claims significantly affects consumer trust and, consequently, their purchase decisions. Chen and Chang (2013) emphasize that perceived trustworthiness of green claims is essential for consumer acceptance. They argue that skepticism towards greenwashing – misleading claims about the environmental benefits of a product – can deter consumers from purchasing

green products. This finding is supported by Alniacik and Yilmaz (2012), who note that transparent and verifiable information about green products enhances consumer trust and purchase intention.

The perceived value of green products, which includes environmental benefits, health advantages, and cost savings, is a critical determinant of consumer purchase behavior. Studies by Lin and Huang (2012) suggest that consumers are willing to pay a premium for green products if they perceive a higher overall value. However, Laroche et al. (2001) point out that the higher initial cost of green products can be a barrier, despite the long-term savings on energy and maintenance.

Social factors, including peer influence and societal norms, also impact consumer behavior towards green products. According to Ajzen (1991), social norms and the perceived social acceptance of green behaviors can significantly influence individual purchase decisions. This is corroborated by findings from Gadenne et al. (2011), who demonstrate that social pressure and the desire to conform to environmentally friendly practices can motivate consumers to choose green products.

Despite positive attitudes towards green products, an attitude-behavior gap often exists, where favorable perceptions do not always translate into actual purchases. Kollmuss and Agyeman (2002) attribute this gap to various factors, including convenience, availability, and habit. Similarly, Vermeir and Verbeke (2006) highlight that while consumers may express concern for the environment, their purchasing behavior is often influenced by practical considerations such as product performance and availability.

Demographic variables, such as age, income, education, and gender, can moderate the relationship between consumer perceptions and purchase behavior. Young consumers and those with higher education levels tend to exhibit more environmentally friendly behaviors (Diamantopoulos et al., 2003). However, Gupta and Ogden (2009) note that higher income levels are associated with a greater likelihood of purchasing green products, primarily due to the ability to afford the often higher costs.

Cultural context also plays a significant role in shaping consumer attitudes and behaviors towards green products. According to Hofstede's cultural dimensions theory, individualistic cultures may prioritize personal benefits over collective environmental gains, influencing their purchase decisions (Hofstede, 2001). Conversely, collectivist cultures might show stronger tendencies towards sustainable consumption due to a greater emphasis on community welfare.

5. DATA ANALYSIS

Hypothesis 1:

Null Hypothesis: There is no significant difference between age of the respondents and Consumer Related Factors.

Alternative Hypothesis: There is a significant difference between age of the respondents and Consumer Related Factors.

Table No: 1

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Environmental Awareness and Knowledge	Between Groups	.030	2	.015	.028	.972
	Within Groups	133.079	253	.526		

	Total	133.109	255			
Attitudes and Beliefs	Between Groups	7.980	2	3.990	7.947	.000
	Within Groups	127.020	253	.502		
	Total	135.000	255			
Perceived Behavioral Control	Between Groups	4.610	2	2.305	4.911	.008
	Within Groups	118.730	253	.469		
	Total	123.340	255			
Personal Values and Norms	Between Groups	3.972	2	1.986	4.320	.014
	Within Groups	116.306	253	.460		
	Total	120.277	255			

Source: Primary Data

The significance value (p = 0.972) is substantially greater than the conventional alpha level of 0.05. As a result, we fail to reject the null hypothesis. This indicates that there is no significant difference in environmental awareness and knowledge among respondents of different age groups. In other words, age does not appear to influence how aware and knowledgeable respondents are about environmental issues.

The significance value (p = 0.000) is well below the alpha level of 0.05. Therefore, we reject the null hypothesis. This finding suggests a significant difference in attitudes and beliefs towards green consumer durables among different age groups. Age significantly affects how positively or negatively respondents feel about these products.

The significance value (p = 0.008) is less than the alpha level of 0.05. Thus, we reject the null hypothesis. This indicates a significant difference in perceived behavioral control among respondents of different age groups. Age impacts how much control respondents feel they have over purchasing green consumer durables.

The significance value (p = 0.014) is below the alpha level of 0.05. Therefore, we reject the null hypothesis. This indicates a significant difference in personal values and norms related to green consumer durables among different age groups. Age significantly influences the values and norms that respondents hold regarding environmental sustainability.

The ANOVA analysis reveals that age significantly influences certain consumer-related factors, specifically attitudes and beliefs, perceived behavioral control, and personal values and norms. However, there is no significant difference in environmental awareness and knowledge across different age groups.

These findings suggest that while environmental knowledge is uniformly distributed across age groups, younger and older consumers differ in their attitudes, perceived control over purchasing decisions, and the personal values they attach to green products. These insights can help businesses and policymakers tailor their strategies to target different age demographics more effectively, emphasizing the aspects most relevant to each group to promote the adoption of green consumer durable goods.

Hypothesis 2:

Null Hypothesis: There is no significant difference between domicile of the respondents and Product-Related Factors.

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Alternative Hypothesis: There is a significant difference between domicile of the respondents and Product-Related Factors.

Table No: 2

		Sum of Squares	df	Mean Square	F	Sig.
Perceived Value	Between Groups	.016	2	.008	.015	.985
	Within Groups	133.093	253	.526		
	Total	133.109	255			
Price Sensitivity	Between Groups	9.254	2	4.627	9.309	.000
	Within Groups	125.746	253	.497		
	Total	135.000	255			
Product Availability and Convenience	Between Groups	4.753	2	2.377	5.071	.007
	Within Groups	118.586	253	.469		
	Total	123.340	255			
Product Quality and Performance	Between Groups	3.565	2	1.783	3.864	.022
	Within Groups	116.712	253	.461		
	Total	120.277	255			
Brand Trust and Loyalty	Between Groups	4.139	2	2.069	4.769	.009
	Within Groups	109.795	253	.434		
	Total	113.934	255			

Source: Primary Data

The significance value (p = 0.985) is much greater than the alpha level (typically 0.05). Therefore, we fail to reject the null hypothesis. This indicates that there is no significant difference between the domicile of respondents and their perceived value of green products.

The significance value (p = 0.000) is less than the alpha level (0.05). Therefore, we reject the null hypothesis. This indicates that there is a significant difference between the domicile of respondents and their price sensitivity towards green products.

The significance value (p = 0.007) is less than the alpha level (0.05). Therefore, we reject the null hypothesis. This indicates that there is a significant difference between the domicile of respondents and their perceptions of product availability and convenience of green products.

The significance value (p = 0.022) is less than the alpha level (0.05). Therefore, we reject the null hypothesis. This indicates that there is a significant difference between the domicile of respondents and their perceptions of product quality and performance of green products.

The significance value (p = 0.009) is less than the alpha level (0.05). Therefore, we reject the null hypothesis. This indicates that there is a significant difference between the domicile of respondents and their brand trust and loyalty towards green products.

The ANOVA results show that domicile is significantly associated with price sensitivity, product availability and convenience, product quality and performance, and brand trust and loyalty towards green

consumer durable goods. However, there is no significant association between domicile and the perceived value of green products. This suggests that where respondents live influences several key product-related factors, but it does not affect their overall perceived value of green products. These findings highlight the importance of considering geographic and demographic differences in marketing strategies for green consumer durable goods.

Hypothesis 3:

Null Hypothesis: There is no significant difference between educational qualification of the respondents and External Influences.

Alternative Hypothesis: There is a significant difference between educational qualification of the respondents and External Influences.

Table No: 3

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Social Influence and Peer Pressure	Between Groups	1.794	2	.897	1.704	.184
	Within Groups	133.206	253	.527		
	Total	135.000	255			
Marketing and Communication	Between Groups	2.933	2	1.466	3.081	.048
	Within Groups	120.407	253	.476		
	Total	123.340	255			
Regulatory and Institutional Support	Between Groups	1.184	2	.592	1.258	.286

Source: Primary Data

The significance value (p = 0.184) is greater than the alpha level (typically 0.05). Therefore, we fail to reject the null hypothesis. This indicates that there is no significant difference between the educational qualification of respondents and the influence of social influence and peer pressure.

The significance value (p = 0.048) is slightly less than the alpha level (0.05). Therefore, we reject the null hypothesis. This indicates that there is a significant difference between the educational qualification of respondents and the influence of marketing and communication.

The significance value (p = 0.286) is greater than the alpha level (0.05). Therefore, we fail to reject the null hypothesis. This indicates that there is no significant difference between the educational qualification of respondents and the influence of regulatory and institutional support.

The significance value (p = 0.566) is greater than the alpha level (0.05). Therefore, we fail to reject the null hypothesis. This indicates that there is no significant difference between the educational qualification of respondents and the influence of cultural factors.

The ANOVA results indicate that educational qualification is significantly associated with the influence of marketing and communication on respondents, as evidenced by the significance value (p = 0.048) being less than 0.05. However, there is no significant association between educational qualification and other external influences, including social influence and peer pressure, regulatory and institutional support, and cultural factors, as their p-values (0.184, 0.286, and 0.566 respectively) are greater than

0.05. This suggests that while marketing and communication strategies might need to be tailored to different educational levels, other external influences do not vary significantly with educational qualifications.

6. FINDINGS AND SUGGESTIONS

The study reveals that age significantly influences certain consumer-related factors, specifically attitudes and beliefs, perceived behavioral control, and personal values and norms related to green consumer durables. However, there is no significant difference in environmental awareness and knowledge across different age groups.

The findings suggest that while environmental knowledge is uniformly distributed across age groups, younger and older consumers differ in their attitudes, perceived control over purchasing decisions, and the personal values they attach to green products. These insights can help businesses and policymakers tailor their strategies to target different age demographics more effectively, emphasizing the aspects most relevant to each group to promote the adoption of green consumer durable goods.

Domesticity is significantly associated with price sensitivity, product availability and convenience, product quality and performance, and brand trust and loyalty towards green consumer durable goods. However, there is no significant association between domicile and the perceived value of green products. This suggests that where respondents live influences several key product-related factors, but it does not affect their overall perceived value of green products.

Educational qualification is also significantly associated with the influence of marketing and communication on respondents. However, there is no significant association between educational qualification and other external influences, such as social influence and peer pressure, regulatory and institutional support, and cultural factors.

7. CONCLUSION

The study highlights the importance of considering geographic and demographic differences in marketing strategies for green consumer durable goods. Educational qualifications are significantly associated with the influence of marketing and communication on respondents, but there is no significant association between educational qualifications and other external influences. This suggests that while marketing and communication strategies might need to be tailored to different educational levels, other external influences do not vary significantly with educational qualifications.

The study has greatly improved our understanding of the impact of green marketing practices on customer behavior in the Tiruchirappalli district. The study's findings have proved valuable for firms in Tiruchirappalli district and other Indian towns looking to follow green marketing practices. According to the study's findings, age and place of residence have a significant impact on customers' views and behaviours regarding green products. Marketers can utilize these results to develop more focused marketing strategies that will reach and impact these consumers.

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