

Research paper

Enhancing Business Performance of SMEs through Green Business Strategy: South-South Nigeria in Focus

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ABSTRACT: The study addressed green business strategy through business performance. Four objectives guided the study effect of green innovation strategy, the effect of environmental orientation strategy, the effect of green product differentiation, and green product distinctiveness on business performance of SMEs in the area under study. The institutional theory guided the study. The study used survey research design. Two hundred and seventy-eight (278) population was randomly selected and used the as the sample size to guide the study. Analysis of variance (ANOVA) and linear regression were used in the study as statistical methods. Finding revealed that Green Innovation Strategy had a significant effect on Business performance with ($\beta = 0.364, P < 0.01$), Environmental Orientation Strategy had a significant effect on Business performance with ($\beta = 0.353, P < 0.01$), Green Product Differentiation had a significant effect Business performance with ($\beta = 0.221, P < 0.01$) and Green product had a significant distinctiveness on Business performance with a beta coefficient of 0.468 network capability yields the greatest impact on business performance among other constructs of green business strategy. The study concluded that Green innovation strategy, environmental orientation strategy, green product differentiation and green product distinctiveness are all aspects of green business strategy that have a large, positive impact on business performance. The study recommended that Recommendations that due cognizance should be taken by leaders, from the perspectives of 'Change', 'Purpose' and 'Leadership', to formulate a strategy that sustains the business, develop systems and structures within their business that satisfy the requirements of green business practices while still achieving strategic business goals and should carry out regular sensitization programs on the need for SMEs to make viable business strategy in order to improve and remain in business. Finally, the study has filled a vacuum in the literature by considering green business strategy and business performance in the context of SMEs.

Keywords: Business performance, innovation, proactiveness, differentiation, distinctiveness, green business

INTRODUCTION

SMEs play a vital role in economic development as they have been the main source of employment generation and output growth, both in developing as well as in developed countries. SMEs are also the fastest-growing sector of most economies and are perceived to be more pliant regarding structure and speed of response than larger enterprises (Kumar 2015). Small and medium-sized enterprises (SMEs) constitute the largest business entities in many countries, where governments show a keen interest in ensuring their competitiveness. This interest is usually channeled through policies and

financial assistance towards the implementation of innovative and emerging technologies, especially in developing countries. To compete and survive in a highly competitive global marketplace, it is important for manufacturing SME managers to resort to the utilization of green marketing practices to have a competitive edge over their rivals, as well as to improve business performance (Maziriri and Maramura, 2022). The environmental damage phenomenon is a challenge for businesses today, including for small and medium industries in developing countries, such as Nigeria.

Green innovation is a solution to answer public concerns over global environmental issues. However, the Small and Medium Enterprises (SMEs) sector generally still focuses on achieving their economic performance. Green innovation is a strategic step for SMEs to increase sustainability and financial performance in the global market through recycling sustainability, Kifordu (2022). The effect of green business practices requires an in-depth knowledge of customers' requirements as well as the ability to satisfy these requirements while contributing to environmental sustainability. According to Sharma, Iyer, Mehrotra, and Krishnan (2010), this is rooted in the fundamentals of what impact marketing has on society and the environment. Integrating environmental concerns and green strategies in corporate philosophy, and marketing policies and practices lead to sustainable growth. The increasing trend of adopting eco-friendly business, eco-friendly technologies and services is creating new business opportunities presenting strong potential for making profit and satisfying stakeholders who have significant influence on the availability of financial, human and other resources of companies (Abayam and Uwameiya, 2019).

Statement of the problem

In the face of drastic global climate change, the transition to a green economy is becoming increasingly important and it is understood as an opportunity to redesign and redefine business models, products and services, market approaches, forms of consumption, and production. Therefore, there is a need for changes in traditional business models that includes the transition to green business strategy in companies. This type of strategy differs from traditional strategy, which aims to create competitive advantages by generating value for the firm, while green business strategy focuses on reducing the environmental impact of processes or products.

When it comes to small and medium-sized enterprises (SMEs), green innovation should also be a reality as, on a smaller scale, they impact the environment largely unnoticed, both regionally and nationally (Ahmed, Akbar, Aijaz, Channar, Ahmed, and Parmar, (2023). Consequently, due to awareness from customers, appeals from various stakeholders, and pressure from governments, this has eventually increased the responsibility of organizations, especially SMEs, to minimize their impact of industrial activities on the environment.

Although the impact of SMEs ends up going unnoticed, this sector of firms is one of the largest producers of industrial pollution, which has led governments and stakeholders to help these types of companies to reduce pollution and maintain economic balance. In addition, SMEs have limited resources for the growing market needs Ming-Horng and Chieh-Yu also underlined that large companies tend to find it easier to implement green innovation, unlike SMEs that have insufficient resources

and weaker infrastructures. Due to a lack of resources and professionals, SMEs tend to have greater difficulty in implementing green innovation.

Study Objectives

1. To examine the effect of Green Innovation Strategy on business performance of SMEs in South South Nigeria
2. To determine the effect of Environmental orientation strategy on business performance of SMEs in the area under study.
3. To find out the effect of Green Product Differentiation on business performance of SMEs in the area under study.
4. To ascertain the effect of Green Product Distinctiveness on business performance of SMEs in the area under study.

Statement of Hypotheses

To guide data collection and analysis, the researcher makes conjectural statements about the expected relationship of the research variables as follows:

Ho₁: Green Innovation Strategy has no significant effect with business performance of SMEs in South South, Nigeria.

Ho₂: There is no significant effect between Environmental Orientation Strategy and business performance of SMEs in South South, Nigeria

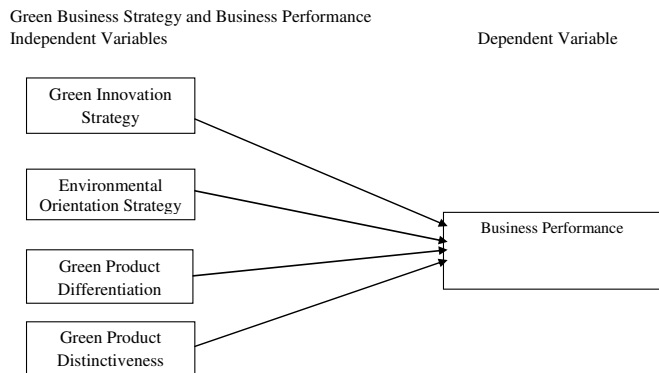
Ho₃: Green Product Differentiation has no significant effect with business performance of SMEs in South South, Nigeria

Ho₄: There is no significant effect between Green Product Differentiation and business performance of SMEs in South South, Nigeria.

Literature Underpinning

Concept of green business strategy

Green business strategy (GBS) is defined as a considerable and robust organizational propensity to include environmental concerns in the business plans of all organizational departments. Organizations that engage in environmentally responsible practices generate a variety of opportunities. As a result, enterprises receive various benefits and satisfy numerous stakeholders' needs. Several studies have demonstrated that green business methods boost firms' earnings and performance (Yousaf et al., 2021). Multiple levels of advocacy for environmental protection. Numerous production aspects have an impact on the environment,



Source: Researcher Model (2023)

Figure 1: Research Framework,

particularly materials. The operational principles focus on the actual, day-to-day aspects of running a sustainable business, whilst the strategic principles are utilized largely to determine the business direction (Soderholm, 2020).

In addition, the literature indicates that firms can improve their performance by adopting green business methods. As a result of the company's efforts to preserve the environment in worldwide and domestic markets through green business strategies, regulatory pressure and stakeholder demand on the organization's product developer have also increased. Scholars have suggested that managerial perspectives on green business strategies have evolved. Before many decades, a green business strategy was considered a reactive or proactive approach to the organization. Later firms understood that developing and adopting a green business strategy would impact organizational innovation. Green business methods enable organizations to obtain innovative green services and goods (Yahya et al., 2022). The promotion of organizations is the result of a green business strategy. Organizations must remember that their green business strategy must match their green innovation strategies. Based on the above research, it can be concluded that a green business strategy has the potential to influence green innovation (Tariq et al., 2019).

Firms can prevent excessive market rivalry, bring diversification, increase the speed of new product development, decrease the risks associated with new product development, lower operating costs, and strengthen their market standing. In contrast, this can also improve operational synergy. Thus, external modification of the organization's operations can boost the firm's profitability; consequently, the organization's performance will be enhanced (Cho et al., 2019).

On the other side, the firms' production processes must also be environmentally responsible. The organizations'

management perspective is switched from cost to profit center to meet environmental protection regulations. On the other hand, many firms are considering adopting the strategy of green innovation to reduce the environmental impact of their operations. Experts have proposed that innovation is essential for gaining a competitive edge in this context. It is also an efficient means of dealing with uncertainty. Organizations must enhance their approach to green innovation because they face various stakeholders' demands (Rui et al., 2021).

Consequently, enterprises must concentrate on the variables that can foster green innovation within the organization. Companies must discover the variables that can aid in the resolution of environmental issues. These must be expressed in a mission statement for the organization with two orientations, namely external environmental orientation, and internal environmental orientation. Internal environmental orientation focuses on the organization's interior characteristics, including internal standards, principles, and initiatives to demonstrate environmental commitment, towards achieving competitive advantage, Kifordu et al, (2023).

To address environmental challenges, organizations must develop "going green" policies. Since the previous two decades, enterprises have focused more on green practices and acquiring green capabilities. To promote green innovations within the firm, crucial business antecedents and drivers must be adopted. It comprises environmental factors of green practices, organizational determinants, technology determinants, government restrictions, supplier capabilities, business owner preferences, and customer concerns. Although many studies have examined the influence of factors influencing green behaviors, very few have examined the impact of green innovation drivers (Baeshen et al., 2021). Enterprises will establish additional revenue sources by embracing green practices and innovation methods. If enterprises increase their revenue streams, they can enter new markets and differentiate their products from the competition. These firms will also be able to boost their financial performance and sales (Kifordu et al., 2022). In the age of globalization, these environmental measures are crucial for the survival of organizations. Most businesses are eager to adopt new technologies to dominate their respective industries promoting talent management, Kifordu, (2022).

Consequently, corporations have switched from a conventional to a green approach. They have adopted strategies including green competency and green business strategy. By implementing these green business methods, organizations can achieve green innovation within their enterprise (Alraja et al., 2022).

Green innovation strategy

GRIN is a term that refers to technological advancements that are used to manage the environment, prevent

pollution, reduce waste, and conserve energy (Chen, 2008; Zhang et al., 2019). GRINs help businesses function better by reducing waste and costs for a sustainable environment (Abbas and Sağsan, 2019). Additionally, GRIN increases market positions, builds brands, spurs innovation, and attracts potential customers (Chandy and Tellis, 2000). GRIN is intrinsically linked to corporate environmental management and environmental goal attainment.

As a result, it is often considered that GRIN results in increased performance (Zailani et al., 2015). Few recent studies have revealed that GRIN is a key factor that directly affects sustainable business performance (Abbas and Sağsan, 2019; Shahzad et al., 2020). Numerous prior studies have demonstrated the effect of GRIN on performance (Gluch et al., 2009; Arfi et al., 2018).

Numerous organizational variables are examined concerning GRIN adoption, including human resource quality, top manager leadership skills, OS, and organizational culture (García-Machado and Martínez-Ávila, 2019; Jun et al., 2019). This study focuses on GAC, OS, and SHC, as these elements consistently have a greater impact on GRIN adoption (Zailani et al., 2015; Aboelmaged and Hashem, 2019).

Green innovation is the integration of the internal intellectual capital of a business with the concept of sustainability. Green innovation is a solution to answer public concern over global environmental issues (Anik and Sulisty 2021). The concern on the environment forces entrepreneurs to maximize their internal capacity in creating environmentally friendly innovations, including small- and medium-sized industries. Green innovation reduces the negative environmental impacts caused by their activities (Pacheco et al. 2018) and improves their business financial performance (Novitasari and Tarigan 2022; Przychodzen et al. 2020).

Nevertheless, there are still some research gaps in applying green innovation in the Small and Medium Enterprises (SME) sector, especially in developing countries, such as Indonesia. First, the SME sector generally still focuses on achieving its economic performance (Asadi et al. 2020; Neri et al. 2018), particularly in the short term. This condition causes SMEs to pay less attention to the environmental issues. Adhering to economic goals is not enough to achieve permanent sustainability. SMEs need to improve the performance of social and environmental aspects to achieve long-term economic benefits (Neri et al. 2018). The development of green innovation is considered a win-win solution to overcome the conflict between economic development and environmental protection (Anik and Sulisty 2021; Marco-Lajara et al. 2022).

Second, green innovation is a strategic step for SMEs to increase product competitiveness in the global market. Many companies create green innovations to meet strict environmental regulations (Marco-Lajara et al. 2022). Currently, export destination countries, such as those in

Europe and America, are increasingly tightening sustainability criteria for products permitted to enter their countries. In addition, SMEs are also asked to provide administrative data related to environmental, social, and corporate governance (Taherdangkoo et al. 2017). Green innovation is the most significant strategy to reduce resource demand and consumption in developing and implementing an effective environmental management system (Asadi et al. 2020). Entrepreneurs are motivated to create environmentally friendly designs and packaging as well as to implement a system focusing on environmental management to reduce waste and pollution (Marco-Lajara et al. 2022; Song and Yu 2018). Therefore, green innovation is SMEs' proactive reaction to strict government regulations (Taherdangkoo et al. 2017).

Green innovation has various designations, such as environmental innovation, eco-innovation, and sustainable innovation, however, even with various designations, there is one main objective: to contribute to the protection of environmental sustainability (Luo and Zhang, 2021; Luo et al., 2023). Green innovation involves new technologies, products, services, and business models, which have a positive impact on the environment ((Adams et al., 2016).

When it comes to small and medium-sized enterprises (SMEs), green innovation should also be a reality as, on a smaller scale, they impact the environment largely unnoticed, both regionally and nationally (Adams et al., 2016). Consequently, due to awareness from customers, appeals from various stakeholders, and pressure from governments, this has eventually increased the responsibility of organizations, especially SMEs, to minimize their impact of industrial activities on the environment (Luo et al., 2008). Environmental legitimacy is an important point in explaining the relationships between institutional environments and green innovation (Mumtaz et al., 2018). Therefore, a firm acquires legitimacy when its environmental practices - operating methods, strategy, and outcomes-meet the objectives of all stakeholders.

In this regard, Arsawan et al. (2021) analyzed the role of environmental strategy and green-innovation in SMEs, concluding that environmental strategy has significant effects on this type of green innovation for the achievement of environmental performance. The authors enumerate the benefits of innovation for SMEs, establishing that "the green innovation strategy, firms can increase productivity and focus on improving products and processes that are environmentally friendly so that they can change existing operating methods and significantly reduce their negative impact on the environment" (Ming-Horng and Chieh-Yu, 2011) . Ming-Horng and Chieh-Yu (2011) also emphasize that innovation is the use of new technical and administrative knowledge, which the adoption of green practices can be regarded as an innovation process.

Although the impact of SMEs ends up going unnoticed, this sector of firms is one of the largest producers of industrial pollution, which has led governments and stakeholders to help these types of companies to reduce pollution and maintain economic balance. In addition, SMEs have limited resources for the growing market needs (Castellacci and Lie, 2017; Gupta and Barua, 2018; Lianget al., 2022; Karimi, 2029; Yu et al., 2017). Therefore, SMEs are trying to implement green innovation practices but these may entail some obstacles, which Gupta and Barua (2018) identified as the following: management, organizational, and human resource barriers; technological and green resource-related barriers; financial and economic barriers; weak external partnership and stakeholder engagement; lack of support from governments for green initiatives; market and customer-related barriers; and insufficient knowledge and information on green practices.

Ming-Horng and Chieh-Yu (2011) contributed significantly to the literature on green innovation in SMEs, and both Etzion (2007), González-Benito and González-Benito (2006) identified the main factors influencing the adoption of green innovation in these types of firms: (1) pressure from stakeholders, (2) environmental regulation, (3) the size of the company, (4) the characteristics of managers, (5) human resources, and (6) the sector of the company, Kifordu, 2021).

Behaviour and Religiosity:

SMEs are smaller in size as compared to large companies and their impact on the environment ultimately goes unnoticed at both regional and national levels (Adams et al., 2016). Consequently, due to awareness from customers, appeals from various stakeholders, and pressure from governments, this ultimately increases the responsibility of SMEs to minimize the impact of their industrial activities on the environment (Ahmed et al., 2023). Thus, SMEs are trying to implement green innovation practices the implementation of these leads to gaining a competitive advantage over other companies (Chen and Huang, 2009; Arsawan et al., 2021; Mathiyazhagan et al., 2017). SMEs can reduce their costs and expenditures through funds and subsidies, and thus, they are more willing to participate in social, environmental, and green activities. Incentives and subsidies provide for green activities that significantly enhance green innovation and green practices in SMEs (Mathiyazhagan et al., 2017).

In this sense, it is important to note that the adoption of green innovation practices by SMEs may present some obstacles. For example, Wang and Li's research found that the adoption of green innovation in SMEs is greatly influenced by (1) the complexity, compatibility, and relative advantage of green innovation, (2) the quality of human resources, (3) organizational support, (4) government support, (5) consumer pressure, and (6) regulatory pressure. However, environmental uncertainty

has no significant effect on the adoption of green innovation (Muangmee et al., 2021; Chen and Huang, 2009).

Environmental challenges have also highlighted the importance of small- and medium-sized enterprises (SMEs). SMEs also play a significant role in creating jobs, manufacturing value added products, and driving innovations to local economies (OECD, 2017). Hence, SMEs are generally perceived as the backbone of the economy. On the other hand, SMEs often account for more than 60–70% of industrial pollution because these companies are numerous and less focused on environmental protection (Hillary, 2004). According to researchers' recommendations and policymakers, one of the most effective techniques for SMEs to reduce pollution while maintaining competitiveness is "GRIN" (Jun et al., 2019).

In comparison with large enterprises, SMEs are extremely resistant to technological change and more adaptive to market changes, while their organizational structure enables them to make quicker decisions (Pilar et al., 2018). SMEs have lately begun to embrace green innovation (GRIN) initiatives in response to stakeholder pressures (Jun et al., 2019). However, the adoption of GRIN in SMEs is still unknown (Aboelmaged and Hashem, 2019). Innovation studies, particularly those focusing on SMEs, have attempted to explain and examine how to foster an atmosphere conducive to innovation and identify the key factors of organizational innovation. Still, the innovation process, the capabilities and resources inside a firm that foster GRIN, as well as the relationship between the two, remain complex. While several organizational capabilities and factors exist, numerous studies have missed important capabilities in their research. A holistic and integrated approach is thus required to transform SMEs in emerging markets (Aboelmaged and Hashem, 2019).

Small and medium-sized enterprises

SMEs belong to the group of businesses that do not fall into the group of large enterprises. The other variants of businesses in this category are small businesses; small and medium firms; and micro, small and medium enterprises (MSMEs). The names vary from one country to the other but are interchangeable in concept. Although scholars universally adjudge this class of businesses as the backbone of the economy, researchers are yet to find a universal definition for it. Berisha and Pula (2015) cited a study of the International Labor Organization, which identified 50 definitions of small businesses in 75 countries with remarkable ambiguity in terminology used. The business strategy sets a pattern of objectives, purposes, and goals for the business. To develop a sustainable strategy, business leaders must have a culture of sustainability in the value chain of the organization. The sustainability culture should begin with

a mission statement that balances the financial and social performance, and also seeks to achieve high performance in terms of both of these areas (Galpin et al., 2015).

Small businesses are vital to the achievement of sustainable development (SD) through integrating various resources, uniting stakeholders for a common goal, and striving to work efficiently in a competitive environment (Li and Nguyen, 2017). Small business owners and managers can achieve SD through the collaboration of information and innovation to gain competitive advantage, economies of scale, and higher profitability that may enhance their business sustainability. Virakul (2015) examined SD to identify the relationships and implications for business organizations to ensure the integration of community and stakeholder concerns into economic and ecological paradigms.

Small business leaders should integrate SD strategy elements into the decision-making process to improve performance and provide long-term benefits to current and future stakeholders (Shields and Shelleman, 2015). SME business owners should integrate sustainable development strategy to sustain their businesses

Theoretical Review

Institutional Theory

Institutional theory is one theoretical perspective frequently used in studying green innovation (Li et al. 2022). This theory assumes that institutional pressure requires entrepreneurs to adapt organizational development strategies to the requirements of external institutions. It is undeniable that companies have faced many environmental pressures from various stakeholders (Agudo-Valiente et al. 2017; Garcés-Ayerbe et al. 2019). A business will seek to increase its legitimacy with external isomorphic factors, such as obligations, normalization, and imitation (Qi et al. 2021). Pressure from external institutions encourages SMEs to formulate and implement a company's green innovation strategy (Li et al. 2022). In SMEs' context, green innovation is a proactive action for SMEs to meet sustainability performance.

The dynamic global environment requires SMEs to maximize the potential of human resources to develop green innovation (Anik and Sulisty 2021). Green innovation includes environmentally friendly product design, pollution prevention, waste recycling, energy-saving technology, and environmental management (Galindo-Martín et al. 2020). The "green" label is an incentive to open new market opportunities, consequently intended to increase performance (Li et al. 2022; Marco-Lajara et al. 2022). Thus, green innovation is a win-win solution to balance the economic, social, and environmental performance (Anik and Sulisty 2021).

Empirical studies

Yaseen et al. (2022) discusses Green marketing practices to enhance business performance by competitive advantage as mediating in SMEs in Malaysia. A quantitative approach was used to obtain data from a survey (questionnaire) consisting of 33 items with a five-point Likert scale. The unit of analysis was small and medium companies in Malaysia. The respondents in this paper were the managers of departments. Smart PLS 3.2.9 was used to analyze the results. The findings of the path analysis of partial least squares (PLS) support variables in their hypothesized direct relationships with business performance. The analysis results suggest that CA partially mediates the relationship between GMP and BP. The paper provides many suggestions that are helpful both for researchers and policymakers to undertake more research in this area as well as to enhance the CA and BP of institutions in the future.

Anyahie et al. (2020) in their study examined the impact of green marketing practices on organizational performances, adopting a descriptive and quantitative design. The study used a structured questionnaire to obtain data from 162 marketing managers and brand ambassador of different organization in Rivers state. Statistical package for social sciences (SPSS) version 23.0 was utilized for data analysis. Findings from the study revealed that organizations who strategically carry-out green marketing practices by producing and making available green products and services enjoyed high probability and sustained business performance in the market than their competitors, as consumers are beginning to be environmentally conscious and sensitive to green products and services, which gives them extra value and satisfaction, organizations are also realizing the need to embrace green business culture in order to continue to provide customers and consumers with desired value. The study recommended among other things that organizations should adopt and see green marketing practices as a business norm and part of their corporate social responsibility.

Rustiarini et al. (2022) carried out a research in Indonesia on Does Green Innovation Improve SME Performance? The study aimed to holistically identify the antecedents and consequences when implementing green innovation in SMEs. The study also analyzed the role of green innovation as a mediator in the relationship between intellectual capital, sustainability performance, and financial performance. The survey was conducted on 336 SMEs in Bali, Indonesia. The questionnaire was directly distributed to owners or managers of SMEs over three months. This study proved that intellectual capital positively increased green innovation, SME sustainability, and financial performance. Green innovation was also considered as a mediating variable in the relationship between intellectual capital, sustainability performance, and financial performance. Thus, the implementation of

green innovation directs entrepreneurs to fulfill not only social and environmental responsibilities but also encourages SMEs to achieve their economic benefits. Pinem and Listyorini (2023) conducted a research in Indonesia on Green Business Strategy: Optimization of Green Products towards Export Opportunities of SMEs Products. Determining the relationship between green product distinctiveness, environmental orientation (EO), green business strategy (GBS), green product innovation (GPI), and financial performance (FP) was the objective of this study. The survey-based data was acquired from employees of Indonesian SMBs. The study employed a quantitative research methodology. The study's questionnaire was constructed using a 5-point Likert scale. In this study, the usable response rate was 69.88%. The study employed a structural equation modeling (SEM) strategy using PLS to analyze the study's data. A green business strategy, environmental focus, and product differentiation were found to have a positive and statistically significant effect on green innovation. Additionally, green innovation has a good impact on economic success. In addition, the results confirmed the mediating role of green product innovation. These findings will aid policymakers and academics in their future research endeavors.

Bugwandin and Bayat (2022) carried out an article on a sustainable business strategy framework for small and medium enterprises. The objective of the study was to formulate a business strategy to assist SMEs achieve sustainability. A mixed methodology approach was used in this empirical study. A target population of 488 000 SMEs were considered with a sample size of 384 expected respondents. A total of 200 responses (> 52% of the target sample size) were obtained from the questionnaire within a capped period of 30 days. The Social Package for Social Sciences software was used for the quantitative aspect. In particular cross-tabulations, central tendencies, and group difference techniques were used to analyze the data. In addition, the grounded theory was employed on a target of 20 individuals who were interviewed to investigate opinions towards strategy development and sustainability in KZN and NVivo software was used for the qualitative aspect. The core element of 'Strategy' and the sub-elements of 'Change', 'Purpose' and 'Leadership' were investigated. It was found that 'Change', 'Purpose' and 'Leadership' were the main contributors towards achieving sustainability. Furthermore, a system thinking model was used successfully to indicate the interdependencies to purport the goal of achieving sustainability. Ultimately it was found that 'Strategy', 'Change', 'Purpose' and 'Leadership' were required to achieve a 'sustainable business strategy'. The study recommended that due cognizance should be taken by leaders, from the perspectives of 'Change', 'Purpose' and 'Leadership', to formulate a strategy that sustains the business.

Rodrigues and Franco (2023) examined a study on

Green Innovation in Small and Medium-Sized Enterprises (SMEs): A Qualitative Approach. The study aimed to understand how small and medium-sized enterprises (SMEs) adhere to green innovation activities in the management of their business. To answer the objective, the qualitative approach (case study) was used with recourse to interview three SME owner-managers as data collection. From a content analysis, the results obtained showed that green innovation is a focus of concern for managers but its operationalization has not proved easy. So two of the SMEs studied here have only implemented measures to recycle the waste produced by their daily activity, although they consider their transition to a green and sustainable business model to be important. The current macroeconomic scenarios reveal the urgent need for SMEs to change their traditional business models to a more sustainable model that involves their managers' commitment to sustainable development objectives, supported by the green and circular economy, which requires reduction, reuse, and recycling that, as has been shown, still falls far short of expectations. This means that all business stakeholders must understand the reason for adopting green innovation.

Abanyam and Uwameiye (2019) carried out a study that sought to ascertain the green business best practices for enterprise sustainability in South-South Nigeria. The population for the study was 23,985 managers of registered enterprises in the six states of South-South Nigeria. A multistage sampling technique was adopted in this study. Taro Yamene formula was used to determine a sample of 393 respondents; a proportionate sampling technique was used to select managers of business enterprises in the six states of South-South. A structured questionnaire with 61 items, was used for data collection. It was found in this study that the developed green business product, promotion and distribution best practices would enhance enterprise sustainability. Based on the findings of the study, it was recommended amongst others that business enterprises need to develop systems and structures within their business that satisfy the requirements of green business practices while still achieving strategic business goals.

METHODOLOGY

The study used the survey research design. Two hundred and seventy-eight (278) questions were administered to employees of the chosen registered enterprises within South South, Nigeria, were chosen at random as the study's sample size. To gather data on the topic through a research assistant, a questionnaire was sent to the personnel. Analysis of variance (ANOVA) and linear regression were used in the study as statistical methods. In order to achieve the primary goal, which was to measure the factors influencing consumer loyalty on bakery firms in the studied area, the regression analysis

Table 1: Model Summary (Green business strategy and business performance)

Model	R	R. Square	Adjusted R Square	Std error
1	0.891	0.794	0.175	0.01327

Source: Researcher Computation 2023.

Table 2: Descriptive statistics of model constructs.

Statistic	Business Performance	Green Innovation Strategy	Environmental Orientation Strategy	Green Product Differentiation	Green Product Distinctiveness
N valid	233	233	233	233	233
Missing	0	0	0	0	0
Mean	13.2252	14.8198	13.0090	13.4865	14.5225
Std. error of mean	0.20213	0.16155	0.17902	0.19171	0.17397
Std deviation	3.68859	2.94794	3.26674	3.49836	3.17469
Variance	13.606	8.690	10.672	12.239	10.079
Skewness	0.879	0.598	0.435	0.424	0.383
Std. error of skewness	0.134	0.134	0.134	0.134	0.134
Kurtosis	0.533	0.121	0.289	0.656	0.045
Std. error of kurtosis	0.266	0.266	0.266	0.266	0.266
Range	16	20	16	16	20
Minimum	4	5	4	4	5
Maximum	20	25	20	20	25

Source: computed from SPSS analysis of field survey data, 2023

was used to determine the relationship between the dependent variable (green business strategy) and the determinants of the independent variable (business performance). The optimal variable for predicting consumer loyalty and its impacts may be found by calculating the contributions of each variable to the dependent variable. The following is how the model's linear customer loyalty function is specified:

$$Y = f(\alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_9 X_9 + e$$

Where:

Y = Business Performance (BP)

f = Function

X₁ = Age (in years)

X₂ = Marital status (Single =1 Married =2)

X₃ = Educational status (No. of years spent in school)

X₄ = Working Experience (No. of Years spent in bakery firms)

X₅ = Green Innovation strategy (GIS)(5- point Likert scale)

X₆ = Environmental Orientation Strategy (EOS)(5 – point Likert scale)

X₇ = Green Product Differentiation (GPD) (5- point Likert scale)

X₈ = Green Product Distinctiveness (GPDN) (5- point Likert scale)

β₁ – β₉ = regression coefficients

α = Constant

e = error term

Data analysis

In this study's part, analyses were conducted to record

the hypotheses in order to make it easier to validate or verify the hypotheses that had been developed. The qualitative information gathered through the field survey was rated on a five-point Likert scale. Regression analysis was then performed on the resulting value using SPSS statistical software. Tables 1 and 2 display the model summary and regression analysis's findings.

Multiple regression analysis

Multiple regression analysis is a family of techniques used to explore the relationship between one continuous dependent variable and a number of independent variables or predictors. It can be employed in addressing series of research questions. It can also establish that a set of independent variables explains a proportion of the variation in a dependent variable at a significant level (Pallant, 2005). To determine the effect indicators of green business strategy exerts on business performance in the poultry sector, multiple regression was conducted between business performance (dependent variable) and entrepreneurial self-efficacy, entrepreneurial passion, proactive orientation, network capability and leadership competencies using sample data from field survey. The results are shown in (Tables 3, 4, 5).

As shown in (Table 3), the R² (coefficient of determination) value of 0.41 shows that 41% of the variance in business performance is accounted for by the joint predictive power of Green Innovation Strategy, Environmental Orientation Strategy, Green Product Differentiation, and Green Product Distinctiveness while the remaining percentage is explained by factors outside

Table 3: Model summary of multiple regression analysis.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0.646 ^a	0.418	0.409	3.04315

a. Predictors: (Constant), GIS, EOS, GPD, GPDN

Source: SPSS output of field survey data, 2023

Table 4: Multiple regression analysis of variance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2189.574	5	370.785	35.923	.000 ^b
	Residual	3047.507	227	9.271		
	Total	5237.081	232			

a. Dependent Variable: FPer

b. Predictors: (Constant), GIS, EOS, GPD, GPDN

Source: SPSS output of field survey data, 2023.

Table 5: Multiple regression coefficients analysis

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	7.155	0.463		15.454	0.000
1 GIS	0.405	0.131	0.364	3.105	0.000
EOS	0.394	0.132	0.353	2.990	0.004
GPD	0.314	0.174	0.221	1.802	0.076
GPDN	0.494	0.057	0.468	8.625	0.000

a. Dependent Variable: BPer

Source: SPSS output of field survey data, 2023

the model. The ANOVA table ($F_{(4, 162)}=35.923$, $P < 0.01$) indicates that the overall regression model is statistically significant and fits to the data well. In other words, it tells us that the model allows us to predict business performance at a rate better than chance.

The results in (Table 5) above show that the four dimensions of green business strategy have positive effects on business performance. However, only Green innovation strategy, Environmental Orientation strategy and green product differentiation are significant predictors of business performance. The relative importance of the significant predictors was determined by the size of standardized beta coefficient. According to Tabachnick and Fidell (2001) beta weight is useful because it uses a unit of measurement that is same for all variables. On this note, network capability is the most important predictor of business performance ($\beta = 0.468$, $P < 0.01$), followed by entrepreneurial self-efficacy ($\beta = .364$, $P < 0.01$). The equation of the regression model for predicting any level business performance becomes;

$$BPer = 7.155 + 0.405GIS + 0.394EOS + 0.314GPD + 0.494GPDN + 3.04315$$

Test of research hypotheses

The four null hypotheses formulated for the study were tested in this section. Hypothesis testing, alternatively called significance testing, involves testing claims about a parameter in a population by statistical means using sample data. The P values reported in the regression

coefficient table are used for testing these study hypotheses.

The Decision Rule—The condition under which the null hypothesis is rejected or accepted is stated as; “Reject the null hypothesis (H_0) if the Probability value (P-value or calculated value) is less than ($<$) the established significance level (critical value) and accept the null hypothesis if it is greater than ($>$) the critical value” (Mason et al, 1999). The P-value is the probability of the test statistic while the significance level or Alpha (α) is the tolerable error in estimation. The researcher adopts .05 (5%) which is typical in behavioral research studies”. It means that we are willing to tolerate up to 5% of type 1 error (i.e. error of rejecting true H_0).

Test of hypothesis one

Hypothesis 1 (H_{01}): green innovation strategy has no significant effect on the business performance of SMEs in South South, Nigeria.

Based on the results, the green innovation strategy has a positive effect which is statistically significant on business performance ($\beta = 0.364$, $P < 0.01$). The beta value of 0.364 implies that 11-unit increase in the green innovation strategy variable will result in a 0.364 increase in business performance and vice versa. The p-value of 0.000 is significant and more than the acceptable 95% confidence interval. Thus, the null hypothesis (H_{01}) is rejected and the alternate hypothesis is accepted.

This implies that sample data provided convincing evidence or proof on the claim that there is a significant positive relationship between green innovation strategy and business performance.

Test of hypothesis two

Hypothesis 2 (Ho₂)

There is no significant effect between environmental orientation strategy and business performance of SMEs in South-South, Nigeria

From the regression coefficients in table 5, the environmental orientation strategy has a positive and statistically significant effect on business performance ($\beta = .353$, $P < 0.01$). The beta coefficient of 0.353 implies that if environmental orientation strategy decreases by one unit, business performance will also decrease by 0.353 and vice versa, statistically controlling for the effect of other independent variables. The p-value of .004 is significant and more than the acceptable 95% confidence interval. Thus, the null hypothesis (Ho₄) is rejected and the alternate hypothesis is accepted. This implies that sample data provided convincing evidence that there is a significant positive relationship between environmental orientation strategy and business performance.

Test of hypothesis three

Hypothesis 3 (Ho₃): Green product differentiation has no significant effect with the business performance of SMEs in South South, Nigeria.

From the regression coefficients in Table 5, the beta coefficient of Green product differentiation provides evidence of the positive association between Green product differentiation and business performance ($\beta = 0.221$, $P < 0.01$). Conversely, the calculated p value shows it is insignificant. According to Tabachnick and Fidell (2001), a significance level between 0.05 and 0.10 can be considered marginal. Therefore since Green product differentiation p value is .076, it is fairly good at predicting business performance. However, based on the decision rule the p value of .076 (7.6%) is greater than .05 level of significance. This implies that there is no statistically significant positive relationship between Green product differentiation and business performance because sample data has failed to disprove the claim. Therefore, the null hypothesis (Ho₃) is accepted.

Test of hypothesis four

Hypothesis 4 (Ho₄): There is no significant effect between green product distinctiveness and business performance of SMEs in South South, Nigeria

The result of multiple regression analysis in Table 5 also revealed that green product distinctiveness exerts a positive and statistically significant effect on business performance ($\beta = 0.468$, $P < 0.01$). In fact, green product distinctiveness wields the strongest effect on the dependent variable. Since the calculated p-value recorded (0.00) is less than the critical value of 0.05. The null hypothesis (Ho₄) is rejected and the alternate hypothesis is accepted. This implies that there is a statistically significant positive relationship between green product distinctiveness and business performance.

DISCUSSION

In line with data analysis conducted in previous sections of this chapter and literature review in chapter two, pertinent outcomes of this study are discussed here in a bid to answer the research questions raised and hypotheses set.

Green Innovation Strategy and Business performance

Based on the data analysis relating to hypothesis (H0₁) one, the relationship between green innovation strategy and business performance of SMEs in South South, Nigeria, Delta and Edo States is positive and statistically significant ($\beta = .364$, $P < 0.01$). This claim was supported by the result of the hypothesis testing done on it. The beta coefficient value of 0.364 denotes that for every unit increase or decrease in entrepreneurial self-efficacy, business performance will increase or decrease with 0.364. The overwhelming positive result is provided support by Holienka et al.(2016). They opined that green innovation strategy guides an entrepreneur to believe in him/herself so that they become confident in making decisions and unafraid of facing risks of failure, expect positive results, and attain business growth. Findings from Miao et al. (2017) study also show that green innovation strategy transforms business owners' beliefs into efforts, which, in turn, improve business performance.

Environmental orientation strategy and business performance

Based on the data analysis relating to hypothesis (H0₂) two, the relationship between environmental orientation strategy and business performance of SMEs in South South, Nigeria is positive and statistically significant ($\beta = .353$, $P < 0.01$). This assertion was corroborated by the result of the hypothesis testing done on it. The beta coefficient value of 0.353 means that for every unit increase or decrease in entrepreneurial passion, business performance will increase or decrease with 0.353. Sample evidence was able to provide convincing

evidence to support this claim from hypothesis testing. These outcomes were corroborated by the assertion of Emrizal et al. (2020), statement that an entrepreneur who has passion for his business at hand will dedicate his/her time and energy to make it work successfully. In like manner, Li et al., (2017) research has demonstrated that environmental orientation strategy is closely linked to a whole host of entrepreneurial outcomes, including venture growth and performance, access to funding, and persistence and growth

Green product differentiation and business performance

Another important dimension of the outcome of this study is that Green Product Differentiation exerts positive but statistically insignificant effect on the business performance of small-scale poultry farms in Anambra, Delta, and Edo States ($\beta = 0.221$ $P < 0.01$). The hypothesis testing result disproves the significance of the relationship between the two variables because a p-value of 0.076 means that the level of confidence is about 93% which is below the benchmark. The postulation of Rauch, Wiklund, and Frese, (2009) that firms with green product differentiation strategic posture pursue opportunities that are unrelated to existing operations, which enables the introduction of new products and brands ahead of competitors, giving them competitive advantages that leads to better business performance lends support to the positive association between the two variables. On the other hand, even though the proactive orientation is argued to be an important source of superior performance, Miller and Camp's (1986) analyses show that the second firm to penetrate a new market could be as pioneering as the first entrant and just as likely to achieve success by employing green product differentiation, thus reflecting the significance of green product differentiation towards business success.

Green product distinctiveness and Business performance

Findings from Table 5 indicate that green product distinctiveness has a strong positive and significant relationship with the business performance of SMEs in South-South, Nigeria. With a beta coefficient of 0.468 network capability yields the greatest impact on business performance among other constructs of green business strategy. This assertion was supported by the result of the hypothesis testing done on it. The beta coefficient value of 0.468 means that for every unit increase or decrease in green product distinctiveness, business performance will increase or decrease with 0.468. The overwhelming positive result is consistent with Haffar et al. (2022) contention that in a dynamic business environment green product distinctiveness has critical importance for the successful operation of a business

organization and a key factor that help it make visible improvements in innovation performance. Support is also provided by Farida and Nuryakin (2021) discovery that firms that can create high-quality relationship typical in a network will achieve exceptional performance.

Conclusion

Examining "green business strategy and business performance in registered SMEs in South South Nigeria " is the purpose of this study. Two hundred and seventy-eight (278) respondents were given the questionnaire that was used to gather the data, and all responses were fully recovered. The Analysis of Variance (ANOVA) is a statistical technique used for data analysis. Since it is acceptable for testing the outcomes of the samples obtained, hypothesis testing was carried out using linear regression using SPSS. The results show that Green innovation strategy, environmental orientation strategy, green product differentiation and green product distinctiveness are all aspects of green business strategy that have a large, positive impact on business performance.

Recommendations

Based on the findings of this research work, the following recommendations were made:

1. That due cognizance should be taken by leaders, from the perspectives of 'Change', 'Purpose' and 'Leadership', to formulate a strategy that sustains the business.
2. Business enterprises need to develop systems and structures within their business that satisfy the requirements of green business practices while still achieving strategic business goals.
3. Small and medium-scale enterprises development agency of Nigeria (SMEDAN) should carryout regular sensitization programs on the need for SMEs to make viable business strategy in order to improve and remain in business.

Contributions to Knowledge

This study has filled a vacuum in the literature by considering green business strategy and business performance in the context of SMEs. This study would thus be enlightening in particular for owners of SMEs businesses who are not yet reaping the rewards of green business strategy and business performance in their company operations. This study has also contributed significantly to the improvement in current literatures as well as pave way to researchers to concentrating their research work at grass root level in order to gain absolute facts about how branding can facilitate the growth of SMEs in South South Nigeria.

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