

An Empirical Study on Advanced Marketing Practices, Sustainability, and EVM Strategies for Business Growth

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Abstract: *In the modern business landscape, sustainable marketing strategies have become crucial for success. Companies are increasingly allocating substantial resources to these initiatives. While consumers expect businesses to adopt sustainable practices, their primary motivation remains fulfilling personal needs. This creates a gap between corporate sustainability efforts and consumer expectations. This study proposes a viable framework for sustainability strategies that businesses can implement to bridge this disconnect. Key findings include: First, sustainable marketing significantly enhances brand image development. Second, brand awareness plays a vital role in customer loyalty within the modern marketplace. Third, a strong brand image amplifies the appeal of sustainable purchasing intentions. Fourth, customer retention serves as a critical tool for boosting long-term purchase expectations. Fifth, elevating consumer expectations is essential for driving sustainable buying behaviors. Notably, sustainable marketing acts as an effective mediator between customer engagement and brand perception. Additionally, corporate social responsibility (CSR) strengthens the link between a company's reputation and sustainable purchase intentions. This research provides both a theoretical framework and practical recommendations for the modern business environment, emphasizing the importance of sustainable marketing campaigns as a precursor to organizational success.*

Keywords: Modern Marketing Practices, Sustainable Strategies, Successful Business, Brand Image, Customer Loyalty, CSR, Consumer Behavior.

I. INTRODUCTION

In recent decades, economic growth has significantly reduced global poverty and improved living standards for millions. The World Bank's 2022 report indicates that extreme poverty rates have fallen from 36% in 1990 to 9.2% in 2020. However, this progress has often come at a significant environmental and social cost, particularly in emerging economies where regulatory frameworks and infrastructure struggle to keep pace with rapid development.

Modern business leaders face an intricate web of social, environmental, technological, and economic challenges. Many remain hesitant to invest heavily in sustainability initiatives, perceiving them as a cost rather than an opportunity. This perspective contradicts extensive research demonstrating the benefits of sustainable marketing strategies and the competitive advantages gained by early adopters. Studies consistently show that sustainability practices positively impact business performance across various metrics.

Simultaneously, consumer awareness of environmental issues is rising rapidly. Social media and non-governmental organizations (NGOs) amplify this trend, putting pressure on businesses to adopt more responsible practices. In the era



of Industry 4.0 and the circular economy, there is a growing demand for ethically sound and environmentally friendly business operations.

Small and medium-sized enterprises (SMEs), especially in developing nations like India, face significant hurdles in adopting Industry 4.0 technologies due to financial constraints and operational challenges. The integration of fragmented data sources, implementation of advanced AI for multi-objective optimization, and development of flexible digital twins capable of adapting to evolving industrial configurations present formidable obstacles.

To establish a sustainable competitive advantage in this rapidly evolving landscape, organizations must continuously update their practices and benchmark their marketing performance. Key focus areas for enhancing organizational efficiency include customer segmentation, retention strategies, profiling, and behavior analysis.

The implementation of digitalization occurs at both social and institutional levels through sociotechnical processes. Numerous studies highlight the critical role of digitalization in achieving sustainability goals. Industry 4.0 technologies are driving this digital transformation across all sectors. Research indicates that digitalization contributes significantly to social, economic, and environmental sustainability. Moreover, these innovations can meet sustainability requirements in an organization's market strategies, including value creation, strategic planning, and design systems.

As we navigate the complexities of modern business, it is clear that sustainability and digital transformation are not merely trends, but essential components of long-term success. Organizations that effectively integrate these elements into their core strategies will be better positioned to thrive in an increasingly competitive and environmentally conscious marketplace.

II. LITERATURE REVIEW

A comprehensive review of contemporary marketing practices and their impact on sustainable business growth reveals several key themes and insights:

Khan and Sharma (2023) conducted a systematic review exploring modern marketing strategies that contribute to long-term business sustainability. Their analysis of extensive literature identified crucial marketing approaches aligned with sustainability goals, such as green marketing, purpose-driven marketing, and ethical marketing. The study found these strategies significantly influence brand awareness, customer loyalty, and financial performance, underscoring the importance of integrating sustainability into marketing plans for enduring business success.

Chen et al. (2022) examined the role of sustainable marketing practices in gaining competitive advantage through a comprehensive literature review. Their research highlighted several strategies, including sustainable product innovation, eco-labeling, and stakeholder engagement, that enable businesses to differentiate themselves and establish market leadership. The study emphasized the necessity of tailoring sustainable practices to consumer preferences and cultural contexts to achieve a competitive edge in today's market.

A meta-analysis by Rodriguez and Park (2023) investigated the relationship between modern marketing techniques and corporate performance. Their findings revealed strong correlations between contemporary marketing approaches such as digital marketing, social media engagement, and customer relationship management, and key performance indicators including sales, market share, and profitability. This analysis underscores the growing importance of implementing modern marketing techniques to achieve superior business performance.

Liu and Van der Merwe (2022) explored the perceived challenges in implementing sustainable marketing strategies. Through a thorough analysis of existing literature, they identified significant barriers including resource constraints, lack of managerial commitment, and stakeholder conflicts. Their study highlights the need for organizations to address these challenges to successfully integrate sustainable marketing strategies into their operations.

Gupta and Tanaka (2023) conducted a study to determine the impact of sustainable marketing practices on small and medium-sized enterprises (SMEs). Using a quantitative research methodology, they collected data from a sample of SMEs across various industries. The researchers employed structured questionnaires to gather information on the adoption of sustainable marketing practices, customer satisfaction, and financial performance indicators. Their findings



revealed a positive correlation between the implementation of green marketing strategies and improved customer loyalty and financial outcomes for SMEs.

These studies collectively demonstrate the growing importance of sustainable and modern marketing practices in achieving business success. They highlight the positive impacts on brand perception, customer loyalty, and financial performance, while also acknowledging the challenges that organizations face in implementing these strategies. The literature emphasizes the need for businesses to adapt to changing consumer preferences and market conditions by integrating sustainability into their core marketing strategies.

III. RESEARCH METHOD

3.1. Hypotheses of the Study

Based on the literature review and research objectives, the following hypotheses were formulated:

H1: Sustainable marketing practices positively influence brand perception.

H2: Brand perception has a positive effect on customer engagement.

H3: Positive brand perception increases consumer intention to make sustainable purchases.

H4: There is a positive relationship between customer engagement and sustainable purchase intentions.

H5: Corporate social responsibility (CSR) positively correlates with sustainable purchase intentions.

H6: CSR moderates the relationship between customer engagement and sustainable purchase intentions.

3.2. Data Collection and Procedure

The conceptual framework developed based on the preceding discussion is illustrated in Figure 1 (not shown here). To test the hypotheses, a survey-based approach was employed to collect data from January to April 2023. This study builds upon previous research by Zhang et al. (2021), which focused on three cities designated as pilot zones for electric vehicles (EVs): Bilaspur, Raipur, and Bhilai.

These locations were selected due to the increased availability of EVs, greater opportunities for consumers to test and experience EVs, and higher familiarity with various EV brands. Ten EV dealerships in each of these three urban areas were randomly chosen for the survey, targeting both current and potential EV customers.

Convenience sampling was utilized as the most appropriate method for obtaining representative samples in this specific population context. Participants were screened based on their ownership of an EV, familiarity with EV brands, or interest in EVs. The response rate was approximately 58%, with non-respondents citing reasons such as time constraints or lack of interest.

A total of 425 surveys were returned. To ensure data quality, responses that failed attention checks or had unusually short completion times (less than 180 seconds) were excluded. After removing 83 invalid surveys, the final sample consisted of 342 usable responses.

This methodology allows for a comprehensive examination of consumer attitudes and behaviors related to sustainable marketing practices in the context of the emerging EV market, providing valuable insights for both researchers and practitioners in the field.



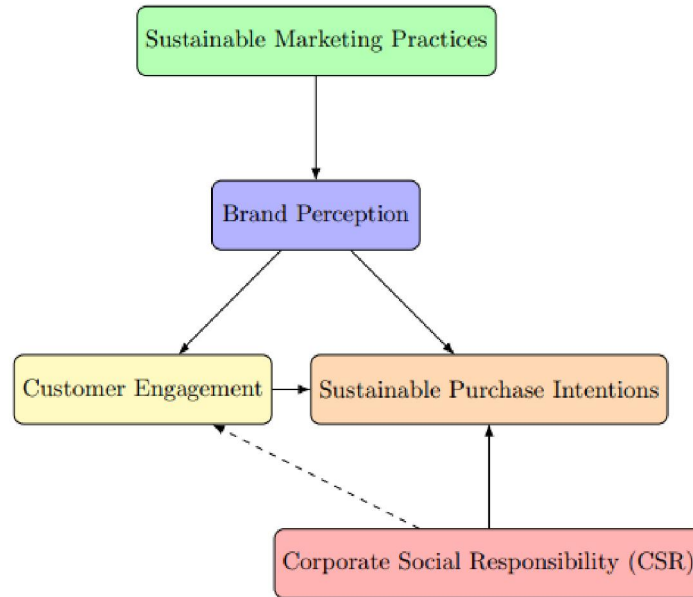


Figure 1: Research Model

The survey consisted of three sections. Participants who hadn't recently purchased or used an electric vehicle were excluded from the first section, which included verification questions. The second section presented variable estimates, while the third section detailed participant demographics such as gender, age, education level, and income. Out of 342 responses, 193 (56.4%) were from female participants. Regarding age, 45.6% of respondents were between 21-30 years old, while 43.1% were aged 31-40. Only 11.3% were over 41 years old, indicating a stronger interest in electric vehicles among younger demographics, particularly those aged 20-40. Education-wise, 61.3% (n=210) had a four-year certification, 17.3% (n=59) had a college degree, and 21.4% (n=73) held a bachelor's degree or higher. In terms of income, 12.9% (n=44) earned less than 684,000 INR annually, 17.9% (n=61) earned between 684,000 and 1,026,000 INR annually, 68% (n=233) of participants had previously purchased an electric vehicle, and an additional 34% (n=116) were considering purchasing one in the future, indicating significant familiarity and interest in electric vehicles among the respondents.

3.3. Measurement

The ongoing evaluation considers Customer Engagement (CE), Corporate Social Responsibility (CSR), Brand Image (BI), and Sustainable Buying Behavior across five key variables. Scales from previous studies were adjusted for reliability and validity, with some questions rephrased to better reflect current research trends.

For Customer Engagement and Corporate Social Responsibility, three dimensions each were adapted from Jung et al.'s (2020) sustainable marketing research, totaling 12 items. Brand Image assessment, following Wu and Wang's (2014) framework, includes four items each for Useful Image, Iconic Image, and Experiential Image components. The CSR scale incorporates three dimensions derived from Eisingerich et al.'s (2010) study. Customer Engagement is structured into 12 components according to Kumar and Kaushik's (2022) analysis, encompassing four cognitive, three affective, and three behavioral aspects. Sustainable Buying Behavior, as outlined by Xu et al. (2020), encompasses three components. Responses were collected on a 5-point Likert scale, where 'Strongly Disagree' was rated as 1 and 'Strongly Agree' as 5. For detailed component proportions, refer to Supplementary Table 1.



IV. ANALYSIS OF DATA AND FINDINGS

4.1. Measurement Validity and Reliability Analysis

Reliability and validity of the key constructs were rigorously tested using consistent quality assessments and confirmatory factor analysis. SPSS 21.0 was employed for reliability analysis, while Mplus 8.0 was utilized for confirmatory factor analysis and validation of underlying constructs based on survey data.

The model demonstrated good fit indices: $\chi^2=118.99$, $df=94$, $p=0.04$, $\chi^2/df=1.266$, $TLI=0.987$, $CFI=0.990$, and $RMSEA=0.029$, all surpassing the recommended thresholds of 0.90 for TLI and CFI, and below 0.08 for RMSEA.

The model demonstrated good fit based on several statistical tests:

Chi-Square Test (χ^2):

Value: 118.99

Degrees of Freedom (df): 94

p-value: 0.04

This test checks if there is a significant difference between the observed data and the model. A lower chi-square value relative to degrees of freedom suggests a better fit. Here, the value 118.99 with 94 degrees of freedom and a p-value of 0.04 indicates a good fit.

Chi-Square to Degrees of Freedom Ratio (χ^2/df):

Value: 1.266

This ratio is another measure of model fit. A value less than 2 is considered good, indicating that the model fits the data well. In this case, 1.266 is a good value.

Tucker-Lewis Index (TLI):

Value: 0.987

The TLI compares the fit of a specified model to a baseline model, with values closer to 1 indicating a better fit. A TLI above 0.90 is considered good, and here it is 0.987, which is excellent.

Comparative Fit Index (CFI):

Value: 0.990

The CFI also measures the fit of a model compared to a baseline model, with values closer to 1 indicating a better fit. A CFI above 0.90 is considered good, and here it is 0.990, which is excellent.

Root Mean Square Error of Approximation (RMSEA):

Value: 0.029

The RMSEA measures how well the model, with unknown but optimally chosen parameter estimates, fits the population's covariance matrix. Values less than 0.08 indicate a good fit, and here it is 0.029, which is excellent.

The Average Variance Extracted (AVE) values for all constructs exceeded 0.58, well above the minimum threshold of 0.50, indicating strong convergent validity among latent factors. Additionally, the square root of AVE values exceeded the correlation coefficients between latent constructs (see Table 1), further supporting the reliability and validity of the measurement model scales.

Table 1. Square Root of AVE and Variable Correlations

Variable	1	2	3	4	5
PSMA	1.67				
BI	1.35**	1.73			
CSR	1.025	1.24**	1.72		
CE	1.33**	1.43**	1.24*	1.68	
CPB	1.06	1.52**	1.26**	1.34**	1.82

This table presents the square root of AVE values (diagonal) and correlations between variables, confirming the robustness of the measurement model.



4.2. Hypothesis Verification Results

Table 2 presents the results of hypothesis testing in this study, focusing on the relationships among consumer engagement, brand perception, and sustainable purchasing intentions in the electric vehicle market. Initially, four direct effects (H1, H2, H3, H4) were examined (see Table 1).

Structural Equation Modeling (SEM) was employed to analyze the theoretical framework and specific impacts of Corporate Social Responsibility (CSR). The model demonstrated acceptable fit indices: $\chi^2=10.01$, $df=4$, $p=0.04$, $\chi^2/df=2.50$, $TLI=0.877$, $CFI=0.959$, $RMSEA=0.069$. These results indicate a satisfactory level of model fit and support for the proposed hypotheses.

Table 2. Results of Hypotheses

Model	Standardized Coefficient	SE	P-value	Remarks
Model 1				
H1: PSMA → BI (+)	1.34	1.05	< 0.001	Significant
H2: BI → CE (+)	1.57	1.05	< 0.001	Significant
H3: BI → SPB (+)	1.38	1.07	< 0.001	Significant
H4: CE → SPB (+)	1.42	1.20	< 0.001	Significant
Model 2				
H1: PSMA → BI (+)	1.32	1.05	< 0.001	Significant
H2: BI → CE (+)	1.52	1.05	< 0.001	Significant
H3: BI → SPB (+)	1.22	1.07	< 0.001	Significant
H4: CE → SPB (+)	1.24	1.20	< 0.001	Significant
H5: CSR → SPB	1.05	1.05	1.46	Not Significant
H6: BI*CSR → CE (+)	1.36	1.08	1.003	Significant
H7: BI*CSR → SPB (+)	1.40	1.25	1.04	Significant

The results support the first four hypotheses, consistent with prior studies (Jung et al., 2020), indicating that perceptions of sustainable marketing positively influence brand image. Control variables (orientation, age, education, reward) did not alter these findings. Additionally, Kumar and Kaushik (2022) argue that CBE enhances brand usage goals. Figures 2 and 3 illustrate composite effects, confirming positive correlations between BI, CE, and SPB, particularly under varying levels of perceived social responsibility.

V. CONCLUSION

The application of marketing methodologies can significantly enhance organizational effectiveness. Mechanized interventions in marketing strategies are increasingly necessary to meet client and market demands while ensuring sustainability. This study explores the integration of Industry 4.0 technologies to advance marketing strategies for customer retention, consumer satisfaction, customer profiling, and reward systems through loyalty programs. Despite these advancements and the limitations of previous research, marketers are adopting sustainable practices to mitigate stakeholder scrutiny, yet uncertainties remain regarding their impact on consumer purchasing decisions and corporate reputation. Establishing long-term customer loyalty requires businesses to demonstrate compelling value propositions and build trust. Companies are grappling with the implementation of sustainable marketing strategies to win over stakeholders, customers, and society at large. Therefore, marketers play a pivotal role in communicating the organization's commitment to using ethical and sustainable marketing practices, thereby ensuring these commitments are upheld both within and outside the organization.

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