

EXPLORING AWARENESS LEVELS OF GREEN MARKETING AMONG FMCG CONSUMERS: A CASE STUDY OF PUNJAB

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ABSTRACT

Green marketing has become an important strategic approach focused on promoting environmentally sustainable products and practices. Although shifting from traditional marketing poses challenges, growing government emphasis on environmental protection has encouraged businesses to adopt sustainable methods for both compliance and competitive advantage. This study examines consumer awareness of green marketing in the FMCG sector. Using exploratory and descriptive research designs, data were collected from 600 consumers across Ludhiana, Jalandhar, and Amritsar in Punjab through a multi-stage sampling method. Statistical tools such as mean, standard deviation, t-test, F-test, Welch test and ANOVA were applied. Overall, the findings suggest that awareness of green FMCG products is not uniform across the population and is largely shaped by socio-economic and demographic characteristics, highlighting the need for targeted strategies to enhance awareness among specific groups. Educational initiatives and promotional activities should be strengthened, particularly among less aware groups, using simple and informative communication. Marketers should utilize digital platforms, social media, and local outreach programs to effectively reach diverse populations.

Keywords: [Green Marketing, FMCG Sector, Consumer Awareness, Punjab]

INTRODUCTION

Green marketing has emerged as a crucial strategic approach that emphasizes the promotion of products and services that are environmentally sustainable and contribute positively to ecological well-being. It involves several key practices, such as the use of sustainable raw materials, adoption of energy-efficient and low-pollution production processes, utilization of recyclable or biodegradable packaging, and initiatives aimed at encouraging environmentally responsible consumer behavior (Peattie & Crane, 2005).

In India, the concept of green marketing began gaining momentum during the late 1990s and early 2000s. Similar to global trends, it has steadily gained importance in both developed and developing economies. The Government of India established the Ministry of Environment in 1980, which was later renamed the Ministry of Environment and Forests in 1985. Following the Bhopal Gas Tragedy, the Environment Protection Act of 1986 was enacted, marking a significant step toward environmental regulation.

The late 1990s witnessed the emergence of green marketing as a transformative movement in the country. To promote environmentally friendly products, the government introduced the Eco-Mark Scheme in 1991. The primary objective of this initiative was to enhance consumer

awareness regarding eco-friendly products and to encourage the purchase of goods with minimal environmental impact.

The transition from conventional marketing to green marketing has presented new challenges for businesses. However, increased government focus on environmental protection has encouraged manufacturers and producers to adopt sustainable practices. Companies are now integrating green marketing strategies not only to comply with regulations but also to achieve a competitive advantage while contributing to environmental sustainability.

FAST-MOVING CONSUMER GOODS (FMCG): A GREEN TRANSITION IN INDIA

Fast-Moving Consumer Goods (FMCG), also referred to as Consumer Packaged Goods (CPG), are everyday products known for their quick sales, frequent consumption, and relatively low prices. These include items like food, beverages, personal care products, and household essentials. Owing to their short shelf life—particularly for perishable goods—proper packaging plays a vital role in maintaining quality and ensuring safety.

In recent years, the Indian FMCG sector has shown a growing commitment to sustainability. Rising consumer awareness and increasing concerns about environmental issues such as pollution and resource depletion have prompted companies to adopt eco-friendly practices, including biodegradable packaging, reduced plastic usage, sustainable sourcing, and energy-efficient production methods.

As a result, the sector is gradually transitioning from a purely volume-driven approach to one that emphasizes sustainability and environmental responsibility.

OBJECTIVE OF THE STUDY

To examine the level of consumer awareness regarding green marketing practices in the FMCG sector

Research Hypothesis of the Study

H₀₁: There would be no significant relationship between level of consumer awareness towards green marketing of FMCG product and their demographic characteristics.

H_{01a}: There would be significant relationship between level of consumer awareness towards green marketing of FMCG product and their demographic characteristics.

RESEARCH METHODOLOGY

Research Design

The research adopts both exploratory and descriptive approaches in its design.

Sample Design

Sample Unit

The study is conducted using a sufficiently large sample of consumers drawn from three major cities of Punjab—Ludhiana, Jalandhar, and Amritsar—which have high population densities, covering respondents across the age group of 20 years and below to 50 years and above.

Sampling Technique

For this purpose, consumers from Punjab State are selected as target population for the study. For the purpose of this study, consumers from Punjab are chosen as the target population. The state is selected through a convenience sampling method, which falls under non-

probability sampling techniques. Punjab is geographically divided into three regions—Malwa, Majha, and Doaba. A multi-stage sampling approach is then applied to select districts from each of these regions, followed by the selection of consumers within those districts.

Sample Size

The sample size for the study comprises 600 consumers drawn from three districts of Punjab—Ludhiana, Jalandhar, and Amritsar with 200 respondents selected from each district.

Data Collection

The study utilizes both primary and secondary data sources. Primary data is gathered through a self-designed questionnaire administered to consumers in Punjab using both offline and online survey methods. A Five-Point Likert Scale questionnaire is developed and distributed in physical form as well as through Google Forms to assess the level of consumer awareness. Secondary data is obtained from relevant government and non-government publications available in both electronic and printed formats, aligned with the objectives of the study.

RESULTS & DISCUSSIONS

Demographical Profile of Respondents

Table 1: Demographic Characteristics of Respondents

Demographic Variables	Frequency	Percentage
Gender		
Male	347	57.83
Female	253	42.16
Total	600	100.00
Age		
Below 20	179	29.83
20–30	172	28.66
31–40	93	15.50
41–50	71	11.83
Above 50	85	14.17
Total	600	100.00
Marital Status		
Single	220	36.67
Married	370	61.67
Total	600	100.00
Residential Status		
Urban	312	52.00
Rural	288	48.00
Total	600	100.00
Education Level		
Illiterate	36	6.00
High School or Below	91	15.17
Undergraduate	112	18.67
Graduate	145	24.17
Postgraduate	142	23.67
Doctorate	52	8.67
Other	22	3.67
Total	600	100.00
Occupation		
Student	135	22.50
Service (Private)	163	27.17
Service (Government)	77	12.83
Business	80	13.33

Homemaker	71	11.83
Other	41	6.83
Total	600	100.00
Monthly Household Income		
Below ₹20,000	233	38.83
₹20,001–₹40,000	149	24.83
₹40,001–₹60,000	98	16.33
₹60,001–₹80,000	46	7.67
Above ₹80,000	74	12.33
Total	600	100.00
District		
Ludhiana	200	33.33
Amritsar	200	33.33
Jalandhar	200	33.34
Total	600	100.00

Source: Primary Survey, 2025

When the demographic characteristics of the respondents were analyzed, it was found that most of the respondents were male, a large number of respondents were from the age of below 20 years, most of the respondents were married and most of the respondents were from the urban areas followed by rural areas. Most of the respondents were graduate and above. Most respondents in private service sector have participated in the present research. The respondents with an monthly household income of less than below ₹20,000 were the respondents of the present research. While analyzing the geographical status of district-wise respondents it has been seen that the participants were equal in all three districts.

GENERAL AWARENESS REGARDING GREEN FMCG PRODUCTS

While finding as well as knowing about the general awareness of respondents towards green FMCG products, as mentioned in table 4.2.1 it has been seen that the awareness of respondents towards green products is average having a maximum of 48% as the number of respondents is 273 and the awareness among very few respondents i.e. 30 is low with 5.30 percent only. After going through the mean score i.e. 3.196 and standard deviation of 0.949, it can be said that the awareness among the respondents towards green products is a good one. Therefore it can be mentioned that approximately 50% of the respondents are aware of green FMCG products.

Table 2: Frequency Distribution of General Awareness regarding Green FMCG Products

Level of Awareness	Frequency (N)	Percentage (%)
Very Low	24	4.00
Low	76	12.67
Average	278	46.33
High	170	28.33
Very High	52	8.67
Total	600	100.0
Mean Score: 3.196		
Std. Deviation: 0.926		

Source: Primary Survey, 2025

EXAMINING THE BETWEEN RESPONDENT'S AWARENESS REGARDING GREEN FMCG PRODUCTS AND DEMOGRAPHIC VARIABLES

Table 3: Descriptive Statistics of Awareness regarding Green FMCG Products across Demographic Variables

Demographic Variables		Frequency	Mean Score	Standard Deviation
Gender	Male	347	19.4037	3.74009
	Female	253	19.0083	3.19902
	Total	600		
Age	Below 20	179	22.1384	4.18327
	20–30	172	21.5802	4.15944
	31–40	93	20.2465	4.05634
	41–50	71	20.4085	3.95433
	Above 50	85	17.8274	5.64328
	Total	600		
Marital Status	Single	220	20.90102	4.07434
	Married	370	19.9695	4.72280
	Total	600	19.7607	4.41607
Residential Status	Urban	312	20.7003	4.57808
	Rural	288	19.6389	4.82347
	Total	600	19.0659	4.82079
Educational Qualification	Illiterate	36	15.6389	2.55870
	High School or Below	91	20.8194	4.28145
	Undergraduate	112	21.4682	3.66875
	Graduate	145	21.2222	4.25260
	Postgraduate	142	20.3506	4.06450
	Doctorate	52	20.9693	4.29387
	Other	22	18.8625	4.46291
	Total	600		
Occupation	Student	135	18.2113	4.65960
	Service (Private/Government)	163	20.0488	5.33363
	Business	80	19.7589	4.76357
	Homemaker	71	20.0588	4.51258
	Other	41	20.6429	3.92783
	Total	600		
Monthly Household Income	Below ₹20,000	233	20.4526	3.51642
	₹20,001–₹40,000	149	21.1304	3.57715
	₹40,001–₹60,000	98	22.6522	5.16899
	₹60,001–₹80,000	46	18.9789	4.66763
	Above ₹80,000	74	19.5521	4.18486
	Total	600		
District	Ludhiana	200	20.0109	4.83916
	Amritsar	200	21.2990	4.15122
	Jalandhar	200	20.2102	4.21572
	Total	600		

Source: Researcher's Calculations

The analysis of awareness regarding green FMCG products across different demographic categories reveals that the highest mean score (22.6522) is observed in the case of monthly household income, whereas the lowest mean score (15.6389) is found among illiterate respondents. This indicates that respondents with higher monthly household income exhibit greater awareness, while illiterate individuals show comparatively lower awareness levels. Therefore, it can be concluded that monthly household income has the strongest influence on

awareness, whereas education, particularly illiteracy, has the least influence. Overall, the results highlight that there is a significant variation in awareness levels among respondents across different demographic variables.

Table 4: Significance of Difference in Awareness Level regarding Green FMCG Products across Gender

Variable	N	M	S.D	Mean Difference	t-Value	p-value
Male	347	20.6	4.76	0.39	1.029	0.304
Female	253	19.0	3.19			

Source: Researcher's Calculations

The independent sample t-test was conducted to examine the significant difference in awareness towards green FMCG products based on gender. The results revealed that there is no significant difference between male and female respondents, as the significance value (0.304) is greater than the 5 percent level of significance. Therefore, the null hypothesis is accepted.

Table 5: Significance of Difference in Awareness Level regarding Green FMCG Products across Marital Status

Variable	N	M	S.D	Mean difference	t- value	p-value
Single	220	20.90	4.07	1.05	2.69	0.007
Married	370	19.84	4.72			

Source: Researcher's Calculations

An independent sample t-test was conducted to examine the significant difference in general awareness towards green FMCG products based on marital status. The results indicated a significant difference between groups, as the significance value (0.007) is less than the 5 percent level of significance. Therefore, the null hypothesis is rejected.

Table 6: Significance of Difference in Awareness Level regarding Green FMCG Products across Residential Status

Variable	N	M	S.D	Mean difference	t-value	p-value
Rural	288	19.7	4.4	0.93	2.48	0.01
Urban	312	20.70	4.57			

Source: Researcher's Calculations

An independent sample t-test was conducted to examine the significant difference in general awareness towards green FMCG products based on residential status. The results revealed a significant difference among the groups, as the significance value (0.01) is less than the 5 percent level of significance. Therefore, the null hypothesis is rejected.

Table 7: ANOVA of Awareness Regarding Green FMCG Products across Demographic Variables

Variable/Test	Levene Stat.	p-value	F-value	p-value	Welch Stat.	p-value
Age	4.248	0.002	-	-	5.883	0.000
Educational	2.717	0.029	-	-	14.606	0.000

Qualification						
Occupation	0.880	0.494	6.831	0.000	-	-
Monthly Household Income	2.258	0.081	5.819	0.001	-	-
District	1.792	0.113	3.890	0.002	-	-

Source: Researcher's Calculations

To examine the significant differences in general awareness towards green FMCG products across various demographic variables, Levene's test, ANOVA (F-test), and Welch test were applied.

Age

Levene's test is significant ($p = 0.002$), indicating that the assumption of homogeneity of variance is violated. Therefore, the Welch test is considered. The Welch statistic is significant ($p = 0.000$), showing that there is a significant difference in awareness across different age groups. Hence, the null hypothesis is rejected.

Education Qualification

Levene's test is significant ($p = 0.029$), indicating unequal variances. Thus, the Welch test is used. The Welch test result is significant ($p = 0.000$), indicating a significant difference in awareness among different education levels. Therefore, the null hypothesis is rejected.

Occupation

Levene's test is not significant ($p = 0.494$), meaning the assumption of equal variances is satisfied. Hence, the ANOVA (F-test) is used. The F-value is significant ($p = 0.000$), indicating a significant difference in awareness across occupational groups. Thus, the null hypothesis is rejected.

Monthly Household Income

Levene's test is not significant ($p = 0.081$), indicating equal variances. Therefore, the ANOVA result is considered. The F-value is significant ($p = 0.001$), showing a significant difference in awareness across income groups. Hence, the null hypothesis is rejected.

District

Levene's test is not significant ($p = 0.113$), indicating homogeneity of variance. Thus, ANOVA is used. The F-value is significant ($p = 0.002$), which shows a significant difference in awareness among respondents from different districts. Therefore, the null hypothesis is rejected.

The results indicate that age, education, occupation, income, and district all have a significant influence on general awareness towards green FMCG products, as all variables show statistically significant differences at the 5% level.

CONCLUSIONS & RECOMMENDATIONS

The analysis of awareness towards green FMCG products across demographic variables reveals that there are significant differences based on age, education, occupation, monthly household income, and district, indicating that these factors play an important role in

influencing consumers' awareness levels. In contrast, variables such as gender, marital status, and residential status showed either no significant difference or limited influence in certain cases. Overall, the findings suggest that awareness of green FMCG products is not uniform across the population and is largely shaped by socio-economic and demographic characteristics, highlighting the need for targeted strategies to enhance awareness among specific groups.

Since awareness varies significantly with factors such as age, education, occupation, income, and district, customized awareness campaigns should be designed to suit the specific needs and preferences of each segment. Educational initiatives and promotional activities should be strengthened, particularly among less aware groups, using simple and informative communication. Marketers should utilize digital platforms, social media, and local outreach programs to effectively reach diverse populations. Additionally, improving product labeling, transparency, and availability of green FMCG products can further enhance consumer understanding and trust. Government and organizations should also promote sustainability awareness through campaigns and incentives to encourage environmentally responsible consumption behavior.

REFERENCES

1. Acharya, M., Pratima, Shetty, R., & Shetty, Sowmya (2020). Level of Consumers 'Awareness and Perception Towards Green Products with Reference to People of Udupi, Studies in Indian Place Names, 40(50).
2. Appasamy, P.A., Murugan, S.S., & Rajendran, K. (2020). A Study on Customers Behaviour Towards Green Products, Studies in Indian Place Names , 40(13).
3. Baruah, A., & Das, B.M. (2024). A Study on Consumer Awareness towards Green FMCG Products in the Food And Beverage Categories with Special Reference to Kamrup Metropolitan, Assam, Educational Administration: Theory and Practice, 30(4), 5975-5984
4. Doi: 10.53555/kuey.v30i4.2328.
5. Dakshayani, B.V., & Rajendran, B. (2024). Impact of Green Marketing Practices on Consumer Buying Decision of Green Electronics, Library Progress International, 44(3), 1278-1285
6. Dhanashree, G. S. & Devi, K.V.S. (2020). Effect of Consumer Buying Behavior on FMCG Green Products in Tirunelveli Taluk, Studies in Indian Place Names, 40(50).
7. Gelderman, C.J., Schinjs, J.M.C, Lambrechts, W., Vijgen, S. (2021). Green marketing as an environmental practice: The impact on green satisfaction and green loyalty in a business-to-business context, Business Strategy and the Environment, 2021;1–16 DOI: 10.1002/bse.2732
8. Medhi, M. (2015). A Study on the Green Marketing Practices Adopted by Various Companies in India, International Journal of Marketing and Human Resource Management (IJMHRM), 6(3), 83-88.
9. Mehta, A. (2013). Green marketing practice in Indian business environment: a conceptual review, International Journal of Business and Globalisation, 11(2).
10. Nagaraju, B., & Thejaswini, H.D., (2014). Consumers' perception analysis-Market awareness towards eco-friendly FMCG products-A case study of Mysore district, IOSR Journal of Business and Management, 16(4), 64-71.
11. Narayanan, M., Jacob, K.S.S., & Cherian, M.E. (2021). Consumer Perception and Acceptance of Green Marketing Initiatives, International Journal of Creative Research Thoughts, 9(3).
12. Peattie, K., & Crane, A. (2005). Green marketing: Legend, myth, farce or prophesy? Qualitative Market Research: An International Journal, 8(4), 357–370. <https://doi.org/10.1108/13522750510619733>
13. Prasad Siva, AV.V. & Susmitha, K. (2018) Consumers Perception on Green Marketing: An Empirical Study of Consumer Buying Behaviour towards Eco-Friendly Fast Moving Consumer Goods in Andhra Pradesh, India, EPRA International Journal of Economic and Business Review, 6(7).

14. Rathod, M.K. & Vaidya, H. (2019). An Empirical Study of Consumer Perception towards Ecofriendly FMCG Products in Ahmedabad City, *International Journal of Business Management Insight & Transformations*, 3(1).
15. Rusyani, E., Lavuri, R., & Gunardi, A. (2021). Purchasing Eco-Sustainable Products: Interrelationship between Environmental Knowledge, Environmental Concern, Green Attitude, and Perceived Behavior, *Sustainability*, 13(9), 4601.
16. Sen, R.A. (2014). A Study of the Impact of Green Marketing Practices on Consumer Buying Behaviour in Kolkata, *International Journal of Management and Commerce Innovations*, 2(1), 61-70.
17. Singh, S., & Thakur, K.S. (2016). An Analysis of Green Marketing Practices among Pharmaceutical Firms in India, *Pacific Business Review International*, 9(5), 57-72.
18. Siriguppi, D. (2020). Understanding of Consumers Perception toward Select FMCG Products, *International Journal of Public Sector Performance Management*, 1(1):1
DOI:10.1504/IJPSPM.2020.10036987
19. Soundari, M.S. & Balakrishnan, K.P. (2019). Environmental Factors Influencing Consumer Buying Behavior of Green Products in Coimbatore City, *Journal of Emerging Technologies and Innovative Research (JETIR)*, 6(3).
20. Suganya, D. & Kavitha, S. (2017). Study on Consumer Awareness towards Eco Friendly Products at Coimbatore, *International Journal of Current Research and Modern Education (IJCRME)*, 2(1), 237-241.
21. Tan, C.N.L., Ojo, A.O., & Thurasamy, R. (2019). Determinants of green product buying decision among young consumers in Malaysia, *Young Consumers*, <https://doi.org/10.1108/YC-12-2018-0898>
22. Tandon, P.R., Agrawal, N., & Acharya, B. (2023). Perception of Consumer Towards Green Marketing, *International Journal of Progressive Research in Science and Engineering*, 4(5).
23. Thakur, J., & Soni, S. (2018). An Investigation of Personal and Social Factors Influences Consumer Behaviour for Selected FMCG, *International Journal of Management and Applied Science (IJMAS)*, 4(7), 31-34.
24. Trivedi, P., & Shrama, M. (2018). An Empirical Study on the Perception of Consumers about Green Products in Delhi, *International Journal of Engineering & Technology*, 7 (2.11), 41-47
25. Vinisha, B. (2020). The Impact of Green Marketing Practices on Consumer Buying Decision –A Conceptual Approach, *Studies in Indian Place Names*, 40(18).