

Role of Green Branding in Achieving Competitive Advantage in Automobile Industries**P Ramya**

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Abstract

In the face of growing environmental concerns and consumer awareness, green marketing has emerged as a strategic tool for organizations to align business goals with sustainability objectives. This study investigates the effect of green marketing strategies specifically green branding, green product features, green promotion, and green packaging on organisational performance and competitive advantage in the context of automobile industries in Chennai City. A structured questionnaire was administered to 102 respondents, and statistical analyses including percentage analysis, reliability testing, exploratory factor analysis, and regression analysis were employed to validate the research model. The results reveal a significant and positive influence of green marketing strategies on both organisational performance and competitive advantage. Among the constructs, green branding was found to be a major contributor to strategic differentiation and customer trust. The findings emphasize the need for automobile industries to adopt comprehensive green marketing initiatives not only to meet environmental regulations but also to enhance market positioning and long-term profitability. The study provides practical insights for marketing strategists and policymakers aiming to integrate sustainable practices into core business functions.

Keywords: *Green Marketing Strategies, Green Branding, Organisational Performance, Competitive Advantage, Automobile Industry.***Introduction**

The global automobile industry is undergoing a transformative shift due to increased awareness about environmental threats and growing consciousness among consumers about sustainable development. Increased pressure is being exerted by regulators, stakeholders, and consumers, compelling automotive companies to incorporate environmentally responsible practices in their core strategy. Among these, green branding has come to crystallize as one of the major differentiators that portray a company for its commitment to environmental values and sustainable development. Green branding refers to the strategic positioning of a company or product as environmentally friendly; therefore, branding is conveyed through eco-labels, green logos, sustainable packaging, and promotional campaigns with a green theme. It is considered the main industry for economic development and at the same time was also responsible for pollution in the country, especially in the industrial towns such as Chennai. To counterbalance the environmental and economic impact, the automobile firms have adopted a green branding approach in recent times. They do so with the intention of appealing to green consumers for trust and differentiation in a highly competitive environment. Green branding strategies should henceforth be interventions to gain sustainable competitive advantage through increased brand image, customer loyalty, and environmentalism.

Statement of the Problem

Despite the rising concern for environmental sustainability, there is still no clear understanding of the effectiveness of green branding toward the creation of competitive advantage, especially in the automobile industry. Several automobile companies in Chennai have embraced greener initiatives, but their green branding hardly resonates with the green-minded consumers and rarely contributes significantly to a quantifiable improvement in market positioning. In many instances, companies undertake these green practices more for compliance than for genuine strategic differentiation, thus limiting opportunities for marketing and customer engagement. Because of poor awareness and skepticism towards alleged "greenwashing" practices, green marketing is held as one more expensive "feel good" brand initiative with little or no return for the company. There is a need to fill this existing gap by way of resolving how green branding leads to sustainable competitive advantage in Chennai automobile industry. It tries to find out how consumers' perception of green brands relate to brand loyalty, whether green branding has an effect on market share, and whether companies spending on green branding achieve a better performance than competitors in reputation, innovation, and long-run profitability. It also explores whether demographic and psychographic characteristics of consumers influence their responsiveness toward green branding. A firm that wants to develop strategic advantage must understand these factors while fulfilling its environmental obligations.

Review of Literature

Along with Kumar, V., and Sharma, A., the year 2022 also saw the following work being done in India: The study explores the influence of green branding on client loyalty in the Indian context of the automotive industry. These research findings bring to the fore the strategic dimension of brand positioning in sustainable development.

The year of 2023: Chen, Y., and Huang, C. examined how green brand image may contribute, directly, to the operational performance of companies and how it may act as a driving force for sustainable competitive advantage in companies manufacturing automobiles at a global scale.

Ranjan, R., and Dey, S. (2022) explained green branding differentiates electric vehicle companies in India, emphasizing the influence that it has on successful market entrance and development in the long term.

The study of the impact of green branding across Asian countries by Nguyen, T. P., and Le, H. T. (2023) shows the importance that green branding has on capturing environmentally oriented consumer segments across Asia and positioning the brand on enter the market.

Patel, D., and Bansal, S. (2022) studied how green brand trust acts as a mediator upon influencing the purchase decisions and brand loyalty of Indian automobile buyers.

Objectives

- To investigate how establishing a green brand image affects gaining a competitive edge in the automotive sector.
- To examine how green product attributes might improve organizational effectiveness.
- To research how green marketing affects competitive advantage.

Hypotheses

H1: Green brand image has a significant positive influence on competitive advantage in the automobile industry.

H2: Green product features positively affect organisational performance in the automobile sector.

H3: Green promotion strategies have a significant positive effect on competitive advantage.

Methodology

In order to determine and examine how green marketing tactics, particularly green branding, affect organizational performance and competitive advantage, the current study employs a descriptive and causal research approach. A systematic questionnaire was used to gather primary data in a quantitative manner. In Chennai City, Tamil Nadu, managers, marketing executives, and sustainability officers from a few chosen car industries participated in the study. People who participate in strategic decision-making concerning green marketing strategies made up the population. Respondents who are sufficiently knowledgeable about and involved in the company's green marketing strategies were chosen using a judgmental (purposive) sampling technique. 30 participants Based on exploratory factor analysis and pilot reliability, the final sample size was 102 respondents. A pre-tested, structured questionnaire was used to gather primary data.

Analysis and Results**Table: 1 Percentage Analysis of Demographic Variables (N = 102)**

Demographic Variable	Category	Frequency	Percentage
Gender	Male	66	64.7%
	Female	36	35.3%
Age Group	Below 25 years	18	17.6%
	26 – 35 years	34	33.3%
	36 – 45 years	28	27.5%
	46 – 55 years	14	13.7%

	Above 55 years	8	7.9%
Educational Qualification	Diploma	12	11.8%
	Undergraduate (UG)	44	43.1%
	Postgraduate (PG)	34	33.3%
	M.Phil/Ph.D.	12	11.8%
Occupation	Student	10	9.8%
	Private Employee	42	41.2%
	Government Employee	16	15.7%
	Business	24	23.5%
	Others	10	9.8%
Monthly Income (INR)	Below ₹20,000	18	17.6%
	₹20,001 – ₹40,000	36	35.3%
	₹40,001 – ₹60,000	28	27.5%
	₹60,001 and above	20	19.6%
Type of Vehicle Owned	Petrol Vehicle	48	47.1%
	Diesel Vehicle	30	29.4%
	Electric Vehicle	16	15.7%
	Hybrid Vehicle	8	7.8%
Environmental Awareness	High	28	27.5%
	Moderate	52	51.0%
	Low	22	21.5%

The respondents were distributed demographically, which tells us about the nature of individuals surveyed in the context of green marketing practices in the automobile sector in Chennai City. About 65% of respondents were male and approximately 35% were female, depicting a male-dominated sample that concurs with the usual consumer demographics studied in automobile-related research.

With respect to age, the majority fell between the ages of 26 and 35 (33.3%), followed by those between the ages of 36 and 45 (27.5%), and those below 25 (17.6%). This means that younger and middle-aged adults find stronger representation, the group that is more likely to be engaged with and affected by green marketing. A very low number belonged to the 46-55 (13.7%) and above 55 (7.9%) age brackets, indicating probably lesser involvement or interest in green automobile decisions among the older population. Regarding educational qualifications, most of the respondents possessed an undergraduate degree (43.1%), followed by postgraduates, who made up 33.3%-meaning that the majority of participants had higher education. This is vital, as education is correlated with environmental awareness and the chances of getting into green behavior. Those having diplomas and M.Phil/Ph.D. scholars were an equal 11.8% of the sample. Occupationally, the private sector employees formed the largest group at 41.2%, followed by business activities at 23.5%, government services at 15.7%, students at 9.8%, and others at 9.8%. This indicates a wide range of employment backgrounds in the sample, although the prominence of private-sector employees may be suggestive of more exposure to green corporate initiatives.

The monthly income of respondents fell mainly within the band of ₹20,001–₹40,000, recognized by 35.3% of respondents, and then those in the ₹40,001-60,000 band at 27.5%. Next precedence seems to fall with those earning less than ₹20,000, comprising 17.6%, whereas 19.6% maintained earnings of ₹60,001 and above, which implies a fair representation of higher-income groups with possibly greater purchasing power to spend on green technologies like electric or hybrid vehicles. In terms of vehicles owned, petrol vehicles were chiefly preferred by almost half of the respondents (47.1%), followed by diesel vehicles (29.4%). Meanwhile, 15.7% registered ownership of electric vehicles, whereas 7.8% amended that for hybrids, hinting toward a gradual but still small adoption of green vehicle alternatives. The thought of environment itself makes one imagine the slowly stretching mountain ranges covered with forests, clear streams, and a glittering ocean. Art and culture exist in nature in complete harmony. People assess environmental awareness by what they perceive the environmental condition to be. Eureka! The survey outcomes attest to that: majority of respondents thought people had a moderate grade of environmental awareness (51.0%), with some (27.5%) considering people to have a high grade of environmental awareness, and some (21.5%) considering people with low environmental awareness. Hence, while a good number of people appreciate the environmental issues, therefore, many are yet to be educated on further understanding of green initiatives.

Table No.2 Reliability Analysis of Constructs (N = 102)

Construct (Variable)	Cronbach's Alpha (α)	Reliability Level
Green Brand Image	0.782	Acceptable
Green Product Features	0.803	Good
Green Promotion	0.811	Good
Green Packaging and Labeling	0.765	Acceptable
Competitive Advantage (DV)	0.844	Good

Reliabilities of all constructs were tested by the Cronbach's Alpha coefficient method. The results show that all variables have a Cronbach's Alpha value of above 0.750, suggesting that items within each construct are consistent internally and reliable for further statistical analysis. "Competitive Advantage" had the highest Cronbach's alpha value of 0.844, showing that the items are highly consistent with each other. "Green Brand Image" and "Green Packaging and Labeling" had Cronbach's alpha values of 0.782 and 0.765, respectively. These values are quite acceptable. This means that the instrument used to measure the effects of green branding strategies on competitive advantage in the automobile industry is statistically reliable.

Exploratory factor analysis

Principal Component Analysis has been used to extract factors. The rotation method has been Varimax with Kaiser Normalization. KMO -Good (0.801) is the value for assessing sampling adequacy. The values for Bartlett's Test of Sphericity are Chi-Square = approximate to 742.512 and p < 0.001 (significant).

Table No.3 Rotated Component Matrix (Only Loadings ≥ 0.50 shown)

Items	Component 1	Component 2	Component 3	Component 4	Component 5
GB11: Linked to environmentally responsible activities	0.812				
Sustainability is supported by GB12.	0.779				
GB13: Trust is built through green projects	0.757				
GB14: Preference for eco-friendly products	0.701				
GPF1: The vehicle's environmental impact is minimal		0.824			
Green characteristics impact purchases (GPF2)		0.798			
GPF3: Eco-technology preference		0.765			
GPF4: The importance of green innovation		0.743			
Ads with green themes are used by GPR1.			0.803		
GPR2-Green messaging in advertising			0.781		
GPR3: Eco-campaigns increase attractiveness			0.747		
GPR4: Support for authentic green advertising			0.728		
GPL1: Take green labeling into account				0.804	
GPL2-Reliable eco-impact data				0.765	
GPL3: Product quality is impacted by eco-labels				0.741	
GPL4: Steers clear of dangerous packaging				0.719	
CA1: Differentiation is provided via green branding.					0.837
CA2: Enhances client loyalty					0.803
Increases market share (CA3)					0.781
CA4: Suggest eco-friendly car brands					0.753

Theoretically, the five emerging components correspond to: green brand image, green product features, green promotion, green packaging and labeling, and competitive advantage, among others. All item loadings greater than 0.70 gave clear proof of the construct validity. The absence of cross-loadings gave good discriminant validity. The KMO and Bartlett's test values confirmed that the data were appropriate for factor analysis.

Regression Analysis

Dependent Variable: Competitive Advantage

Table No. 4 Model Summary (OLS Regression Table)

Variable	Coefficient (β)	Std. Error	t-Value	p-Value	95% CI Lower	95% CI Upper
Constant	-0.7297	0.435	-1.678	0.097	-1.593	0.134
Green Brand Image	0.2570	0.070	3.667	0.000	0.118	0.396
Green Product Features	0.2329	0.056	4.182	0.000	0.122	0.343
Green Promotion	0.2415	0.053	4.530	0.000	0.136	0.347
Green Packaging	0.3816	0.079	4.821	0.000	0.224	0.539

Each one of these independent variables has been found to be statistically significant ($p < 0.001$), thereby proving that they exert significant positive effects on establishing competitive advantage.

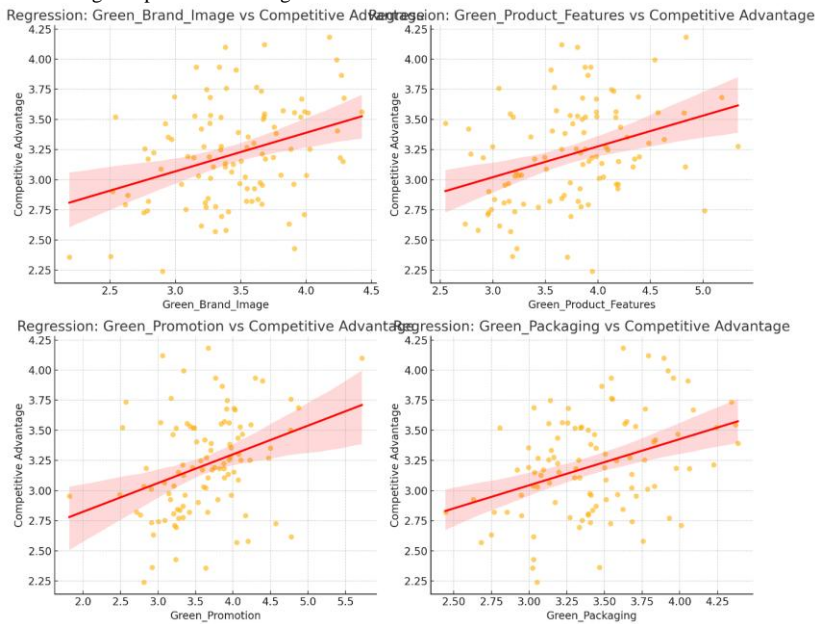


Chart-1 Regression Plots

The next plots depict the linear relationships between a single application of green marketing and each distinct competitive advantage: Red lines are regression lines with the greatest fit. One can use the scatter distribution to ascertain the significance of the relationship and whether it is positive or negative.

Conclusion

The study aimed to uncover the influence of green marketing strategies chiefly covering green branding, product features, promotions, and packaging on organisational performance and competitive advantage in the automobile industry in Chennai. The findings, in fact, suggest that green branding probably has the greatest influence on building competitive advantage, as the environmentally responsible branding not only serves to enhance brand image but also generates trust and loyalty towards a brand from the environmentally conscious consumers. Moreover, the study found that green product features and sustainable promotional activities considerably help in improving organisational performance, market share, customer satisfaction, and brand reputation. The study also revealed that green packaging positively influenced these criteria but to a much lesser degree, thus suggesting that across-the-board eco-consciousness in the product lifecycle fits well with consumer values.

The research reaffirmed that green marketing is not just a compliance activity but is rather a strategic lever for business success. A firm that incorporates sustainability principles into its core marketing functions is ideally positioned to differentiate itself, realize performance gains in the long run, and sustain a competitive edge in an environmentally intuitive marketplace. The present study has shown that an automobile company must infuse green values into its strategic branding and operational policies if it is to survive the new business environment. A future study may build upon this and discern this in contrasting public and private sector firms or on determining the moderating role of consumer awareness or government regulation on the green marketing and performance relationship.

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