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Article

Drivers and outcomes of sustainable marketing strategy in the African context: the role of competitive advantage and strategic proactivity as mediating and moderating variables

Cogent Business & Management

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Suggested Citation: Demessie, Girma Tegene; Shukla, Amit (2024) : Drivers and outcomes of sustainable marketing strategy in the African context: the role of competitive advantage and strategic proactivity as mediating and moderating variables, Cogent Business & Management, ISSN 2331-1975, Taylor & Francis, Abingdon, Vol. 11, Iss. 1, pp. 1-18, <https://doi.org/10.1080/23311975.2024.2348442>

This Version is available at:

<https://hdl.handle.net/10419/326257>

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To cite this article: Girma Tegene Demessie & Amit Shukla (2024) Drivers and outcomes of sustainable marketing strategy in the African context: the role of competitive advantage and strategic proactivity as mediating and moderating variables, Cogent Business & Management, 11:1, 2348442, DOI: [10.1080/23311975.2024.2348442](https://doi.org/10.1080/23311975.2024.2348442)

To link to this article: <https://doi.org/10.1080/23311975.2024.2348442>



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Published online: 07 May 2024.



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Drivers and outcomes of sustainable marketing strategy in the African context: the role of competitive advantage and strategic proactivity as mediating and moderating variables

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ABSTRACT

This research focused on sustainable marketing strategies, and their drivers and outcomes in the African context using the perspectives of industrial organizations and the resource-based view. 360 marketing/production managers of manufacturing firms from Ethiopia were contacted for collecting primary data using a structured questionnaire. Research hypotheses were tested using structural equation modeling. Moreover, using the Hayes process macro and 5000 bootstrapping samples, an estimation of mediation and moderation effects was conducted. The findings indicated that managerial resources, relational resources, financial resources, environmental policies, and eco-technology detection and response are instrumental in the implementation of a sustainable marketing strategy. The research also revealed that competitive advantage mediates the influence of sustainable marketing strategy on business performance, indicating a partial mediation. Finally, the study found that strategic proactivity moderates the direct link between sustainable marketing strategy - competitive advantage, and the indirect association between sustainable marketing strategy and business performance via competitive advantage. The study has forwarded practical implications for manufacturing firms in Africa. Management and policymakers need to understand and help develop managers' understanding of the stakeholders' concerns about the environment and the benefits of sustainable marketing strategies (SMS). It is also important to note that implementing SMS proactively helps firms to acquire experience, and skills in sustainable practices that contribute to SMS efficiency and effectiveness, and subsequently achieve cost savings and a reputation for being at the forefront of SMS implementation, which can ultimately create a competitive advantage.

ARTICLE HISTORY

Received 26 August 2023
Revised 21 April 2024
Accepted 24 April 2024

KEYWORDS

Sustainable marketing strategy; drivers; outcomes; firm performance; strategic proactivity; competitive advantage; africa

REVIEWING EDITOR

Len Tiu Wright, De Montfort University Faculty of Business and Law, United Kingdom

SUBJECTS

Marketing Management; Marketing Research

Introduction

With increasing environmental awareness among various stakeholders, companies are seeking ways to incorporate green issues into their marketing strategies (Szabo & Webster, 2021; Usman Khizar et al., 2022). Consequently, several studies have been conducted to determine whether these practices benefit companies in developed countries. Nevertheless, as highlighted by Frempong et al. (2021), Junquera and Barba-Sánchez (2018), López-Gamero et al. (2009), Setyawati et al. (2020), and Ye et al. (2023), the realm of sustainable marketing strategy remains relatively nascent, with a limited empirical and theoretical groundwork. Consequently, divergent findings exist regarding the correlation between sustainable marketing strategy (SMS) and firm performance (FP), primarily due to the insufficient exploration of the mechanisms and circumstances through which sustainable practices impact performance (Rodgers et al., 2019). In this context, while the majority of research in both developed and emerging economies suggests that adopting environmentally friendly technology, processes, product design, and packaging leads

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to competitive advantages through input efficiency, cost savings (Le, 2022; Starik & Marcus, 2000), and product differentiation (Aziz & Samad, 2016; Mukonza & Swarts, 2020), there are also studies indicating a negative association between sustainable practices and firm performance (Moneva & Cuellar, 2009; Shawn et al., 2019; Wijayasinghe, 2020). This underscores the need for additional research in this area. This underscores the need for additional research in this area.

In this regard, the absence of representation of contextual factors, which can be captured by moderating variables in the research model, may be responsible for conflicting results as moderating variables help to capture the complex relationship between variables in the real world. In support of this, Collier (2020) and Hayes (2022) revealed that the degree of strength and direction of association between variables can be affected by moderating variables, which explain under what condition a particular link between factors will hold. In connection with this, López-Gamero et al. (2009) indicated that firms that are proactive in strategy implementation to exploit external opportunities are more likely to develop experience capability, and reputations from first moving advantage, resulting in more competitive advantage (CA). Nevertheless, strategic proactivity in sustainable marketing strategy deployment is not investigated as moderating variable on the direct link between SMS and CA and the indirect association between SMS and FP. Furthermore, there is a dearth of studies examining SMS in developing countries, especially in the African context (Braik et al., 2023; Mehraj & Qureshi, 2020). Due to differences in contextual factors (Demessie & Shukla, 2023) such as socioeconomic and cultural conditions (Aguinis & Glavas, 2019), enforcement of environmental regulations, and government support and size of green consumers and political stability (Hassan & Jaaron, 2021), and pressure of stakeholders (Muposhi, 2018) between the developed and developing countries, the results of studies on the drivers and outcomes of firms' SMS in developed countries may not be generalizable to firms in developing countries (Nekmahmud & Fekete-Farkas, 2020; Čater et al., 2023), particularly to firms in Africa. Even several extant researches (Hayu Agustini et al., 2019; Mishra & Yadav, 2021; Muposhi, 2018) on drivers of green marketing in developing countries focused on some external factors such as pressure from market and stakeholders, international customers, and regulatory bodies. Although these external factors provided promising insights into the rise of corporate environmentalism in developing countries but failed to capture the role of internal corporate resources and capabilities in establishing strategic environmental decisions. In addition, there are gaps in knowledge about the internal drivers and consequences of SMS in Africa as little research has been done on the topic. Thus, little is known whether the deployment of SMS in the African context is a burden or benefit taking into account the green public concern, customers' purchasing ability of green products, and environmental regulation. In summary, knowledge gaps exist regarding how much SMS contributes to the success of manufacturing firms in Africa, the particular organizational resources crucial for designing and implementing SMS, and whether strategic proactivity impacts the direct and indirect impacts of SMS on FP. Consequently, the study aims to address these gaps in knowledge and enhance the current understanding of SMS and its influence on FP within the African context.

In this study, therefore, we constructed and statistically tested a conceptual model that depicts the association between drivers and outcomes of a sustainable marketing strategy and the role of strategic proactivity and competitive advantage as moderating and mediating variables drawing on the perspectives of the industrial Organization (IO) and the resource-based view (RBV). With empirical data from the Ethiopian manufacturing sector, the study tested the conceptual model and contributed to the existing gaps in the literature on green marketing in Africa.

Review of literature and hypotheses development

Resource-based view theory of the firm

According to the Resource-Based View (RBV), not all resources within a company equally contribute to strategy formulation and the attainment of competitive advantage. Variances in performance and competitive positioning among rival firms are attributed to resources possessing characteristics of value, uniqueness, scarcity, and non-substitutability (Grant, 2009). The attainment of superior performance, leading to sustainable competitive advantage, stems from capabilities and intangible assets that align with these key resource attributes as per RBV (Helfat & Peteraf, 2003; Killen et al., 2012).

Derived from RBV theory, marketing competencies that effectively integrate customer preferences into segmentation, targeting, and positioning are deemed valuable, rare, and likely to confer competitive advantage, thus potentially enhancing performance (Barney & Clark, 2007). RBV suggests that internal resources crucial for strategy formulation and implementation, resulting in sustainable competitive advantage, create performance discrepancies among competitors (Yu et al., 2014). It follows from RBV that a physical resource can hold strategic significance in fostering competitive advantage if it enhances business performance through aspects like waste reduction and eco-efficiency (Guesalaga et al., 2018). An implication drawn from RBV underscores that the key resources and capabilities of a firm, characterized by their value and difficulty of imitation, should serve as the foundation for delivering superior and enduring customer value.

Industrial organization theory

This theory posits that the success of a firm is predominantly shaped by its external environment (Porter, 1980). Specifically, market and industry conditions play a pivotal role in determining the structure, which subsequently influences firm behavior (strategy), ultimately impacting performance (Love, 2001; Smit & Trigeorgis, 2012). External factors such as competitors' actions, government policies, customer demand, and suppliers' power, as outlined in Industrial Organization (IO) theory (Matyjas, 2014), significantly influence industrial competitiveness and firm performance. Notably, a firm's performance is influenced by its strategic choices, which are in turn shaped by the industry's structure, reflecting its overall competitiveness (Carlton & Perloff, 2000; Smit & Trigeorgis, 2012). Leveraging insights from IO, in competitive scenarios, companies can differentiate themselves through Sustainable Marketing Strategy (SMS) by addressing customers' environmental concerns, thereby enhancing their reputation and competitive advantage.

Sustainable marketing strategy

As suggested by Dangelico and Vocalelli (2017) and Davari and Strutton (2014), a sustainable marketing strategy refers to a company's endeavors to create, price, advertise, and distribute products in a manner that facilitates and sustains exchanges to fulfill customers' needs while minimizing adverse effects on the environment. As a key component of SMS, "Green/sustainable products" refers to products aimed at reducing raw material consumption in the production process and negative environmental impacts throughout the product's life cycle (Ansar, 2013). They are also characterized by their biological and natural origin and their eco-efficiency in the use of input throughout the product design and manufacturing process (Tseng & Hung, 2013). While the journey towards sustainable development may seem challenging and lengthy, it is possible that corporations can successfully develop a strategy for sustainable marketing through four key initiatives: redesigning products and services, advocating responsible consumption, adapting the marketing mix, and restructuring the marketing function (Sheth & Parvatiyar, 2021). Greenness is also related to the way the product is produced and the nature of the packaging of a product. Sustainable price, as stated by Hansla et al. (2008), is the price of eco-friendly products, which are often set at higher price levels because of the cost of implementing measures of environmental policy. Customers may tend to pay extra prices for sustainable product if they think the product offers additional value (Hossain & Khan, 2018). According to Awan (2011), sustainable products must be reasonably priced to remain competitive. In addition, the higher price of eco-friendly products compared to conventional (usual) products may reflect the eco-friendliness and high quality of the products (Ansar, 2013). According to Leonidou et al. (2013) and Zeriti et al. (2014), sustainable distribution includes segregating sustainable products from normal products in sale outlets, using reverse logistics to collect used products for recycling, and using energy-efficient and effective means of transport. Lastly, sustainable promotion involves providing stakeholders with environmentally friendly information about a product or a company's environmental activities. It also includes using environmentally friendly advertising methods to minimize negative environmental impacts (Harini et al., 2020). Sustainable advertising is aimed at convincing customers to buy eco-friendly products by explaining the benefit of their buying decision to them and the planet (Maziriri, 2020).

Research hypotheses

Management resources

The positive attitude, knowledge, and commitment of managers, especially top-level managers, is essential for strategy implementation (Ramus & Steger, 2000; Yu et al., 2020), especially for SMS, which are cross-cutting in nature and require financial investment, technology, and expertise. According to Borland et al. (2016), sustainable marketing initiatives frequently demand collaboration across various departments. Solely relying on marketing professionals may not suffice to cultivate a sustainability-oriented marketing approach within the organization. Cross-functional teams and partnerships play a vital role in developing the firm's dynamic capabilities to undertake sustainability-focused initiatives. Szalavetz (2018) state that sustainable marketing necessitates involvement from employees across all functional domains, including marketing, production, procurement, accounting, and information systems, to effectively address trade-offs and interdependencies. Management commitment plays a vital role in creating and fostering inter-firm cooperation in the supply chain (Burki et al., 2022), which is essential for sustainability practices. Likewise, Kitsis and Chen (2021) and Yu et al. (2020) revealed that management support is crucial for the integration of sustainable issues in business processes. Furthermore, Aragón-Correa et al. (2008) and Sharma et al. (2007) stated that sustainable initiatives require cross-departmental coordination, which can be facilitated by managers in vertical and horizontal management hierarchies. Based on RBV, it can be asserted that the experiential knowledge of managers about environmental regulations, customers' demand for green products and concern for the environment, and sustainability practices of competitors affect them to have positive attitudes and extend support and effort for SMS. This is particularly important for firms in developing countries compared to those in developed countries, where institutional capacity is high. Thus, the hypothesis below is formulated.

H1: The positive attitude and managers' knowledge about green issues, the greater the chance of deploying a sustainable marketing strategy.

Relational resources

Relational resources include resources (both tangible and intangible) that can be acquired from business partners through informal and formal relationships (Lavie, 2006). Given the resource constraints in developing countries, especially in Africa, these resources are important to support new initiatives (Shi et al., 2022) like sustainable practices. According to Chan et al. (2012) and Tidy et al. (2016), environmentally friendly practices require companies to create and maintain close relationships with members of their channel, such as suppliers and market intermediaries. Frempong et al. (2021) stated that sustainable-focused supplier and business cooperation play an important role in advancing an organization's sustainability practices. Moreover, Huang and Wang (2017) pointed out that partnership with chain members provides businesses with the information and knowledge critical to the success of their sustainable initiatives. Using insight from IO, business partners' skills, knowledge, and support that are important to green practices and are acquired through mutual relationships can contribute to the efforts of a firm to deploy SMS. Thus, we proposed the hypothesis stated below:

H2: The greater the networks of a firm, the higher the likelihood that a firm will develop a sustainable marketing strategy.

Finance resources

According to Sharma et al. (2007), the dynamic nature of sustainability issues requires specialized and large amounts of resources. Several previous researches have shown that a firm's access to financial resources contributes significantly to addressing environmental problems (Haque & Ntim, 2018; Khan et al., 2021; Şimşek & Öztürk, 2021). Moreover, Khan et al. (2021) indicated that financial resources affect green performance through sustainable innovation, suggesting the role of finance in sustainability practice. This resource is especially critical in developing countries where access to such resources is limited. Most importantly, Mishra and Yadav (2021) and Russo and Fouts (1997) noted that sustainability investments have long-term financial and non-monetary benefits, implying that firms need access to significant financing sources for green investment and carry-on regular business operations. It can be derived from

RBV that financial resources, although they are not stronger source of competitive advantage, they can immensely support the development of other intangible resources for the adoption of sustainable marketing strategy. Thus, the following hypothesis can be established.

H3: The greater access a firm has to financial resources, the higher the chance for a firm to deploy an SMS.

Eco-technology sensing and response

The ability of a firm to keep up and respond to green technological developments is of great importance in today's dynamic technology environment (Sharma et al., 2007). According to Cheng et al. (2014), green technologies are evolving rapidly and require large investments, and their areas of application range from waste reduction, material recycling, and product and process design to conservation of water and Energy. Similarly, it is revealed that companies with the ability to detect and respond to changes in technology are in a better position to develop eco-friendly processes, practices, and strategies using green technology (Leonidou et al., 2013). Orsatti et al. (2020) pointed out that sustainable technology helps a firm's performance by supporting its environmental practices. Wang et al. (2021) revealed that sustainable technology is essential to craft an eco-friendly strategy. Moreover, Leonidou et al. (2013) and Russo and Fouts (1997) revealed that firms face environmental regulations, pressure from various stakeholders and competition related to green issues and the ability of firms to scan, identify and react to development to green technology affect firm's tendency to craft eco-friendly strategy based on appropriate sustainable technology.

It can also be understood from the RBV that firms with better capability to sense and respond to technology is more likely to make use of appropriate green technology and develop sustainable marketing strategy. Therefore, the hypothesis mentioned below is posited.

H4: The better a company detects and responds to eco-friendly technologies, the more likely it is to develop SMS.

Firm environmental policies

A corporate environmental policy refers to the establishment of a unit and its system and staff to support green initiatives (Menon et al., 1999). Such policies assist knowledge acquisition, creation, and improvement of employees' knowledge and skills through training on the use of green procedures and business processes according to Ahmad and Panni (2015). Pujari et al. (2003) revealed that having pro-environmental policies in a company facilitates the adaptation of existing processes and innovation throughout the product lifecycle. Similarly, Ramus and Steger (2000) indicated that green policies enable employees and managers in an organization to consistently understand how to perform their activities and what is expected of them. Moreover, Darnall (2019) uncovered that sustainable policies enable firms to focus on sustainable issues in supplier and business partners' selection to assist their sustainable practices.

Using insight from RBV and the aforementioned literature, it can be inferred that supportive environmental policies can create an enabling environment for eco-friendly practices. Thus, we suggest the hypothesis stated below:

H5: A firm's green policy positively affects the level of SMS adoption.

Sustainable marketing strategy and competitive advantage

Diab (2014) highlighted that a company's ability to generate value, meet customer needs, and cultivate its reputation contributes to gaining a competitive edge. This aligns with the Resource-Based View (RBV), which asserts that a firm's capacity to deliver superior customer value compared to its rivals leads to enhanced performance through competitive advantage (Killen et al., 2012). Similarly, Nuryakin and Maryati (2022) found that firms' adoption of eco-friendly practices addresses customer concerns about the environment, indicating that such practices are integral to customer-centric approaches for gaining competitive advantage. The incorporation of environmentally sustainable technology, processes, product designs, and packaging yields a competitive advantage by enhancing input efficiency and reducing costs (Le, 2022; Loosemore & Lim, 2016; Starik & Marcus, 2000). Competitive differentiation, another facet of

competitive advantage, often arises from customers perceiving a product as more valuable (Lankoski, 2008; Sellitto & Hermann, 2019). Hence, we propose the following hypothesis.

H6: Sustainable marketing strategy is positively related to competitive advantage.

The link between competitive advantage and business performance

Farida and Setiawan (2022) and Hooley et al. (1999) emphasized that competitive advantages such as differentiation and cost effectiveness, derived from delivering consumer value, can impact firm performance. Aziz and Samad (2016) research indicated a positive correlation between business performance and competitive advantage, suggesting that competitive advantage serves as a pathway to achieving superior performance. The competitive advantage stemming from eco-friendly packaging and sustainable advertising facets of sustainable marketing has a beneficial effect on business performance (Maziriri, 2020). In Bali, Indonesia, Giantari and Sukaatmadja (2021) study discovered that a sustainable marketing mix strategy significantly and positively influences the competitive advantage of real estate companies. Similarly, Nuryakin and Maryati (2022) highlighted that eco-friendly marketing orientation is a crucial element of customer-centric approaches for gaining a competitive advantage by addressing customers' environmental concerns and enhancing reputation. Competitive advantage is the result of leveraging and deploying a firm's resources while implementing appropriate strategies to enhance financial and market performance, as per the principles of the Resource-Based View (RBV) (Barney & Clark, 2007).

H7: There exists a positive relationship between competitive advantage and business performance.

H8: The relationship between sustainable marketing strategy and business performance is positively mediated by competitive advantage.

Sustainable marketing strategy and business performance

Research on sustainable marketing and its outcomes has yielded contradictory findings (Junquera & Barba-Sánchez, 2018; Rivera & Delmas, 2004). Aziz and Samad (2016), Barney and Clark (2007), and Mukonza and Swarts (2020) have revealed positive associations between sustainable practices and firm performance, whereas Porter and Kramer (2006) and Wu and Lin (2016) have identified negative relationships. According to Sheth and Parvatiyar (2021), although achievable, it poses a significant challenge for companies to progress with economically sustainable practices while simultaneously adhering to environmental and social responsibilities. Nonetheless, drawing on insights from the Resource-Based View (RBV), it can be argued that a company's ability to develop and implement a superior Sustainable Marketing Strategy (SMS) compared to its competitors is crucial for enhancing performance. In this context, integrating environmental concerns into marketing strategies can address shifts in the external business environment, including changes in customer and stakeholder interests and environmental considerations. Furthermore, by demonstrating environmental stewardship and targeting new markets, sustainable marketing can positively impact business performance (Setyawati et al., 2020). According to Eneizan et al. (2016), elements of the sustainable marketing mix have a positive influence on firm performance. Based on these premises, we propose the following hypotheses:

H9: Sustainable marketing strategy positively affects business performance.

Strategic proactivity

Being proactive can improve business performance and offer new opportunities to add value to a market (Brege & Kindström, 2020). Environmental proactive is the effort by a company to launch its free-will-based initiatives to undertake green activities to minimize environmental impact (Sharma & Vredenburg, 1998). O'Brien and Leichenko (2019) highlighted that purpose-driven firms excel over their rivals in market share and growth while increasing customer and employee satisfaction (Sharma et al., 2007). Sustainable marketing necessitates a shift in mindset, the adoption of new tools, and organizational adjustments. It demands corporate strategies that are responsible and proactive, steering the market

towards sustainable products and services (Sheth and Parvatiyar (2021). Nath and Siepong (2022) and Nishant et al. (2020) revealed that the level of firms' environmental commitments differs. They indicated that some are proactive while others are reactive. Similarly, firms that are strategically proactive in sustainability can produce a better competitive advantage in terms of cost and differentiation (R. Ahmad et al., 2020), resulting in long-term growth due to the effect of their experience and building reputation from first moving advantage. It is inferred from RBV that firms with the ability to implement SMS proactively helps them to acquire experience, improve efficiency and effectiveness of sustainable practices and reputation from first moving advantage, which improve competitive advantage. Thus, we proposed the following hypothesis:

H10: The more proactive a firm is in applying SMS, the greater the impact of a sustainable marketing strategy on competitive advantage.

Conceptual model

Figure 1 depicted below illustrates the conceptual framework, which is founded on perspectives from Industrial Organization (IO) and the Resource-Based View (RBV). It highlights the importance of both internal and external resources in shaping the development and execution of Sustainable Marketing Strategy (SMS), which directly and indirectly (via Competitive Advantage) contributes to Firm Performance (FP). Furthermore, the model illustrates the moderating role of Strategic Proactivity (SP) in the relationship between SMS and Competitive Advantage, influencing Firm Performance. Additionally, the model showcases the impact of strategic proactivity as a moderator in the correlation between SMS and Competitive Advantage, affecting Firm Performance.

Research methods

Sampling and data collection method

Primary data were collected from manufacturing firms in Ethiopia with the use of a structured questionnaire. To establish a sample frame, we identified firms with green practices based on certain criteria and information from the Ethiopian Environmental Protection Authority after obtaining lists of industries from

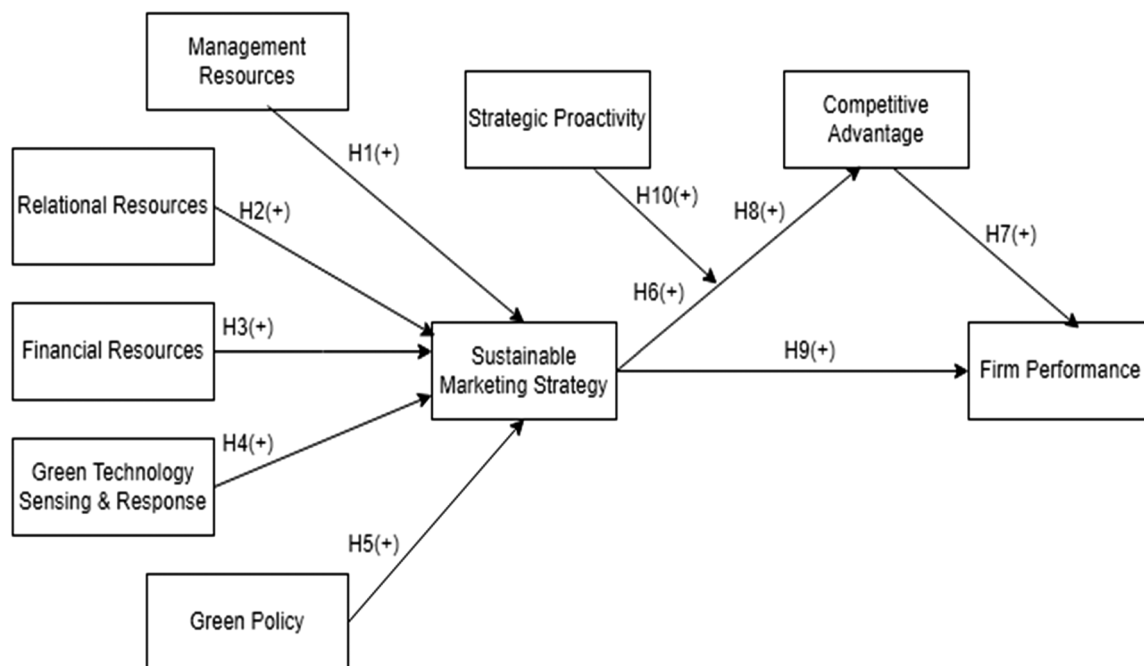


Figure 1. Conceptual framework.

the Ethiopian Ministry of Trade and Industry. Different manufacturing sectors such as textile, leather, shoe, food complex, painting, plastic, and water bottling were included in the study. A sample of 585 manufacturing firms was selected using stratified random sampling for filling in questionnaire. As the units of analysis were manufacturing firms, marketing and production managers of the firms were selected to fill in the questionnaire as they are more likely to be knowledgeable about green marketing practices and other related constructs of the study. Out of which, 443 questionnaires were returned. Of the 443 questionnaires collected, 48 and 35 of them were incomplete and outliers respectively. Thus, the total usable questionnaires were 360, making the effective response rate 61%.

Demographic background of respondents

The respondents of this study are production managers, 24% (86), and marketing managers, 76% (274), who are more familiar with SMS and PF by virtue of their position. In terms of educational attainment, 54% (194) and 46% (166) of them have first and second degrees or higher, respectively. While the maximum and minimum respondents' work experience were 25 and 3 years, the experience of most respondents (88%) is between 4 and 15 years. Therefore, the respondents' profiles indicated that they were a relevant source of data regarding the constructs of the study.

Data analysis

Measurements

A Likert scale, ranging from strongly disagree (1) to strongly agree (5) was employed to measure the indicators of the study constructs. To measure management resources, 4 items used by Aragón-Correa et al. (2008) were employed. 4 items were used from the research of Lavie (2006) to measure relational resources. 3 items were taken from the study of Sharma et al. (2007) to measure financial resources. We also measured sustainable technology based on 3 items drawn from Leonidou, Katsikeas, et al. (2013) and Sharma et al. (2007). Green policy and strategic proactivity were measured using 4 items taken from Ramus and Steger (2000) and Sharma and Vredenburg (1998) respectively. Four constructs, namely green product, green promotion, green price and green place adapted from Harini et al. (2020) and Leonidou et al. (2017) were used to measure the construct of sustainable marketing strategy. We employed 4 - 5 items and averaged them to extract the value of each of the four SMS dimensions. Competitive advantage was measured using items of cost and differentiation and was formulated according to Christmann (2000) and Giantari and Sukaatmadja (2021). In this research, firm performance was measured using marketing and financial performance indicators taken from Junquera and Barba-Sánchez (2018) and Larrán Jorge et al. (2015) based on the perception of managers as it was difficult to obtain quantitative data.

Moreover, we employed the maximum likelihood method and AMOS software to analyze the measurement model, which was tested using CFA. Table 2 presents factor loadings and composite reliability and their values that are greater than the threshold level. Table 1 revealed discriminate validity for the measurement model as the average variance extraction values, which are indicated in bold, are above the values of inters correlation between constructs. Finally, as indicated by Table 2, all model fit indices are greater than the thresholds, which reflected that the data fitted the measurement model.

Test for common method bias

Podsakoff et al. (2003) emphasize the importance of addressing Common Method Bias (CMB) when data are collected simultaneously using identical methods from a single group of respondents. Given that this study utilized a self-reported technique for data collection, Harman's single-factor test was conducted, revealing that the total variance explained by one factor was 38.67%, below the threshold value of 50%. Another method for detecting CMB involves examining inter-correlation values among constructs, where a value of .9 or higher indicates the presence of CMB (Rodríguez-Ardura & Meseguer-Artola, 2020). In our analysis, inter-correlation values were scrutinized, with the highest value observed at 0.81, suggesting the absence of CMB. Furthermore, we intentionally loaded all indicators onto an unobserved factor in the

Table 1. Statistics of measurement model.

Research construct	CR	AVE	MSV	MaxR(H)	FP	MR	RR	FR	GTe	SP	CA	EP	SMS
FP	0.961	0.862	0.413	0.964	0.928								
MR	0.895	0.685	0.399	0.917	0.333	0.827							
RR	0.929	0.765	0.454	0.942	0.378	0.610	0.875						
FR	0.893	0.738	0.452	0.929	0.426	0.595	0.596	0.859					
GTe	0.913	0.779	0.399	0.936	0.456	0.530	0.589	0.586	0.883				
SP	0.919	0.743	0.415	0.948	0.497	0.409	0.413	0.447	0.450	0.862			
CA	0.859	0.603	0.506	0.861	0.630	0.539	0.555	0.562	0.523	0.644	0.777		
EP	0.869	0.627	0.513	0.891	0.441	0.587	0.620	0.629	0.611	0.461	0.613	0.792	
SMS	0.877	0.641	0.513	0.884	0.643	0.632	0.674	0.672	0.632	0.602	0.711	0.716	0.801

MR: management resources, RR: relational resources, FR: financial resources, GTe: green technology sensing and response, EP: environmental policy, SP: strategic proactivity, SMS: green marketing strategy, CA: competitive advantage, FP: Firm Performance. The bold numbers indicate the average variance extraction (AVE).

Table 2. Assessment of measurement.

Research construct	Indicators	Indicators descriptions	Standardized factor loading	CR	AVE
Management resources	MR1	Managers' commitment to support green initiatives	.652	0.895	0.685
	MR2	Managers' understanding about stakeholders' concern about environmental issues	.865		
	MR3	Managers' awareness about environmental regulations	.870		
	MR4	Managers' effort in creating common understanding among employees about green issues	.899		
Relational resources	RR1	Relation with suppliers for eco-friendly inputs	.848	0.929	0.765
	RR2	Collaboration with distributors for reverse logistic	.923		
	RR3	Collaboration with distributors for market intelligence	.928		
	RR4	Plan to resolve green marketing related problems with suppliers	.793		
Financial resources	F1	Reduction in environmental impact through investing in production processes	.832	0.893	0.738
	F2	Money allocation for green technology	.950		
	F3	Promoting employees' ability in eco-friendly practices	.786		
Green technology	GT1	Actively seeking intelligence on technological changes	.835	0.913	0.779
	GT2	Responding quickly to green technological changes	.951		
	GT3	Appreciation of the ideas suggested by stakeholders on green technology	.858		
Green Policy	GP1	Facilitated cross-functional cooperation for green operations	.704	0.869	0.627
	GP2	A responsible person for coordinating green practices	.810		
	GP3	Green procedures and system for governing eco-friendly practices	.896		
	GP4	We formally communicate our environmental policy & strategy to all our employees	.743		
Strategic proactivity	SP1	Changes in routines and operations for better green performance	.903	0.919	0.743
	SP2	Earlier assessment of green impact of operations and proactive measures to minimize the effects	.668		
	SP3	Earlier efforts to understand the green concern of stakeholder and incorporation of the same in operations	.946		
	SP4	Periodic audit to identify if there is environmental risk in existing production process	.902		
Sustainable marketing strategy (SMS)	pp*	Green product	.785	0.877	0.641
	dp*	Green distribution	.845		
	po*	Green promotion	.842		
	pr*	Green pricing	.768		
Competitive advantage (CA)	CA1	Improved corporate image	.812	0.859	0.603
	CA2	Decreased consumption of input	.731		
	CA3	Attracted green customers	.774		
	CA4	improved the loyalty of our existing Customers	.787		
Firm performance (FP)	FP1	Satisfactory profit	.899	0.961	0.862
	FP2	Sales growth	.952		
	FP3	Customers satisfaction	.931		
	FP5	Market share growth	.930		

Model Fit indices: CMIN = 1098.8, DF = 485, CMIN/DF = 2.26, NFI = .903, CFI = .97, IFI = .944, TLI = .934, RMSEA = .059, pp*, pr*, dp* and po* represent green product, green pricing, green distribution, and green promotion.

Confirmatory Factor Analysis (CFA) model to assess model fit, which yielded unacceptable results, indicating the absence of CMB.

Structural model results

We employed a parsimonious estimation approach to mitigate the impact of sample size limitations. This involved computing composite measures of the primary components (4P) of sustainable marketing strategies and utilizing them as indicators for the Sustainable Marketing Strategy (SMS) (Morgan et al., 2012). Additionally, to examine the moderating effect, strategic proactivity served as the moderating variable, and the four elements (Ps) of SMS were mean-centered before forming the interaction term. This step was taken to address multicollinearity between the interaction effect and the main effect, thus minimizing potential bias in parameter estimation. Figure 2 illustrates the finalized research model. Furthermore, we evaluated various model fit indices, including χ^2 , df , p , χ^2/df , NFI, TLI, IFI, CFI, and RMSEA, as depicted in Figure 2. The values of these model fit indices indicate that the proposed model fits well with the observed data.

Results and findings

The hypothesized associations between the constructs, the standardized path coefficients, and their cross-pounding t -values are presented in Table 3. The results of the structural model supported H1, which connects managerial resources with sustainable marketing strategy ($B = .14$, $t = 2.94$, $p = .05$). The study showed that management resources are positively related to SMS, revealing the importance of management knowledge, experiences, attitude, and commitment to the development of SMS in Ethiopia.

Statistically significant results ($B = .21$, $t = 4.23$, $p = .01$) confirmed H2, which links relational resources and SMS. The positive association between relational resources and SMS demonstrates the significance of a firm's network with business partners, especially suppliers and distributors in crafting SMS. We also confirmed the positive influence of financial resources on SMS (H3) with statistical significance results ($B = .20$, $t = 4.03$, $p = .01$), revealing the crucial significance of financial resources for the creation of sustainable capability. We also found a positive relationship between sustainable policy and SMS as stated in H4 ($B = .25$, $t = 5.06$, $p = .01$), reflecting the significance of sustainable policy to formalize and support sustainable practices and bring about consistency in a firm's efforts to deploy SMS.

The proposed positive link between sustainable technology sensing and response and SMS was supported with hypothesis test results (H5) ($B = .13$, $t = 2.69$, $p = .05$), revealing the crucial role of the

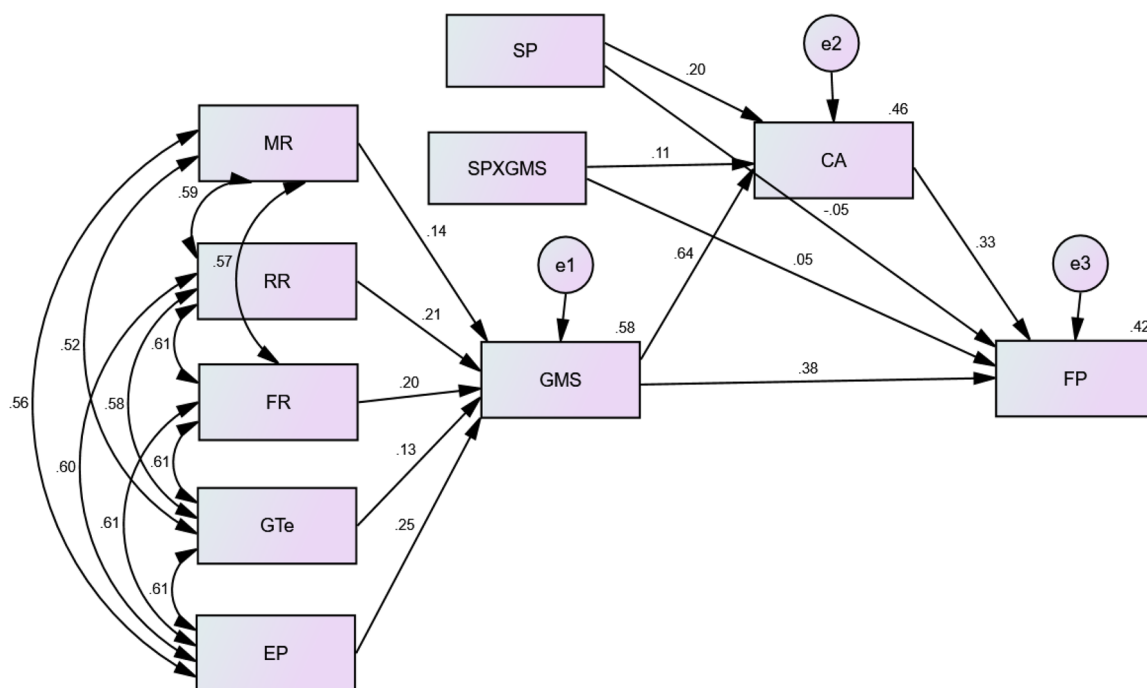


Figure 2. Final research model.

Indices of model fit: $CMIN/DF = 2.8$, $GFI = 0.93$, $NFI = 0.92$, $IFI = 0.93$, $CFI = 0.93$, $RMSEA = 0.07$.

capability to trace and apply sustainable technology in deploying SMS. We confirmed that SMS is positively related to competitive advantage as indicated by the statistically significance results (H6) ($B = .64$, $t=16.4$, $p = .01$), indicating the role of SMS in cost cutting from eco-efficiency in product design, product process, and recycling and thereby saving energy, input use and protecting environmental pollution.

Moreover, SMS enables managers to differentiate their products, and develop a reputation. Our study also validated the association between competitive advantage (CA), which resulted from SMS, and firm performance (H7) as can be shown by the statistical results ($B = .33$, $t=6.02$, $p = .01$), pointing out that a company's ability to prepare and execute a sustainable marketing strategy that outperforms its competitors is paramount in creating competitive advantage and resulting performance. Besides, this research supported the hypothesized positive relationship between SMS and firm performance (FP) (H8) with statistically significant results ($B = .38$, $t=7.11$, $p = .01$), revealing partial mediation.

The moderation effect of strategic proactivity in the link between SMS and CA is found to be significant and positive (H9) ($B = .11$, $t=2.87$, $p = .01$), indicating strategic proactivity in environmental marketing enables firms to integrate sustainable issues into marketing earlier than others thereby meet the environmental demand of stakeholders and create a favorable relationship with them and reputation, which is an aspect of competitive advantage. However, the connection between SMS and FP is not moderated by strategic proactivity ($B = .05$, $t=1.12$, $p = .23$). Thus, the results did not support H10; reflecting strategic proactivity enables firms to be the first mover in their sustainable practices that result in additional reputation advantages and experiential advantages which both contribute for competitive advantage thereby enhancing firm performance.

Lastly, as indicated by the significant value of the index of moderated mediation ($B=0.04$, $t=2.4$, $p = .01$), strategic proactivity (SP) moderates the indirect link between SMS and FP via CA as revealed by the results presented in Table 4 and 5. Lower values of strategic proactivity weaken the indirect influence of SMS on FP, while higher values of SP strengthen the association.

Table 3. Results for structural model.

Main effects	Proposed relationship	Standardized estimate	t-value	p-value
H1	Management resources → Sustainable Marketing Strategy	.14	2.94	.05
H2	Relational Resources → Marketing Strategy	.22	4.23	.01
H3	Financial Resources → Green Marketing Strategy	.20	4.03	.01
H4	Green Technology → Green Marketing Strategy	.13	2.69	.05
H5	Green policy → Green Marketing Strategy	.25	5.06	.01
H6	Sustainable Marketing Strategy → Competitive advantage	.64	16.4	.01
H7	Competitive advantage → Firm Performance	.33	6.02	.01
H8	Sustainable Marketing Strategy → Firm Performance	.38	7.11	.01
H9	Strategic Proactivity → Competitive advantage	.20	5.03	.01
	Sustainable Marketing Strategy X Strategic Proactivity → Competitive advantage	.11	2.87	.01
H10	Strategic Proactivity → Firm Performance	-.05	-1.27	.20
	Sustainable Marketing Strategy X Strategic Proactivity → Firm Performance	.05	1.12	.23

Table 4. Results of moderated mediation analysis.

Indirect Link	Direct Effect	Indirect Effect	Confidence Interval	T-value
Sustainable marketing strategy → Competitive advantage → Firm Performance	0.41	.26(.062)	.157/.367	4.726

Table 5. Results of moderation analysis.

Moderated indirect associations	Estimate	SE	Confidence Interval at low/high level	t- value
Strategic proactivity at low level	0.223	0.052	.129/.330	4.27
Strategic proactivity at high level	0.289	0.059	.180/.411	4.84
moderated mediation index	0.042	0.018	.010/.079	2.40

Discussion

The study showed that management resources are positively related to SMS, revealing the importance of management knowledge, experiences, attitude, and commitment to the development of SMS in Ethiopia. This is consistent with the findings of Aragón-Correa et al. (2008) and Yu et al. (2020) who underscored the role of management resources for sustainability practices. The finding is also in line with Ramus and Steger (2000) who indicated that the motivation of employees to green practices increases when they perceive that management is committed and supportive of environmental issues. It is important that managers raise awareness of current and future opportunities and risks associated with green practices.

The positive association between relational resources and SMS demonstrates the significance of a firm's network with business partners, especially suppliers and distributors in crafting SMS. The result is in line with the recent environmental literature (Farida & Setiawan, 2022; Ye et al., 2023) ; that showed quality relationships between a firm and business partners matter in the firm's effort to develop green capability thereby implementing SMS. In addition, because SMS development requires environmentally friendly inputs, equipment, processes, and information, as part of the process of integrating green themes into the marketing mix, establishing business relationships is important.

The positive relationship between financial resources and SMS revealed the crucial significance of financial resources for the creation of green capability. The finding is consistent with the study of Khan et al. (2021) and the perspective of RBV, which postulates that financial resources are necessary for the development of green capability. According to Sharma et al. (2007), sustainability issues demand a considerable number of financial resources as they are dynamic and necessitate specialized and complex resources. Thus, the availability of financial resources can facilitate a firm's effort to develop SMS.

The positive link between green policy and SMS reflects the significance of green policy in formalizing and supporting green practices and bringing about consistency in a firm's efforts to deploy SMS. This finding is supported by the study of Ahmad and Panni (2015) which revealed that green policy helps employees understand targets, standards, and goals and manage environmental performance at individual and organizational levels. In addition, Renwick et al. (2013) argued that such policies enable employees to develop green capabilities by equipping them with skills and knowledge. It is also important for managers to note that establishing work units and policies assists in the creation of green capability of employees and business processes and the identification of appropriate green technology in a sustainable manner.

The green technology sensing and response and SMS are positively related, revealing the crucial role of the capability to trace and apply green technology in deploying SMS. According to Leonidou, Katsikeas, et al. (2013) and Russo and Fouts (1997), the ability of firms to scan, identify and react to the development of green technology is crucial for crafting eco-friendly strategies based on appropriate sustainable technology.

The study revealed a positive association between SMS and competitive advantage. This finding is in harmony with the study of Maziriri (2020) who found that green packing, green advertising, and green innovation positively affect competitive advantage. In the presence of external pressure and concern from regulatory agencies, consumers, media, eco-activists, and local communities on firms to take care of the environment (Sharma & Vredenburg, 1998; Usman Khizar et al., 2022), managers should appreciate that the use of SMS contribute for the generation of competitive advantage in terms of cost-cutting from eco-efficiency in product design, product process and recycling and thereby save energy, input use and protect environmental pollution. Moreover, SMS enables managers to differentiate their products and develop a reputation.

The study found a positive relationship between the competitive advantage gained from SMS and business performance. This result is in accord with the study of Farida and Setiawan (2022) who found a positive link between competitive advantage and market performance. Moreover, the finding is in agreement with the study of Leonidou et al. (2017) who revealed a positive influence on a firm's market and financial performance. According to RBV, we can conclude that a company's ability to prepare and execute a green marketing strategy that outperforms its competitors is paramount in creating a competitive advantage and resulting performance.

The positive link between SMS and FP reflects the contribution of eco-friendly marketing practices to firm performance. This finding is in line with the empirical evidence from Maziriri (2020) and Mukonza and Swarts (2020) who found a positive link between SMS and FP in small and micro enterprises in Iraq. With the growing awareness among consumers regarding environmental concerns, the increasing demand for eco-friendly products, the implementation of environmental regulations, and the rising number of firms embracing sustainability practices, it has become imperative for businesses to integrate eco-friendly initiatives to enhance their performance.

The study found that strategic proactivity has a positive moderating effect on the relationship between SMS and competitive advantage. According to R. Ahmad et al. (2020), strategic proactivity in environmental marketing enables firms to integrate green issues into marketing earlier than others thereby meeting the environmental demand of stakeholders and creating favorable relationships with them and reputation, which is an aspect of competitive advantage. The finding of this study is also supported by the study of O'Brien and Leichenko (2019) who revealed that firms with strategic proactivity examine their context and develop new products and markets to grow their business.

Conclusions and implications

With empirical data from the Ethiopian manufacturing sector, the study tested the conceptual model and contributed to the existing gaps in the literature on the drivers and outcomes of green marketing in Africa. RBV is applied in this study to reveal the internal resources and capability needed to craft SMS and show the links among SMS, CA, SP, FP, and IO to indicate the role of RRs to support the SMS practices. We contend that although the two theories are opposite to each other, they are synergic in explaining the drivers, and consequences of SMS and the conditions affecting the relationship between SMS and CA. Green practices may differ in different contexts due to variations in regulatory framework and socio-economic factors. Green practices are largely considered to be the least priority area of firms in Africa, lacking an internal strategic approach and focusing mainly on external green practices (contributing funds for environmental protection). Nevertheless, our study revealed that firms in Africa are engaged in green marketing practices using their limited resources, given the external threat and opportunity of green practices and the current advancement in information technology.

It was also found that competitive advantage acts as a mediator between green marketing strategy and firm performance. With growing environmental awareness among customers and stakeholders, firms implementing green marketing strategies are likely to cultivate a positive reputation, thereby impacting their overall performance (McWilliams & Siegel, 2011; Nagar, 2015). Furthermore, such firms can realize cost savings in production processes through practices like recycling packaging materials and enhancing eco-efficiency, leading to reduced input usage per unit of product (Ambec & Lanoie, 2008; Junquera & Barba-Sánchez, 2018).

The overall study has forwarded practical implications for manufacturing firms in Africa. Based on the results of the study, SMS not only benefits the environment but also contributes to the CA of firms. Thus, policymakers need to help managers develop an understanding of the opportunities and threats related to green practices to encourage them to adopt SMS. The study also helps managers' efforts in deploying SMS by persuading business owners and board members to extend support for the availability of financial resources for sustainable practices, access to sustainable technology, and sustainable policy for the deployment of sustainable technology. Moreover, the role of relational resources reveals that managers need to create quality partnerships with business partners (suppliers and distributors) to have better access to green inputs, technology, and information that are important for building robust green practices for developing green products and establishing green distribution. The moderating role of SP indicates that it is important for managers to note that implementing SMS proactively helps firms to acquire experience, and improve the efficiency and effectiveness of green practices and reputation from first moving advantage, which ultimately improves FP.

It is also important for managers to note that investing in green practices and deploying green marketing strategies pays off in improving firm performance. In today's business environment in which information flows fast and the environmental concern of stakeholders increases, green marketing enables

managers to meet the green concern of customers and other interest groups that directly or indirectly influence business performance. In the current increasing competitive landscape, managers can use green marketing strategies to differentiate themselves and acquire favorable attitudes of customers and stakeholders thereby improving business performance

Limitations and future research direction

Despite the important findings, the study still has the following limitations. This research is limited to the manufacturing sector. Therefore, future studies should consider sustainable marketing strategies from the perspective of other sectors. Moreover, manufacturing industries were taken together regardless of their level of environmental pollution. Future research thus can investigate SMS and its impact on business performance with data from the least polluting and most polluting industries to see if SMS has a differential effect. As this research is quantitative, it has limitations in introducing additional variables that mediate and moderate the influence of SMS on FP. Thus, using exploratory research methods, future studies may explore new constructs having mediating and moderating effects in the association between SMS and FP as sustainable marketing lacks a strong theoretical foundation and is a relatively new field of study.

Given the cross-sectional design of this study, caution must be exercised in drawing conclusions about causal relationships between the study constructs. Future research employing longitudinal designs could provide deeper insights into the causal associations between variables over time. In addition, firms operating in developing countries face unique external and internal environments compared to those in developed countries. Hence, future research should investigate the challenges and opportunities associated with green marketing strategies in developing country contexts. Lastly, the measurement of firm performance in this study relies on the subjective perceptions of managers. Future investigations could enhance the accuracy of performance measurement by incorporating objective data, such as financial and market performance indicators.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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