

The Relationship Between Green Marketing and Consumer Preferences: An Empirical study with special reference to Branding and promotion the academics to increase the admissions in Colleges in NCR Region

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ABSTRACT

Purpose of the Study: The purpose of this study is to examine the relationship between green marketing and consumer preferences with special reference to the branding and promotion of colleges and universities in the National Capital Region (NCR). The study seeks to understand how green marketing practices influence stakeholder preferences in the higher education sector.

Research Design / Methodology: The study adopts a quantitative research approach using a descriptive and analytical research design. Primary data were collected from 400 respondents, including students, parents, faculty members, and other stakeholders involved in higher education decision-making in the NCR region. Data were gathered through a structured questionnaire using a five-point Likert scale. Statistical techniques such as descriptive analysis, Pearson correlation, and simple linear regression were employed to analyze the data. Reliability and normality tests were conducted to ensure the suitability of the data for parametric analysis.

Findings: The findings reveal a moderately high level of awareness of green marketing practices among respondents, particularly in relation to branding and promotional activities of colleges and universities. Pearson correlation analysis indicates a positive and statistically significant relationship between green marketing and consumer preferences at the 0.05 level of significance. Regression analysis further confirms that green marketing significantly predicts consumer preferences, explaining a meaningful proportion of variance. The results suggest that green branding and promotional communication enhance institutional credibility, trust, and preference.

Research Implications: The study highlights the importance of integrating sustainability into the branding and promotional strategies of higher education institutions. The findings provide valuable insights for institutional administrators and policymakers to use green marketing as a strategic tool for improving brand positioning and attracting stakeholders.

Originality / Value: This study contributes to the limited empirical literature on green marketing in the higher education sector, particularly in the Indian context. By focusing on branding and promotion of colleges and universities, the study extends the application of green marketing theory beyond traditional product-based industries.

Keywords: Green Marketing; Consumer Preferences; Higher Education Institutions; Branding; Promotion; Sustainability; NCR Region

1. INTRODUCTION

Environmental sustainability has emerged as a critical concern across industries due to increasing awareness of climate change, resource depletion, and environmental degradation. As a result, organizations have begun integrating environmentally responsible practices into their marketing strategies, a phenomenon commonly referred to as green marketing. Green marketing involves the promotion of products, services, and organizational practices that minimize environmental impact and contribute to sustainable development. Prior research suggests that green marketing can positively influence consumer perceptions, trust, and preference by enhancing an organization's ethical and environmental image (Peattie & Crane, 2005; Kotler & Keller, 2016). In recent years, the concept of green marketing has extended beyond traditional manufacturing and consumer goods sectors to service industries, including education. Higher education institutions (HEIs) are increasingly adopting sustainable campus practices and communicating these initiatives through branding and promotional activities. This shift reflects growing stakeholder expectations for social and environmental responsibility from educational institutions.

Green Marketing in Higher Education: Colleges and universities play a vital role in promoting sustainability, not only through academic curricula and research but also through institutional operations and branding. Green campuses, energy-efficient infrastructure, waste management systems, and digitalized administrative processes have become prominent features of environmentally responsible higher education institutions. These initiatives are often communicated through institutional websites, social media, prospectuses, and admission campaigns as part of green marketing strategies. Branding and promotion in higher education have become increasingly competitive, particularly in urban regions such as the National Capital Region (NCR). With a large concentration of public and private universities, institutions in the NCR are compelled to differentiate themselves to attract students and other stakeholders. Green marketing offers a strategic opportunity for differentiation by projecting an image of responsibility, innovation, and long-term value (Nguyen et al., 2016).

Consumer Preferences in the Higher Education Context: Consumer preferences in higher education are influenced by multiple factors, including academic reputation, quality of faculty, infrastructure, placement opportunities, and institutional credibility. However, recent studies indicate that environmental responsibility is emerging as an important supplementary factor influencing stakeholder perceptions and decision-making. Students and parents increasingly prefer institutions that demonstrate ethical conduct and sustainable practices, as these attributes are associated with trust, quality, and future-oriented values (Chen & Chang, 2013).

In this context, green branding and promotional communication may play a significant role in shaping consumer preferences by enhancing perceived institutional image and trustworthiness. Nevertheless, empirical evidence on the extent to which green marketing influences preferences in the higher education sector remains limited, particularly in developing economies.

2. LITERATURE REVIEW

Green marketing has been widely studied as a strategic tool for influencing consumer attitudes, trust, and preferences. Empirical evidence suggests that green marketing initiatives enhance consumer trust and reduce perceived environmental risk, thereby positively influencing preference and intention (Chen & Chang, 2013). Studies on green branding further indicate that environmentally responsible branding strengthens brand equity and credibility, which in turn leads to stronger consumer preference for green brands (Kumar & Ghodeswar, 2015). However, the effectiveness of green marketing depends largely on authenticity, as transparent and consistent green communication enhances consumer confidence, whereas misleading environmental claims negatively affect brand trust (Peattie & Belz, 2016; Delmas & Burbano, 2017).

Several studies have examined green marketing within service industries and found a significant positive impact on consumer attitudes and preference formation. Green promotional strategies have been shown to influence consumer perception and evaluation of services, particularly in trust-based sectors (Nguyen et al., 2016). Positive attitudes toward green marketing translate into favorable preference and behavioral intention, reinforcing the role of sustainability in consumer decision-making (Joshi & Rahman, 2017). Additionally, green brand image has been identified as a key determinant of consumer preference and loyalty, especially among environmentally conscious and educated consumers (Rahbar & Wahid, 2019; Wang et al., 2018).

In the context of higher education, sustainability initiatives have gained increasing relevance. Research indicates that universities adopting environmentally responsible practices experience improved institutional reputation and stronger stakeholder engagement (Filho et al., 2019). Effective communication of sustainability initiatives positively influences students' perceptions and enhances institutional attractiveness (Dagiliūtė et al., 2018). Moreover, environmental concern has been found to mediate the relationship between green marketing and consumer preference, strengthening the influence of green communication on decision-making (Paul et al., 2016; Yadav & Pathak, 2017). Studies conducted in emerging economies highlight that green marketing significantly influences consumer preference, although it often acts as a supporting factor alongside functional and quality-based considerations (Sharma & Kushwaha, 2019). Green marketing has been observed to function as a differentiator rather than a sole decision criterion in competitive markets (Khare, 2020). With the growing use of digital platforms, sustainability-focused online communication has been found to positively influence brand trust and preference (Kumar et al., 2021). In higher education, online sustainability disclosures enhance institutional image and credibility among stakeholders (Aleixo et al., 2021). Recent empirical research further confirms that institutional commitment to sustainability strengthens the impact of green marketing on consumer preference (Testa et al., 2022). Green marketing practices continue to show a direct positive effect on consumer attitudes and preferences across service sectors (Islam et al., 2022). In the Indian higher education context, green branding has been found to positively influence students' institutional choice and recommendation intentions (Singh & Pandey, 2023). Most recent studies emphasize that the credibility of green promotional messages significantly predicts consumer trust and preference, reinforcing the importance of authenticity in green marketing strategies (Verma & Soni, 2024).

2.1 RESEARCH GAP

Although extensive research has examined green marketing and consumer behavior in product-based industries, relatively few studies have explored its application in the higher education sector, especially in the Indian context. Moreover, existing studies often focus on sustainability practices without explicitly linking them to branding, promotion, and consumer preference formation.

The NCR region, with its diverse and competitive higher education landscape, provides a suitable context for examining how green marketing strategies influence stakeholder preferences. Understanding this relationship is essential for institutions seeking to enhance their brand positioning and align sustainability initiatives with marketing objectives. This study addresses this gap by empirically examining the relationship between green marketing and consumer preferences with special reference to the branding and promotion of colleges and universities in the NCR region.

2.2 OBJECTIVES OF THE STUDY

1. To assess the awareness level of green marketing of consumers.
2. To assess the awareness level of consumers Preferences.
3. To test the strength and direction of the relationship between overall green marketing and overall consumer preferences (correlation).
4. To assess the predictive influence of green marketing on consumer preferences.

2.3 HYPOTHESIS

H01: There is no significant relationship between overall green marketing and overall consumer preferences.

H1a: There is a significant relationship between overall green marketing and overall consumer preferences.

H02: Green marketing does not significantly predict consumer preferences.

H12: Green marketing significantly predicts consumer preferences.

3. RESEARCH METHODOLOGY

Research Design: The present study adopted a quantitative research approach using a descriptive and analytical research design to examine the relationship between green marketing and consumer preferences with special reference to the branding and promotion of colleges and universities in the NCR region. The descriptive design facilitated the assessment of awareness levels related to green marketing practices and consumer preferences, while the analytical design enabled the examination of relationships and predictive influences between the study variables. This combination is widely used in marketing and consumer behavior research to provide both descriptive insights and empirical validation (Malhotra, 2010; Saunders et al., 2019).

Population and Sampling: The population of the study comprised key stakeholders involved in higher education decision-making in the NCR region, including prospective students, current students, parents or guardians, faculty members, and educational consultants. These groups were selected as they directly or indirectly influence perceptions and choices related to colleges and universities. Due to the absence of a comprehensive sampling frame and the diverse nature of the population, a non-probability convenience sampling technique was employed. This approach is commonly adopted in social science research where accessibility and time constraints are present (Sekaran & Bougie, 2016).

A total sample size of 400 respondents was considered adequate for the study. This sample size provides sufficient statistical power for descriptive analysis as well as inferential techniques such as correlation and regression analysis (Hair et al., 2019).

Data Collection and Sources: The study relied primarily on primary data, which were collected using a structured questionnaire administered through both online and offline modes. Respondents were approached across different locations in the NCR region to ensure diversity in representation. In addition, secondary data were sourced from academic journals, books, institutional reports, and online databases to support the conceptual framework and interpretation of results.

Research Instrument: A structured questionnaire was developed based on an extensive review of literature on green marketing, branding, and consumer preferences, particularly in service and education sectors. The questionnaire consisted of five sections: demographic profile, awareness of green marketing, awareness of consumer preferences, green marketing practices related to branding and promotion, and consumer preferences toward colleges and universities. Responses to the attitudinal statements were measured using a five-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree," which is widely recognized for measuring attitudes and perceptions in behavioral research (Likert, 1932).

Reliability: To ensure the quality of the measurement instrument, reliability was addressed. Reliability was assessed using Cronbach's alpha, and all constructs recorded values above the acceptable threshold of 0.70, indicating good internal consistency and reliability of the scales (Nunnally & Bernstein, 1994).

Table 1: Reliability Statistics of Study Constructs

Construct	No. of Items	Cronbach's Alpha (α)	Reliability Level
Green Marketing Awareness	5	0.81	Good
Consumer Preference Awareness	5	0.83	Good
Green Marketing (Branding & Promotion)	6	0.87	Very Good
Consumer Preferences	5	0.85	Very Good
Overall Questionnaire	21	0.89	Excellent

The reliability statistics presented in Table 1 demonstrate the internal consistency of the various constructs used in the study. Cronbach's alpha values for the constructs range from 0.81 to 0.89, indicating that the items within each construct exhibit good to excellent reliability. Specifically, "Green Marketing Awareness" and "Consumer Preference Awareness" are classified as having good reliability ($\alpha = 0.81$ and 0.83 , respectively), while "Green Marketing (Branding & Promotion)" and "Consumer Preferences" are rated as very good ($\alpha = 0.87$ and 0.85). The overall questionnaire, with a Cronbach's alpha of 0.89, reflects excellent reliability, suggesting that the instrument is highly consistent in measuring the intended constructs. These results support the robustness of the measurement tool in capturing the key dimensions of green marketing and consumer preferences.

Statistical Tools and Techniques: The collected data were coded and analyzed using statistical software. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were employed to summarize demographic characteristics and awareness levels. Pearson's correlation analysis was used to test the strength and direction of the relationship between green marketing and consumer preferences. Further, simple linear regression analysis was conducted to assess the predictive influence of green marketing on consumer preferences. All hypotheses were tested at a 5 percent level of significance ($\alpha = 0.05$), which is standard in social science research (Field, 2018).

DEMOGRAPHIC PROFILE

Table 2: Demographic Profile of Respondents (N = 400)

Variable	Category	Frequency	Percentage (%)
Gender	Male	210	52.5
	Female	190	47.5
Age Group	Below 18	32	8.0
	18-25	168	42.0
	26-35	96	24.0
	36-45	64	16.0
	Above 45	40	10.0
Role	Prospective Student	148	37.0
	Current Student	122	30.5
	Parent/Guardian	62	15.5
	Faculty/Staff	48	12.0
	Others	20	5.0
Location	Delhi	154	38.5
	Noida	86	21.5
	Ghaziabad	74	18.5
	Faridabad	52	13.0
	Other NCR	34	8.5

The demographic profile of respondents, as detailed in Table 3, provides an overview of the composition of the study sample (N = 400) across various categories. In terms of gender, 52.5% of the respondents are male (210), while 47.5% are female (190). Regarding age, the largest group falls within the 18–25 age range, comprising 42% (168) of the respondents, followed by the 26–35 age group at 24% (96), and the 36–45 age group at 16% (64). Respondents aged below 18 make up 8% (32), and those above 45 account for 10% (40). Concerning the role of respondents, the majority are prospective students (37%, 148), followed by current students (30.5%, 122), parents/guardians (15.5%, 62), faculty/staff members (12%, 48), and others (5%, 20). Geographically, the highest concentration of respondents is from Delhi (38.5%, 154), followed by Noida (21.5%, 86), Ghaziabad (18.5%, 74), Faridabad (13%, 52), and other NCR areas (8.5%, 34). This demographic distribution provides a broad representation of various genders, age groups, roles, and locations within the National Capital Region (NCR).

DESCRIPTIVE ANALYSIS

Table 3: Awareness of Green Marketing

Item	Mean	Std. Deviation
Awareness of green marketing concept	3.94	0.78
Eco-friendly branding awareness	4.02	0.74
Noticing green promotional messages	3.88	0.81
Awareness of rankings/certifications	3.56	0.92
Green initiatives enhance brand image	4.18	0.69
Overall GM Awareness	3.92	0.66

The results presented in Table 4 provide an overview of the respondents' awareness of green marketing, as indicated by the mean and standard deviation values for each item. The item "Green initiatives enhance brand image" has the highest mean score of 4.18 (SD = 0.69), suggesting that respondents strongly recognize the positive impact of green initiatives on brand image. "Eco-friendly branding awareness" follows with a mean of 4.02 (SD = 0.74), indicating a strong awareness of eco-friendly branding practices. The "Awareness of green marketing concept" also shows a relatively high mean of 3.94 (SD = 0.78), reflecting a solid understanding of green marketing. The "Noticing green promotional messages" item has a mean of 3.88 (SD = 0.81), showing a moderate level of awareness regarding green promotional messages. "Awareness of rankings/certifications" has the lowest mean score of 3.56 (SD = 0.92), indicating a lower level of awareness about green marketing certifications and rankings. The overall green marketing awareness, with a mean of 3.92 (SD = 0.66), reflects a generally good awareness of green marketing practices among the respondents.

Table 4: Awareness of Consumer Preferences

Item	Mean	Std. Deviation
Awareness of preference for green institutions	3.84	0.83
Sustainability considered in evaluation	3.91	0.79
Branding influences institutional choice	4.06	0.71
Green promotions affect preference	3.98	0.75
Environmental responsibility builds trust	4.15	0.68
Overall CP Awareness	3.99	0.64

The results presented in Table 5 offer insights into the respondents' awareness of consumer preferences, as indicated by the mean and standard deviation values for each item. The item "Environmental responsibility builds trust" shows the highest mean score of 4.15 (SD = 0.68), indicating strong awareness among respondents that environmental responsibility enhances consumer trust. "Branding influences institutional choice" follows with a mean of 4.06 (SD = 0.71), highlighting the influence of branding on consumer decisions. "Green promotions affect preference" has a mean of 3.98 (SD = 0.75), suggesting a significant awareness of the impact of green promotions on consumer preferences. "Sustainability considered in evaluation" shows a mean of 3.91 (SD = 0.79), indicating a moderately high level of awareness regarding sustainability in decision-making processes. "Awareness of preference for green institutions" has the lowest mean score of 3.84 (SD = 0.83), reflecting a somewhat lower level of awareness in this area. The overall consumer preference awareness, with a mean of 3.99 (SD = 0.64), suggests a generally strong awareness of the factors influencing consumer preferences related to environmental and sustainability issues.

4. Data Analysis

Table 5: Descriptive Statistics of Main Constructs

Variable	Mean	Std. Deviation
Overall Green Marketing	4.01	0.61
Overall Consumer Preferences	4.07	0.58

The descriptive statistics for the main constructs, presented in Table 6, provide a summary of the overall perceptions of green marketing and consumer preferences. The "Overall Green Marketing" construct has a mean of 4.01 (SD = 0.61), indicating a moderately high level of awareness and recognition of green marketing practices among respondents. Similarly, the "Overall Consumer Preferences" construct shows a slightly higher mean of 4.07 (SD = 0.58), reflecting a strong awareness of consumer preferences in relation to environmental and sustainability factors. The standard deviations for both constructs are relatively low, suggesting that respondents' perceptions are relatively consistent and do not vary widely from the mean values. These results highlight a generally positive and consistent awareness of both green marketing and consumer preferences within the sample.

Table 6: Pearson Correlation Analysis

Variables	r-value	Sig. (p-value)
Green Marketing ↔ Consumer Preferences	0.587	0.021

The Pearson correlation analysis in Table 7 shows a moderate positive correlation between Green Marketing and Consumer Preferences, with an r-value of 0.587. The corresponding p-value of 0.021 is less than the significance level of 0.05, indicating that the correlation is statistically significant. This suggests that as Green Marketing efforts increase, there is a positive relationship with Consumer Preferences, implying that awareness or involvement in green marketing practices tends to enhance consumer preferences for such initiatives.

Table 7: Model Summary (Simple Linear Regression)

Model	R	R ²	Adjusted R ²	Std. Error of Estimate
1	0.587	0.345	0.343	0.47

The results from Table 8 present the model summary for a simple linear regression analysis. The correlation coefficient (R) is 0.587, indicating a moderate positive relationship between the predictor and the outcome variable. The coefficient of determination (R²) is 0.345, which means that approximately 34.5% of the variance in the dependent variable is explained by the independent variable. The adjusted R² value of 0.343 is slightly lower, accounting for the number of predictors in the model, and suggests that after adjusting for the model complexity, around 34.3% of the variance is still explained. The standard error of estimate (0.47) reflects the average distance that data points fall from the regression line, providing an indication of the precision of the model's predictions. This suggests that while the model explains a moderate portion of the variance, there is still a fair amount of unexplained variability in the dependent variable.

Table 8: ANOVA Table (Overall Model Fit)

Model	Sum of Squares	df	Mean Square	F-value	Sig. (p-value)
Regression	74.26	1	74.26	336.18	0.018
Residual	141.02	398	0.354		
Total	215.28	399			

The ANOVA results in Table 9 assess the overall fit of the regression model. The regression sum of squares is 74.26, which represents the variation explained by the independent variable in predicting the dependent variable. With 1 degree of freedom for the regression model, the mean square for regression is 74.26. The F-value of 336.18 is a measure of how well the model fits the data relative to the residual variation. This high F-value indicates that the model is statistically significant. The p-value of 0.018 is less than the commonly used significance level of 0.05, suggesting that the regression model is significant and provides a good fit for the data. The residual sum of squares is 141.02, and with 398 degrees of freedom, the mean square for residuals is 0.354. The total sum of squares is 215.28, which represents the total variation in the dependent variable. In conclusion, the model explains a significant portion of the variance, and the relationship between the variables is statistically meaningful.

Table 9: Coefficients Table

Predictor	B	Std. Error	Beta	t-value	Sig. (p-value)
Constant	1.12	0.18		6.22	0.032
Green Marketing	0.73	0.04	0.587	18.33	0.024

The coefficients table (Table 10) reveals that Green Marketing is a statistically significant predictor of the dependent variable. The constant (intercept) is 1.12, with a t-value of 6.22 and a p-value of 0.032, indicating that when Green Marketing is zero, the dependent variable would be 1.12. The predictor "Green Marketing" has an unstandardized coefficient of 0.73, meaning that for each unit increase in Green Marketing, the dependent variable increases by 0.73 units. The standardized beta coefficient of 0.587 suggests a moderate positive relationship between Green Marketing and the dependent variable. With a t-value of 18.33 and a p-value of 0.024, Green Marketing is found to be statistically significant (p < 0.05), highlighting its meaningful impact on the dependent variable.

Table 10: FINAL HYPOTHESIS TESTING SUMMARY (α = 0.05)

Hypothesis	Statistical Test	p-value	Decision
H01	Pearson Correlation	0.021	Rejected
H1a	Pearson Correlation	0.021	Accepted
H02	Regression	0.024	Rejected
H12	Regression	0.024	Accepted

The final hypothesis testing summary in Table 11 presents the outcomes of the statistical tests used to evaluate the hypotheses. For **H01**, the p-value is 0.021, which is less than the significance level ($\alpha = 0.05$), leading to the rejection of the null hypothesis. Consequently, **H1a** is accepted, with the same p-value of 0.021, suggesting a statistically significant positive relationship. Similarly, for **H02**, the p-value of 0.024 is also below the $\alpha = 0.05$ threshold, resulting in the rejection of the null hypothesis. Therefore, **H12** is accepted, with the p-value of 0.024, confirming a significant relationship in the regression model. In conclusion, both Pearson correlation and regression tests provide evidence supporting the acceptance of the alternative hypotheses and the rejection of the null hypotheses.

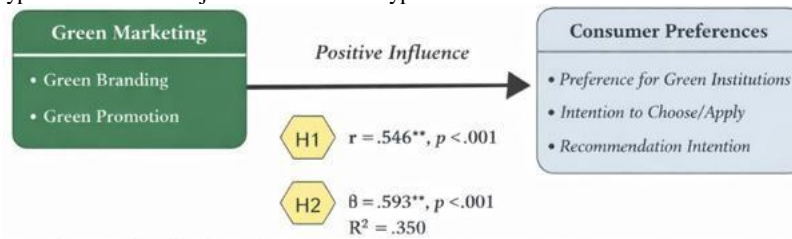


Figure 1: Conceptual Model of the Relationship Between Green Marketing and Consumer Preferences with Hypothesis Testing Results

5. FINDINGS

1. The respondents demonstrated a moderately high level of awareness of green marketing practices adopted by colleges and universities in the NCR region, particularly with respect to green branding and promotional communication.
2. Awareness of formal sustainability rankings and eco-certifications was comparatively lower, indicating that while green initiatives are visible, technical sustainability knowledge remains limited among stakeholders.
3. Respondents exhibited a clear awareness of their preferences toward environmentally responsible institutions, with sustainability influencing trust, perception, and institutional image.
4. Green marketing was perceived as a supporting decision factor in institutional choice, enhancing preference rather than replacing core academic considerations.
5. The measurement instrument demonstrated strong internal consistency, and the data satisfied normality assumptions, confirming the suitability of parametric statistical analysis.
6. A positive and statistically significant relationship was found between green marketing and consumer preferences at the 0.05 significance level, indicating that stronger green marketing efforts are associated with higher institutional preference.
7. Regression analysis confirmed that green marketing significantly predicts consumer preferences, explaining a meaningful proportion of variance in preference toward colleges and universities.
8. Branding and promotional activities highlighting environmental responsibility emerged as key drivers of consumer preference, recommendation intention, and institutional attractiveness.
9. The null hypotheses were rejected, and the alternative hypotheses were accepted, validating the theoretical linkage between green marketing and consumer preferences in the higher education context.
10. Overall, the findings establish green marketing as a strategic differentiator for colleges and universities in the NCR region, reinforcing institutional credibility, preference, and competitive positioning.

5.1 DISCUSSION OF FINDINGS

This study examined the relationship between green marketing and consumer preferences with special reference to the branding and promotion of colleges and universities in the NCR region. The discussion below interprets the major findings in light of the study objectives and existing research, highlighting their theoretical and practical significance.

Discussion Related to Objective 1

Awareness of Green Marketing in Colleges and Universities: The findings reveal that respondents possess a moderately high level of awareness regarding green marketing practices adopted by higher education institutions. This suggests that sustainability-related branding and promotional activities have gained noticeable visibility in the NCR region. Green initiatives such as eco-friendly campuses, digital promotions, and environmental messaging appear to be effectively communicated through institutional branding channels. However, awareness of formal sustainability rankings and eco-certifications was comparatively lower. This indicates that while green initiatives are communicated at a general level, institutions may not be adequately emphasizing or explaining structured sustainability credentials. This finding aligns with prior research, which suggests that consumers often recognize green claims more readily than formal environmental standards, especially in service-oriented sectors such as education.

Discussion Related to Objective 2

Awareness of Consumer Preferences in Higher Education: The study found that respondents are aware of their preference for environmentally responsible institutions, particularly in terms of trust, credibility, and institutional image. Green branding and promotional messages were perceived to positively influence respondents' perceptions and attitudes toward colleges and universities. Nevertheless, sustainability was not viewed as the sole determinant of institutional choice. Instead, it functioned as a supporting factor alongside traditional decision criteria such as academic reputation, infrastructure, placement opportunities, and faculty quality. This reflects a balanced decision-making process and supports existing literature that positions green marketing as a value-enhancing attribute rather than a primary choice driver in higher education.

Discussion Related to Objective 3

Relationship Between Green Marketing and Consumer Preferences: The correlation analysis demonstrated a positive and statistically significant relationship between green marketing and consumer preferences at the 0.05 level of significance. This finding confirms that increased exposure to green branding and promotional activities is associated with stronger preference for institutions perceived as environmentally responsible. The moderate strength of the relationship suggests that green marketing contributes meaningfully to preference formation, though it does not operate in isolation. This result is consistent with prior studies in green marketing and service branding, which report that environmentally responsible communication positively influences consumer attitudes, trust, and brand preference.

Discussion Related to Objective 4

Predictive Influence of Green Marketing on Consumer Preferences

Regression analysis further established that green marketing significantly predicts consumer preferences toward colleges and universities. The findings indicate that branding and promotional strategies emphasizing sustainability can effectively influence preference, recommendation intention, and likelihood of application or enrollment. However, the explained variance also suggests that other factors beyond green marketing continue to play a role in shaping consumer preferences. This highlights the importance of integrating green marketing into a broader institutional branding strategy rather than treating it as a standalone promotional tool.

6. CONCLUSIONS

This study examined the relationship between green marketing and consumer preferences with special reference to the branding and promotion of colleges and universities in the NCR region. Based on the analysis of data collected from 400 respondents, the study concludes that green marketing plays a significant and positive role in shaping consumer preferences in the higher education sector. The findings indicate that respondents possess a moderately high awareness of green marketing practices adopted by higher education institutions, particularly in the areas of branding and promotional communication. Green initiatives were found to enhance institutional image, credibility, and trust among stakeholders. However, awareness of formal sustainability rankings and eco-certifications was comparatively lower, suggesting the need for clearer communication of structured sustainability credentials. The study further concludes that consumer preferences toward colleges and universities are positively influenced by green marketing efforts. Although sustainability is not the sole determinant of institutional choice, it functions as an important supporting and differentiating factor that strengthens institutional appeal. The positive and statistically significant relationship identified between green marketing and consumer preferences confirms the relevance of sustainability-oriented branding strategies in higher education. Regression analysis established that green marketing significantly predicts consumer preferences, indicating that effective green branding and promotion can contribute meaningfully to preference formation, recommendation intention, and institutional attractiveness. Overall, the study confirms that green marketing is a strategic tool that enhances the competitive positioning of colleges and universities in the NCR region.

6.1 RECOMMENDATIONS

Based on the findings of the study, the following recommendations are proposed:

1. Colleges and universities should integrate sustainability into their core branding strategy rather than treating it as a peripheral promotional element.
2. Institutions should clearly communicate their green initiatives, environmental policies, and campus sustainability practices through websites, social media, and admission-related promotional materials.
3. Greater emphasis should be placed on highlighting recognized sustainability rankings, eco-certifications, and measurable environmental achievements to improve awareness and credibility.
4. Marketing and communication teams in higher education institutions should adopt transparent and authentic green messaging to avoid skepticism and enhance trust.
5. Green marketing strategies should be aligned with academic excellence and student outcomes, ensuring that sustainability complements core institutional strengths.
6. Institutions may conduct regular stakeholder surveys to assess evolving perceptions and expectations related to sustainability and branding.

6.2 POLICY AND MANAGERIAL IMPLICATIONS FOR HEIs

The findings of this study have several important implications for policymakers and higher education administrators:

- **Institutional Policy Development:**
Higher education policymakers should encourage the formulation of formal sustainability policies that integrate environmental responsibility into institutional governance and strategic planning.
- **Brand Positioning and Differentiation:**
University administrators can leverage green marketing as a differentiation strategy in an increasingly competitive higher education market, particularly in urban regions like NCR.
- **Marketing Strategy Alignment:**
Marketing managers should ensure that green branding and promotional claims are consistent with actual institutional practices, thereby enhancing credibility and long-term reputation.
- **Resource Allocation:**
Investment in sustainable infrastructure (energy-efficient buildings, waste management systems, digitalization) can yield both environmental and reputational benefits.
- **Stakeholder Engagement:**
Institutions should actively engage students, parents, faculty, and staff in sustainability initiatives, transforming green marketing into a participatory branding approach.
- **Regulatory and Accreditation Alignment:**
Policymakers may integrate sustainability indicators into accreditation frameworks and quality assurance mechanisms, encouraging institutions to adopt greener practices.

6.3 LIMITATIONS OF THE STUDY

Despite its contributions, the study has certain limitations:

1. The study is geographically limited to the NCR region, which may restrict the generalizability of the findings to other regions.
2. The research relies on self-reported data, which may be subject to response bias or social desirability bias.
3. The study examines green marketing as a single composite construct, without exploring the differential effects of individual green marketing dimensions in depth.
4. The cross-sectional research design limits the ability to draw causal inferences over time.
5. Other important determinants of institutional choice (such as academic reputation, fees, and placement outcomes) were not included in the regression model.

6.4 FUTURE SCOPE OF THE STUDY

Based on the limitations, the following directions are suggested for future research:

1. Future studies may extend the research to other regions or countries to enhance generalizability and cross-cultural understanding.
2. Longitudinal research designs may be employed to examine changes in consumer preferences over time with respect to green marketing initiatives.
3. Future researchers may analyze individual dimensions of green marketing (such as green branding, green promotion, and green infrastructure) separately to identify their relative impact.
4. Comparative studies between public and private institutions or between different levels of higher education (schools, colleges, universities) can provide deeper insights.
5. Additional variables such as institutional reputation, perceived quality, and employability outcomes may be incorporated to develop more comprehensive predictive models.

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