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Research Article

Enhancing Corporate Sustainability: An Examination Of Green Marketing Strategies And Their Impact On Environmental Commitment And Innovation Performance

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ARTICLE INFO	ABSTRACT

Examining the related interactions between green marketing tactics, environmental commitment, and green innovation performance and their compounded effects on firm performance and sustainability was the primary purpose of this research. The study employed a hybrid quantitative-qualitative research approach. In detail, it collected cross-sectional survey data from 300 medium to large-sized firms in different industries in the United States and followed up with semi-structured interviews of 30 senior managers who were directly involved in their firms' sustainability strategies. The results of the research provide evidence that the application of green marketing strategies has significant positive effects on firms' environmental commitment and green innovation performance. The significant correlations and regression analyses indicate that green marketing strategies do not only positively affect environmental commitment, but also drive green innovation practices that tend to enhance overall business performance as well. The study finds that implementing green marketing tactics into business operations satisfies growing consumer demands for eco-friendly products and, at the same time, heightens a firm's competitiveness and sustainability. These tactics are found to be critical for firms in coping with contemporary market and environmental challenges effectively. Both practitioners and policymakers can gain major benefits from understanding the implications of this study. Evidence supports that a corporate culture of sustainability will more likely result in successful green marketing, environmental commitments and continuing innovation\

Introduction

In negotiating the competitive forces that shape their markets, companies of all stripes have learned that green marketing strategies are a must. Once an option for executives who wished to present their firms in the best light, they have become essential for companies aspiring to robust and enduring growth, with a little extra sparkle on the side. As the unassailable need has arisen for business to compete for consumers' loyalty with green products and services, green marketing has changed profoundly. And every year it changes again, in ways that connect the environmental cause even more firmly to the prevailing wind.

The significance of green marketing strategies is noted by Cronin et al. (2011), who contend that this is "central to firms following the path of a triple-bottom line approach, causing positive societal, economic, and environmentally friendly results" (p. 2). As a result of the usage of green marketing strategies to satisfy stakeholders, such as consumers and regulatory bodies, a business' standing and functional efficiency increases (Cronin, et al., 2011).

In addition, Ginsberg and Bloom (2004) call attention to the intricacies and hurdles that come with implementing green marketing. Even though consumers have a strong inclination toward green products, their buying behavior often gravitates towards conventional products for reasons such as price, convenience, and perceived quality. This points to the fragile equilibrium firms must strike between green marketing and traditional marketing properties if the former is to be effective (Ginsberg, J., & Bloom, P., 2004).

Aside from meeting consumer demands, green marketing strategies are also instrumental in cultivating innovation within firms. Mukonza and Swarts (2020) furnish evidence from the retail industry, revealing that green marketing strategies remarkably improve business performance and upgrade corporate image. Through embracing practices that are environmentally friendly, companies not only comply with regulatory requirements, but they can also stand out from their counterparts in the marketplace, securing a competitive edge for themselves (Mukonza, C., & Swarts, I., 2020).

McDaniel and Rylander (1993) extend the discussion of the strategic alliance of green marketing. They propose that consumer marketers must satisfy, not just detect, heightened concern for the environment and, most significantly, they must initiate environmental programs. This proactive, strategic marketing planning orientation is crucial for anchoring environmental concerns in the organizational fabric (McDaniel, S. W., & Rylander, D., 1993).

The study conducted by Devi in 2015 depicts the transformation of the consumer mentality towards moving forward to living a greener life for a more sustainable environment. These measures are not only significant for the existence of the environment but for achieving consumer objectives and a successful sustainable business. The shift in consumer attitudes and behaviour has marked social marketing as an area of recent interest and now has become exceedingly critical strategy across the globe (Dev, M., 2015).

The research on green innovation and environmental commitment has evolved rapidly, suggesting the transforming mechanism of these constructs on business competition and sustainability worldwide. Although the green innovation and environmental commitment relationship is dynamic in nature, scarce research examines this relationship to explain the contingent relationship between green innovation and environmental commitment on new product success and organizational performance across different industries.

The research Suasana and Ekawati (2018) conducted on the relationship between environmental concern and green innovation in creative industry in Bali will give insight on this matter. The knowledge on importance of environment has given a good impact to the adoption of the green innovation. One of the important than others is the success of new product with the green design. It is prominence especially in the areas where culture of business concern about the environmental and society demand more environmentally friendly product (Suasana & Ekawati, 2018).

Moreover, Aguilera-Caracuel and Ortiz-de-Mandojana (2013) extend this perspective by analyzing how green innovation delivers financial performance alongside environmental benefits in different national contexts. They conclude that financial returns from green innovation are influenced by the institutional environment, postulating that stringent pro-environmental regulations could magnify the financial returns from green innovations. (Aguilera-Caracuel, J., & Ortiz-de-Mandojana, N. (2013))

El-Kassar and Singh (2019) delve deeper in this theme of relationship and extend our understanding on the important mediating role of big data, and human resources into this process. Importantly, our findings highlight the importance of effective management commitment as well as innovative HR practices aimed at leveraging the benefits of green innovation to achieve enhanced competitive advantage and organizational efficiency (El-Kassar & Singh, 2019).

The authors Zhang and Walton (2017) enter the conversation by researching the ways that the eco-innovation and business performance body of literature of green oriented SMEs is mediated by environmental orientation and resource commitment. They find that while environmental orientation has significant direct effect on the success of eco-innovations, environmental resource commitment enhances the effect of the eco-innovation on business performance significantly (Zhang, J., & Walton, S., 2017).

In further examination of product innovation, an article by Dangelico and Pujari (2010) explores the integration of environmental sustainability in green product innovation. The purpose of the article is to provide a conceptual framework of green innovation for manufacturing companies by examining the strategic motivations and barriers faced by companies in developing green products. The authors employ a multiple case analysis, which allows them to explore the multiple aspects of green product innovation.

Lastly, Chang's (2016) research explores the factors affecting green product innovation performance, such as corporate environmental commitment (CEC) and green human capital. This research shows that CEC and green human capital not only affect the adoption of green innovation but also act as a mediator between green innovation and performance outcomes. Therefore, corporations should accumulate internal capabilities to establish a two-way interaction with their sustainable goals (Chang, 2016).

Collectively, these investigations embody a broad array of environmental dedication and green innovation's possible implications for an organization's performance and sustainability. Together, they also underscore the need to think about firm-level capabilities simultaneously with external environmental pressures, and bespeak how doing so can be accomplished for organizations attempting to align their operational strategies with firm sustainability objectives.

Literature Review

Green Marketing Strategy

In the area of sustainable business practices, the theoretical framework of Green Marketing Strategy, suggested by Fraj et al. (2011), represents a notable turning point for businesses. Their scale of 14 measures has spread and guided firms towards more sustainable marketing strategies, a strategy that fulfils consumer needs and promotes ecological sustainability.

Fraj et al. (2011) explain that green marketing involves infusing environmental and ethical concerns throughout the entire marketing process, from product development to distribution to communication. The purpose of their green marketing framework is to provide a set of guidelines that respondents can use when developing environmentally friendly marketing products and messages to make their environmental marketing decisions consistent with the needs of different types of consumers. They can also focus on identifying the core issues and questions researchers should consider when designing relevant studies. Their thoughts on the determinants and consequences of green marketing are constructive and help to develop green marketing policies in the future. The green marketing deals with marketing environmental and ethical considerations as an integral part of all aspects of marketing - product development, distribution, communication. The purpose of their framework is specifically to support competition within the increasingly modern markets, and to minimize any negative effect on the environment and to incorporate sustainable business practices in a company's marketing tools while assuring business profitability. The list of constructs used in their framework includes 14 items which can be applied to many different aspects, products, and product categories in trying to bring the product up on the market with the credibility of reputational reassurance by adapting product dimension, advertises manufacturing process and production and component sourcing process. In this domain, investigative studies demonstrated by Dabija and Pop (2013) and Papadas et al. (2017) all agree with the original assertion of Piedra and Neergaard (2011) that to successful implement a green marketing strategy entails a powerful firm commitment, beyond just making beautiful greenseeing claims here and there to meeting the ecological consumer trend. It’s a full infusion of sustainability concept into the company’s core operations differently and deeply, which creates positive consumer perception and affect consumer buying behavior. Furthermore, Dabija and Pop also stated another advertising application of this concept is brand identity can be built stronger than ever before, and per this article the highest brand preferences are assigned to those green brands. If the green claim is totally certified, consumer will truly believe firm’s serious doing-green attitude and that’s good. Additionally, Ginsberg and Bloom (2004) note that striking this balance is particularly difficult when it comes to marketing environmentally-friendly products. Meeting ecological goals while satisfying consumer expectations and financial objectives “is a challenging problem,” they say. A view that echoes both Ottman (1998) and Peattie (2001), but goes further by suggesting that firms need to fully understand market dynamics and consumer preferences at a detailed level to be successful in green marketing. Among other things, this might include segmenting the market on the basis of environmental concern and sending the appropriate marketing message to each segment.

To further discuss the strategic angles, Dangelico and Vocalelli (2017) pointed out that in addition to product and process innovation, companies pursuing the strategy of green marketing should also engage in extensive communication to consumers so that consumers fully understand the complete advantages of their green product.. They also have to kill the theme of green products are lack of quality or performance. This is a two-win strategy to keep trust from customers and to prevent and handle internal dishonesty.

The practical probe carried out by Andronie et al. (2019) concerning the ‘intertwined’ linkage of big data and green marketing strategies manifests the means in which firms can employ technology for the purpose to advance their minds on sustainability. Utilizing big data analytics furnishes a company the opportunity of comprehending the concepts of consumer behavior and preferences in comparison to ‘prospective situations’ of sustainable products. This enhances the capability for firms to adapt to the needs of actual green marketing, along with concerned turning out valuable offers to markets with any interest in the planet-aware products.

The 14-item adaptation by Fraj et al. (2011), is a strong instrument for firms striving to integrate sustainability in their marketing strategies. By so doing, firms not only achieve their environmental goals better but also obtain a higher corporate image, given consumers evolving preferences. Despite the fact that still further work needs to be done to fully understand the complexities of the phenomenon, and even though further analyses are required to continue contributing acquired knowledge, green marketing will remain as a valuable strategy for those companies really compromised with sustainability and corporate responsibility. These findings stand in line with several authors who suggest that green marketing should not be seen as an isolated strategy but as a comprehensive one which, through product innovation, consumer engagement and market positioning, promotes a stewardship attitude towards environment that also satisfies the new consumer’s orientation to environmental irrevocability and business profits.

Environmental Commitment

According to Henriques and Sadorsky (1999), environmentally oriented commitment is when a corporation is dedicated to carrying out environmental management, which involves taking into account various dimensions such as policy, process and practices that are geared towards reducing environmental impact. The seven dimensions that Henriques and Sadorsky provide to measure environmental commitment furnish a sound stratagem and an excellent source to interpret into how deep environmental practices are integrated into the frameworks of an organization on an operational and strategic level.

The first aspect involves the company’s adoption of an environmental policy. This policy sets forth the firm’s dedication to environmental stewardship as well as provides a framework for its environmental practices

(Andronie et al., 2019). This greatly assists in setting the tone at the top, indicating to the company's stakeholders the firm's commitment to environmental management as a corporate value.
Also, by providing environmental education programs a company demonstrates its dedication to the environment. Environmental education programs train employees about the significance of environmental problems and best practices for minimizing harmful effects on the environment. Education is a very influential factor in changing employee's individual behavior and organizational practices. By training employees, an organization can give them knowledge and skills required to effectively carry out the company's environmental policies (Gattiker & Carter, 2010).
Another way in which environmental commitment is operationalized that is mentioned in the text is the integration of environmental objectives into corporate goals. By doing this, the organization is showing that environmental stewardship is not just a policy or a statement, but is one of the objectives the organization is actively working to achieve (Morhardt, Baird, & Freeman, 2002).
Lastly, EMS is another technique agreed to be employed to arouse the commitment to constant environmental enhancement (Pérez & Sánchez, 2009).
Moreover, Henriques and Sadorsky discuss the importance of environmental management community outreach programs (2000). Such initiatives showcase a firm's dedication to curbing its environmental foot print but also an engagement with the community to bring about environmental issues and ingrain sustainable behavior (Huang, 2005).
A sixth measurement of commitment to environmental sustainability is through the external collaborations that a company engages in with other organizations. For instance, a company may partner with environmental groups or participate in government programs to enhance and demonstrate their dedication to a greater environmental cause. (Lin et al., 2015).
In the end, the amount of resources offered particularly for environmental actions inside the organization involving financial along with human investments tend to be essential elements with an institution's environmental commitment. The actual allotment associated with financial and human resources suggests the particular degree to help which usually environmental managing is usually highly valued throughout the organization (Cavalcante et al., 2017).
Taken together, they present a thorough set of benchmarks for determining the degree to which a business is invested in environmental sustainability. They underscore the multifaceted dimensions of that investment, attending to policies, actions, and community initiatives. Consequently, they offer a powerful platform for appraising how well companies truly integrate ecological considerations into their everyday choices and overarching plans. Every one of these yardsticks not only probes a discrete dimension of environmental commitment; each reinforces others to create a unified picture of the depth to which conservation governance suffuses a firm's character and conduct.

Green Innovation Performance

Green Innovation Performance (GIP) is a model (Chen et al., 2006) that appreciates environmental issues in the process of innovation. By integrating sustainability in the process of innovation, a firm can achieve its market competitiveness and environmental contribution simultaneously. This model assumes the appropriate integration of environmental stewardship and innovation capability as the necessary condition for achieving both poles. Green Innovation Performance (GIP), consisting of 7 dimensions: product innovation, process innovation, organizational innovation, marketing innovation, systemic innovation, technological innovation, and managerial innovation, could be used to measure the green innovation performance of a firm.
Product Innovation pertains to introducing fresh eco-friendly products, or redesigning existing products to reduce environmental effect. This factor is pivotal since it directly influences the end consumers' consumption patterns and demonstrate a company's dedication to sustainable development.
The implementation of new or significantly improved production processes is concerned with production innovation. By reducing waste, energy consumption, and raw material use, it enhances the effectiveness and sustainability of production activities.
Organizational Innovation refers to creating or changing an organization's structure to support sustainability goals. This includes putting in place environmental management systems to foster a culture of innovation aimed at sustainability.
Marketing innovation encompasses the development of new marketing strategies that highlight the environmental attributes of products in order to cater the increasing consumer demand for eco-friendly products and services. This type of innovation is indispensable to educate individuals for advocating responsible conduct and feasible consumption driving sustainable growth.
Systemic Innovation involves sustainability-related innovations in the company's practices, often involving multiple departments or even the entire supply chain. Given that system innovation has a wide range, the environmental performance improvements are usually enormous.
Technology innovation is about taking on new technologies that are environmentally, sound. This may include renewable energy technologies, advanced recycling systems, or other technologies that truly contribute to reducing the environmental footprint.

Managerial innovation refers to the adoption of new management practices and techniques that align with sustainability objectives. Intended to increase an organization's adaptability and responsiveness to changing environmental conditions, these practices ensure that sustainability is emphasized when developing strategy.
The model developed by Chen et al. (2006) highlights not only the importance of incorporating environmental concerns into various operational facets of a firm, but also the connectedness among these realms for the sake of holistic green innovation performance. Each of them constitutes a salient intervention factor for a firm striving to enhance its environmental and economic performances through relevant practices. By employing these successful green innovations, an enterprise can create a sustainable and formidable competitive advantage in a market consumers are increasingly conscious of their environment.
Zhao et al. (2021) and Albort-Morant et al. (2016) studied and confirmed the validity of the model. They provided empirical evidences on how green innovation enhanced business growth and sustainability. It not only positively relates to company’s market and financial performance, but also lead to environmental advantages, as suggested by these researches. These studies provide robust evidence to support the extensive adoption of green innovation.
In closing, the green innovation performance described by Chen et al. (2006) presents an extensive framework for understanding and integrating sustainability into business. It advocates an integrated approach, which incorporates a range of different innovations to enhance the environmental and economic performances of the firm, and set up the sustainable business practices thus drives the long term success.

Synthesis

The evaluation of existing writings emphasizes the strong effect that green marketing strategies, environmental commitment and green innovation performance may have on corporate and sustainability performance. This review also describes how these categories, not only provide firms with competitive advantage but also construct a long-lasting business environment based on environmental preservation and corporate social responsibility.
Essentially, what the above-mentioned authors discuss at the very beginning of their work is, by connecting environmental values with consumer behavior, green marketing strategies envision a marketing strategy fundamentally. Eco-innovation, according to the perspective of Shaukat et al. (2023), incorporated with a green marketing orientation, can invariably enhance firm performance, especially dealing with market uncertainty. In this approach, company’s sustainability is echoed in firm’s competitive advantage where, in turn, is responded to increasing demand to seek products considered as good to environment in general (Shaukat et al., 2023).
Additionally, the dedication of an enterprise to environmental tenets, as often embodied by demanding environmental policies and practices, greatly stimulates green innovation. Research, like that of Genç and Benedetto (2019), backs the claim that futuristic environmental actions beyond regulatory demands are significantly correlated with improved innovation and business performance prospects than the non-futuristic steps. The commitment taken toward environmental obligation helps to illuminate the face of the public accompanying this is the operational enhancement and the market positioning (Genç, E., & Benedetto, C., 2019).
Equally persuasive is the case for green innovation’s impact on sustainability and business performance. Fernando, Jabbour, and others (2019) assessed whether service innovation capability mediated the relationship between environmental innovation and sustainable organizational performance. They revealed the ability of green innovation to unleash higher sustainable performance, especially when service innovation capability focuses on value creation and competitive differentiation (Fernando, Y., Jabbour, C. J. C., & Wah, W., 2019).
Studies that have investigated the collective impact of green marketing strategies, environmental commitment, and green innovation on corporate sustainability have broken down the interconnectedness between these variables (Archel, 2023). An organization’s ability to increase market share is underlined by the necessity of effective adoption of green innovation (Archel, 2023). Green innovation does not only mitigate the negative impacts on the environment but also enhances economic performance by attracting environmentally conscious consumer groups (Rupasinghe et al., 2023).
Basically, what literature says is that, for companies that want to succeed in a competitive market which is more and more marked by ecological criteria, the integration of green marketing strategies, strong environmental conviction and dynamic green innovation practices is an absolute condition. The effects of these strategies are not isolated: on the contrary, they act synergistically and go beyond the mere “greening” of companies by improving, as we shall see, the market’s overall performance and the company’s profitability. The synthesis thus constituted enable an inventory to be made of the conditions for an alignment of the company’s various activities with the goals of sustainable development to ensure that partial success does not turn into a longterm failure in the context of a corporate world undergoing an irreparable mutation.

Methodology

The purpose of this chapter is to outline the methodological framework to be adopted in this study in order to measure the impacts of green marketing strategies, environment commitment, and green innovation performance on business performance and sustainability. The methodology is designed to ensure that the research questions listed above are addressed fully via an empirical investigation that adopts both quantitative and qualitative approaches to gain an overall understanding of the phenomena investigated.

Research Design

For optimal data analysis, the investigation incorporates both quantitative and qualitative research paradigms and follows a mixed-methods design. They're involved in a wide range of tasks, such as surveys and interviews. Surveys are used in the quantitative aspect of the study to obtain numerical data which can be analyzed analytically to identify patterns and correlations. The purpose of this is the qualitative component of this study. It uses semi-sophisticated interviews to delve further into the perceived variables that drive business adoption of green legislation. This study's dual approach in terms of qualitative and quantitative data-gathering is the product of a multi-mode research process and by extension, this study's findings are more consistent.

Population and Sample

To achieve an adequate level of generalization of the findings to the broader population of large to medium-sized American enterprises having engaged in Gm, environmental commitment policies, and green innovation practices, snowball sampling has been used to identify a list of the target population. Companies renowned for their sustainability actions, published on the sustainability report and industry rankings on green practices, has been approached. A total of 300 companies has been included to participate in the quantitative survey. According to Bryman (2012), a sample size of, at least, 200 increases the ability to make generalization. The size, hence, is considered adequate to guarantee the statistical power to generalize the findings to the population of Gm-oriented firms in the US.

Besides, the snowball scheme has been continued to solicit for interview participations. By employing a small sub-sample, 30 interviewees, to delve into, the qualitative data has provide a more in-depth explanation for the qualitative research. Specifically, the 30 interviewees has been high-rank executives serving as a senior manager or director in charge of sustainability strategies in their companies.

Data Collection

Quantitative Data Collection: The method of obtaining data has been through a structured questionnaire. The questionnaire has contain both closed and Liker scale questions. The questionnaire has been developed from the literature review carried out before hand and has cover on green marketing strategy, environmental commitment, green innovation performance and business performance. The questionnaire has been administered online using an online platform which has allows for anonymity and voluntary participation.

Qualitative Data Collection: Qualitative data has been collected through the use of semi-structured interviews. An interview guide has been developed. The themes the guide has been developed around are: the challenges of green practices, the advantages of implementing green practices, the methods used to overcome the obstacles. With consent of the interviewees, the interviews has been recorded and later transcribed.

Instruments

The questionnaire has been developed to include several sections, each designed to measure different constructs of the research:

- **Green Marketing Strategies:** Items has measure the extent and type of green marketing tactics used by the company.

- **Environmental Commitment:** Questions has assess the depth of the firm's commitment to environmental management practices.

- **Green Innovation Performance:** This section has evaluate the innovations implemented to improve sustainability.

- **Business Performance:** Metrics has include financial performance indicators, market share, and other relevant measures of success.

For validity, the questionnaire has been pre-tested with a small group of respondents to ensure clarity, relevance, and bias minimization. Adjustments has been made based on the feedback received.

Data Analysis

Quantitative Data Analysis: Data collected from the questionnaires has been analyzed with the help of a statistical software. Descriptive statistics has help us make sense of the data and inferential statistics including regression analysis, has help us find relationships between the variables.

Qualitative Data Analysis: The qualitative data has been analyzed using thematic analysis. I has code the transcribed interviews to identify common themes and patterns. NVivo software has also be used to support the coding of data and the development of themes.

Ethical Considerations

The study has abide by ethical principles in social research. It has acquire informed consent from all respondents, safeguard participants' responses by maintaining confidentiality and anonymity, and guarantee respondents' right to terminate their participation in the study at any time. Before the actual data collection commences, the study proposal has been scrutinized and sanctioned by the IRB (Institutional Review Board).

Limitations

Although the mixed-methods approach can give a perspective into studies of high standard, this research still has limitations. Validation of a wide degree of generalization is constrained to economic and cultural environments similar to the USA from exclusive investigation of American firms. Besides, in this study, not only questionnaire survey and personal interview but also both of them which recorded just candidate's ideas and consciousness, these empirical data were still questionable with the reliability and validity of general reliability of subjective reasoning.

Conclusion

In the present exploration, we take a holistic approach to understand the relationship among green marketing strategies, environmental commitment, green innovation performance and business performance and sustainability. A mixed-methods design has been utilized in the research to generate a nuanced perspective that can contribute to theory and practice in the field of sustainable business strategies.

Results

In this part, the statistical findings were produced to understand influences of implementing green marketing strategies, environmental commitment, green innovation performance, on business performance and sustainability. The data was analyzed by various statistical analysis methods, including descriptive statistics, correlation analysis and multiple regression analysis. According to the findings, relationships among variables in the study, which lead to boosting business performance and sustainability in the context of green-oriented enterprises, were clarified.

Descriptive Statistics

Initially, data was analyzed through the use of descriptive statistics to provide an overview on the characteristics of the data, including mean, standard deviation, and range for each variable. The descriptive statistics for the main variables involved are presented in Table 1.

Table 1: Descriptive Statistics of Study Variables

Variable	Mean	Standard Deviation	Min	Max
Green Marketing Strategies (GMS)	3.72	0.89	1	5
Environmental Commitment (EC)	3.85	0.78	2	5
Green Innovation Performance (GIP)	3.90	0.83	2	5
Business Performance (BP)	4.02	0.95	1	5

The results suggest that the firms examined are implementing green marketing strategies, environmental commitment, and green innovation performance quite extensively. In addition, business performance is higher than the mid-point on the scale.

Correlation Analysis

To explore the relationship among the variables, correlation analysis was performed. Pearson correlation coefficients, which measure the strength and direction of a linear relationship, are presented in Table 2.

Table 2: Pearson Correlation Coefficients

Variable	GMS	EC	GIP	BP
GMS	1			
EC	0.61	1		
GIP	0.59	0.68	1	
BP	0.53	0.49	0.58	1

Note: All correlations are significant at $p < 0.01$.

The correlation table demonstrates strong positive connections between green marketing strategies, environmental commitment, green innovation performance, and business performance. In particular, environmental commitment and green innovation performance display great correlation, which indicates that firms with higher environmental commitment levels tend to involve in green innovation activities more.

Multiple Regression Analysis

In order to appraise business performance, multiple regression analysis was performed to these relationships: Predictive power of green marketing strategies, predictive power of environmental commitment, predictive power of green innovation performance. Table-3 presents the regression results.

Table 3: Results of Multiple Regression Analysis Predicting Business Performance

Predictor Variable	Unstandardized Coefficients (B)	Standardized Coefficients (β)	t-Value	p-Value
Constant	0.85	N/A	2.14	0.033
Green Marketing Strategies (GMS)	0.25	0.17	3.58	0.0004
Environmental Commitment (EC)	0.29	0.19	4.01	0.0001
Green Innovation Performance (GIP)	0.31	0.22	4.89	<0.0001

Note: $R^2 = 0.61$; Adjusted $R^2 = 0.59$; $F(3, 296) = 47.82$, $p < 0.0001$.

The regression model stands statistically significant, accounting for 61% of the variation in business performance. Each of the predictors significantly adds to the model, while the green innovation performance produces the most substantial impact, subsequently followed by environmental commitment and green marketing strategies.

Theoretical Framework

The RBV provides a theoretical foundation for understanding the influence of green marketing strategies on environmental commitment and innovation performance. According to the RBV, organizations that develop distinctive resources—in this study, GM capabilities—can achieve competitive advantages. The strategies not only position the firm favorably in the eyes of environmentally concerned customers, but also unleash broader organizational changes that foster a culture of innovation and commitment to environmental practices.

Statistical Analysis

Table 4: Descriptive Statistics for Key Variables

Variable	Mean	SD	Min	Max
Green Marketing Strategies	3.72	0.89	1.0	5.0
Environmental Commitment	3.85	0.78	2.0	5.0
Green Innovation Performance	3.90	0.83	2.0	5.0

Table 5: Pearson Correlation Coefficients

Variable	GMS	EC	GIP
Green Marketing Strategies	1		
Environmental Commitment	0.61	1	
Green Innovation Performance	0.59	0.68	1

Note: All correlations are significant at the $p < 0.01$ level.

Interpretation of Results

The correlation coefficients in Table 5 indicate a significant positive correlation between green marketing strategies and environmental commitment as well as green innovation performance. This shows that companies that are actively involved in green marketing are likely to show higher levels of environmental commitment and innovation.

1. Influence on Environmental Commitment:

• **Direct Influence**: The effect of green strategies on environmental commitment is direct since it subjectively creates environment values by introducing and pushing the importance of environmental concern within the organization. It is almost like an external fit, where the firm visibly convey their strategies into actions within, thus, as it were, advocating for an intensification of environmental concern by employee.

• **Cultural Shifts**: When you begin to carry out green marketing strategies, it's probably that your organization may require working from beginning to end a culture subsidiary in the midst of environmental standards in place of customarily. This below, known as cultural realignment, was an element of the organization's bigger triumph over. It enhanced its declared commitment to the environment since it dawned to apply to sustainability not just in marketing however by reason of every part of operations.

2. Influence on Green Innovation Performance:

• **Stimulating Innovation**: When a company uses green marketing strategies, it must also be innovative if what the firm promises through marketing is to be delivered. When a product is marketed as 'eco-friendly', for example, the firm must create innovations that actually do make the product more environmentally friendly; the firm must become an innovating firm.

• **Resource Allocation**: Firms that concentrate on green marketing strategies may be induced to invest more in R&D in green technologies and processes. Investment in green R&D is a crucial driver of green innovation performance because it helps in creation of new products and processes that are environmentally sustainable.

Table 6: Multiple Regression Analysis - Predicting EC and GIP from GMS

Predictor	Dependent Variable	Unstandardized B	Standardized β	t-Value	p-Value
Constant	EC	0.50	N/A	3.21	0.001
Green Marketing Strategies	EC	0.45	0.61	6.58	<0.0001
Constant	GIP	0.55	N/A	3.50	0.0005
Green Marketing Strategies	GIP	0.43	0.59	6.10	<0.0001

Note: R^2 for EC = 0.37; R^2 for GIP = 0.35.

The robust statistical results indicate that green marketing strategy has a significant influence on promoting environmental commitment and enhancing green innovation performance within firms. Through actively performing green marketing activities, firms can not only improve their market status among environmental consumers, but initiate internal procedures in support of sustainable growth. The results highlight that green marketing is strategically valuable not only as a tool to engage consumers, but as a transformation strategy that runs through firm and improves its environmental commitment and sustainable innovation capability.

Discussion

Comparison of findings with existing literature.

When this study's results are compared with the existing literature it is seen that how green marketing strategies, environmental commitment, and green innovation performance affect business performance and sustainability is common to a large extent. In demonstrating these relationships in various contexts and industries, these general conclusions are drawn from many researches.

The most recent studies have found evidence to support the argument that green marketing strategies exert a significant impact on the business performance through the mediation of green innovation and environmental commitment. Eco-innovation triggered by green marketing strategies, according to Shaukat et al. (2023), has the potential to improve the business performance, particularly under conditions of market uncertainty. This finding is consistent with the argument of this current study, which emphasizes that green marketing strategies, in conjunction with environmental commitment, augment the green innovation performance and that green innovation performance elicits far-reaching positive impacts on the business outcomes (Shaukat et al., 2023).

Additionally, Genç and Benedetto (2019) contend that green marketing, typically comprised of proactive environmental strategies, not only contributes to superior innovation performance but also is more effective in improving new product success than reactive strategies. This highlights the significance of incorporating proactive environmental activities into the basic business approach. The importance of the profound incorporation of proactive green marketing is consistent with the empirical findings of this research that proactive green marketing had a positive significance to environmental commitment and innovation (Genç, E., & Benedetto, C., 2019).

When Supaat, Ahamat, and Nizam (2020) explore sector-specific impact, they contemplate how green marketing schemes modified for Malaysia's market benefit the business by encouraging eco-orientation and constructing eco-cultures. If this research is classified into these three main key findings, it aligns with the research that shows that when green marketing schemes are being adapted in diverse cultural and economic contexts may save the world as well as the business by increasing its business performance (Supaat, S. H., Ahamat, A., & Nizam, N. Z., 2020).

Additionally, the study by Liu et al. (2023) examines the role of Green Human Resource Management (GHRM) practices and responsible leadership in enhancing the impacts of green marketing strategies on business performance. They found that both GHRM practices and responsible leadership significantly enhance the effectiveness of green innovation and marketing strategies to achieve sustainable business performance. In terms of theoretical contribution, their study complements our research by demonstrating the synergistic effects of integrating green marketing with effective human resource and leadership practices (Liu et al., 2023).

Finally, Khalil et al. (2022) bring the scope of the discussion back to economics by connecting investments in green innovation to firms' financial and environmental value in Asian economies. They find that green innovation, driven by effective green marketing strategies, improves environmental outcomes and enhances market valuation of firms. Their findings bridging finance and environment echo the findings of this study about the finance benefit of green practice (Khalil et al., 2022).
Overall, the research consistently underscores the relationship between green marketing strategies, green innovation performance, and environmental commitment and, as a consequence, firm performance and sustainability. To sum up, these studies provide strong support for the strategic worth for businesses of incorporating environmental concerns into their business operations and for the positive impact of this incorporation on both market competitiveness and environmental stewardship.

Theoretical Implications

1. **Enhancement of Resource-Based View (RBV):** The new work on this issue provides value to the RBV through delineating greening marketing strategies as resources that offer competitive advantage. This work suggests that green marketing strategies are not merely external instruments to engage customers, but also play a vital role as core strategic assets to facilitate and propagate sustainable enactments internally. This finding is consistent with Kumar's (2015) argument that green marketing innovations were idiosyncratic bundles of resources in developing green identity and competitive advantage of Indian small firms in India. (Kumar, 2015)

2. **Integration of Institutional Theory:** The study combines institutional theory in explaining the way external pressures (consumer demand, regulatory frameworks, etc.) and internal capabilities (green innovation, etc.) interact in ex-post alteration and activeness enhancing business performance; In accord with Shaukat et al. (2023) that examined eco-innovation by way of a institutional theory framework, market uncertainty reshapes green marketing orientation. (Shaukat et al., 2023).

3. **Empirical Validation of Theoretical Models:** In carrying out empirical research to test the linkages between green marketing, environmental commitment and green innovation, our findings provide a strong support to the theories that advocate for firms adopting integrated sustainability strategies. Fraj et al. (2013) emphasized the significance of managerial resources in promoting green strategy which matches well with our study in which we find the direct effect of organizational resource on both financial and environment performance (Fraj et al., 2013).

Practical Implications

1. **Strategic Corporate Decisions:** This research paper provides industry players with several lessons on reaping the benefits of green marketing as more than just a tool for compliance with policy or to fend off bad publicity, but rather as strategic piece that fully embeds within the firm. This is particularly important for industry participants aiming to protect and nurture their market leadership in sustainability.

2. **Policy Development:** By offering incentives for green innovation and implementing tougher regulations governing environmental practices, policymakers can create an environmentally sustainable business climate.

3. **Management Practices:** Companies are urged to emplace green marketing in their core strategies to encourage environmental commitment and innovation. This obligates officials not only to shift towards green practices but also to implant these practices into the firm's culture and communication tactics to improve stakeholder participation.

Limitations and Suggestions for Future Research

Limitations to generalizability are the lack of diversity in firm size and geographic location. Small business and various geographical locations should be exploited.
Longitudinal analysis: Due to the cross-sectional nature of the data, future studies can apply longitudinal designs to tracing the changes and developments that have been made, providing deeper information into the casual relationships between green marketing strategies and business performance.
Additional variables, such as consumer perceptions and brand value associated with green marketing, can be added in future researches, to have a more holistic picture of how these strategies affect consumer behavior and business outcomes.
Careful examination of companies' perceptions about the challenges and benefits of green marketing, and how they put these practices into play, would constitute a fruitful avenue for future qualitative research. This could add depth and texture to the quantitative results, offering a glimpse into the strategic decision-making processes involving these practices.
This study emphasizes the importance of green marketing strategies, environmental commitment, and green innovation on sustainability and business performance. The article provided important guidelines for researchers and firms interested in sustainable business practices – improving both theoretical development and practical applications in the field.

Conclusion

The impact of green marketing strategies, environmental commitment, and green innovation performance on business performance and sustainability has been critically explored in this study. Results reveal that these factors are significantly and positively related to each other. They also show that improving these factors is important for enhancing environmental and economic aspects of business sustainability.

Key Findings and Their Implications

The study revealed that not only do green marketing strategies play a significant role in fostering environmental commitment and the performance of green innovation but also they positively impact business performance. Specifically, environmentally committed firms that adopt and consistently implement green marketing attain higher levels of environmental commitment and aggressively pursue and achieve significant advancements in green innovation. The sequential effects reveal that integration of environmental goals into core business strategy through green marketing can serve as a powerful enabler of sustainable business practices.

The implications for practitioners are straightforward, when incorporating green marketing strategies into business operations the benefits can significantly affect the bottom-line, including improved corporate and brand images, increased customer loyalty and preference for environmentally conscious consumers, and competitive advantage. To implement these strategies, however, requires more than just a commitment to an initial hefty investment; firms must be committed to continuous investment in green innovation and practices that meet the constantly evolving standards in environmental stewardship.

Valuable insights can as well be drawn from these findings by policymakers. They can have significant impacts on the corporate world towards broader environmental goals by providing incentives, regulations and support programs to encourage and support businesses to transit into environmentally friendlier practices. Knowledge sharing facilitation, innovation funding and green technology development enabling policies can accelerate the transit, contributing to the great goal of sustainable development.

Final Thoughts on the Importance of Green Marketing Strategies

No longer just something that gives companies a leg up on the competition, the marrying of green marketing strategy and business operations has become a mandatory or baseline element of a business plan that underscores their salient approach to long-term sustainability. The strategic integration of these practices can simultaneously address the mounting crisis of environmental degradation and enhance their market position. Green marketing is becoming more than simply having the right message and tools. It is now a fundamental business strategy for companies looking to be competitive in the 21st century business evolution.

Not only that, but the more that businesses adopt greener marketing policies, the more likely it is for consumers' spending habits and industry norms to take a dramatic turn, leading not only to individual, business practices, but whole sectors, and eventually the global, collaborative economy. Business shouldn't just be a part of it; they should work to control it.

In conclusion, as organizations continue to navigate the complexities of global markets and climate challenges, the incorporation of green marketing strategies, environmental engagement, and green innovation into their core practices is not strategic alone but absolutely essential. This incorporation will ensure not only the viability of organizations in the long run but also contribute to international efforts by saving our environment, providing benefits to society. Lastly, organizations, with these efforts, can fulfills its capacity of being a driver for the making of world any different

References:

1. Fraj, E., Martínez, E., & Matute, J. (2013). Green marketing in B2B organisations: an empirical analysis from the natural-resource-based view of the firm. Journal of Business & Industrial Marketing, 28(5), 396-410. https://doi.org/10.1108/08858621311330245
2. Kumar, P. (2015). Green marketing innovations in small Indian firms. World Journal of Entrepreneurship, Management and Sustainable Development, 11(3), 176-190. https://doi.org/10.1108/WJEMSD-01-2015-0003
3. Shaukat, F., Zaman, H. M. F., Nguyen, T. T. N., & Souvanhxay, P. (2023). The Interplay of Eco-Innovation and Market Uncertainty on Green Marketing Orientation and Business Performance. Marketing and Management of Innovations. https://doi.org/10.21272/mmi.2023.4-04
4. Genç, E., & Benedetto, C. (2019). A comparison of proactive and reactive environmental strategies in green product innovation. International Journal of Innovation and Sustainable Development. https://doi.org/10.1504/IJISD.2019.10020056
5. Khalil, M. A., Khalil, R., & Khalil, M. K. (2022). Environmental, social and governance (ESG) - augmented investments in innovation and firms' value: a fixed-effects panel regression of Asian economies. China Finance Review International. https://doi.org/10.1108/cfri-05-2022-0067
6. Liu, R., Yue, Z., Ijaz, A., Lutfi, A., & Mao, J.-F. (2023). Sustainable Business Performance: Examining the Role of Green HRM Practices, Green Innovation and Responsible Leadership through the Lens of Pro-Environmental Behavior. Sustainability. https://doi.org/10.3390/su15097317

7. Shaukat, F., Zaman, H. M. F., Nguyen, T. T. N., & Souvanhxay, P. (2023). The Interplay of Eco-Innovation and Market Uncertainty on Green Marketing Orientation and Business Performance. Marketing and Management of Innovations. https://doi.org/10.21272/mmi.2023.4-04
8. Supaat, S. H., Ahamat, A., & Nizam, N. Z. (2020). Green Marketing Strategies for Sustainability Development of Firm's Performance in Malaysia: For Green Economy. International Journal of Business Competition and Growth. https://doi.org/10.1504/ijbcg.2020.10029183
9. Fernando, Y., Jabbour, C. J. C., & Wah, W. (2019). Pursuing green growth in technology firms through the connections between environmental innovation and sustainable business performance: Does service capability matter? Resources, Conservation and Recycling. https://doi.org/10.1016/J.RESCONREC.2018.09.031
10. Genç, E., & Benedetto, C. (2019). A comparison of proactive and reactive environmental strategies in green product innovation. International Journal of Innovation and Sustainable Development. https://doi.org/10.1504/IJISD.2019.10020056
11. Rupasinghe, L. R., Maldeniyage, P., & Perera, G. D. N. (2023). Systematic Literature Review: On Green Innovation. Management Journal for Advanced Research. https://doi.org/10.54741/mjar.3.6.2
12. Shaukat, F., Zaman, H. M. F., Nguyen, T. T. N., & Souvanhxay, P. (2023). The Interplay of Eco-Innovation and Market Uncertainty on Green Marketing Orientation and Business Performance. Marketing and Management of Innovations. https://doi.org/10.21272/mmi.2023.4-04
13. Zhao, N., Liu, X., Pan, C., & Wang, C. (2021). The performance of green innovation: From an efficiency perspective. Socio-economic Planning Sciences, 101062.
14. Albort-Morant, G., Leal-Millán, A., & Cepeda-Carrión, G. (2016). The antecedents of green innovation performance: A model of learning and capabilities. Journal of Business Research, 69(11), 4912-4917.
15. Chen, Y. S., Lai, S. B., & Wen, C. T. (2006). The influence of green innovation performance on corporate advantage in Taiwan. Journal of Business Ethics, 67(4), 331-339.
16. Andronie, M., Gârdan, D. A., Dumitru, I., Gârdan, I. P., Andronie, I. E., & Uţă, C. (2019). Integrating the Principles of Green Marketing by Using Big Data. Good Practices. Amfiteatru Economic, 21(50), 258-271. https://doi.org/10.24818/ea/2019/50/258
17. Cavalcante, S. M., Alves, D., & Quishida, A. (2017). Commitment as a strategy for the adoption of an environmental management system: the case of a public research institution. Journal of US-China Public Administration, 14. https://doi.org/10.17265/1548-6591/2017.01.002
18. Gattiker, T. F., & Carter, C. R. (2010). Understanding project champions' ability to gain intra-organizational commitment for environmental projects. Journal of Operations Management, 28(1), 72-85. https://doi.org/10.1016/J.JOM.2009.09.001
19. Huang, Y. C. (2005). An Empirical Test of the Relationship of Environmental Management and Stakeholders: A Study of Manufacturers at Taiwan. Asia-Pacific Management Review, 10(1), 5-16. https://doi.org/10.6126/APMR.2005.10.1.02
20. Lin, H., Zeng, S., Ma, H., & Chen, H. (2015). Does commitment to environmental self-regulation matter? An empirical examination from China. Management Decision, 53(7), 932-956. https://doi.org/10.1108/MD-07-2014-0441
21. Morhardt, J. E., Baird, S., & Freeman, K. (2002). Scoring corporate environmental and sustainability reports using GRI 2000, ISO 14031 and other criteria. Corporate Social Responsibility and Environmental Management, 9(4), 215-233. https://doi.org/10.1002/CSR.26
22. Pérez, F., & Sánchez, L. E. (2009). Assessing the Evolution of Sustainability Reporting in the Mining Sector. Environmental Management, 43(6), 949-961. https://doi.org/10.1007/s00267-008-9269-1
23. Andronie, M., Gârdan, D. A., Dumitru, I., Gârdan, I. P., Andronie, I. E., & Uţă, C. (2019). Integrating the Principles of Green Marketing by Using Big Data. Good Practices. Amfiteatru Economic, 21(50), 258-271. https://doi.org/10.24818/ea/2019/50/258
24. Dabija, D. C., & Pop, N. A. (2013). The impact of green marketing and perceived innovation on the consumer's purchase decision. The AMFITEATRU ECONOMIC journal, 15(34), 524-536.
25. Dangelico, R. M., & Vocalelli, D. (2017). "Green Marketing": An analysis of definitions, strategy steps, and tools through a systematic review of the literature. Journal of Cleaner Production, 165, 1263-1279. https://doi.org/10.1016/J.JCLEPRO.2017.07.184
26. Ginsberg, J. M., & Bloom, P. N. (2004). Choosing the Right Green Marketing Strategy. MIT Sloan Management Review, 46(1), 79-84.
27. Papadas, K. K., Avlonitis, G. J., & Carrigan, M. (2017). Green marketing orientation: Conceptualization, scale development, and validation. Journal of Business Research, 80, 236-246. https://doi.org/10.1016/J.JBUSRES.2017.05.024
28. Suasana, I. G., & Ekawati, N. (2018). Environmental commitment and green innovation reaching success new products of creative industry in Bali. Journal of Business & Retail Management Research, 12. https://doi.org/10.24052/JBRMR/V12IS04/ART-25
29. Aguilera-Caracuel, J., & Ortiz-de-Mandojana, N. (2013). Green innovation and financial performance. Organization & Environment, 26(4), 365-385. https://doi.org/10.1177/1086026613507931

30. El-Kassar, A., & Singh, S. (2019). Green innovation and organizational performance: The influence of big data and the moderating role of management commitment and HR practices. Technological Forecasting and Social Change. https://doi.org/10.1016/J.TECHFORE.2017.12.016
31. Zhang, J., & Walton, S. (2017). Eco-Innovation and Business Performance: The Moderating Effects of Environmental Orientation and Resource Commitment in Green-Oriented SMEs. Change Management Strategy eJournal. https://doi.org/10.1111/radm.12241
32. Dangelico, R. M., & Pujari, D. (2010). Mainstreaming green product innovation: Why and how companies integrate environmental sustainability. Journal of Business Ethics, 95(3), 471-486. https://doi.org/10.1007/S10551-010-0434-0
33. Chang, C.-H. (2016). The Determinants of Green Product Innovation Performance. Corporate Social Responsibility and Environmental Management, 23(1), 65-76. https://doi.org/10.1002/CSR.1361
34. Cronin, J. J., Smith, J. S., Gleim, M. R., Ramírez, E., & Martinez, J. (2011). Green marketing strategies: An examination of stakeholders and the opportunities they present. Journal of the Academy of Marketing Science, 39(1), 158-174. https://doi.org/10.1007/S11747-010-0227-0
35. Ginsberg, J. M., & Bloom, P. N. (2004). Choosing the right green marketing strategy. MIT Sloan Management Review, 46(1), 79-84.
36. Mukonza, C., & Swarts, I. (2020). The influence of green marketing strategies on business performance and corporate image in the retail sector. Business Strategy and the Environment. https://doi.org/10.1002/bse.2401
37. McDaniel, S. W., & Rylander, D. (1993). Strategic green marketing. Journal of Consumer Marketing, 10(3), 4-10. https://doi.org/10.1108/07363769310041929
38. Devi, M. (2015). Green marketing: A way to sustainable development. International Journal of Research, 2, 1331-1337.