

INDIAN GREEN MARKETING PRACTICES TOWARDS SUSTAINABLE INNOVATION AND MARKET PERFORMANCES**Arfa Siddiqui**

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ABSTRACT

The globe has evolved, transformed and outlived human expectations and frameworks. New ways of living, mindset with cross cultural living and adaptation has become the modern way. Techno orientations and focus since 17th century with industrial revolution has changed our outlook, thinking and relationships. Man has become more mechanized and individual as the principles of collectivism is far from reality. This individual short term oriented living has been the contributions of the west, as we could see the contaminated cascading effects in India also. This country has been an eco preservative country – as this is also the only country which worships plants, trees and animals. These shows the cultural and socio economic coordinates are very strong for eco friendly collective living. But Indians have lost track and there is a need to collectively retrieve this cultural coordinated integrated living with nature. Indian organizations have become more purposive and focused as they have also learnt to be more basic and unique with green orientations. Indians love and admire nature as this could give unique marketing strategies, market advantages and competitive excellence. This research is an investigation in to the green marketing strategies which are implemented by Indian companies. The challenges, problems and issues which they face in effective green marketing strategies are also explored in this study. The study also evaluates the role and impact of green sustainable innovation and its effects on market performances in India. This study is exploratory and conclusive. This study is empirical and quantitative in its purpose and approach. For this study primary data would be collected from 75 Indian marketing managers who are involved in green marketing implementation for the last five years. This study focuses only on Indian companies which have implemented green marketing practices for the last five years. data analysis would be done using SPSS as suitable recommendations, suggestions and conclusions would be provided. In this study it would be proven that green marketing can be successful with top management orientation, team culture, work place freedom, autonomy and resource support.

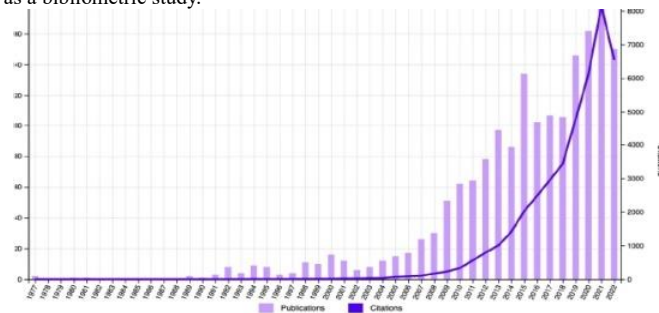
Keywords: Green Marketing excellence and competitive advantage, green product and process innovations, social value, ethical considerations, customer intentions and interest

Introduction

The Indian marketing environment has been functional, dynamic vibrant and operative in the last decade. The country has developed indigenous strategies & approaches which has changed the global marketing landscape & its operations. This country operates on a different way as the consumers expect quality at a cheaper price. MNC have developed unique strategies which has made their products a part of their human living and psyche. Value additions are a part of Indian psychology as more has been provided as an operative benefit which has reaped profits. Preservation of nature and environment has been a part of Indian human nature – as the focus on this had lead to product sales and performance outcomes. So green environment and preservation of nature has been a part of Indian civilization and culture as we have worshipped trees and animals. We have taken special care to protect them. Coexistence has been our nature which is in total contrast to destructive principles of western civilization. India has shown environmental preservation and cultural resilience which has been the role model economy for the globe. However it is also evident that effective implementation of green marketing strategies has been slower due to the industrialization and its effects. The world has become more polluted and individualized more. The Indian principles of collectivism and eco friendly living have been lost as we try to revive this in global living also. India has always been a role model on these aspects and it's evident that academic research studies have been limited on green marketing practices, challenges, problems and issues. There is need for proactive green marketing researches which could provide new dynamism, impetus and directions towards it. This research is an exploration in to the aspects of green innovation and its impact on market performances in Indian context. As academic empirical researches have been very limited this research is an attempt to reduce this research gap which is evident now. The next section would deal with review of literature.

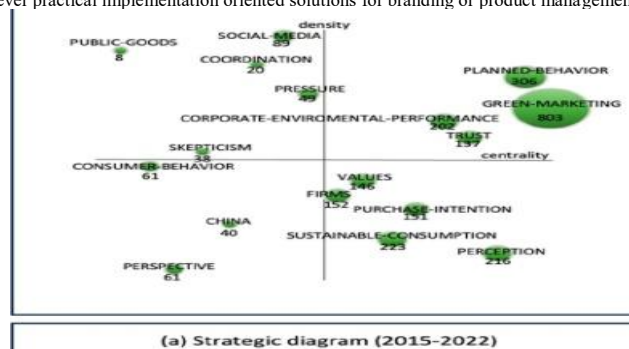
Review of literature

Lievano Pulido, Y.P. and Ramon-Jeronimo, M.A., 2023 had done research on the aspects, dimensions of green marketing which has provided new perspectives and thinking. This study has been done as a bibliometric study.



Source: Lievano Pulido, Y.P. and Ramon-Jeronimo, M.A., 2023

It is evident that green marketing has been an active academic research area of pursuit by research scholars and academicians. The various dimensions which are researched are supply chain mechanism of green products, product management strategies and green marketing, green washing and implications, green branding with implications, green product management and CSR roles, problems of sustainability and liability of green products and services, marketing issues related to marketing and green orientations, purchase intention of green products with impact & consumption of green products with customer loyalty, satisfaction and happiness. Researches also indicated that theory of planned behavior and institutional theories have been explored and researched as very limited theoretical models have been framed and implemented on marketing of green products and services. Stakeholder theory and signaling theories have also contributed to this field however practical implementation oriented solutions for branding or product management is lesser in nature.



(a) Strategic diagram (2015-2022)

Source: Lievano Pulido, Y.P. and Ramon-Jeronimo, M.A., 2023

It is evident that public goods & the role of social media, consumer behavior and coordination, CSR perspectives and value orientations, perceptions and orientations on sustainable consumption with its implications have been studied to a marginal extent as more academic researchers are needed in this direction. It is also evident that sustainable innovation and market performances as a dimension has not been researched or evaluated in Indian context as the implications on green marketing has to be assessed. So the research gap in this direction is evident as this research is an academic attempt to reduce it with an empirical perspective and orientation.

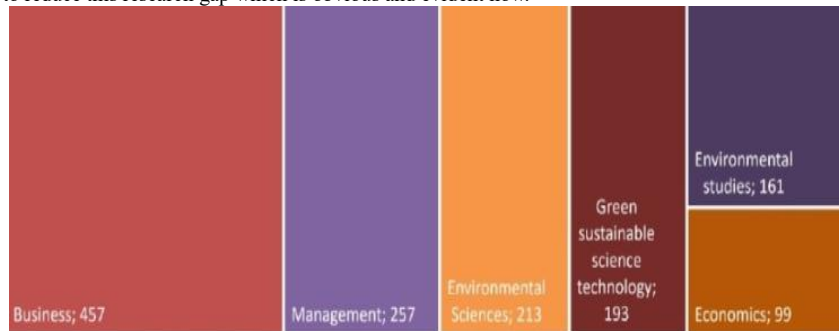
Michulek, J. and Krizanova, A., 2023 had done a bibliometric study on green marketing and its socio economic implications. This study also brings out the recent researches which have been done in the field as we could also understand the research gaps which are prominent in this field.

Green concepts and dimensions researched: 1991 to 2022

Keyword	Occurrence	Links	Total link strength
Green marketing	658	347	3,384
Sustainability	193	296	1,273
Behaviour	135	261	966
Consumption	108	238	865
Consumers	93	211	604
Green	74	195	499
Green marketing mix	19	79	130

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

It is evident that the concepts of sustainability along with behavior, consumption of customers, with green and green marketing mix has been researched to a larger extent. However the aspects of green marketing with particular reference to green innovation & market performances – has not been researched or evaluated as this research is an attempt to reduce this research gap which is obvious and evident now.

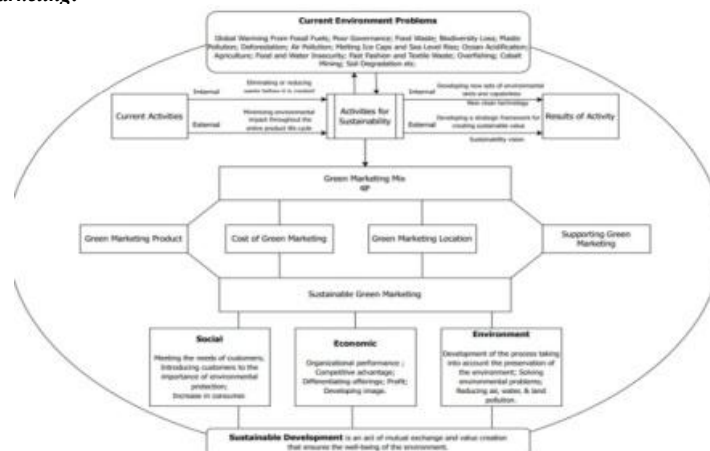


Source: Michulek, J. and Krizanova, A., 2023

It is also evident from the above diagram that green marketing as a concept has been extensively researched in business and management – still and yet more practical implementation oriented researches are very less in Indian context as this research is an attempt to reduce this research gap.

Kiyak, D. and Grigoliene, R., 2023 had done research on the conceptual orientation and framework for green marketing. It is evident that this research could provide new impetus and aspect on green marketing which could be researched and evaluated in future.

Conceptual framework for green marketing:

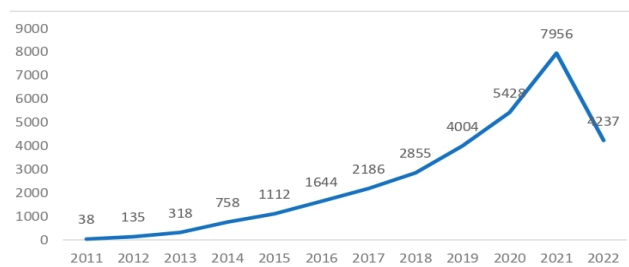


Source:Kiyak, D. and Grigoliene, R., 2023

It is evident from this research that sustainable development and socio economic environmental aspects have not been researched or evaluated. This could lead to green innovation and improved market performances. However it is also evident that Indian green marketing practices and their orientation towards green sustainable innovations and its positive impact on market performances has not been evaluated or studied as this research is an empirical attempt towards it.

Bhardwaj, et.al(2023) had done bibliometric study on the research status on green marketing. This study has been done for the period 2005 to 2022. This study has been done with Scopus based researches. This has been done in University of Pune.

YOY - Citation analysis



Source: Bhardwaj, et.al(2023)

It would be happy to know that researches done on green marketing is increasing on a regular year to year basis, the citation analysis clearly indicates that Scopus related citations has been reduced to a greater extent. This would have larger and greater implications on the nature and quality of academic researches conducted. So this research is an empirical attempt to reduce this research gap which is evident.

Alkhatib, S.et.al 2023 had done research on digital green marketing strategies and its implications. This study has been done as a conceptual paper. This study also has a systematic literature review approach. In this study it has been found that green digital marketing has been an emerging research area as new academic empirical researches are needed in this direction. This study is confined to the period 2012 to 2022. This study has evaluated 30 researches conducted in this field using specific database – web of science. It is also evident that academic researches on green marketing and its implications on green sustainable innovation and market performances has not been evaluated or studied as this research is an attempt in Indian context for the first time ever. Correia, E.et.al 2023 had done an empirical study focusing on the aspects of green marketing, demographic factorial impact on green purchases and behavior. This study has been done online in Portugal as the data has been collected from young respondents over 18 years. In these study valid responses has been collected from 690 people. It is found in this study education and gender has a stronger influence on green marketing communications. It is also evident that women tend to be more responsive towards green marketing communications to a larger extent than men. Atiq, R. et al. (2024) have examined responsible consumption practices in the Indian context, focusing on sustainable consumption linked to SDG 12. Their qualitative research highlights that consumer behaviour towards pre-owned and eco-friendly products is increasingly shaped by sustainability values, which directly resonates with green marketing orientations. Similarly, Fatima, A. et al. (2024) have analyzed the evolution of sustainable marketing practices in emerging Indian industries, emphasizing how eco-conscious consumer choices are reshaping product positioning and brand strategies. Both studies underline the need for empirical research on green sustainable innovation and its market performance implications in Indian organizations.

Research gaps

1. It is found that more conceptual and bibliometric, SLR studies have been done on green marketing in 2023
2. The lack of empirical research studies in green marketing as such is clearly evident
3. The dimensions of green marketing – green innovation and market performances has not been studied or evaluated which needs to be done
4. It is also evident that these aspects and dimensions have not been evaluated in Indian context which needs to be done.
5. Empirical research studies on green marketing is found to be very limited as this research gap needs to be focused more
6. Empirical research studies on green sustainable innovation and market performances has not been attempted in Indian context which needs to be done
7. The need for more practical implementable solutions for Indian green marketing organizations is evident in this review.

So this research is an attempt to reduce these research gaps which are evident and obvious. This research is an empirical attempt which could provide new focus, dimensions, perspectives, strategies for Indian green marketing organizations as well.

Indian studies on green marketing

Basavaraj Nagesh Kadamudimatha(2016) had done research study on green marketing and its status in Indian context. This study has been done as a conceptual paper. This study shows various problems, issues, dimensions, challenges in Indian green marketing. In this study the emergence of green marketing has been evaluated. The origins from ecological marketing and its transition to environmental to sustainable green marketing has been found. The study provides a analysis on various green marketing initiatives taken in India. However there is a lack of empirical approach as this research is an attempt on it. It is also found that research studies on green innovation and market performances has not been researched in Indian context as this study is an attempt on it. Sapna Devi(2018) had done a research study on Green marketing and its prevalence in Indian context. It is found that most of the Indian organizations have adopted green marketing but the challenges, problems and issues in implementation has not been academically researched or empirically validated as there is a huge gap in this direction. This study provides a conceptual orientation on green marketing challenges. However there is a need for more academic empirical researches on green innovation and market performances in Indian context as this research is an attempt on it. V. Sai Prasanth et.al(2018) had done an evaluative study by assessing the impact of green marketing practices in Indian context. This study has been largely conceptual in nature and it provides information on various green marketing practices adopted in Indian companies. This clearly indicates the need for more empirical and purposive implementation oriented researches on green marketing in India. This research is an attempt to reduce this research gap which is evident as it would explore in to the dimensions of green innovation and market performances. As these concepts and aspects has not been explored or studied it could provide new impetus, directives and strategies for effective management of green marketing practices in India towards 2030.

Ankit Singh(2019) had conceptually traced the evolution of green marketing and its implications in Indian market in this study. The study also evaluates the relationship between green marketing and green patenting. The role of patenting and its impact on green marketing practices has been evaluated in this study. However it is evident that empirical research studies have not been done on Indian green marketing initiatives as this study is an attempt on it. The aspects green innovation & market performances has not been evaluated in Indian context as this research is an empirical attempt on it. Khan, F.S. and Mazhar, S.S. (2015) have highlighted the importance of corporate social responsibility (CSR) as a key driver of ethical and sustainable organizational practices in Indian companies, which directly underpins the philosophical foundation of green marketing. Their study establishes that Indian corporations have a legal and philanthropic obligation to integrate socially responsible practices into their operations — an orientation that is foundational to green marketing strategies. Furthermore, Mazhar, S.S. et al. (2024) have demonstrated that Indian consumer preferences and behaviour are increasingly shaped by digital and market innovations, suggesting that green marketing communications must evolve to meet digitally savvy consumers. Bisaria, G. (2014) further observed that advertising and marketing education in India has a critical role in shaping organizational marketing practices and consumer awareness, which has significant implications for how green marketing messages are designed and delivered by Indian companies. These studies collectively reinforce the need for deeper empirical investigation into how Indian organizations can leverage green sustainable innovations for superior market performances.

Research gaps: Green marketing in India

1. The focus on green marketing by Indian and Global companies has forged interest on Indian academicians and research scholars to pursue this dimension.
2. Although research studies have been done on green marketing in India it could be seen that it has become more popular and prominent after 2018
3. Most of the academic researches have been conceptual in nature as empirical researches have to be done more
4. Practical application-oriented implementation aspects and challenges of green marketing in Indian context has not been studied which needs to be done empirically.
5. The aspects of green sustainable innovation and market performances has not been researched in Indian context empirically – so this research is an attempt in this direction which could provide new dimensions, issues, strategies, implementation mechanism and futuristic progressive pathways towards 2030.

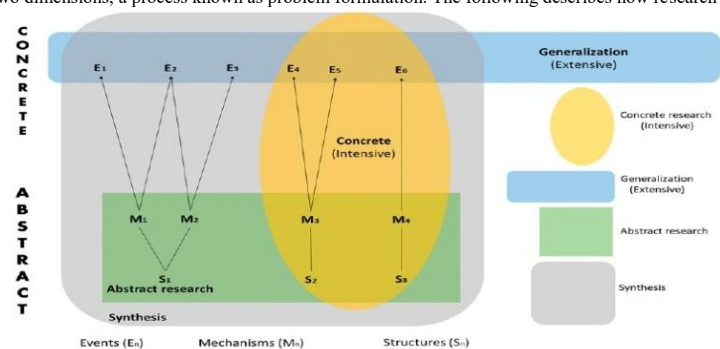
So this research is an empirical attempt in this direction, which can reduce the research gaps which are prominent and obvious now. The next section would deal with the research methodology aspects.

Research methodology: Research is an empirical process that, by offering objective, goal-oriented methods, can eliminate all subjectivity. As academics and professionals from a variety of international industries go about their daily business and social lives in pursuit of answers to a wide range of problems that vary in intensity and nature, this never-ending pursuit of questions and answers is a world of intellectual joy and treasure. Finding previously undiscovered results, tactics, outcomes, and solutions is a novel undertaking. The method is scholarly. {Mukumbang, F.C., (2023) which offers professionals in the field useful insights as well. This is an ongoing quest for novel results and strategies that can alter our viewpoints, ways of thinking, and mental orientations. It provides new information and tested, implementable strategies based on consumer thinking. Since it can provide altered methods and mechanisms, this path guarantees reality and truth.

Steps in research process

Problem identification & formulation : Although the words are similar in nature, they differ greatly because they have more profound implications and potential outcomes. They are a component of the study that addresses two opposing viewpoints that are conclusive in identifying the appropriate field for further investigation. It is the pursuit of an issue that needs to be investigated, assessed, and examined in order to generate novel approaches and public involvement. As researchers work toward positive results and innovative solutions, this search is also joyful.

Following that, the researcher conducts a thorough investigation into the issue, which may reveal three, four, or more related issues. Now, the seemingly straightforward problem-solving process may appear more intricate. In order to make it easier for scholars to finish it on time, the researcher now limits its content, variables, and dimensions. The problem is now framed by the researcher in one or two dimensions, a process known as problem formulation. The following describes how research is carried out and its effects:



Source: Mukumbang, F.C., (2023).

This research is an exploratory attempt in to the existing problems and issues concerning green marketing in Indian context. The study evaluates the role of green innovation and market performances in Indian context.

Dimensions of the study

Independent variable: Indian Green marketing practices & strategies

Moderating variable: team personality, team culture, work place freedom, autonomy, top management orientation, resource support, green brand, customer intention and purchases

Outcome: strategic differentiation and competitive excellence of Indian companies

Dependent variable: green innovation with Superior sustainable market performances 2030

Focus of the study

This study focuses on Indian green marketing practices & sustainable innovation which leads to superior competitive excellence with market performances.

Need for the study: Indian organizations have evolved over a period of time. The need to be focused on the consumers and their needs are more eminent now, than ever before. Indian companies strategically innovate to provide competitive excellent products and services which has a unique brand identity in global markets. The Indian market has become more automated and production oriented which has affected the socio economic culture and behavior. Climate change and global warming has happened as we have failed to manage the environmental ecosystems properly. The issues and challenges which have arisen are multifold which needs to be researched. There is a need for a focused strategy towards long term benefits and sustainability of our economy. This study is an empirical attempt which provides strategies and solutions on Indian green marketing practices which lead to market performances and green sustainable innovation. This research is an attempt which directs towards the contemporary needs and issues of Indian organizations – so this research is an attempt in this direction.

Problem statement: Indians by nature have coexisted with nature naturally which is their biological instinct. They have always focused on environmental preservation and eco diversity as this could be the only country where trees, plants & animals are worshipped as Gods. It clearly indicates the importance Indians have given for preserving and coexisting with nature. This natural existence has given them long life and human well being which has been the history of the past. Unfortunately we have become more mechanized and socially civilized that we improve our society with ecological imbalances for economic advantages. There is a need for eco preservation and conservation of environment which has been effectively implemented by Indian companies. Although the need for green orientation is emphasized in Indian companies – there is a need to evaluate the challenges, issues, problems related to it. The green products must be superior and services have to be excellent as consumers would prefer it. This marketing orientation has been provided for Indian companies – but the problems and issues which lead to green sustainable innovation & superior market performances has not been studied or evaluated. This study intends to provide strategies and solutions which can lead to green sustainable innovation & superior market performances.

Aim of the study: This study aims to evaluate the various challenges and issues in Indian green marketing practices. This study aims to determine the approaches which lead to green sustainable innovations. This study also aims to study the impact of green sustainable innovations on superior market performances of Indian companies.

Research type: This research is exploratory and conclusive in nature. This research explores in to the ways and means for Indian green marketing towards green sustainable innovation and superior market performances. This study is conclusive as it would provide strategies and solutions towards 2030 for it.

Research method: This study is empirical and quantitative in nature. This study would involve survey method as information would be collected from marketing managers working in Indian companies which have implemented green marketing practices for the last five years.

Objectives for the study

1. To evaluate the various challenges and issues in Indian green marketing practices.
2. To determine the approaches which lead to green sustainable innovations.
3. To study the impact of green sustainable innovations on superior market performances of Indian companies

Hypothesis for the study

H1: Challenges on implementation lead to superior market performance of Indian organizations

H1: Green sustainable innovations have a positive effect on superior market performances of Indian organizations

Sample

Sample unit: Marketing managers

Sample size: 75

Sample coverage: All India study

Type of sample: stratified random sampling method is used in this study. The sample would be stratified based on age, income, gender, organization and years of experience in green marketing practices.

Data collection

Primary data for the study would be collected using survey method with questionnaire tool. Primary data would be collected from 75 Indian marketing managers who are working with green marketing implemented organizations. These managers would have at least 5 years of experience in handling green marketing strategies, practices and approaches. Secondary data for the study would be collected from all published sources since 2018 till now.

Data analysis

Data analysis method: The structured questionnaire would be used to gather primary data from Indian marketing managers on a variety of topics, including demographics such as age, income, organization, and gender {Akoka, J. et al. 2023}, as well as the kinds of green marketing products offered. A seven-point Likert scale—strongly disagree, disagree, somewhat disagree, agree or disagree, somewhat agree, and agree—would be used to gather the data. This information would be uploaded into SPSS software after being entered into an Excel sheet. After analyzing the data, this software would produce findings.

1. To determine whether there is a relationship between two factors and whether it is significant, correlation analysis would be performed. For instance, the relationship between age and the selection of green marketing products could be assessed; if the score is greater than 0.5, it indicates a positive relationship between the two factors; if it is less than 0.5, it indicates no relationship; and a score of 0.8 or higher indicates a strong relationship.
2. Regression value and significance: The regression score would evaluate how the variables listed in the hypothesis relate to one another. In this case, a score of 0.05 indicates that the variables do not actually differ, and the null hypothesis may be rejected.
3. Factor analysis: It is a test conducted to know the most significant factors which lead to increased green market performances for Indian companies. It could be concluded that green sustainable innovations in Indian companies would lead to superior market performances and outcomes.
4. In this analysis 4 to 5 major factors could emerge which are important for effective green marketing implementation towards 2030.
5. This provides an overall comprehensive empirical strategy towards improving the effectiveness green sustainable innovation towards 2030.

Scope and limitations

1. This study pertains to Indian companies only
2. The study is done on green marketing practices along with green sustainable innovation & superior market performances as other dimensions do not form a part of this study.
3. Data analysis is done using SPSS as no other statistical tool has been used.

Data analysis and Interpretation**Table 1: Demographic analysis**

Age	Frequency	Percent
Below 20 years	18	11.80
21 - 25 years	51	33.60
26 - 30 years	46	30.30
31 - 35 years	20	13.20
36 - 40 years	7	4.60
41 - 45 years	10	6.60
Gender	Frequency	Percent
Male	75	49.30

Female	77	50.70
Education	Frequency	Percent
Undergraduate	59	38.80
Masters	35	23.00
Professional	58	38.20
Total years of experience	Frequency	Percent
1 - 5	49	32.20
6 - 10	97	63.80
More than 10	6	3.90
No. of years in the same company	Frequency	Percent
1 - 5	131	86.20
6 - 10	21	13.80
More than 10	152	100.00
Income per month	Frequency	Percent
Below INR 20,000	21	13.80
INR 20,000 - INR 40,000	28	18.40
INR 40,000 - INR 80,000	35	23.00
Above INR 80,000	68	44.70
Has your company implemented green marketing practices?	Frequency	Percent
Yes	148	97.40
No	4	2.60
Have you implemented green marketing practices in your process	Frequency	Percent
Yes	150	98.70
No	2	1.30
Total	152	100.00

According to the age distribution, the majority of the sample, which accounts for 63.9% of the total, is comprised of individuals between the ages of 21 and 30. With a percentage of 33.6%, the age range of 21–25 years old is the largest, followed by the age group of 26–30 years old with 30.3%. Based on this, it seems that the majority of participants are in the beginning phases of their careers, which implies that they are likely associated with entry-level to mid-level professional roles. Only a small percentage of the senior age group is represented in this sample; around 11.2% of individuals over the age of 35 have a modest presence of experienced workers in this sample. Women make up 50.7% of the sample, while males make up 49.3% of the sample. This indicates that the gender distribution is about equal. Because to this harmonisation, gender-related biases are reduced, and a thorough insight of attitudes and activities about green marketing strategies is provided. As a consequence, a gender-neutral analysis of the data is made easier. There is a wide range of educational levels; the biggest group consists of undergraduates, which accounts for 38.8% of the students, closely followed by professionals, who account for 38.2% of the students and most likely have certificates or particular professional degrees. Twenty-three percent of the sample had master's degrees, which indicates that a number of respondents have sought additional education, therefore providing them with a solid knowledge basis for comprehending and putting into practice green marketing principles. Sixty-three point eight percent of the staff members have a cumulative experience that ranges from six to ten years, which indicates that they have strong exposure to the sector while still being able to adapt to modern methods such as green marketing. There are just 3.9% of professionals in this category who have more than ten years of experience, which is a significant under-representation of professionals who have vast experience. Notably, 86.2% of respondents had been working at their present organisation for a period of time ranging from one to five years, which indicates a substantial amount of mobility or employment that is quite recent. Long-term loyalty within this group is significantly lacking, as seen by the fact that only 13.8% of employees have maintained employment with the same company for a period of six to ten years. Given the brief period of the event, it is possible that attendees are more receptive to novel ideas, such as environmentally conscious marketing techniques that are in line with contemporary methods of doing business. According to the distribution of income, 44.7% of members have a monthly income that is more than 80,000 Indian Rupees, while 23% have a monthly income that falls between 40,000 and 80,000 Indian Rupees. This tendency for higher income levels may be indicative of a population that has a certain degree of financial stability, which in turn influences their readiness to support or participate in actions that are environmentally sustainable. The fact that just 13.8% of the sample consisted of people with incomes of less than 20,000 Indian Rupees (INR) suggests that there is a preference for persons with middle- and upper-incomes. A substantial majority of respondents, 97.4%, have indicated that their organisations make use of environmentally friendly marketing strategies. An even greater number, 98.7%, have reported that they individually adhere to such guidelines in their employment. A solid organisational and individual devotion to ecologically sustainable practises is shown in the substantial degree of adoption that has been observed. This dedication may have been motivated by understanding of ecological concerns, adherence to rules, or the expanding market demand for sustainable projects.

Table 2: Correlation analysis

Correlations	Green Sustainable Innovations	Challenges on Implementation	Green Brand	Superior Market Performance
Green Sustainable Innovations	1	.945**	.787**	.785**
Challenges on Implementation	.945**	1	.810**	.806**
Green Brand	.787**	.810**	1	.939**
Superior Market Performance	.785**	.806**	.939**	1

The result of 0.945 indicates that there is a very significant link between the efforts that are being made in sustainable innovation and the obstacles that are being faced in their implementation. Consequently, this demonstrates that businesses encounter significant operational and financial hurdles when implementing environmentally friendly technologies, which highlights the need of having sufficient resources and assistance to solve these particular issues. Given that there is a connection of 0.787 between green branding and sustainable innovations, it can be deduced that businesses who make investments in environmentally responsible activities often see an improvement in their brand image. This link shows that environmentally friendly technology may improve a company's image for being environmentally responsible, which in turn attracts customers who are environmentally conscientious.

The fact that there is a connection of 0.785 between environmentally friendly inventions and commercial performance suggests that sustainable practices are a factor in the success of the market. It is possible that green innovators would gain from the demand from consumers for environmentally friendly goods and improved operational efficiency, which will ultimately strengthen their position in the market. There is a strong correlation of 0.810 between the two variables, which indicates that businesses who have a great green brand often have more difficulties in implementation. It is possible that this is an example of ambitious green projects that are connected with a powerful brand that adheres to tight regulations, which makes it difficult to carry out these activities.

The correlation coefficient of 0.806 suggests that businesses who are successful in overcoming obstacles in the process of green adoption often have improved market performance. If these issues are addressed, it is possible that market attractiveness and brand credibility will increase, which will ultimately strengthen the position of the brand. The correlation coefficient of 0.939 suggests that when it comes to establishing commercial success, having a strong green brand is very necessary. Strong brands that are environmentally conscious attract customers, cultivate brand loyalty, and maybe increase income, which in turn quickly improves market performance.

Table 3: Regression analysis

ANOVA ^a	Sum of Squares	df	Mean Square	F	p value
Regression	271.271	3	90.424	393.702	.000b
Residual	33.992	148	0.23		
Total	305.263	151			
Coefficients ^a	B	Std. Error	Beta	t	p value
(Constant)	0.01	0.105		0.093	0.93
Green Sustainable Innovations	0.048	0.084	0.049	0.574	0.57
Challenges on Implementation	0.085	0.086	0.088	0.983	0.33
Green Brand	0.865	0.049	0.83	17.621	0.00

^a a Dependent Variable: Superior Market Performance

The analysis of variance (ANOVA) table, which has a value of $F = 393.702$ and a p -value of 0.001 , displays a regression model that is statistically significant. This indicates that the general model is responsible for a large amount of the variation in Superior Market Performance. It is clear that the model provides a good fit since its Sum of Squares for Regression is 271.271 , which is much higher than the Residual, which is 33.993 . The Green Brand has a substantial beneficial effect; the performance of specific markets is less impacted by challenges pertaining to the application of sustainable technology. The fact that this is the case suggests that while sustainable actions are important, the green image of the company is the key factor that contributes to its financial success.

Table 4: Reliability analysis

Reliability Statistics	
Cronbach's Alpha	N of Items
0.771	13

Given that there are thirteen elements on the scale, the table of reliability statistics reveals that the Cronbach's Alpha value is 0.771 . Cronbach's Alpha is a statistic that is used to evaluate internal consistency. It provides an indication of the overall degree of interrelatedness associated with the items. The result of 0.771 , which is higher than the generally recognised criterion of 0.7 , shows that the dependability is satisfactory. Indicating that the components of the scale are reasonably steady when assessing the main concept, this degree of dependability suggests that the scale is very reliable.

Table 5: Chi-square analysis 1

	Superior Market Performance					Total
	To an extremely small extent	To a small extent	To a moderate extent	To a large extent	To an extremely large extent	
Green Sustainable Innovations	To an extremely small extent	To a small extent	To a moderate extent	To a large extent	To an extremely large extent	
	13	8	0	0	5	26
To a small extent	17	5	0	0	0	22
To a moderate extent	0	0	22	5	0	27
To a large extent	0	0	4	30	4	38
To an extremely large extent	0	0	0	14	25	39
Total	30	13	26	49	34	152
Chi-Square Tests	Value	df	p-value			
Pearson Chi-Square	266.574a	16	0.00			
Likelihood Ratio	261.939	16	0.00			
Linear-by-Linear Association	93.038	1	0.00			

The cross-tabulation reveals a definite pattern: the degree of superior market performance increases in tandem with the increased adoption of green and sustainable innovations by businesses. In the category of Superior Market Performance, the individuals who have the greatest frequency are those who have reported applying Green Sustainable Innovations to a substantial or extensive degree. Based on this trend, it seems that more participation in sustainable ideas is somewhat connected with higher commercial success. The Pearson Chi-Square value of 266.574 and the associated p -value of $p < 0.001$ demonstrate that there is a statistically significant connection between Green Sustainable Innovations and Superior Market Performance. Due to the fact that the p -value is lower than 0.05 , we are able to reject the null hypothesis, which means that we can confirm the existence of a meaningful association. A further demonstration of the non-random character of the connection is provided by the higher chi-square value.

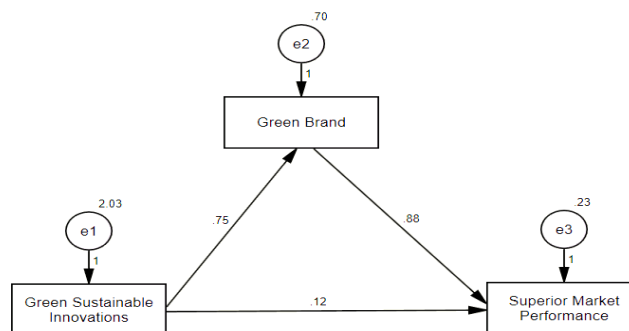
Based on the results of the Linear-by-Linear link test ($93.038, p < 0.001$), it can be concluded that there exists a strong linear association between the level of sustainable innovations and the level of marketplace success. This points to a progressive connection in which higher degrees of commercial success are correlated with increased levels of application of sustainable principles. The findings of this study indicate that the application of Green Sustainable Innovations results in a considerable improvement in the performance of businesses, hence highlighting the economic benefits that are associated with sustainable practices.

Table 6: Chi-square analysis 2

	Superior Market Performance					Total
	To a extremely small extent	To a small extent	To a moderate extent	To a large extent	To a extremely large extent	
Challenges on Implementation	To a extremely small extent	To a small extent	To a moderate extent	To a large extent	To a extremely large extent	
	22	4	0	0	5	31
To a small extent	8	9	0	0	0	17
To a moderate extent	0	0	18	5	0	23
To a large extent	0	0	8	30	4	42
To a extremely large extent	0	0	0	14	25	39
Total	30	13	26	49	34	152
Chi-Square Tests	Value	df	p value			
Pearson Chi-Square	261.574a	16	0.00			
Likelihood Ratio	252.126	16	0.00			
Linear-by-Linear Association	98.183	1	0.00			

According to the cross-tabulation, there is a strong association between the two variables, and businesses that indicate "to a large extent" or "to an extremely large extent" also demonstrate significant levels of Superior Market Performance. Companies that are able to overcome considerable obstacles in the implementation process often report being more successful in the market. This suggests that those companies who are able to overcome big obstacles typically have better market outcomes. There is a statistically significant connection between implementation problems and superior market performance, as shown by the p -value of 0.001 and the Pearson Chi-Square value of 261.574 found in the calculation. That this link is not likely to be the result of random chance is confirmed by the fact that the p -value is low, which provides evidence that the null hypothesis should be rejected. Based on the results of the Linear-by-Linear Association test, it is evident that the association exhibits a strong and positive linear trend ($98.183, p = 0.001$). The existence of this linear connection suggests that a more difficult adoption of sustainable practices is associated with greater market performance. This might be due to the fact that overcoming challenges may have the potential to build innovation and resilience. According to the findings of the study, despite the fact that implementation hurdles are large, overcoming them is associated with improved market performance. This highlights the potential benefits that may be gained by persevering through barriers in sustainable projects.

Mediation analysis



A value of 0.12 indicates that the direct approach that Green Sustainable Innovations takes to achieve superior market performance has a negative direct influence that is only somewhat favourable. According to this coefficient, the Superior Market Performance improves by 0.12 units for every unit rise in Green Sustainable Innovations. This is the case even if all other factors remain same. Since this effect is quite minor, it is possible that Green Sustainable Innovations on their own might have a limited influence on market performance if other variables are not taken into consideration. The technique shows that there is a more considerable indirect road via which Green Sustainable Innovations affect Superior Market Performance. This pathway is brought about by Green Brand. As shown by the coefficient of 0.75 , which indicates a strong positive association between Green Sustainable Innovations and Green Brand, a growth in green innovations considerably boosts the perception and strength of the green brand. This is the case because green innovations are more environmentally friendly. A strong green brand has a coefficient of 0.88 , which indicates that it significantly improves market performance. This is shown by the fact that the route from Green Brand to

Superior Market Performance has a coefficient. It seems from this that their influence on the development of a strong green brand may be responsible for mediating a sizeable percentage of the benefits that Green Sustainable Innovations bring to enhanced market performance.

According to the findings of research conducted on mediation, Green Brand plays a key role as a mediator in the connection between Green Sustainable Innovations and Superior Market Performance. By demonstrating that the existence and strength of a green brand are necessary for translating sustainable concepts into competitive market advantages, the large impact of indirect effects (via Green Brand) indicates that this is the case. There is a clear reduction in the initial effect. To put it another way, businesses that support environmentally friendly innovations are far more likely to see improved market performance, especially when these ideas develop into a powerful green brand. The significance of brand perception in the use of sustainable practices for the purpose of gaining a competitive advantage is highlighted by this. Taking this mediation approach highlights the need of branding in order to capitalise on the financial gains that come with sustainable improvements. Based on this, it seems that businesses who invest in environmentally friendly technologies may be able to achieve amazing financial success, particularly via the development and marketing of a green brand. The results suggest that efforts should go beyond just adopting environmentally friendly practices; they should also invest in creating a brand that resonates with these values in order to maximise performance outcomes for businesses who are looking to improve their market position via sustainability.

Table 7: Mediation

Variable	Variable	Estimate	S.E.	C.R.	P
Green Brand	Green Sustainable Innovations	0.752	0.048	15.685	0.00
Superior Market Performance	Green Brand	0.881	0.046	0	0.00
Superior Market Performance	Green Sustainable Innovations	0.119	0.044	2.705	0.01

The above table highlights the importance of Green Brand as a mediator between Green Sustainable Innovations and Superior Market Performance. The strongest relationship exists between Green Brand and Superior Market Performance, followed by the impact of Green Sustainable Innovations on Green Brand. This suggests that while green innovations are beneficial, their impact on market performance is maximized when they contribute to building a strong, recognizable green brand. Directly, green innovations have a positive but limited effect on market performance, indicating that their true value lies in enhancing the brand image, which then drives superior performance outcomes.

In conclusion, the data underscores the strategic importance of promoting green innovations in a way that enhances brand perception. Companies seeking market gains from sustainability efforts should prioritize branding initiatives that highlight their green innovations, as this approach is more likely to result in significant market advantages.

Major Findings:

1. Majority of the sample respondents are in the age group of 21-25 years
2. Majority of the sample respondents are female
3. Majority of the sample respondents are under graduates
4. Majority of the sample respondents are having 6 to 10 years of work experience
5. Majority of the sample respondents are working in the same company for the last one to five years
6. Majority of the sample respondents are earning more than 80,000 INR per month
7. All these Indian organizations have implemented green marketing practices
8. All the marketing managers have agreed that they have implemented green marketing practices in their process

Correlation, regression & mediation analysis

1. Green sustainable innovation is directly correlating with green branding and challenges in green marketing implementation.
2. Major green marketing challenge lies in green marketing as there is a positive correlation between these two factors
3. Superior market performances are lead by green sustainable innovation & green branding
4. Regression analysis shows that the Green Brand has a substantial beneficial effect; the performance of specific markets is less impacted by challenges pertaining to the application of sustainable technology
5. Chi square test reveals the strong association between the level of sustainable innovations and the level of marketplace success
6. Chi square test also shows the existence of linear connection which suggests that a more difficult adoption of sustainable practices is associated with greater market performance
7. Mediation analysis clearly shows that Green Brand plays a key role as a mediator in the connection between Green Sustainable Innovations and Superior Market Performance
8. Mediation analysis shows that strategic importance of promoting green innovations in a way that enhances brand perception. Companies seeking market gains from sustainability efforts should prioritize branding initiatives that highlight their green innovations, as this approach is more likely to result in significant market advantages

Conclusion

It is concluded that green sustainable innovations has a stronger and greater impact on green branding. It is also evident from this study that green branding could be the greatest task in hand for Indian organizations as digital word of mouth could be the most effective strategy for promoting it. Green innovative market strategies like Live streaming and online product demos could provide better reach for green marketing products and services. These modern latest strategic tools have to be deployed by Indian companies which can enhance effective consumer engagement, reach and sales. Techno orientation and effective use of digital marketing tools could enhance green marketing promotions in Indian markets. This also can lead to sustainable market performances by Indian companies towards 2030.

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