iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 14 **Issue:** V **Month of publication:** May 2026

DOI: https://doi.org/10.22214/ijraset.2026.81990

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 14 Issue V May 2026- Available at www.ijraset.com

A Quantitative Study on Consumer Awareness of Green Marketing Practices: A Behavioural Perspective

Dr. V. K. Veerakumar[1], Mrs. Simmy P V[2]
[1]*Associate Professor and Head, PG and Research Department of Commerce CA, Nandha Arts and Science College (Autonomous), Erode, Tamil Nadu, India*
[2]*Research Scholar, PG and Research Department of Commerce CA, Nandha Arts and Science College (Autonomous), Erode, Tamil Nadu, India*

Abstract: ***With more focus on environmental sustainability, many companies have shifted towards green marketing techniques in order to influence consumers' behavior and improve brand responsibilities. The purpose of the current paper is to analyze the awareness of consumers towards green marketing and examine its impact from the behavioral perspective. For the present research, the quantitative approach was chosen, and the primary data were gathered using a structured questionnaire distributed among individuals representing different demographics. 110 sample respondents were chosen by applying convenience sampling from the Kannur District of Kerala. Multiple Regression analysis was applied. It can be stated that the consumers demonstrate moderate levels of awareness about green marketing. Moreover, the awareness levels differ greatly depending on the marital status and family type. However, the results have shown that consumer behavior is positively influenced by their perception of environmental responsibility as well as the validity of the marketing campaign. Nevertheless, skepticism concerning greenwashing appears to be a crucial aspect influencing consumer behavior.***
Keywords: Environmental, Green marketing, Skepticism, Green washing, Behavior.

I. INTRODUCTION

With the increase in environmental concerns such as global warming, resource depletion, and pollution, there has been a significant impact on business as well as consumers. One of the ways firms are responding to these trends is through green marketing. This involves the marketing of products and services that provide an environmental advantage or sustainable production processes. Green marketing is both an expression of a company's social responsibility and a strategy for winning customers. Awareness is one key component that drives successful green marketing efforts. Consumers who are aware of the environmental problems and know what green products exist are more likely to form a positive attitude towards them. Nonetheless, awareness does not necessarily lead to purchase behaviors, because these decisions depend not just on awareness but also on consumer trust, green marketing's credibility, price consideration, and values. Often, consumer suspicions towards greenwashing (unfounded claims about the greenness of a product) hinder green marketing success. With respect to sustainability in the current business world, the importance of environmental degradation, climate change, and resource scarcity cannot be overlooked. People have begun to recognize the importance of adopting environmental practices. This is where green marketing comes in; green marketing can be seen as the process of integrating environmentally friendly measures in product designs, manufacturing, packaging, pricing, and promotions of goods and services. Not only does it facilitate the objectives of sustainability but also promotes corporate image and competitive advantage in eco-aware markets. According to definitions, green marketing can be regarded as the marketing of environmentally beneficial products. Environmental practices like decreased carbon footprints, recycling, energy efficiency, and use of sustainable resources may be promoted by companies using green marketing practices. However, whether green marketing initiatives would be successful depends on how responsive consumers become. The level of consumer awareness is a key factor that determines environmentally oriented consumption choices. Consumers who are environmentally conscious and aware of the advantages of green products can be expected to hold favorable attitudes towards environmentally sustainable consumption. Nonetheless, being environmentally aware is not enough to guarantee any behavior change. Consumer behavior is determined by various psychological and situational factors including perceived product value, social pressure, price, environmental concerns, and ethical values.

©IJRASET: All Rights are Reserved

Green marketing practices have gained tremendous popularity in recent years; however, consumer awareness and behavior still seem to be far from each other. The problem is that companies often practice greenwashing to emphasize or distort the environmental attributes of their products. Consequently, consumers have started to treat marketing communications with increased caution and skepticism, which hampers purchase intentions. Thus, it is crucial to explore the behavioral side of consumer awareness to properly assess the effectiveness of green marketing initiatives.

II. NEED OF THE STUDY

In the current age of fast-paced industrial development and rising environmental pollution, sustainable consumption has taken an important place. Organizations have started to practice green marketing not only to demonstrate their responsibility but also because it meets the changing consumer preferences. The success of green marketing can be assessed based on the degree of consumer knowledge and understanding of green marketing initiatives, as without that, the process of going green remains insufficient. The main problem associated with the implementation of green marketing is the rise of misinformation and greenwashing. Greenwashing refers to the misleading and false information regarding the positive impact of the product on the environment. That is why consumers are reluctant to believe the statements provided by organizations and find it difficult to trust the information about the product's benefits for the planet. It is important to determine the level of consumer knowledge in this regard. Moreover, consumer behavior is not solely dependent on awareness; other psychological and situational factors such as trust, value perception, environmental consciousness, and social pressure also play a role. An appreciation of these behavioral constructs is imperative to fill the gap between consumer awareness and purchases. Otherwise, the desired results will not be achieved through the implementation of marketing activities. From a theoretical point of view, it is important to conduct more research involving empirical, quantitative, and systematic assessments of consumer awareness concerning sustainable marketing and behavioral tendencies. The current research lacks empirical and systematic analyses because many studies are conceptual in nature, regional in scope, or both. As such, there is a significant research gap that requires further investigation in order to improve the body of knowledge about sustainable marketing practices. From a practical point of view, the outcomes of research efforts could prove invaluable for formulating effective marketing communications aimed at improving consumer trust, increasing awareness, and encouraging sustainable consumption patterns. By comprehending consumer reactions, businesses could launch credible marketing campaigns that would promote environmental sustainability.

III. PROBLEM IDENTIFICATION

In the present business environment, green marketing has become an essential tool that allows organizations to promote environmentally sustainable products or services. Even though a significant number of businesses are adopting environmentally friendly initiatives, there is a great deal of uncertainty about the extent to which consumers understand and respond to these initiatives. A vital question concerns consumer awareness about green marketing activities and their translation into practical actions. Although consumers are continuously bombarded with information about green marketing activities, the link between awareness, perceptions, and purchasing behavior becomes blurred at times. There is another problem concerning consumer skepticism about green marketing activities. As a result of greenwashing activities conducted by some businesses, consumers' trust in green products has been eroded. Consequently, the effectiveness of communication in green marketing has been diminished. Additionally, consumer behavior is affected by several elements including environmental concern, value, price, and social pressure.

IV. AIM OF THE STUDY

The aim of the study is to analyze the awareness of consumers towards green marketing and examine its impact from the behavioral perspective in Kannur District, Kerala.

V. REVIEW OF LITERATURE

Green marketing has evolved as a strategic approach where firms communicate environmental benefits to influence consumer decisions. Studies in emerging economies indicate that green marketing significantly affects consumer perception and buying intention, particularly when supported by credible environmental claims and certifications (Kaur, Gangwar, & Dash, 2022). Consumer awareness has been identified as a key determinant in shaping green purchasing behavior. Recent research suggests that environmentally conscious consumers are more likely to develop positive attitudes toward eco-friendly products when they are adequately informed about sustainability practices. However, awareness does not always translate into actual behavior due to the presence of psychological and contextual barriers such as price sensitivity, trust issues, and product availability (Rahman et al.,

2021). A major concern highlighted in recent studies is greenwashing, which negatively affects consumer trust and weakens the effectiveness of green marketing strategies. According to Chen and Chang (2021), perceived greenwashing reduces green trust, which in turn lowers purchase intention. Similarly, studies emphasize that consumer skepticism toward environmental claims is increasing, particularly in digital marketing environments where product claims are not always verifiable (Fang, 2024). Further, empirical studies conducted between 2022 and 2024 show that eco-labels, green advertisements, and corporate sustainability communication positively influence consumer perception when they are perceived as authentic and transparent. However, the attitude–behavior gap remains a persistent issue, where consumers express environmental concern but fail to convert it into actual purchase behavior (Kaur et al., 2022; Zhang et al., 2024). Recent systematic reviews also confirm that although green marketing research has expanded significantly after 2020, there is still limited empirical work focusing specifically on the quantitative relationship between consumer awareness and behavioral outcomes in developing economies (Mourya & Verma, 2024). This indicates a clear need for further investigation into how awareness translates into behavioral responses under different socio-economic conditions.

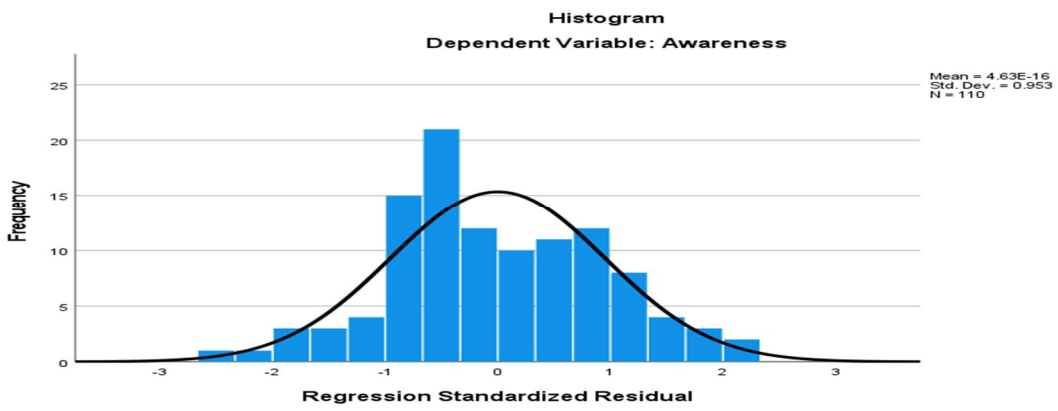
VI. RESEARCH METHODOLOGY

In the current study, a quantitative research design was employed to test the level of consumer awareness about green marketing and its behavioral consequences. The study was carried out in Kannur district of Kerala state in India where the target population comprises both urban and semi-urban consumers, who are aware about emerging trends of sustainable consumption practices. Data collection in the study was done via structured questionnaire using the field survey approach. In all, 110 respondents were selected for the study based on a non-probability convenience sampling approach in Kannur District, Kerala. The questionnaire comprised of closed-ended questions and Likert scale statements to gauge factors like consumer awareness of green marketing, consumer perception of eco-friendly products, consumer trust in green claims, and consumer behavioral intention regarding green purchases. The data were coded and statistically analyzed through a multiple regression model to test the influence of independent variables on consumer behaviors related to green marketing. The use of regression model is important in order to identify the relative impact of various factors influencing consumer responses.

VII. RESULTS AND DISCUSSION

The following section entails the analysis and interpretation of data gathered in order to determine consumers' awareness on green marketing activities and its behavioral effects. Data gathered from 110 respondents using structured questionnaires were systematically analyzed using relevant statistics, focusing mainly on multiple regressions that will enable one to analyze the interaction among variables. The following histogram shows the distribution of standardized residuals concerning the dependent variable in the analysis; in this case, the dependent variable is consumer awareness of green marketing practices. The shape of the histogram in this case shows that it has an approximate bell-shape and symmetrical, implying that the residuals are approximately normally distributed. This conclusion is reinforced by the fact that the overlaid normal curve in this case matches the data points quite well. The mean value of the standardized residuals in this case is almost equal to zero (Mean ≈ 0), while the standard deviation value is approximately 0.953. This implies that there are no biases in the residuals since the distribution of errors in this case is balanced around zero, meaning no error takes precedence. The fact that most of the standardized residuals lie between –3 to +3 in the histogram indicates that there are no outliers in the data set. In this case, the number of observations is quite sufficient (N = 110). Moreover, it is evident that the normality assumption holds in this data set. Therefore, one can conclude that the regression model satisfies the normal distribution assumption.

CHART 1



The analysis will be presented as per the levels of consumer awareness, perception, trust in green marketing activities and the collective effect of all these variables on green purchase behavior. The discussion entails an interpretation of the statistical outputs based on the research objectives and available literature. The discussion will seek to analyze how consumers' awareness leads to the formation of attitudes and behavioral intention towards eco-friendly products while giving due consideration to the mediating effect of both perception and trust. The major emphasis is to find out the important predictors of consumer behavior.

The multiple regression analysis was carried out to examine the influence of socio-demographic and behavioral variables on consumer awareness of green marketing practices. The overall model is found to be statistically significant, as indicated by the F-value of 7.024, which is significant at the 1% level ($p < 0.01$). This confirms that the independent variables collectively have a significant impact on the dependent variable. The R value of 0.644 indicates a moderate to strong positive correlation between the set of independent variables and consumer awareness.

Table 1
A Quantitative Study On Consumer Awareness Of Green Marketing Practices: A Behavioral Perspective

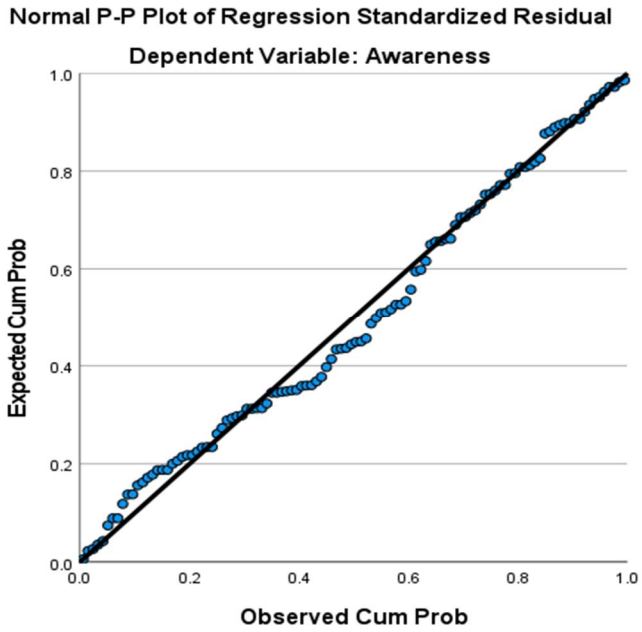
Variables	Coefficient	SE	't' value	'p' value
(Constant)	32.345	5.222	6.194	.000
Age	-1.440	1.223	-1.178	.242
Marital status	-6.518	1.775	-3.672	.000
Educational qualification	2.228	1.151	1.936	.056
Employment status	1.176	1.397	.842	.402
Income per month	1.147	.995	1.153	.252
Residential area	1.861	1.127	1.652	.102
Family size	.077	1.005	.077	.939
Type of family	3.473	1.042	3.333	.001
Type of green product used	-.562	.783	-.718	.474
Frequency of purchase	-.822	1.071	-.767	.445
R Value	0.644			
R^2 Value	0.415			
F Value	7.024*			

* - Significant at 1% level;

The R^2 value of 0.415 suggests that approximately 41.5% of the variation in consumer awareness of green marketing practices is explained by the variables included in the model, while the remaining 58.5% is influenced by other factors not considered in the study. With respect to individual variables, marital status ($\beta = -6.518$, $p = 0.000$) shows a statistically significant negative influence on consumer awareness, indicating that marital status plays an important role in shaping awareness levels. Similarly, type of family ($\beta = 3.473$, $p = 0.001$) has a significant positive effect, suggesting that individuals from certain family structures demonstrate higher awareness of green marketing practices. Educational qualification ($\beta = 2.228$, $p = 0.056$) is marginally significant at the 10% level, indicating a potential positive influence on awareness, though not strongly conclusive. On the other hand, variables such as age, employment status, income per month, residential area, family size, type of green product used, and frequency of purchase were found to be statistically insignificant ($p > 0.05$), implying that these factors do not have a meaningful impact on consumer awareness in the present study. The constant term is significant ($p = 0.000$), indicating that even in the absence of explanatory variables, there is a baseline level of consumer awareness.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

CHART 2



The Normal P–P Plot illustrates whether the standardized residuals of the regression model follow a normal distribution, which is a key assumption in multiple regression analysis. In the given plot, the observed cumulative probabilities are plotted against the expected cumulative probabilities. It can be observed that the data points lie closely along the diagonal reference line, indicating a strong agreement between the observed and expected values. This alignment suggests that the residuals are approximately normally distributed. Although there are slight deviations at certain points, particularly in the middle ranges, these variations are minimal and within acceptable limits. The absence of major deviations or systematic patterns (such as S-shaped or curved distributions) indicates that there is no significant violation of the normality assumption. This confirms that the regression model satisfies the assumption of normally distributed errors, thereby supporting the validity and reliability of the estimated coefficients and overall model results. Therefore, the Normal P–P Plot demonstrates that the residuals are normally distributed, and hence the regression analysis conducted in the study is statistically appropriate for interpreting consumer awareness of green marketing practices.

Hence, the findings suggest that while certain demographic factors such as marital status and type of family significantly influence consumer awareness of green marketing practices, many other variables do not show a strong effect, highlighting the complexity of consumer behavior and the need to consider additional psychological or contextual factors in future research.

VIII. SUGGESTIONS AND CONCLUSION

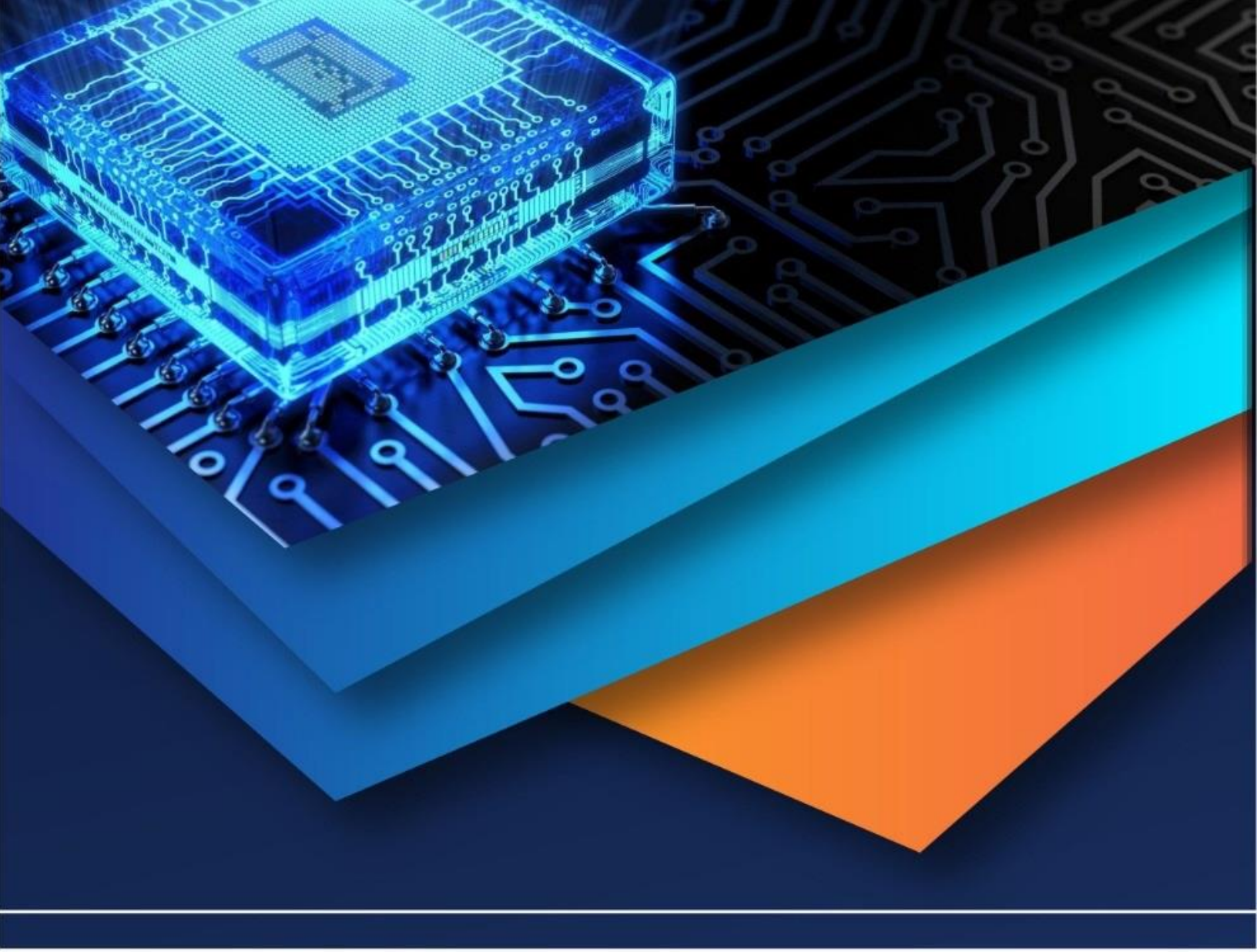
Many consumers are still unclear about what “green” truly means. Awareness campaigns through schools, social media, and public platforms can help people distinguish genuine eco-friendly products from misleading claims. However, this paper shows that even if the level of awareness about green marketing is growing, there is still a considerable discrepancy between awareness and actual purchasing behavior. In addition, various behavioral aspects like attitude towards the product, its value for the customer, trustworthiness, and social influence can strongly impact decisions to buy an eco-friendly product. It turns out that customers have good intentions regarding eco-sustainability and tend to support products that can help to protect the environment. However, certain factors can prevent them from following their initial intention and buying the product, including increased cost, lack of reliable information about the product, and skepticism about green marketing claims. Thus, it is evident that it is necessary to apply special behavioral strategies and promote trust when implementing green marketing programs. Regulatory bodies should enforce stricter guidelines to prevent false or exaggerated environmental claims. Penalties for greenwashing can protect consumers and promote fair competition. Standardized eco-labels make it easier for consumers to identify sustainable products quickly and confidently. In conclusion, for successful implementation of green marketing campaigns, there is a need for collaboration among companies, policymakers, and customers. In particular, businesses should introduce transparent practices, and policymakers should create strict requirements for green marketing. Meanwhile, customers themselves should be educated and make more informed decisions when choosing products.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

REFERENCES

[1] Chen, Y. S., & Chang, C. H. (2021). Greenwash and green trust: The mediation effect of green perceived risk. *Sustainability*, *13*(5), 1–15.
[2] Fang, Z. (2024). Greenwashing versus green authenticity: How green social media influences consumer perceptions and green purchase decisions. *Sustainability*, *16*(23), 10723.
[3] Kaur, B., Gangwar, V. P., & Dash, G. (2022). Green marketing strategies, environmental attitude, and green buying intention: A multi-group analysis in an emerging economy context. *Sustainability*, *14*(10), 6107.
[4] Krishnamoorthi, S., & Mohanraj, P. (2025). The strategic role of labeling and branding in influencing consumer perception and purchase behavior in organic food marketing. *International Journal on Science and Technology (IJSAT)*, *16*(4), 1–6.
[5] Mohanraj, P., & Krishnamoorthi, S. (2023). A study of organic food buying practices among urban customers. *Shodhak: A Journal of Historical Research*, *53*(2–7), 206–210.
[6] Mohanraj, P., & Krishnamoorthi, S. (2025). Organic choices: Consumer motivations behind choosing organic brands. *EPRA International Journal of Agriculture and Rural Economic Research (ARER)*, *13*(9), 45–49.
[7] Mohanraj, P., & Sivakumar, K. (2024). Attitude of organic farmers towards production and marketing of organic products. *International Journal of Advances in Engineering and Management*, *6*(9), 644–648.
[8] Mohanraj, P., & Sivakumar, K. (2024). Awareness of farmers towards organic farming – A study from rural farmers. *Alochana Journal*, *14*(8), 19–26.
[9] Mohanraj, P., Krishnamoorthi, S., Sasetharan, G. T., Srinivasan, V. C., Suresh, G., Sundaraprakash, S., & Manikandan, R. (2025). Understanding post-purchase behaviour among consumers towards organic food products: A view from health management. *Journal of Information Systems Engineering and Management*, *10*(19s), 379–387.
[10] Mourya, P., & Verma, S. (2024). Consumer perception and acceptance of green marketing practices in emerging economies: A systematic literature review. *International Journal of Scientific Research in Science and Technology*, *12*(2), 6–16.
[11] Rahman, M. S., Islam, M. T., & Khan, M. N. (2021). Consumer environmental awareness and green purchase behavior: An empirical study. *Journal of Cleaner Production*, *295*, 126–135.
[12] Sangeetha, S., & Mohanraj, P. (2025). AI for sustainability: Consumer insights on environmental and resource management. *International Advanced Research Journal in Science, Engineering and Technology*, *12*(10), 94–97.
[13] Sangeetha, S., & Mohanraj, P. (2025). Artificial intelligence for a greener future: Consumer perceptions on climate and resources. *EPRA International Journal of Multidisciplinary Research*, *11*(10), 252–255.
[14] Zhang, Y., Liu, J., & Li, X. (2024). Value delivery in green consumption: The effect of advertisement value proposition on consumer perception and purchase intention. *Frontiers in Psychology*, *15*, 1339197.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)