

Green Marketing Orientations & Its Impact On Customer Engagement And Retention Practices

Arfa Siddiqui¹, Dr. Orooj Siddiqui², Dr. Abdul Tayyab Khan³

¹Research Scholar, Department of Commerce and Business Management, Integral University, Lucknow, arfasiddi@student.iul.ac.in

²Associate Professor, Department of Business management, Integral University, Lucknow, orooj@iul.ac.in

³Associate Professor, Department of Business management, Integral University, Lucknow, atkhan@iul.ac.in

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ABSTRACT

Technology has fabricated, integrated the entire global market as it has given new perspectives, thinking & orientation. It has also given competitive advantage which has given new perspectives, mental orientations and strategies. However it is known that these strategies are adaptable, flexible and resilient to the local market situations and conditions. This research is an investigation in to the green marketing strategies and its impact on Indian business. This would also determine the nature and functional effects in terms of sales, profits, customer satisfaction, delight and productivity outcomes.

This research is empirical and quantitative in nature. This research aims to investigate in to the issues and aspects which lead to adaptable and sustainable green marketing strategies for India Inc towards 2030. This study is conclusive as it would provide specific recommendations and conclusion on sustainable green marketing strategies for India Inc. In this study the specific dimensions which are studied are Green marketing practices, brand perception and attitude, brand value, brand attributes, brand engagement, repurchase intentions and purchases, effective brand engagement, customer loyalty, customer retention which lead to customer satisfaction & delight. The study would also provide an empirical model as the data would be collected through survey method. Primary data for the study would be collected from 150 marketing managers who are working in Delhi NCR IT companies which have implemented green marketing practices for the last five years. Data would be collected by using Google form as the data would be collected online only. An empirical model which would evaluate the effective implementation and impact of Green marketing strategies & practices in India Inc on customer engagement and retention would be provided.

Keywords: Green marketing practices & Customer delightful engagement, sustainability, proactive strategies 2030, competitive & consumer excellence

1. Introduction

The planet has degraded in its nature and content as it has become more polluted and problematic with industrialization. The revolution of 18th century has made the planet more productive with automation and manufacturing orientations. It has given new impetus for growth, development and prosperity. It has focused on economic development only as socio economic development and holistic well being of global societies has not been addressed.

The cascading effects of manufacturing and growth of economies has also impacted Indian economy its growth, policies and perspectives. The world GDP stood at 91 trillion US dollars in 2022 as India aspires to be a 5 trillion USD economy in the next decade. The population growth has been faster in this country than the economic development progress with a need for futuristic sustainability. There is a need to focus more on green aspects of

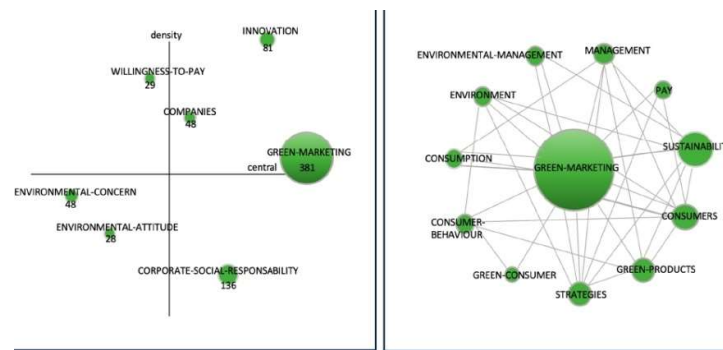
business which can give new impetus, directives and growth (Ws1).

This country plans to achieve zero carbon emissions by 2047. With this nobler and purposive sustainable development goal in hand – the industry and the government must work in tandem to achieve this goal. Indian companies have already implemented green marketing practices with a futuristic outlook and perspective (Ws2). The nature and effects of implementation and its impact needs to be studied. This study is planned to be an all India study which would be targeting Indian companies which have already implemented green marketing practices for the last five years.

Primary data for the study would be collected from 150 marketing managers who are working in Indian companies which have implemented green marketing practices for the last five years. Data would be collected by using Google form as the data would be collected online only. This study would provide specific strategies and approaches for Green marketing orientations & its impact on customer engagement and retention practices in India Inc.

II. Literature review

Alkhatib, S., Kecskés, P. and Keller, V., 2023 had done a systematic literature review on the various prospects, challenges {Dangelico et.al(2017 Pacheco-Vega, R(2020 Alamsyah, D.P et.al(2020} and issues in Green marketing. This study is an evaluation on various green marketing practices in the digital era. This study covers the research articles which have been done on green marketing from 2012 to 2022.



Source: Alkhatib, S., Kecskés, P. and Keller, V., 2023

It is evident from the above strategic mapping that the dimensions like environmental concern, attitude, CSR, willingness to pay & innovation {Saleem, F. et.al(2021 Kumar Kar, S.et.al(2022 Wang, S.et.al(2023} has been researched to a greater extent. It is evident from this research that the specific dimensions of green marketing and its implementation in India Inc has never been researched and the sustainability aspects towards 2030 has not been explored which is done with this research.

Lievano Pulido, Y.P et.al 2023 had done a research on green approaches and marketing & its impact on organizational performances. This study has been done as a bibliometric study. For this study 150 research papers from web of science was chosen and it has been evaluated. It is evident that green marketing as a field has risen to popularity since 2015 as it has been the most sought area of research. It is also found in this study More number of articles around 1741 have been published in 828 journals since 2015 on green marketing (Lievano Pulido, Y.P et.al 2023)

It is found that public goods, coordination, consumer behavior and perspectives, purchase intention, sustainable consumption, performance, consumers, strategies, CSR, green washing, information Birkle, C. et.al (2020)2.1 management & planned behavior has been researched till now. It is also evident that the implementation issues, effects and impact of green marketing (Bhattacharyya, J. 2022 Bogoslov, I. A., Lungu, A. E., Stoica, E. A., Georgescu, M. R. 2022 Bulsara, H. P., Matharu, M., Tarasova, K., Rulinska, O., Gogol, I. 2021) in India Inc has never been researched which is attempted with this study. It is also found that sustainable green marketing strategies for India Inc towards 2030 has not been researched which is also attempted with this research.

So this research is an attempt on these aspects and dimensions for the first time on green marketing and Indian

companies' effective implementation towards 2030.

Michulek, J. and Krizanova, A., 2023 had done research on bibliometric study on the aspects and dimensions of Green marketing. This has been done as a comprehensive study. This study has evaluated various researches which have been done in 2022.

2.1 Web of science research contributions on green marketing

It is found that academic researches done on green marketing has consistently increased since 2008 which has been 22 research papers as it has grown to 122 in 2022 (Michulek, J. and Krizanova, A., 2023)



Source: Michulek, J. and Krizanova, A., 2023

It is found that researches on business and green marketing have been explored more. However the specific impact of green marketing (Agarwal, N. D., Kumar, V. R. 2020 Amoako, G. K., Doe, J. K., Dzogbenuku, R. K. 2021 Bhardwaj, A. K., Garg, A., Ram, S., Gajpal, Y., Zheng, C. 2020) and implementation methods on Indian companies and its sustainability towards 2030 has not been explored. This research is the first attempt in this direction.

Kiyak, D. and Grigoliene, R., 2023 had done a research study by evaluating and analyzing the green marketing aspects. This study also provides a conceptual framework which could be empirically tested and documented. A secondary literature review search was done on all major online research publications and the results were documented.

It is evident from this research that the contemporary green marketing challenges and its implementation problems has never been studied or evaluated in Delhi NCR region IT companies, as this research is an attempt on it.

III. Research methodology

3.1 Dimensions of the study

Independent variable: Green marketing practices

Moderating variable: Brand perception and attitude, brand value, brand attributes,

Dependent variable: Brand engagement, repurchase intentions and purchases, effective brand engagement, customer loyalty, customer retention

3.2 Problem statement

The need for environment friendly practices is evident today as Indian companies have adapted to green marketing. This promotes environmental consciousness among potential consumers and customers. This would also induce the consumers to have environmentally products and services which can also preserve the planet. However, it is also found that research studies have not been done on the nature and extent of green marketing practices and its implementation in India Inc. The role and impact of green marketing on customer loyalty,

engagement and retention has not been studied with Indian companies as this study is an attempt on it. This would also help Indian organizations to achieve sustainability towards 2030. This study also focuses on the role of green marketing orientation on customer engagement and retention in Delhi NCR region IT companies.

As these problems, issues and dimensions have not been studied, this research is an investigation as it would provide green marketing solutions and strategies for future also.

3.3 Need for the study

As the carbon foot print and global warming has crafted chaos and confusion on the entire planet, it also has raised issues on this planet and its sustainability for future. There is a need to provide effective, integrative and holistic solutions which could preserve the planet. There is a need to reorganize and refocus the marketing activities with an ecofriendly attitude and approaches. The Indian companies have been focusing on green marketing which has also given positive impact on sales and profits. As the dimensions of green marketing can also ensure sustainability of Delhi NCR region IT companies towards 2030, this study also focuses on the role of green marketing orientation on customer engagement and retention.

The need for doing this academic research is justified.

3.4 Aim of the study

This study aims to evaluate the existing implemented green marketing strategies & practices in India Inc. The role and impact of Brand perception and attitude, brand value, brand attributes on green marketing practices and strategies which have been implemented in Delhi NCR region IT companies would also be evaluated.

The effects of Brand engagement repurchase intentions and purchases, effective brand engagement, customer loyalty, customer retention on green marketing practices and strategies for India Inc towards effective implementation would also be provided. The futuristic strategies for green marketing implementation towards 2030 would also be suggested with specific recommendations.

Research type: This research is exploratory and conclusive in nature.

Research method: This study would be quantitative in its nature and approach.

3.5 Objectives for the study

1. To evaluate the existing implemented green marketing strategies & practices in India Inc.
2. The find out the impact of Brand perception and attitude, brand value, brand attributes on green marketing practices and strategies in India Inc.
3. To determine the effects of Brand engagement & repurchase intentions on green marketing practices and strategies for India Inc
4. To assess the role of effective green brand engagement on customer loyalty in India Inc
5. To evaluate the effects of green marketing practices on customer retention & delight

3.6 Hypothesis for the study

H1: The existing implemented green marketing strategies & practices in India Inc have been positive towards growth and profits

HO: Brand perception and attitude, brand value, brand attributes has no impact on green marketing practices and strategies

H1: Effective green brand engagement leads to customer loyalty

HO: Green marketing practices does not lead to customer retention &

3.7 Data collection tools

Primary data would be collected from 100 to 150 marketing managers working in IT companies in Delhi NCR region. Survey method would be used and structured questionnaire would be given across the sample respondents using Google forms. The secondary data for the study would be collected from various published sources since 2018 till now.

3.8 Data analysis method

A structured questionnaire would be used to collect the primary data from managers working for IT companies in the Delhi-NCR region. This would include information on demographic factors like age, income, organization, gender, and the types of IT services used. The Likert seven-point scale, which includes strongly disagree, disagree, somewhat disagree, either agree or disagree, somewhat agree, and agree, would be used to collect the data. The SPSS software would be used to upload this data, which would be entered into an Excel sheet. The data would be analyzed and the results provided by this software.

1. Correlation Would measures the relationship between factors to define the significant.
2. Regression score defines the relationship between the variables and specific hypothesis. Which once we got the significant score as 0.05 there is no actual difference is achieved between the variables and null hypothesis could be rejected.
3. Factor analysis: It is a test that is done to find out the most important factors in effective understanding of green marketing practices. It could be concluded that green marketing orientation leads to customer engagement and retention in Delhi NCR IT companies.
4. In this analysis 4 to 5 major factors could emerge which are important for green marketing orientation and its impact on customer retention towards 2030.
5. The model for our research will get defined from SEM model through SPSS.
6. In this diagram the major significant variables which lead to effective sustainability of Delhi NCR region IT companies towards 2030 would be provided.
7. This provides an overall comprehensive empirical strategy for sustainability for IT companies in Delhi NCR region towards 2030.

3.9 Scope and limitations

1. This study is confined to IT companies.
2. This study covers only managers working in Delhi NCR region
3. This study covers both software companies in specific.

3.10 Outcome of the study

This study would evaluate the nature and extent of green marketing strategies & practices and its effective implementation in Delhi NCR region IT companies.

The role and impact of Brand perception and attitude, brand value, brand attributes on green marketing practices and strategies which have been implemented in Delhi NCR region IT companies would be determined.

The effects of Brand engagement repurchase intentions and purchases, effective brand engagement, customer loyalty (Cai, R., Guo, J. (2021) Chyhryn, O. Y., Kuzior, A., Olefirenko, O. M., Uzik, J. (2022) customer retention on green marketing practices and strategies for India Inc would be found to be positive and sustainable.

The futuristic strategies for green marketing implementation towards 2030 would also be suggested with specific recommendations. The study intends to determine the role of green marketing orientation on customer engagement and retention in Delhi NCR region IT companies.

IV. Data analysis and interpretation

4.1 Demographic analysis

The first section involves in presenting the demographic analysis of the respondents

Table 1: Descriptive analysis

Statistics	Respondents Gender	Age	Total no. of employees	Total years of experience	Income per month
Mean	1.18	2.04	1.97	2.73	1.97
Std. Deviation	0.384	0.859	1.119	0.784	0.17

The table presents statistical data on respondents, highlighting key factors including gender, age, total staff count, cumulative years of experience, and monthly income. By calculating the mean values and standard deviations, the data is condensed to offer a glimpse into the average values and spread of data within each category. Firstly, the average figure for the gender of the respondents is 1.18. It is likely that this value is encoded, with the number 1 representing male and the number 2 representing female, for example. Based on the data, it can be observed that there is a higher representation of male respondents in the sample compared to female respondents, as indicated by the mean being closer to 1. The gender distribution within the sample remains relatively stable and shows minimal variation, as evidenced by a standard deviation of 0.384 for gender.

Based on the data, it seems that the average age of the participants is 2.04. However, it is important to note that this value may not directly correspond to the actual years, but rather could be a coded representation. This code is applicable for indicating different age groups. For instance, it can represent individuals aged 18-25 as 1, and those aged 26-35 as 2, and so forth. Based on the data, it can be observed that a significant portion of the responses falls within the second age group. The age distribution among the respondents shows moderate variability, as evidenced by a standard deviation of 0.859. There appears to be a moderate spread around the average age. On average, there are 1.97 employees. This coding can reflect various ranges of staff counts among the surveyed organisations. Based on the data, it is evident that a large number of organisations have a considerable percentage of employees falling into the second category of this coding system. Based on the data, it appears that there is a significant amount of variation in the number of employees among different organisations, as indicated by the relatively high standard deviation of 1.119.

Among the respondents, the average years of experience is 2.73. It appears that the participants have a considerable amount of experience, which might distinguish them if the years are divided like the other variables. The experience levels exhibit a standard deviation of 0.784, suggesting a moderate degree of variability. There appears to be a moderate range of experience levels, but it is not overly extensive. Ultimately, the monthly salary averages out to 1.97. It is likely that this variable represents a coded value, suggesting that the salaries of respondents fall within the second group of a predetermined income range, similar to other variables. Based on my analysis, it appears that the monthly income of the respondents shows a low standard deviation of 0.17. This indicates that there is minimal variation in their incomes, suggesting a certain level of stability.

Table 2: Frequency analysis

Respondents Gender	Frequency	Percent
Male	111	82.20
Female	24	17.80
Age	Frequency	Percent
Below 25 Years	47	34.80
26 - 35 Years	36	26.70
36 - 45 Years	52	38.50
Total no. of employees	Frequency	Percent
Less than 5,000	70	51.90
5,001 - 15,000	15	11.10
15,001 - 45,000	34	25.20
More than 45,000	16	11.90
Total years of experience	Frequency	Percent

Less than 5 years	16	11.90
5 - 10 years	16	11.90
10 - 20 years	91	67.40
More than 20 years	12	8.90
Income per month	Frequency	Percent
Less than Rs. 20,000	4	3.00
More than Rs. 20,000	131	97.00
Total	135	100.00

Interpretation

The table provides a detailed overview of the respondents' demographics and professional background, with a particular focus on gender, age, organisational size, years of experience, and monthly salary. The data offers significant insights into the composition and characteristics of the surveyed population. The table shows a significant imbalance in favour of male respondents, with 111 out of 135 participants being male, accounting for 82.20% of the total sample. In contrast, the number of female responders is significantly lower, making up only 17.80% of the total sample. It is evident from the respondent pool that there is a clear gender disparity, with male participants being more prevalent. It suggests that there may be disparities in gender representation within the particular field or context under study.

Participants are categorised into three groups according to their age distribution. The age group of 36-45 years is the most populous demographic, accounting for 38.50% (52 responses) of the overall population. Following the 'Below 25 Years' category, there is the '26-35 Years' category, with 34.80% (47 respondents) and 26.70% (36 respondents) respectively. There is a wide range of ages among the respondents, with a clear majority being middle-aged individuals. It can be inferred that the sample includes a significant proportion of seasoned professionals, along with a cohort of individuals who are at the early stages of their careers. The overall number of employees in the organisations of the respondents varies significantly. A majority of people work in smaller organisations with less than 5,000 employees, making up 51.90% (70 responses) of the total sample. Another significant group is made up of organisations with 15,001-45,000 employees, representing 25.20% (34 respondents). A smaller portion of the respondents belong to organisations with 5,001-15,000 employees (11.10%, 15 respondents) and over 45,000 employees (11.90%, 16 respondents). The distribution of respondents suggests a diverse range of organisational sizes, with a significant number coming from smaller organisations and a substantial proportion working in medium to big enterprises.

Based on the data collected, it is evident that a significant portion of the participants, accounting for 67.40% (91 respondents) of the sample, possess a considerable amount of experience ranging from 10 to 20 years. Both categories, with less than 5 years and 5-10 years of experience, have an equal percentage of respondents at 11.90%, with a total of 16 respondents in each group. A small subset of individuals have more than 20 years of experience, making up 8.90% (12 respondents). The data suggests that the majority of the responders possess extensive experience and have well-established professional paths. When it comes to monthly income, an overwhelming majority of respondents (97.00%, 131 respondents) earn more than Rs. 20,000. Only a small fraction, specifically 3.00% (4 participants), earns a salary below Rs. 20,000. Based on the income distribution, it is evident that the respondents are quite well-compensated, with most individuals earning above the Rs. 20,000 thresholds.

4.3 Reliability analysis

An evaluation of the internal consistency and dependability of a scale or a set of related items that are included inside a survey or questionnaire can be accomplished with the assistance of reliability analysis, which requires the utilisation of Cronbach's alpha. This technique is commonly utilised in a wide variety of academic fields, such as the social sciences, psychology, and education, with the purpose of quantifying latent constructs, which are characteristics or concepts that cannot be directly observed, through the utilisation of a collection of variables that have been observed.

Choosing a group of questions or inquiries from the instrument or survey that is specifically designed to evaluate the same central construct or idea is the first step in the approach. This initial stage in the process is where it all begins. There ought to be some kind of conceptual connection between these. With regard to the evaluation of "job satisfaction," for example, some of the components that are likely to be taken into consideration are "Work

satisfaction," "I am content with my employment," and "I find my work intellectually stimulating."

After that, one determines a person's overall score by adding together all of their responses to the questions that were selected. A comprehensive evaluation of the construct is demonstrated by the total score once it has been computed.

Determine how much of a difference there is between the total scores that were collected from each individual participant. Knowing this information enables one to have a better understanding of the degree of variation that exists in the evaluation of the construct across the sample.

The covariances that exist between each and every object of interest and each and every other object should be discovered. The degree of interaction between each item on the scale, as well as the interaction between each individual item and each other, is highlighted by this.

Cronbach's alpha, which is commonly represented by the symbol α , is a coefficient that is employed to assess the degree of internal consistency or dependability related to a specific scale. On a scale, it provides a numerical representation of the degree to which each thing is similar to the others. In most cases, the range of values from 0 to 1 is utilised for calculating Cronbach's alpha percentage. A higher degree of inner consistency is indicated by an increase in the values that fall within this spectrum. Despite the fact that an alpha value of 0.70 or higher is typically considered to be fair, this may change depending on the specific study topic and whatever circumstances are present. When it comes to the evaluation of the underlying concept, higher alpha values indicate that the items that make up the scale are more reliable.

It is recommended that the Cronbach's alpha coefficient be investigated in light of the ongoing study that is currently being conducted. When the alpha value is more than the permissible level (for instance, 0.70), it implies that the scale possesses a very high degree of internal consistency and that the items provide accurate assessments of the construct. It is possible to consider modifying the scale by removing items that are not working as intended or by adding new items in order to strengthen the dependability of the scale in the event that the alpha value falls below the threshold that was stated.

Cronbach Alpha

Cronbach's Alpha	N of Items
0.956	27

Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Green marketing practices are implemented in our organization	106.85	226.306	0.292	0.958
Green marketing practices have enhanced value and provided more effective performances	106.5	223.58	0.499	0.955
Green marketing practices modify the consumer's brand perception and attitude in a positive way	106.56	219.352	0.693	0.954
Green marketing practices enhance brand engagement	106.61	224.567	0.539	0.955
Customers feel happy to associate with green marketing brand attributes which makes them more social oriented and contributive	106.53	219.714	0.587	0.955
Green marketing practices induce the customers for repurchases of products	106.84	212.66	0.745	0.953
Customer loyalty and retention is enhanced more with green marketing practices in Indian software companies	106.89	216.174	0.747	0.953
Brand perception influences green marketing practices	106.57	221.366	0.605	0.955

Brand perception has a positive role of effective engagement of customers as their mental perception totally changes	106.5	220.52 1	0.659	0.954
Brand perception of green marketing leads to effective customer engagement and delight in Indian software companies	106.6	217.89 9	0.669	0.954
Brand attitude towards green marketing changes the mental orientation on Indian software companies	106.6 2	223.7	0.516	0.955
Brand attitude helps in effective customer engagement and delight in Indian software companies	106.6 3	217.89 2	0.651	0.954
Brand attitude towards green marketing leads to effective customer engagement and delight in Indian software companies	106.6 5	218.15 4	0.707	0.954
Green marketing practices increases purchase intentions of customers as it leads to sales outcomes	106.8 4	219.34 6	0.648	0.954
Green marketing practices enhance repurchase intentions of customers as it leads to value increases	106.8	216.57 9	0.779	0.953
Green marketing practices enhance value additions to customers as the brand value increases as it is more socially responsible and engaging	106.4 8	221.80 4	0.633	0.954
Green marketing contributes to organizations as it leads to more effective outcomes like product enhancement and delivery	106.8 9	217.41 3	0.668	0.954
Green marketing is rewardful for the customers as they become more inclined for social contributions as they tend to engage more in to this	106.7 3	219.92 8	0.666	0.954
Green marketing is rewardful for the organizations also as they become more inclined to provide more social value oriented products and services	106.5 9	219.46 7	0.788	0.953
Green marketing enhances organizational development and growth towards the future	106.5	219.37 1	0.714	0.954
Green marketing ensures socially responsible mindset in organizations which allows them to provide more to the customers	106.6	213.77 9	0.774	0.953
Green marketing enhances customer engagement and involvement towards Indian software organizations	106.7 1	218.95 3	0.698	0.954
Green marketing enhances customer retention towards Indian software organizations	106.9 1	221.66 4	0.626	0.954
Green marketing enhances customer loyalty towards Indian software organizations	106.8 8	215.18	0.752	0.953
Green marketing practices ensures more brand value additions which provide a holistic approach in Indian software companies	106.8 6	215.76 4	0.779	0.953
Green marketing practices ensures more brand attributes & additions which provide new approaches and directives for Indian software companies	106.9 6	217.79 7	0.623	0.954
Green marketing practices ensures more brand engagement and retention towards future	106.8 7	217.81 2	0.652	0.954

Inference

The table presents the results of a reliability analysis performed on a scale comprising 27 items. This scale assesses the perceptions and outcomes linked to green marketing techniques in Indian software companies. The Cronbach's Alpha coefficient of 0.956 demonstrates a strong level of internal consistency among the items, indicating that the scale consistently measures a unified concept. Each row in the "Item-Total Statistics" section offers detailed insights into the influence of eliminating an individual item on the overall measurement. The columns labelled "Scale Mean if Item Deleted" and "Scale Variance if Item Deleted" offer insights into how the mean and variance of the overall scale score would be impacted by the exclusion of a particular item. When evaluating the relationship between each item and the total score, the "Corrected Item-Total Correlation" comes into play by excluding that

particular item. Higher values indicate that the item is in line with the overall scale. The column labelled "Cronbach's Alpha if Item Deleted" demonstrates how excluding a specific item can potentially affect the overall reliability of the scale.

It is noted that "green marketing practices" shows a relatively weak correlation of 0.292 with the other items in the scale. Removing this statement would lead to a slight improvement in the overall reliability of the scale, as measured by Cronbach's Alpha, to 0.958. It seems that this statement is not as strongly connected to the overall scale when compared to the other statements. Meanwhile, statements such as "Green marketing practices have shown improvements in value and performance" and "Green marketing practices have a significant impact on customers' intention to repurchase by enhancing value" exhibit stronger correlations with the overall construct (0.499 and 0.779, respectively). Eliminating these statements would decrease Cronbach's Alpha, indicating their strong association with the overarching concept.

4.4 Correlation analysis

Within the realm of field application, correlation analysis is one of the statistical methods that is utilised in the process of data analysis. Using this method, one may determine the direction of the linear relationship between two continuous variables as well as the degree of that relationship. It is possible that researchers and analysts will be able to gain a better understanding of the interrelationships between changes in two variables with the cooperation of this study. The primary objective of correlation analysis is to provide a quantitative understanding of the degree to which two variables are connected to one another. A numerical number that falls somewhere between -1 and 1 is the piece of statistical information that the correlation coefficient provides information about. A correlation value of one indicates that there is a perfect positive linear relationship between the two variables, which means that there is a linear increase in one variable that corresponds to a linear increase in the other variable. A complete negative linear connection, often known as a correlation coefficient of -1, indicates that an increase in one variable results in a diminishment of the other variable in a linear fashion. To phrase it another way, the process of engagement is faultless. Given that there is no linear connection between the two variables, a correlation value of 0 indicates that there is no relationship between them. This implies that changes in one variable do not have any impact on changes in the other variable. When it comes to describing linear linkages between variables that follow a normal distribution, the Pearson correlation coefficient is an appropriate alternative. It is typically used the majority of the time and is indicated by the sign "r." On the other hand, it is highly probable that this method is not relevant to all types of data, particularly in situations when the correlation is asymmetrical or when the data does not adhere to the presumptions of normalcy

Correlations	Corporate Image	Brand Perception	Overall Success	Adoption of Green marketing practices
Corporate Image	1	.832**	.724**	.822**
Brand Perception	.832**	1	.789**	.905**
Overall Success	.724**	.789**	1	.830**
Adoption of Green marketing practices	.822**	.905**	.830**	1

The correlation matrix presents the interconnections between four important variables: Corporate Image, Brand Perception, Overall Success, and Adoption of Green Marketing Practices. The matrix includes Pearson correlation coefficients, which measure the strength and direction of the linear relationship between pairs of variables. The coefficients range from -1 to 1, with values closer to 1 indicating a strong positive correlation, values closer to -1 indicating a strong negative relationship, and values around 0 suggesting no connection. Statistical significance is indicated by the presence of asterisks (**). The correlation coefficient between Corporate Image and Brand Perception is 0.832, indicating a strong and statistically significant positive relationship. It is evident that improvements in a company's corporate image have a significant impact on how consumers perceive the brand. There is a strong and positive correlation between Corporate Image and both Overall Success (0.724) and Adoption of Green Marketing Practices (0.822). These findings indicate that a favourable corporate image can significantly enhance the organization's overall success and encourage the adoption of environmentally-friendly marketing strategies.

There is a strong positive link between the adoption of green marketing practices and brand perception, as evidenced by a value of 0.905. This correlation is the highest in the matrix, indicating a remarkably strong association. Companies that are highly regarded by their customers are more likely to adopt marketing strategies that prioritise the environment. The strong correlation between Brand Perception and Overall performance (0.789) highlights the important impact that brand perception has on a company's overall performance. Green marketing practices have a strong connection to overall success, boasting an impressive correlation of 0.830. It can be inferred that companies that successfully implement green marketing strategies are more likely to experience significant overall success. The strong correlation between Overall Success and Corporate Image (0.724) and Brand Perception (0.789) highlights the interdependence of these factors in shaping a company's achievements. Finally, the implementation of Green Marketing Practices shows strong positive connections with three other variables: Corporate Image, Brand Perception, and Overall Success. Implementing green marketing strategies can greatly enhance a company's brand reputation and perception, ultimately contributing to the overall success of the organisation.

4.5 Cross-tabulation – Chi-Square test

Research Hypothesis 1

Null hypothesis: There is no significant relationship between the adoption of green marketing practices and the corporate image of software companies in Delhi NCR.

Alternate hypothesis: There is a significant positive relationship between the adoption of green marketing practices and the corporate image of software companies in Delhi NCR.

	Adoption of Green marketing practices					
Corporate Image	To a extremely small extent	To a small extent	To a moderate extent	To a large extent	To a extremely large extent	Total
To a extremely small extent	8	0	0	0	0	8
To a small extent	4	3	4	0	0	11
To a moderate extent	4	4	16	0	0	24
To a large extent	0	0	0	19	12	31
To a extremely large extent	0	3	0	20	38	61
Total	16	10	20	39	50	135
Chi-Square Tests	Value	df	P value			
Pearson Chi-Square	193.719a	16	0.00			
Likelihood Ratio	187.206	16	0.00			

Inference

The table and Chi-Square test findings provide significant insights into the relationship between Corporate Image and the Adoption of Green Marketing Practices. The cross-tabulation examines the extent to which green marketing techniques are utilised from various business image perspectives. The Chi-Square test assesses the existence of a statistically significant relationship between these two category variables. Firstly, the cross-tabulation reveals that most individuals (8 respondents) who believe their company has minimal implementation of green marketing methods also view their corporate image as being only favourable to a limited extent. There is a clear link between the failure to adopt environmentally-friendly practices and a negative perception of the company.

As we turn our attention to the participants who have a limited understanding of their company's corporate image, the distribution reveals a slight variation. Four participants have a limited perception of green marketing adoption, while three participants have a more substantial perception of it. This suggests a slight deviation, but still implies

that a decline in company reputation is linked to a decrease in the adoption of environmentally friendly marketing strategies. People with a limited view of their company's corporate image see a notable expansion in the variety of responses regarding the adoption of green marketing. More specifically, among the total respondents, 16 individuals have a moderate perception of green marketing adoption, while smaller proportions have a slight perception (4 respondents) or a high perception (4 respondents). There appears to be a connection between a modest corporate image and varying degrees of green marketing implementation.

When assessing a strong corporate image, a majority of the participants (19) believe that green marketing strategies are widely embraced, while another 12 participants indicate a significantly high level of adoption. There is a strong correlation between having a positive business image and implementing environmentally-friendly marketing strategies. It is evident that a large majority of individuals who have a strong perception of their company's corporate image are highly supportive of green marketing strategies. For 20 and 38 respondents, respectively, this is the situation. This further supports the notion that a strong business reputation is closely tied to the widespread adoption of environmentally-friendly marketing strategies. The Chi-Square test results provide strong support for these conclusions. The Pearson Chi-Square value is 193.719 with 16 degrees of freedom, and the P-value is 0.00. This finding, which is statistically significant ($P < 0.05$), suggests a strong correlation between corporate image and the adoption of green marketing strategies. Based on my research findings, the Likelihood Ratio test shows a significant value of 187.206 and a P-value of 0.00, indicating strong evidence supporting the presence of a meaningful association.

Research Hypothesis 2

Null hypothesis: There is no significant impact of green marketing practices on brand perception in the software industry in Delhi NCR.

Alternate hypothesis: There is a significant positive impact of green marketing practices on brand perception in the software industry in Delhi NCR.

	Adoption of Green marketing practices					
Corporate Image	To a extremely small extent	To a small extent	To a moderate extent ^a	To a large extent	To a extremely large extent	Total
To a extremely small extent	8	0	0	0	0	8
To a small extent	4	10	0	0	0	14
To a moderate extent	4	0	20	0	0	24
To a large extent	0	0	0	24	11	35
To a extremely large extent	0	0	0	15	39	54
Total	16	10	20	39	50	135
Chi-Square Tests	Value	df	P value			
Pearson Chi-Square	313.471a	16	0.00			
Likelihood Ratio	247.097	16	0.00			

Inference

The data table and Chi-Square test findings provide a thorough analysis of the relationship between Corporate Image and the Adoption of Green Marketing Practices. The cross-tabulation categorises respondents according to their perceptions of company image and the level of implementation of green marketing tactics. All respondents (8) who have a limited perception of their company's corporate image also mention that green marketing tactics are used to a limited extent. This strong alignment clearly demonstrates the strong connection between a negative business image and limited use of green marketing methods.

It was found that most of them (10) have a limited perception of their company's image. Additionally, the

remaining participants (4) believe that green marketing strategies are adopted to an extremely limited extent. Within this category, it is evident that there is a dearth of representation of moderate or higher levels of adoption. This finding further reinforces the notion that a low corporate image is closely associated with a low adoption of green marketing methods. All 20 respondents, who have a moderate opinion of corporate image, unanimously acknowledge the moderate utilisation of green marketing strategies. This study highlights the strong correlation between a moderate corporate image perception and the adoption of green marketing methods. This correlation aligns with patterns observed in previous studies across different categories.

Respondents who are research scholars and have a generally positive perception of their company's reputation tend to exhibit a wide range of behaviours, although they still tend to lean towards higher levels of adoption. From the responses, it is evident that a considerable number of individuals believe that green marketing methods are adopted to a significant degree. Additionally, a smaller group of individuals believe that these methods are adopted to an exceptionally high degree. Based on my research, it appears that companies that have a positive corporate image are more inclined to adopt and put into practice green marketing methods.

Many individuals who have a deep understanding of their company's image believe that green marketing methods are implemented to a significant extent. Furthermore, a notable number of people view these methods as being adopted to a considerable degree. This study reveals a strong correlation between a positive business image and a high adoption of green marketing practices. The Chi-Square test results provide statistical validation of these observations. The Pearson Chi-Square value is 313.471 with 16 degrees of freedom, and the P-value is 0.00, indicating a highly significant result ($P < 0.05$). Based on the research findings, it is evident that there is a strong correlation between corporate image and the implementation of green marketing methods. The Likelihood Ratio test yielded a significant value of 247.097 with a P-value of 0.00, indicating a statistically significant relationship.

Research Hypothesis 3

Null hypothesis: The challenges faced by software companies in implementing green marketing practices have no significant effect on the overall success of these initiatives.

Alternate hypothesis: The challenges faced by software companies in implementing green marketing practices have a significant negative effect on the overall success of these initiatives

	Adoption of Green marketing practices					
Corporate Image	To a extremely small extent	To a small extent	To a moderate extent	To a large extent	To a extremely large extent	Total
To a extremely small extent	8	3	0	0	0	11
To a small extent	4	7	0	0	4	15
To a moderate extent	4	0	20	4	0	28
To a large extent	0	0	0	31	12	43
To a extremely large extent	0	0	0	4	34	38
Total	16	10	20	39	50	135
Chi-Square Tests	Value	df	P value			
Pearson Chi-Square	254.342a	16	0.00			
Likelihood Ratio	227.066	16	0.00			

Inference

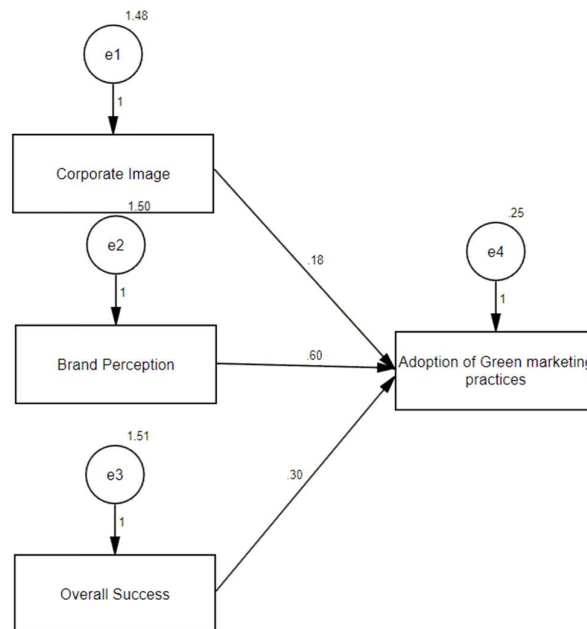
The table and Chi-Square test findings offer a comprehensive analysis of the relationship between Corporate Image and the Adoption of Green Marketing Practices. Respondents are classified based on their impressions of corporate image and the extent to which they perceive their organization's implementation of green marketing methods. Out of the respondents, most (8 out of 11) who have a narrow perception of their company's corporate

image also believe that green marketing methods are used to a limited extent. Based on the findings, it is evident that a negative business reputation is closely associated with a lack of emphasis on environmentally-friendly marketing strategies. Furthermore, three participants in this group have a limited understanding of green marketing adoption, yet none of them demonstrate higher levels of adoption.

Respondents with a limited impression of their company image have a slight variation in their views on the implementation of green marketing. Among the 15 respondents, it is noteworthy that a significant number (7) have only adopted green marketing to a limited extent. However, four respondents hold contrasting views on the extent of adoption. There appears to be some variation, but the focus is on the consistent connection between a negative corporate image and lower rates of adoption. Respondents with a research background observe that green marketing strategies are applied to a moderate degree, specifically 20 out of 28. However, there are also four individuals who argue that adoption happens to different extents, whether it be small or significant. There seems to be a connection between a moderate corporate image and moderate levels of adoption, although there might be some variation.

When studying individuals who possess a deep understanding of their company's image, a large majority (31 out of 43) also hold the belief that green marketing strategies are extensively utilised, with an additional 12 perceiving the level of implementation to be notably high. This illustrates a strong positive correlation, where a favourable company reputation aligns with a greater adoption of environmentally-friendly marketing tactics. Out of the 38 respondents, 34 of them have this particular case. Only 4 individuals in this group believe that adoption happens to a significant extent. The strong alignment highlights the clear connection between a positive business reputation and widespread adoption of green marketing. These observations are validated by the statistical analysis of the Chi-Square test. The Pearson Chi-Square value is 254.342 with 16 degrees of freedom, and the P-value is 0.00, indicating a highly significant result ($P < 0.05$). The Likelihood Ratio test produces a significant value of 227.066, suggesting statistical significance, with a P-value of 0.00. The findings confirm a strong and meaningful relationship between the perception of a company and its adoption of eco-friendly marketing tactics.

Structural Equation Modelling



The numerical values assigned to the routes represent the standardised regression coefficients, providing information on the strength and direction of the associations. The adoption of green marketing practices is significantly influenced by corporate image, as evidenced by a path coefficient of 0.18. It is evident that improvements in business reputation are linked to the implementation of eco-friendly marketing strategies, although the strength of this connection is moderate.

With a path coefficient of 1.50, it is evident that Corporate Image holds considerable sway over Brand Perception. There is a strong indication that an enhanced corporate image significantly influences how the brand is perceived. In addition, the adoption of green marketing practices is greatly impacted by brand perception, as evidenced by a

path coefficient of 0.60. It is evident that a positive brand image plays a crucial role in the implementation of eco-friendly marketing strategies. The adoption of green marketing practices is significantly influenced by overall success, as evidenced by a path coefficient of 0.30. Research suggests that there is a strong link between the performance of organisations and their use of green marketing techniques. It appears that successful organisations are more likely to embrace environmentally-friendly marketing strategies. Brand Perception has a stronger impact on the adoption of Green Marketing Practices compared to Overall Success.

In conclusion, the model highlights the significant role that company image and brand perception play in encouraging the adoption and execution of environmentally conscious marketing strategies. Recognising brand perception as a crucial factor, it underscores the importance of positive consumer opinions in promoting sustainable marketing practices. It suggests that successful organisations have a greater ability to adopt environmentally friendly practices. This approach provides a comprehensive understanding of how the image of a company, the perception of its brand, and its overall success all contribute to the adoption of green marketing techniques.

V. Major findings of this study

5.1 Demographic analysis

1. There is a clear gender disparity, with male participants being more prevalent
2. 36-45 years is the most populous demographic, accounting for 38.50% (52 responses)
3. Majority of people work in smaller organizations with less than 5,000 employees, making up 51.90% (70 responses) of the total sample. Another significant group is made up of organizations with 15,001-45,000 employees, representing 25.20% (34 respondents)
4. Majority of the respondents possess a considerable amount of experience ranging from 10 to 20 years
5. overwhelming majority of respondents (97.00%, 131 respondents) earn more than Rs. 20,000

5.2 Reliability analysis

The Cronbach's Alpha coefficient of 0.956 demonstrates a strong level of internal consistency among the items, indicating that the scale consistently measures a unified concept.

"Green marketing practices have shown improvements in value and performance" and "Green marketing practices have a significant impact on customers' intention to repurchase by enhancing value" exhibit stronger correlations with the overall construct (0.499 and 0.779, respectively)

5.3 Correlation analysis

There is a strong and positive correlation between Corporate Image and both Overall Success (0.724) and Adoption of Green Marketing Practices (0.822).

There is a strong positive link between the adoption of green marketing practices and brand perception, as evidenced by a value of 0.905

Strong correlation between Brand Perception and Overall performance (0.789) highlights the important impact that brand perception has on a company's overall performance.

The strong correlation between Overall Success and Corporate Image (0.724) and Brand Perception (0.789) highlights the interdependence of these factors in shaping a company's achievements

Green Marketing Practices shows strong positive connections with three other variables: Corporate Image, Brand Perception, and Overall Success.

It is found that companies that have a positive corporate image are more inclined to adopt and put into practice green marketing methods.

5.4 Hypothesis testing

This study reveals a strong correlation between a positive business image and a high adoption of green marketing practices. The Chi-Square test results provide statistical validation of these observations.

The Pearson Chi-Square value is 313.471 with 16 degrees of freedom, and the P-value is 0.00, indicating a highly significant result ($P < 0.05$).

It is evident that there is a strong correlation between corporate image and the implementation of green marketing methods. The Likelihood Ratio test yielded a significant value of 247.097 with a P-value of 0.00, indicating a statistically significant relationship.

5.5 SEM model

The adoption of green marketing practices is significantly influenced by corporate image, as evidenced by a path coefficient of 0.18. It is evident that improvements in business reputation are linked to the implementation of eco-

friendly marketing strategies, although the strength of this connection is moderate.

VI. Recommendations and conclusions

As green marketing practices has a strong positive impact on organizational performances and outcomes, it is concluded that green marketing practices would be the definitive futuristic strategy for IT companies in Delhi NCR region. Proactive and purposive strategies must be created using digital marketing which can give competitive excellence & advantage. Green marketing strategy provides value additions to the product as it also enhances customer involvement and engagement which leads them to delight. Viral marketing, affiliate marketing and online live streaming could influence green marketing strategies as it can lead to sustainability of IT companies in Delhi NCR region. This would result in increase in sales and overall performance of organizations which can lead to growth and inclusive development in India.

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