

The Enablers and Consequences of Green Marketing Orientation

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Abstract: The study examines direct, indirect, mediating, and moderating effects among stakeholder environmental pressure, environmental culture, green marketing orientation, environmental reputation, competitive advantage, and performance of manufacturing and pharmaceutical firms. We collected data from 252 top and middle managers of the firms using survey questionnaires. We used the Partial Least Square Structural Equation Modeling (PLS-SEM) and Process Macro models 4 and 1 to examine the direct, indirect, and moderating hypotheses, respectively. The results indicate stakeholder environmental pressure and environmental culture influence green marketing orientation and green marketing orientation influences competitive advantage and corporate performance, respectively. Furthermore, the results suggest that competitive advantage partially mediates the influence of green marketing orientation on corporate performance. Moreover, environmental reputation moderates the relationship between green marketing orientation and competitive advantage. The findings of the study suggest critical implications for both theory and practice.

Keywords: competitive advantage, corporate performance, environmental culture, environmental reputation, green marketing orientation, stakeholders' environmental pressure.

I. INTRODUCTION

In today's volatile market, traditional marketing practices are insufficient to meet changing customer and societal demands (Shaukat & Ming, 2022). Current production and consumption patterns do not meet sustainable industry standards, posing environmental threats (Vilkaite-Vaitone & Skackauskiene, 2019). Therefore, companies must institutionalize green marketing practices across their processes to address these concerns (Papadas et al., 2017). The World Economic Forum highlights environmental pollution and degradation as urgent problems requiring attention (Ip, 2019). Given this, environmental orientation is crucial for balancing social, economic, and environmental sustainability goals (Danso et al., 2019). However, some firms posit that their competitiveness will be adversely affected if they opt for sustainable environmental practices (Papadas et al., 2017), but empirical research is required to dispel these misconceptions and encourage green practices for competitiveness and performance.

Organizations strive to enhance their relationship with the natural environment (Shaukat & Ming, 2022). The stakeholder resource-based view (SRBV) theory suggests that increasing environmental pressures drive organizations to allocate their resources toward addressing the impact of their actions on the environment, thereby converting threats into competitive advantages (Zhang & Zhu, 2018). The firm's environmental objectives are guided by a green marketing orientation (GMO) in satisfying customer gratification (Papadas et al., 2017). GMO is crucial for organizations to meet customer needs and environmental objectives (Papadas et al., 2017). It involves recognizing the significance of environmental issues and enables organizations to develop the necessary capabilities for achieving environmental goals (Chen et al., 2015; Li et al., 2018). GMO relevance in shaping green policies has led to inquiries about its enablers and its consequences. Existing studies have helped identify gaps that need further exploration.

First, stakeholders ensure firms comply with environmental regulations (Singh et al., 2022). Hahn et al. (2018) indicate that because of stakeholders' commitments and investments in organizations, they have a significant say in the operations and decision-making process, including issues of environmentalism. According to SRBV theory, an organization's success depends on effectively managing and addressing the concerns of its stakeholders with available resources (Sodhi, 2015). Some past studies centered on the association between SEP and financial performance (Guo & Wang, 2022; Papadas et al., 2019), without taking into consideration the effect of environmental strategy and sustainable development empirically (Hahn et al., 2018; Van der Byl & Slawinski, 2015). More so, the relationship between SEP and corporate performance is complex and requires further studies and investigation (Guo & Wang, 2022). This present study posits to determine how SEP aids the implementation of GMO and, in turn, how it affects corporate performance via competitive advantage.

Second, achieving sustainability goals requires a shift in society's attitude, and organizational culture plays a vital role in enabling this change (Fraj et al., 2011). The SRBV theory indicates that resources such as a strong environmental culture can affect the adoption of green marketing practices to satisfy stakeholders (Singh et al., 2022), leading to improved business and environmental performance (Shaukat & Ming, 2022). In addition, organizational culture supports transforming traditional business operations into sustainable ones (Wijethilake & Lama, 2019). However, there is a lack of empirical studies discussing the role of environmental culture (EC) in implementing green marketing practices, particularly in developing economies, despite its acknowledged importance in promoting sustainability in organizations.

Third, environmental strategy has been recognized as crucial to achieving competitive advantage (CA) and long-term profitability (Leonidou et al., 2015). Although past studies have emphasized the importance of contemporary environmental strategy in driving competitive advantage, organizational value, and profitability (e.g., Chung, 2020; Moravcikova et al., 2017), we contend that there is a significant gap in empirical research investigating the nexus between green marketing strategy and competitive advantage, primarily because of the dynamism of the market and business operations (Papadas et al., 2019). While studies have established a link between green marketing and business performance (e.g., Danso et al., 2019; Leonidou et al., 2015), few studies have explored environmentally driven competitive advantage (which is a strategic and long-term objective) (Leonidou et al., 2015; Shaukat & Ming, 2022). As a result, there is an opportunity for future research to examine the impact of GMO on competitive advantage and performance. This study aims to bridge this research gap by empirically demonstrating the dual positive impact of GMO on performance mediated via competitive advantage from a developing country's perspective.

Fourth, with the recent rise of environmentalism, studies have highlighted the role of stakeholders such as customers, employees, governments, and suppliers in ensuring companies address sensitive environmental concerns (Cronin et al., 2011; Zhang & Zhu, 2018). This position of stakeholders has produced what we call environmental reputation (ER) in marketing, representing stakeholders' perception of the firms' contribution to preserving the environment (Taherdangkoo et al., 2019). A favorable reputation is a signature to firms to remain competitive and enhance performance (Feng et al., 2022). Few studies focused their research on the contribution of environmental reputation to the sustainable marketing strategy (e.g., Opoku et al., 2023; Taherdangkoo et al., 2019). The present study extends past studies by being the first to evaluate how environmental reputation and green marketing orientation interplay to affect competitiveness, which signals the value of assessing the different levels of environmental reputation on the GMO-competitive advantage relationship.

Given the gaps identified in the extant literature, we proposed a theoretical model highlighting how firms under stakeholder pressure with strong environmental culture commit to GMO and leverage it to be competitive and perform given their environmental reputation. To illustrate the link between SEP, EC, GMO, ER, competitive advantage, and corporate performance, we have used the stakeholder resource-based view (SRBV) (Sodhi, 2015) to elucidate the direct, indirect, and moderating effects of the constructs on manufacturing and pharmaceutical firms' performance.

Our study contributes in the following ways. First, the extant literature on GMO tends to bifurcate stakeholder theory and resource-based view (RBV) instead of integrating them. We suggest using SRBV (Sodhi, 2015) as a combined theoretical base while exploring the enablers and consequences of GMO among firms. Second, the findings advance knowledge on the nexus between SEP and GMO, EC and GMO, and how competitive advantage mediates the effect of GMO on corporate performance. More so, it highlights the essence of environmental reputation in promoting competitiveness, given the presence of GMO. Also, the outcome addresses gaps in the extant literature to attest to the benefits of GMO and suggests that continued adherence to green initiatives enhances a firm's financial and market performance.

The rest of the study is sectioned as follows. Section 2 covers the theoretical review and six hypotheses. Section 3 covers the research method, followed by results in section 4. Lastly, section 5 covered the discussion and conclusions..

II. LITERATURE REVIEW

A. Theoretical Foundation

According to Freeman (2010), stakeholders are people or groups legitimately affected by a firm's value-creation actions. The Stakeholder Theory unravels the purpose of a firm and its responsibilities toward its stakeholders (Freeman et al., 2010). Firms that clearly define their purpose and demonstrate their responsibilities accordingly satisfy their stakeholders (Freeman et al., 2010). In this study, we argue that companies with an open and implied relationship with their various stakeholders should be accountable on all fronts, including the environment. The stakeholder theory further asserts that companies that attach importance to managing relationships with different stakeholders, including customers, employees, suppliers, government, and communities, "win a name for themselves" (Aragón et al., 2016). We then argue that companies' commitment to their stakeholders gives them a good reputation, which translates into stakeholder loyalty and community support.

The resource-based view (RBV) asserts that sustaining a firm's competitive advantage depends on its internal resources (Barney, 2002). This implies that companies should possess valuable, rare, non-substitutable, and inimitable resources to sustain their relevance within an industry (Barney, 1991). These strategic resources assist organizations in obtaining a competitive advantage which invariably translates into higher performance (Barney, 1991). For instance, superior corporate culture has been deemed a resource that reflects environmental ethics for achieving sustainable goals (Lozano et al., 2015). Countless studies have deployed the stakeholder theory and the RBV as separate theoretical lenses other than integrating them to evaluate sustainable environmental-related issues carefully (Singh et al., 2022). Therefore, we attempt to integrate the stakeholder and RBV theories to find answers to issues related to environmental sustainability by firms in the context of enablers and consequences of green marketing orientation.

A green marketing orientation (GMO) has been at the heart of bridging the gap between traditional marketing approaches and societal and environmental needs (Papadas et al., 2017). While providing an appropriate appreciation of corporate environmental related issues, for example, GMO, literature has generally provided diverging viewpoints instead of unifying and combining them (Singh et al., 2022). Given that, Sodhi (2015) suggested integrating the two profound theories, i.e., stakeholder theory and RBV of firms' performance. The lack of theoretical integration has significantly constrained the most recent literature on environmental sustainability (Singh et al., 2022). To synergize these two theories, Sodhi (2015) proposed an integrative theoretical viewpoint called the "stakeholder resource-based view - SRBV," which represents the combined perspective of Freeman's (2010) stakeholder theory and Barney's (2001) RBV. In this context, the RBV aims to maximize the potential of a distinctive sustainability-based competitive advantage by recognizing the importance of firms' stakeholders and internal resources. Although Sodhi & Tang (2018) has highlighted the importance of the SRBV in appreciating sustainable firm practices, research on this topic is still at the infantile stage (Singh et al., 2022). Given that, we situated our study on the SRBV theory to appreciate the enablers of GMO, the effect of GMO on competitive advantage and corporate performance, and the role played by environmental reputation. The SRBV opines that firms can achieve improved sustainability performance by leveraging their competitive advantage and developing a comprehensive understanding of their key stakeholders supported by a firm's resources (Sodhi & Tang, 2018).

Regarding the stakeholder theory, Aragón et al. (2016) asserted stakeholders' environmental pressures (SEP) refer to the influence and demands of various stakeholders on organizations adopting environmentally responsible practices and policies. These pressures can come from different stakeholders, including customers, employees, investors, government bodies, non-governmental organizations (NGOs), local communities, environmental organizations, and industry associations (Singh et al., 2022). More so, SEP has emerged as a driving force behind recent corporate CSR and environmental sustainability initiatives (Guo & Wang, 2022). By responding to these pressures, organizations recognize the significance of addressing societal and environmental concerns, leading to a shift toward more responsible and sustainable business practices (Kitsis & Chen, 2021). For instance, SEP has led to firms practising and employing relevant green management strategies such as green marketing (Kirchoff et al., 2011), green supply chain management (Afum et al., 2020), and green HRM (Borah & Korankye, 2021), among others. Papadas et al. (2019) determined a positive link between SEP and GMO; however, the association between SEP and GMO is under-researched. Literature indicates that engaging in environmental (green) and sustainable practices is a reactive (vs proactive) action from companies and that they are "compelled" by stakeholders to do so, which indicates that organizations are under some kind of pressure (Papadas et al., 2019).

Regarding the RBV, Hart & Dowell (2011) indicate that organizational resources and capabilities result in competitiveness and enhanced performance by minimizing pollution. Studies indicate that firm resources and capabilities determine the survival of green policies and the sustainable performance of a firm (Hart, 1995). More so, research points out the need for intangible resources (e.g., strong environmental culture) to unify all parties involved in pursuing green initiatives, creating a green value system, and solidifying the gains from already introduced green policies (Fraj et al., 2011). Shaukat & Ming (2022) highlighted the need to explore the environmental culture and how it promotes GMO among firms since such consideration is rare in literature. In addition, literature shows that organizations become more renowned when they satisfy their stakeholders, giving them a favorable reputation (Opoku et al., 2023). In discussing issues relating to green marketing, Taherdangkoo et al. (2019) indicate that it is prudent to consider issues of the environmental reputation of firms and its potential contribution to a firm's competitiveness since such a phenomenon is rare in literature. More so, the sustainable competitive element professed by the SRBV reinforces the need to utilize organizational resources effectively and efficiently (Sodhi & Tang, 2018). This is because organizational resources have been deemed to enhance profitability while minimizing the adverse effects of their operations on the environment (Lozano et al., 2015). Research has shown that environmental protection practices and a firm's capabilities are resources that determine a firm's sustainable performance (Kozlenkova et al., 2014). This study deploys GMO and environmental reputation as organizational resources that can ensure competitive advantage and promote a company's performance which has been under-researched.

B. Stakeholders' environmental pressures (SEP) and green marketing orientation (GMO)

SEP denotes the internal and external forces and demands exerted by individuals and groups on organizations to adopt environmentally sustainable practices such as adopting renewable energy to offset carbon emissions, waste reduction & recycling, water conservation, and the development of green products (Wang et al., 2023). The long-term sustainability of environmental policies and practices depends on how well firms micro-manage these initiatives to respond to stakeholders' calls (Sodhi & Tang, 2018). We, therefore, argue that companies could rely on their green marketing initiatives to manage, engage and address stakeholders' expectations in a manner that positions them as partners in delivering value (Kitsis & Chen, 2021). Pressure from customers, employees, government bodies, communities, NGOs, investors, etc., positively influences the green marketing orientation of firms. It also encourages companies to proactively develop and renew their resource(s) and capabilities to adopt and administer environmental practices (Wang et al., 2023). Past studies have determined that companies have distinct environmental responses to different stakeholders based on their relevance to the firm (Papadas et al., 2019a; Singh et al., 2022).

Stakeholders come in two forms affecting the environmental practices of companies. Internal stakeholders (e.g., employees) are the key initiators of an organization's proactive environmental activities. External stakeholders (e.g., regulatory bodies and governments) are usually linked with coercive pressures (Guo & Wang, 2022). Based on their dynamism and resources, firms deploy proactive environmental initiatives to address such pressures, which invariably translate into voluntary strategic initiatives to prevent pollution or degradation (Singh et al., 2022). In addition, external stakeholder pressures can come from non-governmental organizations, the community, environmental groups, the media, and labor unions. Another influential group of stakeholders is customers, who demand that companies adhere to specific practices and enhance their environmental performance (Kitsis & Chen, 2021; Sarkis et al., 2010).

We argue that companies should assemble their resources and capabilities to develop green marketing initiatives to effectively sense, seize stakeholder pressure, and address different perspectives and interests to maintain or improve their competitiveness in an ever-changing market (Zhang & Zhu, 2018). An organization's competitiveness emanates from how well it manages its stakeholders to be sustainable. To effectively implement green marketing strategies, companies must understand how various factors, including product development, promotional mix, support services, manufacturing and production processes, R&D, material purchasing, and waste disposal activities, affect stakeholders' interest in environmental practices (Papadas et al., 2017, 2019a). According to previous research, the level of environmental strategy can be categorized along a continuum in response to stakeholders (Borah et al., 2022). Thus, we propose that:

H1. SEP has a significant influence on green marketing orientation.

C. Environmental Culture (EC) and green marketing orientation (GMO)

Companies have realized the importance of being responsible for society and the environment. This responsibility is reflected in their corporate values and organizational culture, with top management adopting environmental values and behaviors (Shaukat & Ming, 2022). According to the RBV theory, sustainable corporate culture is a key resource for

sustainable development (Barney, 1991). More so, corporate environmental ethics are crucial in creating a superior corporate culture (Fraj et al., 2011). Green human capital, which encompasses the knowledge, skills, capabilities, and innovation of employees toward environmental protection and green innovation, is a concept that is integral to achieving organizational goals (Chung, 2020). Given the scarcity of studies on the link between environmental culture and GMO, Shaukat & Ming (2022) called for the need to study this relationship.

A company's environmental culture should promote learning, enhance creativity, and support employees to make environmentally safe strategies that add value to their shared vision, mission, policies, and procedures (Fraj et al., 2013). The top management significantly influences environmental strategies and behaviors by motivating and spurring a green environmental culture, operationalizing environmental policies and programs, and communicating about environmental issues (Borah et al., 2022; Khan et al., 2021). A steady environmental culture ensures that similar environmental values and norms are followed at all levels, providing a competitive advantage for companies adopting a green marketing orientation (Fraj et al., 2011; Leonidou et al., 2015). Companies that incorporate environmental aspects into their culture and have a strong environmental culture are more likely to have an overall green marketing orientation, leading to better business performance and societal well-being (Saleem et al., 2020). Therefore, environmental culture should be considered a vital organizational resource that facilitates forming and implementing sustainable strategies (Barney, 2002). Thus, we propose that:

H2. EC has a significant influence on green marketing orientation.

D. Green marketing orientation (GMO) and corporate performance (CP)

From the stakeholders' perspective, business performance represents the total value generated by a firm through its value-creation activities (Eltayeb & Kadoda, 2017). Leonidou et al. (2015) deem performance as the potential of any organization to obtain maximum output by judiciously using its available resources. Presently, many firms do not focus on just making a profit but also the need to preserve the environment through sustainable green initiatives and provide environmentally-friendly goods and services that affect consumer behavior, making firms environmentally responsible (Mukonza & Swarts, 2020).

Many studies have unraveled the effect of green marketing on a firm's performance (e.g., Chen et al., 2015; Danso et al., 2019). Habib et al. (2020) indicate that market orientation has positively influenced business performance through logical and persuasive arguments, suggesting that a marketing-oriented approach can enhance a company's performance. Additionally, Eneizan et al. (2016) have demonstrated that green marketing strategies contribute to companies' financial and non-financial performance. Furthermore, Mukonza & Swarts (2020) support the idea that green marketing positively influences business performance. This implies that green marketing involves offering environmentally friendly products to customers and adopting environmentally sustainable production and distribution processes.

Investing in green products, innovation, and processes, as stated by Hasan & Ali (2015), has been found to benefit businesses. While Hasan & Ali (2015) argue that economic and operational performance are crucial indicators of a company's success, it suggests that green marketing can provide profitability and competitive advantage while encouraging consumers to adopt greener consumption patterns. Moreover, adopting a green marketing strategy has been shown to impact the marketing volume of green businesses significantly and contribute to overall quality management within the company (Eneizan et al., 2016). As a result, green marketing creates new business opportunities, markets, consumer segments, and unique product positioning. This suggests a strong connection between green environmental practices and business performance in the industry (Ullah & Danish, 2020). However, despite these findings, there is still ongoing debate regarding whether these relationships hold in developing countries (Shaukat & Ming, 2022). Therefore, this study aims to investigate the effects of GMO on corporate performance and proposes the following hypothesis:

H3. GMO has a significant influence on corporate performance.

E. Green marketing orientation (GMO), competitive advantage (CA), and corporate performance (CP)

Sustainable competitive advantage is a strategic objective that aims to generate long-term profitability for a business and involves creating value through a strong focus on innovation and market orientation (Alsaqal et al., 2021). When a firm possesses a competitive advantage, its competitors either cannot replicate its business resources or would find it costly to do so (Moravcikova et al., 2017). Certain competitive advantages remain sustainable if competitors cannot imitate the source of advantage or if no one else comes up with a better offering (Moravcikova et al., 2017). Sustainable marketing is crucial

in helping companies adopt a long-term perspective and consistently generate profits (Papadas et al., 2019). The RBV emphasizes that the key elements of sustainable competitive advantage are the firm's resources and skills (Barney, 2002). Therefore, businesses must incorporate environmental considerations into every facet of their marketing efforts to be competitive (Mukonza & Swarts, 2020). Barney's RBV, developed in 1986 and 1991, suggests that valuable resources and capabilities within a company are crucial factors for establishing a sustainable competitive advantage. With global competition intensifying, adopting green marketing practices is recognized as a strategic resource in pursuing long-term competitiveness (Eneizan et al., 2016).

In recent years, the concept of green marketing has gained significant prominence. This is due to the recognition that green marketing offers businesses a strategic approach to developing environmentally friendly products while delivering value to customers (Katrandjiev, 2016). As a result, green marketing serves as a valuable resource that enables businesses to attain sustainable competitive advantages (Garg & Sharma, 2017). Thus, it is evident that green marketing practices, or GMO, represent a distinct and intangible resource for firms, which, when integrated into marketing efforts, yield substantial benefits in terms of sustainability (Chung, 2020). Hart's Natural Resource-Based View (NRBV), proposed in 1995, emphasizes that a firm's competitive advantage is contingent upon its relationship with the natural environment (Hart, 1995), which can be enhanced through the implementation of GMO (Shaukat & Ming, 2022). Previous research has indicated that green products and environmentally friendly processes are crucial in achieving a competitive advantage (Dangelico & Pontrandolfo, 2015). Scholars such as Garg & Sharma (2017); Leonidou et al. (2015) have highlighted the importance of green products and processes in pursuing competitive advantage. Furthermore, it has been established that competitive advantage can be realized by adopting eco-friendly processes, as demonstrated by studies conducted by (Alsaqal et al., 2021; Moravcikova et al., 2017).

Previous studies have shown that businesses gain competitive advantages through proactive environmental strategies, which involve implementing rare, unique, and complex capabilities (Barney, 2002). These strategies enable businesses to differentiate themselves at the organizational level, allowing them to compete sustainably in a global landscape while remaining adaptable to changes (Hart & Dowell, 2011). Recently, many businesses have embraced GMO to achieve a competitive advantage and enhance overall business performance (Papadas et al., 2019). By emphasizing differentiation strategies and meeting the needs of environmentally conscious consumers, businesses can leverage GMO to their advantage (Vilkaite-Vaitone & Skackauskiene, 2019). Thus, we propose that:

H4a. GMO has a positive influence on competitive advantage.

Our research responds to the knowledge gap and stretches our appreciation of the association between green marketing and competitiveness by explicitly indicating the effect of GMO on competitive advantage. Our study provides evidence for the mediating effect of GMO on corporate performance through competitive advantage. Therefore, the research underpins the dual positive influence of GMO on competitive advantage and corporate performance.

H4b. GMO positively influences corporate performance via competitive advantage.

F. The moderating role of environmental reputation (ER)

The environmental reputation of firms reflects stakeholders' views on their impact on the natural environment (Opoku et al., 2023). Consumers' concerns about the environment have increased due to the adverse effects of business operations on the environment, and their decisions are influenced by companies' environmental stewardship (Taherdangkoo et al., 2019). Cognizance to the SRBV theory, a firm's reputation in the environment reflects its commitment to satisfying stakeholders and activities geared at preserving the environment (Shaukat & Ming, 2022). According to Fatoki (2019), consumers prefer to do business with environmentally-friendly companies and demand eco-friendly products. Reputable organizations report on companies' environmental practices, leading to the development of sustainable environmental strategies (H. Li et al., 2022). More so, companies address customers' concerns and needs by implementing environmental programs to remain competitive and successful (Rehman et al., 2021).

Becoming environmentally friendly is a way for businesses to stay competitive and gives firms some form of reputation (Giantari & Sukaatmadja, 2021). This means firms implement green initiatives widely accepted by employees, suppliers, and customers (Afum et al., 2020). Because of that, there is the notion that stakeholders commit to environmentally responsible firms, which leads to brand ambassadorship (Chang, 2011). In light of that, sustainable segmentation is recommended for assessing consumer environmental concern levels to develop suitable green initiatives that win customer

loyalty and trust (Rehman et al., 2021). Also, green programs should incorporate consumers' environmental awareness, thoughts, expressions, and living habits (Fraj et al., 2011). Customers judge firms based on their environmental impact and prefer to do business with environmentally responsible companies (Opoku et al., 2023). More so, green strategies become necessary due to variations in customer tastes and preferences across industries (Albertini, 2013). Considering an industry's environmental reputation is vital for businesses because it is closely related to the amount of natural resources consumed and the potential environmental harm that could result, as portrayed by the NRBV theory (Shaukat & Ming, 2022). Given this, we propose that:

H5. *The positive influence of GMO on competitive advantage would become more positive when environmental reputation is greater.*

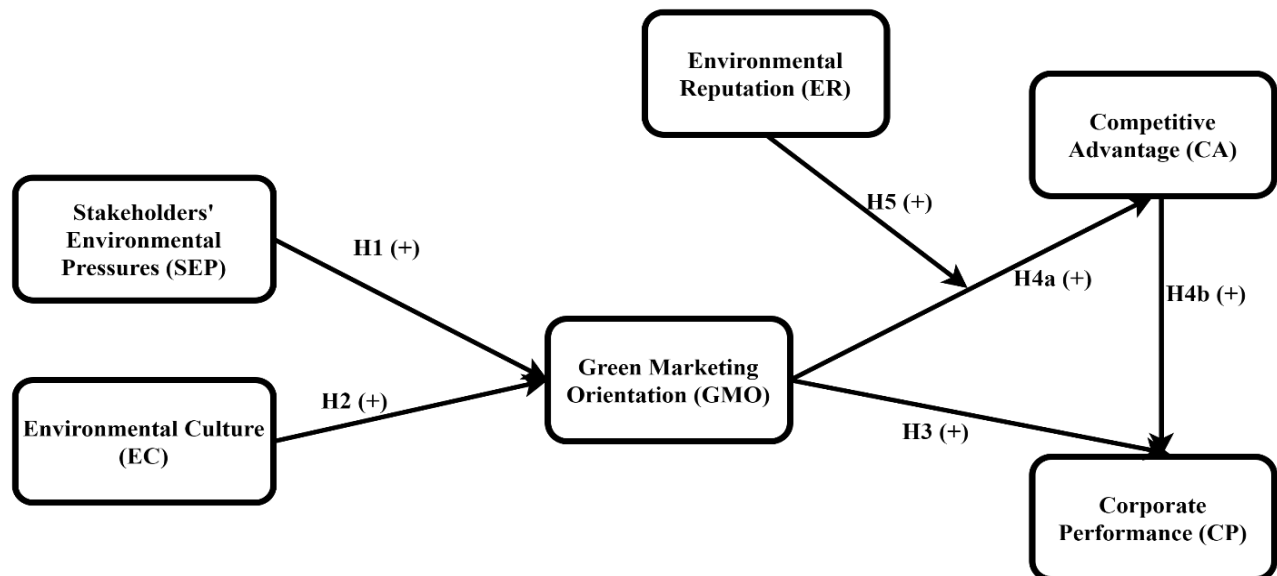


FIGURE 1: RESEARCH MODEL

III. METHODOLOGY

A. Setting

Ghana is the selected setting of this research for three reasons: (1) green marketing initiatives are likely to emerge and be strengthened as Ghana continues to experience degradation and pollution of the environment; (2) several companies in Ghana are increasingly deploying green marketing practices, especially after the introduction of African Continental Free Trade Area (AfCFTA) and the "one-district-one-factory" (1D1F) flagship program; (3) commitment of Ghana government to administer Environmental Protection Agency (EPA) recommendations as part of measures to curb environmental challenges means all firms would come under regulatory pressure. We focused on two major industries for generalizability purposes.

B. Participants and procedures

We used a survey questionnaire on the study's constructs to gather the views of different levels of managers and officers working in manufacturing and pharmaceutical firms (domestic & foreign) in Accra, Ghana. We relied on the company's definition per the Ghana Company Register, where large enterprises have workers between 30-99, 100, and beyond and have contacts of CEOs and solicitors to reach out to firms (<https://www.rgd.gov.gh/>). With the help of four research team members, we contacted 44 firms in Accra that satisfied the large enterprises' criteria through personal visits, phone calls, and emails using the random sampling approach. Subsequently, we obtained approval and notification from 21 manufacturing firms and 10 pharmaceutical companies. Accordingly, we issued letters to these companies expressing the objective of our study and the need to solicit responses to aid our study after obtaining permission from the CEOs and indicating the category of respondents. Study respondents consist of managers from the firms mostly recognized as top or middle managers, such as CEOs, departmental managers, marketing managers, CSR officers, communication managers, supervisors, and logistics & equipment managers. We engaged these people because they are policymakers, implementers,

and key informants on issues circling the environment, even though their titles differ in firms based on size and type. The survey was done in English since it is Ghana's official language. Due to the challenge of gathering data from respondents in a developing country like Ghana, it took the team six months to gather data (September – February 2023).

Due to some respondents' unavailability and time constraints, we administered the survey in two ways: through physical visits and online (emails & WhatsApp). The research team handed the questionnaires to the participants and concluded on dates to collect the completed survey. These officers were assured their responses would be used solely for academics. The participants provided answers on the stakeholders' environmental pressure, environmental culture, green marketing orientation, environmental reputation, competitive advantage, and corporate performance. We shared 304 questionnaires. We obtained completed questionnaires from 257 respondents (84.5% responses from both offline (96 participants) and online (161 participants)). Of these, only 252 matched questionnaire sets were found valid and included in our analysis.

Table 1 shows the demographic profile of 252 participants. Male respondents outnumbered females by 44 persons (148 males = 58.7% vs. 104 females = 41.3%). 48.8% of the participants are 41 years and above, and 37.7% are aged between 31 and 40. If we consider the educational level of participants, 56.8% of respondents have a postgraduate degree (35.3% undergraduate degree; 7.9% diploma).

TABLE I: SAMPLE DETAILS

Variables		Frequency	(%)
Gender	Male	148	58.7
	Female	104	41.3
Age	18-25 years	6	2.4
	26-30 years	28	11.1
	31-40 years	95	37.7
	41 years and above	123	48.8
Education level	Higher National Diploma	20	7.9
	Undergraduate degree	89	35.3
	Postgraduate degree	143	56.8
Organizational tenure	1-5 years	29	11.5
	6-10 years	95	37.7
	More than 11 years	128	50.8

C. Questionnaire development

All the variables were evaluated on a 5-point Likert scale (1 strongly disagree to 5 strongly agree). SEP was measured using 9 items comprising three dimensions: regulatory SEP, organizational SEP, and community SEP adapted from Henriques & Sadosky (1999); Singh et al. (2022). EC was measured with 4 items provided by Banerjee (2002) and validated by Fraj et al. (2011). GMO was measured using 9 items comprising three dimensions: strategic GMO, tactical GMO, and internal GMO, adapted from Papadas et al. (2017). Environmental reputation was measured with 5 items from Opoku et al. (2023). Competitive advantage was measured with 6 items adapted from Chang (2011). Lastly, corporate performance was measured with 6 items comprising two dimensions: financial performance and market performance, adapted from Feder & Weißenberger (2021).

D. Non-response and common-method bias (CMB)

We conducted tests for non-response and common-method bias, as Latan (2018) recommended in the reporting standards for partial least squares (PLS). Non-response bias was assessed to ensure answers from early and late respondents, and non-respondents did not differ significantly from the obtained sample. An independent sample t-test compared early and late respondents, representing the population. Table 2 showed significant values > 0.05 for both groups, suggesting that our sample is representative and can be generalized to the population (Becker & Ismail, 2016). Also, Herman's single-factor analysis, recommended by Podsakoff & Organ (1986), was employed to estimate the CMB. The analysis revealed that CMB does not pose a significant challenge in our research, as the first factor accounted for only 31.86% of the variance, indicating the presence of multiple underlying factors.

TABLE 2: NON-RESPONSE BIAS OUTPUT

Variable	Levene's test	T-test for the equality of means
Stakeholder environmental pressure (SEP)	0.374	0.653
Environmental culture (EC)	0.307	0.939
Green marketing orientation (GMO)	0.323	0.323
Competitive advantage (CA)	0.130	0.322
Environmental reputation (ER)	0.144	0.379
Corporate performance (CP)	0.092	0.184

E. Statistical analysis results

We used the SEM approach for data analysis. Consistent with Hair et al. (2019), we used the PLS-SEM, which is suitable for both complex and simple models. The PLS-SEM incorporates the measurement and the structural model, which aid researchers in establishing the goodness fit of data and evaluating proposed hypotheses (Hair Jr et al., 2014).

In evaluating our model, we consider essential elements such as item reliability, convergent and discriminant validity. To begin, the factor loadings in Table 3 exceed the threshold >0.70 , as suggested by Hair Jr et al. (2014). However, items CA2, CA5, and EC1 were dropped because they did not satisfy the threshold. Therefore, the individual item reliability criterion was satisfied. We estimated the composite reliability (CR) to determine the internal consistency of constructs relying on the threshold of 0.60 as proposed by (Hair et al., 2019). The CR values beyond 0.70 are acceptable (Hair et al., 2019). Table 3 shows the lowest (0.726) and highest (0.902) CR values which satisfy the threshold proposed by (Hair et al., 2019). Hence, there are no issues of internal consistency. The 3rd approach is convergent validity, which uses the average variance extracted (AVE). Convergent validity assesses the level to which all research constructs evaluate the same construct (Henseler et al., 2015). The AVE threshold should be >0.50 , as Hair Jr et al. (2014) suggested. Table 3 shows the lowest (0.541) and highest (0.753) AVE values, satisfying the criterion.

TABLE 3: MEASUREMENT MODEL

1 st -order constructs	2 nd -order constructs	Items	Factor loading	AVE	CR	R ²	Cronbach alpha (α)
Regulatory SEP		RSEP1	0.924	0.753	0.859		0.835
		RSEP2	0.854				
Organizational SEP		RSEP3	0.822	0.654	0.739		0.736
		OSEP1	0.821				
Community SEP		OSEP2	0.814	0.613	0.797		0.784
		OSEP3	0.791				
		CSEP1	0.707				
		CSEP2	0.809				
		CSEP3	0.827				
	SEP	RSEP	0.920	0.551	0.902		0.895
		OSEP	0.814				
		CSEP	0.784				
Environmental culture (EC)		EC2	0.817	0.660	0.742		0.742
		EC3	0.815				
		EC4	0.827				
Strategic GMO		SGMO1	0.824	0.645	0.726		0.725
		SGMO2	0.787				
Tactical GMO		SGMO3	0.798	0.656	0.738		0.737
		TGMO1	0.780				
Internal GMO		TGMO2	0.825	0.646	0.728		0.727
		TGMO3	0.823				
		IGMO1	0.798				
		IGMO2	0.803				
		IGMO3	0.811				
	GMO	SGMO	0.746				

	TGMO	0.750	0.541	0.894	0.717	0.894
	IGMO	0.737				
Environmental reputation (ER)	ER1	0.712				
	ER2	0.715				
	ER3	0.790	0.566	0.820		0.809
	ER4	0.785				
	ER5	0.755				
Competitive advantage (CA)	CA1	0.796				
	CA3	0.787	0.621	0.795	0.564	0.795
	CA4	0.781				
Financial performance (FP)	FP1	0.803				
	FP2	0.809	0.646	0.727		0.727
	FP3	0.800				
Market performance (MP)	MP1	0.798				
	MP2	0.803	0.689	0.782		0.775
	MP3	0.807				
	CP	FP	0.745	0.559	0.843	0.496
	MP	0.764				

In addition, discriminant validity considers situations where two indicators must vary statistically (Henseler et al., 2015). Fornell & Larcker (1981) provided a traditional approach to determining the discriminant validity, which was later argued by Henseler et al. (2015) as an insufficient metric when dealing with factor loadings with smaller differences, such as between 0.65 and 0.85, and introduced the HTMT criterion. The HTMT threshold is 0.85; beyond that, discriminant validity has not been attained (Henseler et al., 2015). Table 4 shows that our study satisfies the HTMT threshold.

Table 4: Correlations and discriminant validity

	1	2	3	4	5	6
Competitive advantage	0.788	0.788	0.705	0.793	0.763	0.735
Corporate performance	0.498	0.830	0.633	0.458	0.414	0.697
Environmental culture	0.315	0.412	0.812	0.539	0.515	0.434
Environmental reputation	0.124	0.228	0.309	0.752	0.321	0.408
GMO	0.337	0.321	0.515	0.405	0.736	0.357
SEP	0.510	0.452	0.266	0.227	0.315	0.742

Note: on the diagonal (in bold) is \sqrt{AVE} ; below the diagonal are the correlations; above the diagonal are the HTMT values.

IV. EMPIRICAL RESULTS

We deployed the bootstrapping resampling method with 5000 resamples to examine the study's direct hypotheses (Becker et al., 2022). Table 5 demonstrates that SEP positively relates to GMO ($\beta = 0.389$, $p < 0.01$, t -value = 6.781) and supports H1. Moreover, environmental culture is positively related to GMO ($\beta = 0.534$, $p < 0.01$, t -value = 9.482) and supported H2. GMO significantly influences corporate performance ($\beta = 0.384$, $p < 0.01$, t -value = 4.389) and supports H3. GMO significantly influenced competitive advantage ($\beta = 0.383$, $p < 0.01$, t -value = 5.266) and supported H4a.

TABLE 5: RELATIONSHIP BETWEEN VARIABLES (DIRECT EFFECT)

Paths	β -value	Sample mean	Std. deviation	T-statistics	p-values	Decision
SEP -> GMO	0.389	0.390	0.057	6.781	0.000	Supported
EC -> GMO	0.534	0.532	0.056	9.482	0.000	Supported
GMO -> CP	0.384	0.378	0.087	4.389	0.000	Supported
GMO -> CA	0.383	0.387	0.073	5.266	0.000	Supported

Note: * T -value > 1.96 , *** $p < 0.001$.

A. Indirect effect

As Hayes (2017) suggested, we relied on the Process Macro (model 4) to evaluate the mediating relationship where competitive advantage mediates the GMO-CP relationship. The direct impact of GMO on CP is ($\beta = 0.238$, $t = 3.603$, $p < 0.001$), while the direct impact of CA on CP is ($\beta = 0.580$, $t = 8.604$, $p < 0.001$), and the direct impact of GMO on CA is ($\beta = 0.742$, $t = 18.256$, $p < 0.001$). The indirect impact of GMO on CP via CA is ($\beta = .430$, $p < .001$, 95% CI [.28, .59]), which supports H4b (Table 6).

Furthermore, we relied on the Variance Accounted For (VAF) introduced by Baron & Kenny (1986) to validate the kind of mediation. VAF is used to estimate the ratio of the indirect-to-total effect (Nitzl et al., 2016). According to Nitzl et al. (2016), $VAF < 20\%$ implies no mediation; between 20%-80% implies partial mediation; $>80\%$ implies complete mediation. Given the result from the equation, competitive advantage partially mediates the GMO-CP relationship (64.27%).

$$VAF = \frac{\text{path a} \times \text{path b}}{(\text{path a} \times \text{path b}) + (\text{path c})} > \frac{0.430}{0.669} = 64.27\%$$

TABLE 6: MEDIATION RESULT

Total effect (GMO -> CP)		Direct effect (GMO -> CP)		An indirect effect of GMO -> CP			
β -value	p-value	β -value	p-value		β -value	LLCI	ULCI
0.669	0.000	0.238	0.000	GMO->CA->CP	0.430	0.2838	0.5970

B. Moderating effect

We also deployed the Process Macro (model 1) provided by Hayes (2017) to ascertain the moderating role of ER on the GMO-CA relationship after undertaking the hierarchical regression in SPSS 26. Table 7 results in model 3 show that the interaction term had a significant positive effect on CA, which indicated that the moderating variable ER increases the positive effect of GMO on CA ($\beta = 0.030$, $p < 0.001$, t -value = 3.252) and with a confidence interval that does not include zero CI [0.0120, 0.0488]. Therefore, H5 was supported. Figure 2 depicts the conditional slopes of the significant positive effect of the moderator. With a higher ER, the effect of GMO on CA is higher (Figure 2).

Table 7: Moderation output

Variable	Competitive advantage					
	Model 1		Model 2		Model 3	
	Estimates	SE	Estimates	SE	Estimates	SE
Constant	0.341**	0.128	0.280	0.143	0.649	0.319
GMO	0.293***	0.011	0.288***	0.012	0.379***	0.030
ER			0.347***	0.060	0.358***	0.106
GMO × ER					0.030***	0.009
R ²	0.710		0.711		0.721	

Process Macro Output						
	β	SE	T-value	P-value	LLCI	ULCI
Constant	0.649	0.318	2.037	0.042	0.0223	1.2760
GMO	0.379	0.030	12.532	0.000	0.3198	0.4389
ER	0.358	0.105	3.392	0.000	0.1503	0.5656
GMO x ER	0.030	0.009	3.252	0.001	0.0120	0.0488

* $p < 0.05$; ** $p < 0.01$, *** $p < 0.001$

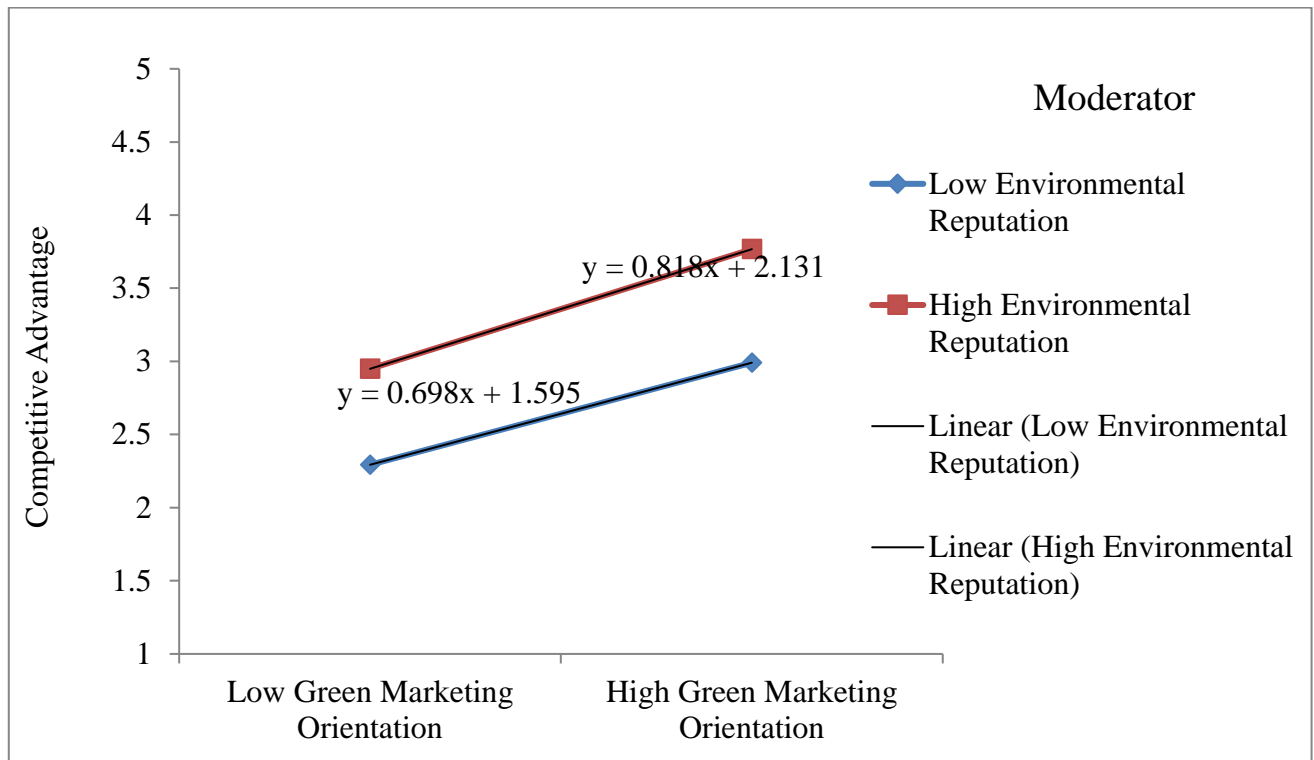


FIGURE 2: THE TWO-WAY LINEAR MODERATING EFFECTS OF ENVIRONMENTAL REPUTATION

C. Predictive relevance of the model and effect size

Estimating Q^2 is crucial to assess predictive relevance (Shmueli et al., 2019). Using the blindfolding approach in SmartPLS and going by the thumb rules proposed by Cohen (1988), we have GMO, CA, and CP demonstrating higher predictive relevance ($Q^2 = 0.506$, $Q^2 = 0.658$, and $Q^2 = 0.664$, respectively). This means the exogenous constructs significantly enhanced endogenous constructs.

To assess the R^2 of endogenous variables, the path's effect size (f^2) was calculated for each path in the structural model (Henseler et al., 2015). Cohen (1988) states f^2 value between 0.05-0.15 – smaller effect, 0.15-0.35 – medium effect, and more than 0.35 – larger effect. Results in Table 8 indicate a moderate effect of SEP on GMO, a larger effect of EC on GMO, and medium effects of GMO on corporate performance and competitive advantage.

TABLE 8: EFFECT SIZE OF EXOGENOUS FACTORS

	f-square (f^2)		Q-square (Q^2)
SEP -> GMO	0.157		
EC -> GMO	0.415	GMO	0.506
GMO -> CP	0.345	CA	0.658
GMO -> CA	0.090	CP	0.664
ER x GMO -> CA	0.035		

V. DISCUSSIONS AND CONCLUSION

The study aims to evaluate the enablers and consequences of GMO in Ghana manufacturing and pharmaceutical firms. We observed that SEP influences GMO, consistent with the result of Papadas et al. (2019) conducted in Greece. Literature posits that SEP is an important driver of green initiatives among firms, and our findings affirm stakeholders' demands on firms to be environmentally friendly (Zhang & Zhu, 2018). Also, we found environmental culture positively relates to GMO. The outcome is consistent with studies among pharmaceutical firms in Pakistan Shaukat & Ming (2022), which implies that EC is a significant contributor to the success of green policies. Literature on EC's influence on GMO is rare. A well-built, thought-out culture should be established to enhance the sustainable administration of environmental initiatives.

Many studies have confirmed that green marketing practices are positively linked to performance (e.g., Danso et al., 2019; Mukonza & Swarts, 2020). The results of our study support the positive relationship between GMO and performance. To attain higher performance levels, sustainable GMO should be encouraged by considering green practices such as green products & pricing, eco-friendly packages, and environmental education (Mishra et al., 2019). Also, our study showed a positive effect of GMO on competitive advantage, consistent with other studies (e.g., Giantari & Sukaatmadja, 2021). The outcome strongly supports encouraging business competitiveness via green marketing activities. In addition, the indirect effect of GMO on performance via competitive advantage was established, which is consistent with studies of Papadas et al. (2019). Lastly, our study established the moderating role of environmental reputation, as Taherdangkoo et al. (2019) suggested in the GMO-CA association. By implication, at higher levels of reputation, the effect of GMO on competitiveness is greater and vice versa. This moderation role of environmental reputation in the GMO-competitive advantage relationship has not been measured before.

From a conceptual perspective, our study contributions come in three folds. Firstly, we incorporated prior studies in green marketing to provide a modern framework for GMO based on actual business practice, and we stretch earlier research regarding its drivers and outcomes in a developing country context. Secondly, resorting to a rigorous research method, we demonstrate the institution of environmental initiatives for green marketing and its positive association with a competitive advantage and performance. Lastly, testing the environmental reputation scale as a moderator of the GMO-CA relationship, we established the moderating role of the environmental reputation of firms towards the development of sustained competitive advantage, enhancing performance. These outcomes commit a series of relevant theoretical and managerial implications, which are evaluated below.

A. Theoretical contributions

The research findings add to integrating Freeman's (2010) stakeholder theory and Barney's (2002) theoretical lenses in the form of SRBV (Sodhi, 2015) to elucidate sustainable environmental issues of manufacturing and pharmaceutical firms in the context of enablers and consequences of GMO. Stakeholder theory addresses the purpose and responsibilities of firms towards stakeholders (Freeman, 2010), while RBV emphasizes the need for valuable, rare, inimitable, and non-substitutable strategic resources (Barney, 1991), which has been effectively elucidated via the lens of SRBV theory (Sodhi, 2015). Our findings advance the understanding of the SRBV theory given that manufacturing and pharmaceutical firms can enhance sustainable environmental practices by making the best use of their environmental culture, reputation, and green marketing initiatives as relevant resources to obtain competitive advantage and sustainable performance along with understanding and engagement with their relevant stakeholders.

Additionally, we extend previous studies' results concerning the antecedents of GMO. Our results support a corporate environmental integration approach, which is relevant to competitiveness rather than exclusively committing to SEP but also establishing environmental culture (Fraj et al., 2011; Shaukat & Ming, 2022). Cognizance of the SRBV theory, our results support the proposition that SEP (Viridi & Gill, 2016) and a well-established environmental culture (Widyastuti et al., 2019) positively affect GMO. These outcomes highlight the strategic role of a SEP and environmental culture in developing and enhancing GMO for the long term.

Furthermore, our findings stretch prior research on the GMO-competitiveness association (e.g., Moravcikova et al., 2017; Papadas et al., 2019) by providing a revised and thorough investigation into the performance implications of GMO. Our study contributes to filling a significant gap in the literature by moving beyond previous empirical studies that rely on performance implications of activities pertaining to the green marketing mix to reveal, for the first time to the researcher's knowledge, the influence of a comprehensive and green marketing approach on competitive advantage (Leonidou et al., 2015; Shaukat & Ming, 2022), from a developing country's perspective.

Additionally, the affirmation of competitive advantage mediating role in the relationship between GMO and performance lends credence to earlier studies on the subject (e.g., Giantari & Sukaatmadja, 2021) that looked at the effects of such strategic GMO, tactical GMO, and internal GMO on performance outcomes. Our research further highlights the GMO's beneficial dual effects on competitiveness and performance. Our study emphasizes the significance of promoting green marketing to gain a competitive edge and enhance performance, which builds on the theory of green marketing. Cognizance of the RBV theory, our results affirm that GMO is an intangible resource that can enhance competitiveness (e.g., Alsaqal et al., 2021).

Moreover, our study investigated the moderating effect of environmental reputation on the GMO-competitive advantage association. Even though there has been a previous study about the positive correlation between business environmental strategy and competitiveness (Moravcikova et al., 2017; Rahmawati et al., 2014), the role of environmental reputation on GMO-competitiveness relation has not been studied previously. Considering that a modern GMO requires a holistic implementation at the organizational and industry levels (Leonidou et al., 2015), our results highlight the moderating role of environmental reputation in enhancing competitiveness. Remarkably, our research highlights the importance of assessing the effect of green marketing orientation on competitiveness at different levels of environmental reputation. While the study in this area is limited to focusing on a particular aspect of GMO and their implications (Giantari & Sukaatmadja, 2021), our findings indicate that GMO and environmental reputation can jointly positively affect competitiveness and performance.

B. Managerial contributions

Our results have some implications for practitioners. Firstly, GMO highlights the commitment to green marketing initiatives. Given its positive association with competitiveness and performance, it could be deployed as a strategic business resource. For instance, green marketing activities such as commitment to R&D and low-carbon technology-associated projects can be seen as possible goals in a firm's 5-10-year business plan. Additionally, such strategic choices could aid firms in distinguishing themselves from greenwash-driven competitors engaging in superficial gestures to enhance corporate image.

Additionally, our study postulates that critical elements such as SEP and environmental culture are forerunners of GMO. The outcome provides critical insights into how the regulatory community and organizational stakeholders pressure firms to introduce green marketing practices. Our study suggests that managers and leaders should integrate their stakeholder's expectations in designing environmental practices to best suit and satisfy their partners. More so, establishing an environmental culture is necessary to support the administration of green marketing policies. Management should educate and create awareness on environmental issues, reward, recognize, and empower green employees, and consistently show commitment towards the environment.

Furthermore, our empirically ascertained framework gives businesses a holistic view of how GMO initiatives can enhance competitive advantage based on their distinctiveness. Considering that GMO may not be easily engendered and given our findings, green marketing initiatives like engaging in green business networks (e.g., creating synergies, working together on research projects) may contribute to competitive advantage. In reality, a firm can be both competitive and green if there is a clear strategic priority on green marketing. At the managerial level, with managers seeking to spur change within their company's environmental orientation, this assumption has its ramifications. Firms that adopt sustainability ought to make important variations in their green marketing actions to pursue environmental marketing and, eventually, realize business ethos and performance supremacy. For instance, investing in eco-friendly green training, green products, labelling, and packaging to help enhance R&D capacities from its rivals and maintain competitive advantage.

Lastly, our study shows a synergy between GMO and environmental reputation and provides managers with relevant insights about the considerations a firm could consider to enhance its competitiveness. This research postulates that GMO and a firm's environmental reputation matter when pursuing an eco-friendly-driven competitive advantage. Hence, a green direction that marries the green reputation element goes beyond environmental strategy. It is important for firms to improve their environmental reputation. We also encourage firm managers to pursue rigorously sustainable environmental programs to gain a good reputation to remain competitive. For instance, managers can ensure environmental disclosure and other environmental innovation activities, such as using sustainable raw materials and minimizing emissions, to get stakeholders' buy-in, such as consumers and governments (Opoku et al., 2023).

C. Limitations and Future Research

Our study has some limitations. Firstly, mostly green marketing orientations are context-specific driven with specific features (Papadas et al., 2019), indicating that evaluating how the suggested framework works in different political, economic, social, and cultural environments would be relevant, explicitly comparing contexts. More so, even though the study sample is quite satisfactory, we admit actions of other industries have adverse effects on the environment; this is another possible limitation of the study. We suggest future researchers concentrate on different industries (e.g., hotels and automobiles) to make a comparative study and better evaluate the GMO-CA association in different contexts. For example,

it would be innovative to investigate how green environmental cost moderates the effect of green marketing orientation on corporate performance (Mishra et al., 2019).

Additionally, the association between GMO and competitive advantage (moderated by environmental reputation) gives credence to firms concerning one means to obtain a competitive advantage, but it is not exhaustive. Countless elements influence competitiveness and other organizational outcomes, hence, cannot be fully captured in one study. Subsequent researchers can evaluate other enablers of competitive advantage and their relevance compared to GMO. More so, future studies should focus on unraveling internal green marketing orientation (i.e., green culture & leadership, environmental training) influence on corporate performance.

Finally, based on past studies (Mishra et al., 2019), tactical green activities (e.g., green pricing policies, recycling materials) give versatility to businesses for (1) enhancing a company's environmental performance in the short-medium term and (2) modifying their green marketing strategies in response to both internal and external environmental variations (Fatoki, 2019). Hence, we encourage future investigators to evaluate the moderating effect of tactical and short-term eco-friendly marketing initiatives on green marketing orientation-performance association, which may serve as a bright template for a fundamental, long-term green marketing policy.

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