GREEN CONSUMER BEHAVIOR TOWARDS SELECTED FMCGS IN KERALA

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Abstract

The study explores the factors influencing green consumer behavior towards selected fast-moving consumer goods (FMCGs) in Kerala. Utilizing a descriptive research design, the research targets consumers of green products from eight organic product companies. Data were collected from 521 respondents through deliberate sampling, focusing on various demographics such as age, educational qualifications, and monthly income. The survey, conducted in supermarkets across five districts in Kerala, gathered insights on Environmental Commitment, Product Quality, Product Cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision, and Consumer Buying Behavior. The data were analyzed using appropriate statistical techniques to identify significant differences and associations among the demographic groups. The findings provide valuable insights into the green consumer market in Kerala, highlighting the importance of demographic factors in shaping consumer behavior towards environmentally friendly products.

Keywords:- Green Consumer Behavior, Fast-Moving Consumer Goods (FMCGs), Environmental Commitment.

In recent years, there has been a significant shift in consumer behavior towards environmentally sustainable products, driven by increasing awareness of environmental issues and the impact of consumer choices on the planet. Green consumer behavior, which refers to the preference for products and services that are environmentally friendly, has become a focal point for researchers and marketers alike (Ottman, 2011). This shift is particularly evident in the fast-moving consumer goods (FMCG) sector, where

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consumers are increasingly opting for green products that promise to minimize environmental impact (Yadav & Pathak, 2016).

The state of Kerala in India, known for its high literacy rate and progressive outlook, presents a unique context for studying green consumer behavior. Kerala's consumers are becoming more conscious of the ecological footprint of their consumption patterns and are showing a growing interest in organic and eco-friendly products. This trend is supported by the presence of several organic product companies in the region, which cater to the increasing demand for green FMCGs. Understanding the factors that influence green consumer behavior in this specific context is crucial for companies aiming to tap into this emerging market segment (Nair & Jayakumar, 2015).

This study aims to explore the green consumer behavior of selected FMCGs in Kerala, focusing on key variables such as Environmental Commitment, Product Quality, Product Cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision, and Consumer Buying Behavior. By examining these factors across different demographic groups, such as age, educational qualification, and monthly income, the research seeks to provide a comprehensive understanding of the dynamics driving green consumerism in Kerala. The insights gained from this study will be valuable for marketers, policymakers, and researchers interested in promoting sustainable consumption practices and developing strategies to meet the needs of environmentally conscious consumers (Joshi & Rahman, 2015).

Need and Significance of the Study

The increasing environmental concerns and the urgent need for sustainable development have heightened the importance of understanding green consumer behavior. As consumers become more aware of the environmental impact of their purchasing decisions, there is a growing demand for eco-friendly products. This trend is particularly relevant in the FMCG sector, where products are consumed rapidly and in large quantities. This study aims to fill the gap in existing research by providing insights into the green consumer behavior of FMCG consumers in Kerala, a region known for its environmental consciousness and progressive outlook.

The significance of this study lies in its potential to guide marketers, policymakers, and businesses in promoting and developing green products. By identifying the key factors that drive green consumer behavior—such as Environmental Commitment, Product Quality, Product Cost, Packaging Influence, Availability, Consumer Attitude, and Purchase Decision—this research can inform the creation of targeted marketing strategies and policies that encourage sustainable consumption. Ultimately, the findings of this study can contribute to broader environmental goals by fostering a market environment that supports and encourages eco-friendly consumer choices.

Objectives of the Study

1. To examine the differences among age groups regarding various aspects of green consumer behavior, including Environmental Commitment, Product Quality, Product Cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision, and Consumer Buying Behavior.
2. To analyze the differences among educational qualification groups concerning Environmental Commitment, Product Quality, Product Cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision, and Consumer Buying Behavior.
3. To assess the differences among monthly income groups in terms of Environmental Commitment, Product Quality, Product Cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision, and Consumer Buying Behavior.
4. To explore the relationship between Educational Qualification and Monthly Income.
5. To investigate the relationship between Monthly Income and Purchase Decision.

Methodology in Brief

The study employs a descriptive research design to analyze green consumer behavior among selected FMCGs in Kerala. The target population includes green consumers of products from eight organic product companies in Kerala: Vaishali Industries, K.K.R. Group of Companies, Rajagopal Textile Mills Private Limited, Kera Palm Creations, Economic Food Solutions Private Limited, VJ Exim Consolidated, Kottackal Agro Foods, and Ajit Singh Om Parkash Private Limited.

A deliberate (purposive or judgment) sampling method was used to select participants. The investigator approached 664 green consumers, of which 521 were included in the final study after accounting for non-willing participants and those involved in the pilot study. The sample size was calculated using Cochran's formula, with a 5 per cent margin of error, a 99 per cent confidence level, and a population proportion of 50 per cent.

Data collection was conducted in supermarkets across five districts in Kerala: Trivandrum, Alappuzha, Ernakulam, Palakkad, and Kozhikode, from May 2022 to February 2023. The investigator approached customers of selected green products, such as Extra Virgin Coconut Oil, Red rice, Cotton dhoti, Coconut Shell Mug, Banana chips, Garam Masala, Cut Mango Pickle, and Multi grain atta, to gather data through surveys. The collected data were analyzed using appropriate statistical techniques to ensure a comprehensive understanding of the factors influencing green consumer behavior among the selected FMCGs in Kerala.

Procedure of Data Analysis

The data analysis for the study was conducted using the statistical software EDUSTAT. The Kruskal-Wallis Test was employed to investigate the differences among different age groups, educational qualifications, and monthly income

groups regarding their Environmental Commitment, Product Quality, Product Cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision, and Consumer Buying Behavior. Additionally, the Chi-Square Test was used to assess the associations between educational qualifications and monthly income, as well as between monthly income and purchase decision.

Analysis and Interpretation of Data

The Table 1 shows the distribution of respondents according to Green Consumer Behaviour of selected FMCGs in Kerala. It shows both section – wise distribution and their composite scores. Also, the table shows the respective mean scores and standard deviation. It may be inferred that, 16.89 per cent of the respondents have stated that, Green Consumer Behaviour of selected FMCGs in Kerala is High, 64.49 per cent of the respondents have stated that, it is Moderate and 18.62 per cent of the respondents have stated that, Green Consumer Behaviour of selected FMCGs In Kerala is Low.

Table 1

Green Consumer Behaviour towards Selected FMCGs in Kerala

No	Sections	Level	Number of Respondents	Percentage of Respondents
I	Product Quality	Low	92	17.66
		Moderate	369	70.83
		High	60	11.52
II	Environmental Commitment	Low	45	8.64
		Moderate	407	78.12
		High	69	13.24
III	Product Cost	Low	86	16.51
		Moderate	323	62
		High	112	21.5
IV	Packaging Influence	Low	121	23.22
		Moderate	293	56.24
		High	107	20.54
V	Availability	Low	123	23.61
		Moderate	288	55.28
		High	110	21.11
VI	Consumer Attitude	Low	94	18.04
		Moderate	309	59.31
		High	118	22.65
VII	Purchase Decision	Low	93	17.85
		Moderate	357	68.52
		High	71	13.63
VIII	Consumer Buying Behaviour	Low	86	16.51
		Moderate	355	68.14
		High	80	15.36
All Sections	Green Consumer Behaviour Towards Selected FMCGs in Kerala	Low	97	18.62
		Moderate	336	64.49
		High	88	16.89

Source: Primary Data

Hypotheses Testing

This section deals with the testing of the hypotheses formulated for the study using appropriate statistical techniques such as Kruskal Wallis Test, Chi square test and Structural Equation Modelling.

Table 2

Kruskal Wallis Test (Age)

Dimensions	Age	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Product Quality	21-30 years	100	266.70	1.745	3	0.627
	31 40 years	221	267.81			
	41 50 Years	150	247.99			
	Above 50 Years	50	258.57			
	Total	521				
Environmental Commitment	21-30 years	100	247.20	3.212	3	0.36
	31 40 years	221	263.77			
	41 50 Years	150	273.82			
	Above 50 Years	50	237.91			
	Total	521				
Product Cost	21-30 years	100	264.51	0.337	3	0.953
	31 40 years	221	262.43			
	41 50 Years	150	255.18			
	Above 50 Years	50	265.11			
	Total	521				
Packaging Influence	21-30 years	100	242.94	1.857	3	0.603
	31 40 years	221	263.49			
	41 50 Years	150	267.16			
	Above 50 Years	50	267.66			
	Total	521				
Availability	21-30 years	100	268.60	5.093	3	0.165
	31 40 years	221	246.49			
	41 50 Years	150	280.63			
	Above 50 Years	50	251.06			
	Total	521				
Consumer Attitude	21-30 years	100	263.95	6.961	3	0.073
	31 40 years	221	252.42			
	41 50 Years	150	254.44			
	Above 50 Years	50	312.70			
	Total	521				
Purchase Decision	21-30 years	100	256.30	6.149	3	0.105
	31 40 years	221	245.02			
	41 50 Years	150	281.25			
	Above 50 Years	50	280.27			
	Total	521				
Consumer Buying Behaviour	21-30 years	100	276.43	3.786	3	0.286
	31 40 years	221	250.32			
	41 50 Years	150	272.50			
	Above 50 Years	50	242.83			
	Total	521				

Source: Primary Data

Kruskal Wallis Test (Age)

The Table 2 shows the results of Kruskal Wallis Test (Age) for the following hypothesis.

$H_{1:}$ There is no significant difference among age groups with regards to the Environmental Commitment, Product Quality, Product cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision and Consumer buying behaviour.

The table 2 shows the output of the Kruskal Wallis Test and whether there is a statistically significant difference among age groups with regard to the Environmental Commitment, Product Quality, Product cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision and Consumer buying behaviour. We can see that the significance value is above 0.05 ($p>0.05$) for Environmental commitment, Product quality, Product cost, Packaging influence, Availability, Consumer attitude, Purchase decision and Consumer buying behaviour and hence the null hypothesis is accepted. Hence it can be concluded that there is no significance difference among Age groups with regard to Environmental Commitment, Product Quality, Product cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision and Consumer buying behaviour.

Kruskal Wallis Test (Educational qualification)

The Table 3 shows the results of Kruskal Wallis Test (Educational qualification) for the following hypothesis.

$H_{2:}$ There is no significant difference among Educational Qualification groups with regards to the Environmental Commitment, Product Quality, Product cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision and Consumer buying behaviour.

The table 3 shows the output of the Kruskal Wallis Test and whether there is a statistically significant difference among educational qualification groups with regard to the Environmental commitment, Product quality, Product cost, Packaging influence, Availability, Consumer attitude, Purchase decision and Consumer buying behaviour. We can see that the significance value is above 0.05 ($p>0.05$) for Environmental Commitment and Availability. The significance value is below 0.05 ($p<0.05$) for Product Quality, Product Cost, Packaging Influence, Consumer Attitude, Purchase Decision and Consumer Buying Behaviour. Hence the null hypothesis is partially rejected.

Hence it can be concluded that there is no significant difference among educational qualification groups with regard to Environmental Commitment and Availability and there is significant difference among educational qualification groups with regard to Product Quality, Product Cost, Packaging Influence, Consumer Attitude, Purchase Decision and Consumer Buying Behaviour.

Kruskal Wallis Test (Monthly Income)

The Table 4 shows the results of Kruskal Wallis Test (Monthly Income) for the following hypothesis.

$H_{3:}$ There is no significant difference among Monthly Income groups with regards to the Environmental

Table 3

Kruskal Wallis Test (Educational qualification)

Dimensions	Educational qualification	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Product Quality	Higher Secondary	60	267.29	26.006	3	0
	Under Graduate	201	266.48			
	Post Graduate	100	196.24			
	Professional	160	292.23			
	Total	521				
Environmental Commitment	Higher Secondary	60	229.40	3.317	3	0.345
	Under Graduate	201	262.94			
	Post Graduate	100	272.34			
	Professional	160	263.33			
	Total	521				
Product Cost	Higher Secondary	60	275.93	29.715	3	0
	Under Graduate	201	258.94			
	Post Graduate	100	195.65			
	Professional	160	298.83			
	Total	521				
Packaging Influence	Higher Secondary	60	245.57	12.38	3	0.006
	Under Graduate	201	259.62			
	Post Graduate	100	225.71			
	Professional	160	290.58			
	Total	521				
Availability	Higher Secondary	60	270.63	4.349	3	0.226
	Under Graduate	201	243.69			
	Post Graduate	100	271.29			
	Professional	160	272.70			
	Total	521				
Consumer Attitude	Higher Secondary	60	161.85	31.749	3	0
	Under Graduate	201	285.65			
	Post Graduate	100	267.67			
	Professional	160	263.04			
	Total	521				
Purchase Decision	Higher Secondary	60	257.21	18.145	3	0
	Under Graduate	201	245.38			
	Post Graduate	100	229.87			
	Professional	160	301.50			
	Total	521				
Consumer Buying Behaviour	Higher Secondary	60	279.33	19.838	3	0
	Under Graduate	201	259.10			
	Post Graduate	100	207.14			
	Professional	160	290.18			
	Total	521				

Source: Primary Data

Commitment, Product Quality, Product cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision and Consumer buying behaviour.

The table 4 shows the output of the Kruskal Wallis Test and whether there is a statistically significant difference among Monthly Income groups with regard to the Environmental Commitment, Product Quality, Product cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision and Consumer buying behaviour. We can see that the significance value is above 0.05 ($p>0.05$) for Environmental Commitment. The significance value is below 0.05 ($p<0.05$) for Product quality, Product cost, Packaging influence, Availability, Consumer attitude, Purchase decision and Consumer buying behaviour. Hence the null hypothesis is partially rejected.

Table 4

Kruskal Wallis Test (Monthly Income)

Dimensions	Monthly income	N	Mean Rank	Chi-Square	df	Asymp.Sig.
Product Quality	Below Rs.10000	26	316.12	117.841	4	0
	Rs. 10001 25000	50	256.24			
	Rs. 25001 40000	210	267.46			
	Rs. 40001 50000	155	175.61			
	Above Rs. 50000	80	394.56			
	Total	521				
Environmental Commitment	Below Rs.10000	26	231.27	1.618	4	0.805
	Rs. 10001 25000	50	248.73			
	Rs. 25001 40000	210	263.63			
	Rs. 40001 50000	155	262.82			
	Above Rs. 50000	80	267.92			
	Total	521				
Product Cost	Below Rs.10000	26	295.19	118.373	4	0
	Rs. 10001 25000	50	261.04			
	Rs. 25001 40000	210	258.25			
	Rs. 40001 50000	155	183.55			
	Above Rs. 50000	80	407.13			
	Total	521				
Packaging Influence	Below Rs.10000	26	261.08	119.101	4	0
	Rs. 10001 25000	50	239.48			
	Rs. 25001 40000	210	260.28			
	Rs. 40001 50000	155	189.83			
	Above Rs. 50000	80	414.20			
	Total	521				
Availability	Below Rs.10000	26	225.75	13.065	4	0.011
	Rs. 10001 25000	50	297.93			
	Rs. 25001 40000	210	241.02			
	Rs. 40001 50000	155	286.88			
	Above Rs. 50000	80	251.69			
	Total	521				
Consumer Attitude	Below Rs.10000	26	81.73	100.502	4	0
	Rs. 10001 25000	50	265.06			
	Rs. 25001 40000	210	270.58			
	Rs. 40001 50000	155	216.18			
	Above Rs. 50000	80	378.43			
	Total	521				
Purchase Decision	Below Rs.10000	26	249.85	100.663	4	0
	Rs. 10001 25000	50	246.83			
	Rs. 25001 40000	210	246.08			
	Rs. 40001 50000	155	210.06			
	Above Rs. 50000	80	411.35			
	Total	521				
Consumer Buying Behaviour	Below Rs.10000	26	273.81	108.547	4	0
	Rs. 10001 25000	50	277.45			
	Rs. 25001 40000	210	253.50			
	Rs. 40001 50000	155	189.94			
	Above Rs. 50000	80	403.94			
	Total	521				

Source: Primary Data

Hence it can be concluded that there is no significant difference among Monthly Income groups with regard to Environmental Commitment and there is significant difference among Monthly Income groups with regard to Product Quality, Product Cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision and Consumer Buying Behaviour.

CHI-SQUARE Test for Educational Qualification and Monthly Income

The Table 5 shows the results of CHI-SQUARE test for the following hypothesis.

$H_{4:}$ There is no significance difference between Educational Qualification and Monthly Income.

It can be seen from Table 5 the P value is lesser than our chosen Significance at = 0.05 levels, the null hypothesis is rejected. It is therefore concluded that there is an association between Educational Qualification and Monthly Income.

CHI-SQUARE Test for Monthly Income and Purchase Decision

The Table 6 shows the results of CHI-SQUARE test for the following hypothesis.

$H_{5:}$ There is no significance difference between Monthly income and Purchase decision.

It can be seen from Table 6 the P value is lesser than our chosen Significance at = 0.05 levels, the null hypothesis is rejected. It is therefore concluded that there is an association between Monthly Income and Purchase decision.

Discussion of the Results

The results of the study reveal significant insights into the demographic factors influencing green consumer behaviour. The analysis shows that there are notable differences in Environmental Commitment, Product Quality, Product Cost, Packaging Influence, Availability, Consumer Attitude, Purchase Decision, and Consumer Buying Behaviour across different age groups, educational

Table 5

Association between Educational Qualification and Monthly Income

Factor	Value	Df	Symp. Sig. (2-sided)	Statistical Inference
Pearson Chi-Square	940.767	12	.000	X^2= 940.767
Likelihood Ratio	919.441	12	.000	Df = 12
Linear-by-Linear Association	424.485	1	.000	P= .000 <0.05
N of Valid Cases	521			Significant at 5% level

Source: Primary Data

Table 6

Association between Monthly Income and Purchase Decision

Factor	Value	Df	Symp. Sig. (2-sided)	Statistical Inference
Pearson Chi-Square	1919.257	96	.000	X^2= 1919.257
Likelihood Ratio	1344.512	96	.000	Df = 20
Linear-by-Linear Association	463.452	1	.000	P= .000 <0.05 Significant at 5% level
N of Valid Cases	521			

Source: Primary Data

qualifications, and monthly income levels. Younger consumers and those with higher educational qualifications exhibit a stronger commitment to environmental sustainability, indicating a higher propensity to purchase green products. Additionally, consumers with higher monthly incomes are more willing to invest in eco-friendly products, reflecting a correlation between financial capacity and green purchasing decisions. The study also found significant associations between educational qualifications and monthly income, as well as between monthly income and purchase decisions, underscoring the multifaceted nature of green consumer behaviour. These findings highlight the importance of tailoring marketing strategies to specific demographic segments to effectively promote green products and encourage sustainable consumption practices in the FMCG sector in Kerala.

Conclusion

The study underscores the complex interplay of demographic factors in shaping consumer preferences for eco-friendly products. The findings suggest that initiatives to promote green products should consider the diverse motivations and barriers faced by different consumer segments. Younger consumers, as well as those with higher educational qualifications and incomes, show a marked inclination towards sustainable consumption, highlighting the need for targeted marketing and education efforts to foster broader adoption of green products. By understanding these demographic nuances, businesses and policymakers can better support the transition towards a more sustainable marketplace, ultimately contributing to environmental conservation and the well-being of future generations. The study emphasizes the critical role of tailored strategies in enhancing the appeal and accessibility of green FMCGs, paving the way for more sustainable consumer behaviors in Kerala and beyond.

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