Sustainable Entrepreneurship and Competitive Advantages in Indigenous Oil and Gas Industry in Lagos State, Nigeria

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Abstract

The global emphasis on sustainability and business inclusivity of corporations has become one of the major standards to measure performance and competitiveness. However, despite the growing global concern on sustainability and inclusive development of organisations, it gives an impression that the involvement of indigenous oil and gas in sustainable entrepreneurship and practices has not been adequately explored particularly in developing nations like Nigeria. This study is underpinned by sustainable development theory, and entrepreneurial orientation theory to examine the roles of sustainable entrepreneurship competitive advantage of indigenous oil and gas in Lagos State by focusing on 4 selected companies such as Integrated Oil and Gas Ltd, Lekoil Nigeria, Alphraretta Energy Services International Ltd, and Ardova Plc. The population of the study covered 3,576 employees of the 4 selected companies in Lagos State, while 360 participants were sampled out of which 358 copies of the questionnaire were properly filled in, and returned. Simple linear regression analysis was applied to test the three hypotheses, and they were all significant at .05% significance level, though, resource efficiency contributed more individually than green practices, and social innovation. The statistical findings of this study suggested that sustainable entrepreneurship through social innovation, green practices, and resource efficiency serves a workable tool for competitive advantage of indigenous oil and gas in Lagos State. The study highlights that clear sustainability indicators that align with enterprise goals need to be developed and monitored to ensure resource efficiency and social impact are important parts of performance evaluation.

Keywords: Entrepreneurship competitiveness, green practices, resource efficiency, social innovation, sustainable entrepreneurship

1. Introduction

The global drive toward firm's competitiveness and sustainability has reshaped traditional organisational paradigms, particularly in resource-intensive sectors such as oil and gas. Over time, the oil and gas industry has been characterised with environmental dilapidation, social conflict, and economic unpredictability. However, the advent of sustainable entrepreneurship could offer an alternative approach by integrating economic goals with environmental protection, eco-friendly management, and social responsibility. Within this context,

sustainable entrepreneurship is not limited to the reduction of ecological impacts, but also extends to the creation of long-term value through ground-breaking business models and stakeholder engagement (Rosário, Raimundo & Cruz, 2022). Consequently, examining the entrepreneurial sustainability of indigenous oil and gas firms, where the need to stabilize economic development with cultural preservation and environmental fortification towards achieving competitive advantages cannot be overemphasized.

Competitive advantage, from the organisational perspective, is the exceptional strength and attribute that allows an establishment to outshine its rivals and achieve superior performance in the market (Bhisikar, 2024). In this study, competitive advantage of indigenous oil and gas firms in Nigeria is understood from unique capabilities that could arise from cultural, environmental, and socio-political assets to deliver exceptional operational performance and socio-economic benefits to the communities. Generally, oil and gas firms either international or indigenous in Nigeria have contributed immensely to socio-economic development of the country being one of the Africa's largest oil producers with proven crude oil reserves projected at about 37 billion barrels as of 2023 (U.S. Energy Information Administration, 2023).

The international oil and gas companies operating in Nigeria hold a significant competitive advantage due to the country’s vast hydrocarbon reserves and strategic location within the global energy market (Oluwasanmi, 2018). Shell Nigeria employs innovative seismic deepwater drilling technologies to creatively explore and develop complex offshore fields, thereby reducing operational costs and enhances production capacity for firm’s competitiveness (Shell Annual Report, 2022). Also, ExxonMobil has been leveraging its financial resources and international supply chain to preserve persistent operational levels and manage risks related with political instability and infrastructure intricacies in Nigeria (ExxonMobil Sustainability Report, 2023). In addition, Chevron’s strategy in Nigeria involves collaboration with local communities and government agencies to minimize disruptions from conflicts in the Niger Delta region (Chevron Nigeria Social Impact Report, 2022). Consequently, these tailored approaches could help international oil and gas companies in Nigeria to strengthen their market position and profitability within county’s competitive environment.

Indigenous oil and gas firms in Nigeria have also meaningfully intensified their position in the energy sector following the divestment of assets by international

oil companies (IOCs) in the country. A prominent example of a company who took advantage of this is Seplat Energy by acquiring ExxonMobil's onshore assets around December 2024 with a total value of about $1.28 billion. The acquisition decision that resulted into 11 oil blocks, 48 producing oil and gas fields, 3 export terminals, and 5 gas processing facilities has strategically broadened Seplat's portfolio (Seplat Energy, 2024). The acquisition has no doubt underscored the rising role of indigenous oil and gas firms in energizing Nigeria's oil industry. Consequently, embracing sustainable entrepreneurship among indigenous oil and gas companies could deepen their global competitiveness, whereby the success of an organisation is not only adjudged by financial performance, but also on the extent of achieving sustainable practices.

Sustainable entrepreneurship is about creating innovative enterprise solutions that are not restricted to profit making, but also extends to ecological protection and long-term support for community well-being (Rosário, Raimundo & Cruz, 2022; Urbaniec, 2018). Sustainable entrepreneurship of indigenous oil and gas could promote long-term economic advancement while preserving home-grown knowledge, and environmental management. It could also stimulate the potential for indigenous-led enterprises to lead the transition towards more ethical and sustainable business practices that align with cultural values, and transgenerational equity. Therefore, rather than focusing on IOCs in Nigeria, this study considers indigenous oil and gas companies to leverage on cultural and entrepreneurial heritages of the country to drive business and industry-based competitiveness.

Indigenous oil and gas companies in Nigeria might be increasingly recognised as key stakeholders in energy resource management, but their entrepreneurial efforts within the industry are constrained by systemic barriers like inadequate technical expertise, capital accessibility, policy frameworks, and regulatory systems that do not copiously support their business models (Olujobi, Irumekhai, Olujobi, Aina-Pelemo & Olipede, 2024). This could cause challenges to some indigenous firms in the energy sector to sustain competitive business ventures that integrate operational values and environmental commitments. `

Some of these indigenous companies in energy sector in Nigeria contend with restricted access to long-term financing, insufficient investment in research and development (R&D), and overdependence on short-term earnings and profits rather than strategic growth, which could affect their competitiveness (Olujobi et

al., 2024). Contrary to multinational corporations that usually have effective long-term planning structures, and institutional support, most indigenous companies often lack the entrepreneurial foresight and system needed to engender operations, deploy cutting-edge technologies, build flexible and sustainable business models (Okoisama, Obiukwu & Agbiriogu, 2022; Yakubu & Tornyeva, 2025). The resultant effects could make indigenous firms remain susceptible to market shocks, operational inefficiencies, and ecological risks that are capable of hampering their ability to compete locally and globally.

There is no doubt that previous studies have considered the interactions between entrepreneurial practices and organisational outcomes. For instance, Hashim, Chaouachi, Bchini and Flayyih (2024) examined the effect of strategic entrepreneurship on strategic performance of Maysan oil company; Ihochukwu, Pauline, Ibinwangi, Ugwu, Onyechere and Callista (2024) explored strategic entrepreneurship and operational performance of indigenous oil and gas service firms in selected South-South States in Nigeria. However, there still inadequate studies to explore how indigenous-owned oil and gas firms in Nigeria can innovate and create values in ways and manners that they are globally competitive and socially responsible.

From the foregoing, this study, aims to investigate the interactions between sustainable entrepreneurship and competitive advantages of indigenous oil and gas companies in Nigeria, with a focus on those operating in Lagos State being the commercial centre of the country. Specifically, the study: (i) examined the effect of social innovation on enterprise competitiveness of indigenous oil and gas companies; (ii) assess the effect of green practices on enterprise competitiveness of indigenous oil and gas companies, (iii) ascertain the effect of resource efficiency on enterprise competitiveness of indigenous oil and gas companies. Based on these objectives, the study hypothesized that (i) Social innovation does not have significant effect on enterprise competitiveness of indigenous oil and gas companies; (ii) Green practices do not significantly affect enterprise competitiveness of indigenous oil and gas companies; (iii) Resource efficiency does not significantly affect enterprise competitiveness of indigenous oil and gas companies.

2. Literature Review

2.1 Conceptual clarification

2.1.1 Sustainable Entrepreneurship

Sustainable entrepreneurship has been identified as the practice of creating business models that are not just for profit-making, but also prioritizing social, ecological and economic viability (Lüdeke-Freund, 2020). Sustainable entrepreneurship emphasises responsible and workable practices that abate negative environmental impacts, while encouraging positive social benefits and creating long-lasting value for stakeholders (Muñoz & Cohen, 2018). It promotes innovative ideas to address pressing global issues, and align business goals with an obligation to sustainability (Hoogendoorn, Van der Zwan & Thurik, 2019). The study relied on some studies who examined the dimensions of sustainable entrepreneurship such as Balaton and Varga (2017); Sellitto and Hermann (2019) from the viewpoint of social innovation, green practices, and resource efficiency.

2.1.1.1 Social Innovation

Social innovation is a practice that develops new ideas that are capable of addressing social needs more effectively and efficiently than existing solutions (Balaton & Varga (2017). Social innovation focuses on making positive social impacts, by enhancing the well-being of the people in a community, and ensuring there is a social inclusion (arinha, Sebastião, Sampaio & Lopes, 2020). Contrasting traditional innovation that mostly seeks economic rewards, social innovation prioritises social value-creation (Adro & Fernandes, 2022). Some of the social innovation practices involve tackling complex issues such as poverty, inequality, and waste management, and emission reduction (Millard & Fucci, 2023). Integrating socially innovative practices, could support indigenous oil and gas firms to differentiate themselves competitively, while driving sustainable growth.

2.1.1.2 Green practices

Green practices are the practices, processes, and activities that are environmentally friendly for the purpose of reducing ecological issues and promoting sustainability (Sellitto & Hermann, 2019). They include efficient energy consumption, waste recycling, resource renewable, prevention of air pollution, and eco-friendly products design (Fok, Zee & Morgan, 2022). The main intention of green practices is to align operational activities with ecological responsibility, by assisting organisations to comply with eco-friendly guidelines,

minimise costs, and enhance reputations among global environmental-conscious stakeholders (Fahad, Alnori, Su & Deng, 2022).

2.1.1.3 Resource Efficiency

Resource efficiency is a strategic practice of using natural, human, and financial resources in a manner that ensures maximization of organisational outputs while minimizing waste, ecological impacts, and operational costs (Horbach, 2018). It also encompasses optimising inputs such as energy, raw materials, and human efforts to enhance operational performance with minimal resources (Delmas & Pekovic, 2015). This can be actualised via improved technologies, workable production approaches, recycling, better process management, and integration of local resources (Cainelli, D'Amato & Mazzanti, 2020).

2.1.2 Enterprise Competitiveness

Enterprise competitiveness is the ability of an organisation to steadily offer products or services that meet or surpass the expectations of market while upholding or improving its market position relative to business rivals (Zelga, 2017). This includes the efficient utilization of resources to speedily respond to market changing conditions (Li, Wang, Su & Su, 2019). A competitive organisation can display flexibility by adapting to external pressures, take advantage of its strengths, and create unique offers that distinguish it from others in the marketplace (Dvorský, Kliestik, Cepel & Strnad, 2020). Some of the elements of enterprise competitiveness (Li, Wang, Su & Su, 2019; Rokhmawati, 2021; Zelga, 2017) are: operational cost efficiency, emission reduction, and production capacity.

2.1.2.1 Operational cost efficiency: This is regarded as the ability of an organisation to reduce operational expenses while optimising outputs. Therefore, an organisation can improve its operational cost efficiency by means of automating processes and minimising waste.

2.1.2.2 Emission reduction: This involves lowering the volume of harmful gases, such as carbon dioxide released into the air. Emission reduction is a key strategic decision for managing climate change and improving air quality in a community (Rokhmawati, 2021).

2.1.2.3 Production capacity: Production capacity is the maximum units of goods or services an organisation can produce or offer within a given time using

available resources. Production capacity helps firms to plan operations, meet demand, and efficiently manage growth.

Conceptual Model

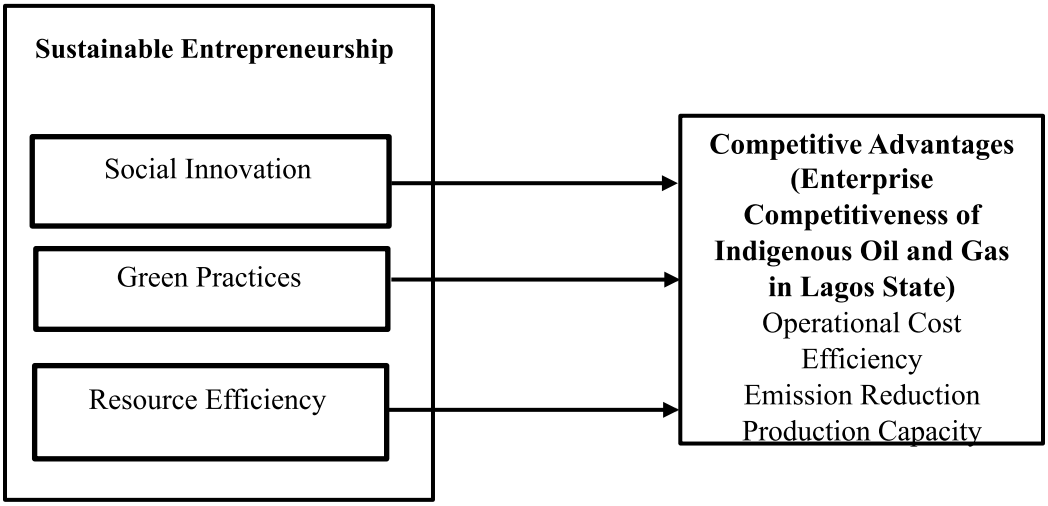

Fig. 2.1: The conceptual model Source:

Researcher's field survey (2025)

Figure 2.1 demonstrated how sustainable entrepreneurship measures such as social innovation, green practices, and resource efficiency as identified in this study affect the competitiveness of indigenous oil and gas companies in Lagos State looking at operational cost efficiency, emission reduction, and production capacity.

2.2 Theoretical Review

Sustainable Development Theory

Sustainable development theory was propounded in 1987 by the Brundtland Commission which laid the foundation for incorporating sustainability into development policies globally (Shi, Han, Yang & Gao, 2019). The assumption of the theory is to ensure organisations meet the needs of people without undermining the ability of future generations to meet their own needs (Dasgupta, 2007). Sustainable development theory is useful in this study, because, it emphasizes a balanced method to economic growth, ecological protection, and

social justice, thereby promoting long-term strategies that foster a safe environment, resource efficiency, and social benefits. However, the theory was critiqued for its idealistic goals that can be challenging to execute in practice, particularly in resource-dependent industries like oil and gas where economic gains often conflict with ecological and social benefits (Kotzé, 2018; Read, 2023). This study, therefore, examined the theory that can leverage entrepreneurship to effectively harmonize the conflict.

Entrepreneurial Orientation Theory

Entrepreneurial orientation theory was proposed in 1996 by Lumpkin and Dess by building on the work of Miller in 1983, who argued for firm's strategic posture to reflect the tendency of innovation activities, risk-taking, and proactive actions in the search for new opportunities (Covin & Lumpkin, 2011). The theory highlights three main dimensions such as innovativeness (readiness to support creativity and experimentation), risk-taking-willingness to deploy resources to uncertain ventures), and proactiveness-forward-looking approach to act on future market needs (Lumpkin, Tom & Dess, 1996; Wales, Covin, Schüler & Baum, 2023). Entrepreneurial orientation theory helps to define how organisations develop competitive advantages by encouraging an entrepreneurial mindset and behaviour (Wales, 2016). This theory received critique because of its assumption on innovativeness, risk-taking, and proactiveness as correspondingly important across all contexts, which may not be the same in various industries or cultural settings (Wales, Gupta & Mousa, 2013). However, Entrepreneurial orientation theory is relevant to this study, because it explains how indigenous oil and gas firms in Lagos State could achieve competitiveness by navigating the complex and volatile oil and gas sector while integrating sustainable practices.

2.3 Empirical Reviews

Abubakar, Jahwari and Bakheet (2024) examined the role of social and environmental innovation on cost leadership, value creation, and business performance, of 179 manufacturing businesses, using structured five-point Likert's questionnaire in data collection. Data were analyze using Smart PLS. The findings revealed that environmental and social innovations have significant impacts on business performance through cost leadership strategies and value creation in both SMEs and large manufacturing companies. Although, the study does not establish a direct relationship between social innovation and value creation in the case of SMEs, but reported a significant relationship for large companies.

Ahmad, Karadas and Ahmed (2021) examined the mediating roles of green practices (green purchasing practice - GPP, green manufacturing practices - GMAP, green distribution/packaging practices - GDPP and green marketing practice - GMP), between effective leadership practices (leading organizational practice and leading staff practice) and business competitiveness. The study applied quantitative approach and a survey instrument designed to collect data from Cihan group in Iraq. The data were analyzed by employing Partial Least Square – Structural equation modelling (PLS-SEM). The result revealed that leading organizational practice is significantly related to the green practices (green purchasing practice, green manufacturing practices, green distribution/packaging practices and green marketing practice). Specifically, the result found that leading staff practice is positively associated with green supply chain practices (green purchasing practice, green manufacturing practices, green distribution/packaging practices and green marketing practice). The study also revealed a direct relationship between green practices (GPP, GMAP, GDPP and GMP) and Business competitiveness (BC). Although, the study did not found any significant correction between leading organizational practice and business competitiveness, however, leading staff practice was positively and significantly related to business competitiveness.

Horbach (2018) empirically investigated resource efficiency of small and medium-scaled enterprises on their competitiveness from environmentally active behaviour using the 2013 wave of the Eurobarometer data. The outcomes of a bivariate probit model of the study revealed that that a high investment in resource efficiency measures optimizes the overall performance of an organisation, thereby leading to enterprise competitiveness.

3. Methodology

This study employed survey design, from a quantitative methodological approach. Survey research design was adopted to allow the researcher, collect quantifiable data from a large and representative sample with minimal costs. Similarly, quantitative approach was considered for the purpose of systematically testing hypotheses, as well as measuring relationships among variables, so as to generalize findings across a larger sample size. The population of this involved staff of 4 selected indigenous and gas in Lagos State. These companies were selected because they are headquartered in Lagos State with over 10 years in operation. Their staff strength was another reason why they were selected based on the preliminary investigation by the researcher as demonstrated in the table 3.1

Table 3.1: The staff population of the 4 selected indigenous oil and gas firms in Lagos

S/N	Name of the Company	Staff Population
1	Integrated Oil & Gas Ltd	1, 167
2	Lekoil Nigeria	836
3	Alphraretta Energy Services International Ltd	792
4	Ardova Plc	781
Total		3,576

Source: Accessed from the HR of the selected companies by the Researcher (2025)

Therefore, the total population of this study is 3,576 as captured in table 3.1. From this elements of the target population, a sample of 360 subjects were determined, using Taro Yamane sample size determination formula. In selecting the respondents, random sampling technique was adopted for the purpose of achieving equal participation, and gather the data within a very short period of almost 2 months (June-July), 2025. Also, snowballing approach was adopted by using first-level contacts of the participants who know other participants for valuable information Questionnaire was utilized as the instrument for data collection. This study employed content and construct validity with the supervisors to provide guidance, and experts in the field of cooperatives and other interrelated fields to go through the instrument to ensure it reflects the variables. A pilot study was also carried out through which a draft of the questionnaire was developed to pre-testing the instrument whereby a small group of 25 employees from other indigenous oil and gas firms in Lagos State different the 4 selected companies. This study accepted an alpha 0.7 and above as appropriate for the reliability of the data used (Burns & Burns, 2008; Cohen, Manion & Morrison, 2017). The statistical analysis of socio-demographic variables was done through frequency distribution and percentage, while the study hypotheses were tested using simple linear regression statistical analysis with the aid of Statistical Package for the Social Sciences (SPSS) IBM Version 25 for data processing.

Yamane (1973)'s formula shown below was used to calculate the sample size.

$$n = \frac{N}{1 + N(e)^2}$$

Where n = Desired Sample size

N = Population size

I = Constant

e = Degree of error expected.

Thus: n = ?

$$n = \frac{3,576}{1 + \frac{3,576}{(0.05)^2}}$$

$$= \frac{3,576}{9.94}$$

n = 360

4. Results and Discussions

Descriptive Analysis

Table 4.1 Respondents Demographic Profile

Characteristics	Status	Frequency	Valid (%)	Cumulative Percent
Gender	Male	246	68.7	68.7
	Female	112	31.3	100.0
	Total	358	100.0	
Marital Status	Single	58	16.2	16.2
	Married	279	77.9	94.1
	Divorced	16	4.5	98.6
	Separated	5	1.4	100.0
	Total	358	100.0	
Year of Experience	1-10 yrs	77	21.5	21.5
	11-20 yrs	115	32.1	53.6
	21-30 yrs	131	36.6	90.2
	31 yrs & above	35	9.2	100.0
	Total	358	100.0	

Source: *Researcher's' Computation (2025)*

Table 4.1 showed the demographic sampled of the participants. The gender of the participants showed 68% of male and 31.3 of female. This implies that the sample is inclusive of both male and female gender as recognised in the Nigerian constitution. The distribution of marital status showed that single was 16.2%, married was 77.9%, divorced was 4.5, while separated was 1.4%. This suggests that the sample considered all the marital status without being bias. The participants' year of experience revealed that years within 1-10 was 21.5%, 11-20 was 32.1%, 21-30 was 36.6%, while 31 years and above was 9.2%. The implication of these distributions is that the survey covered wide range of years of experience, whereby those that are still young and active represented more.

Analysis of correlation among the independent variables of the study

Table 4.2: Correlational Matrix

	Var.	N	Mean	Std.Dev.	Skewness	Kurtosis	1	2	3
1	SOI	358	3.14	.629	0.469	0.313	1		
2	GRP	358	3.10	.600	0.513	0.325	.411**	1	
3	REE	358	3.13	.567	0.519	0.331	.327**	.525**	1

Keys: *SOI= Social Innovation; GRP= Green Practices; REE= Resource Efficiency; N= Number of participants; Var = Variables; Std.Dev.= Standard Deviation*

Source: Researcher's Computation (2025)

Preliminary examination was carried out in this study to understand how the independent variables adopted in this research are interrelated using mean, standard deviation, skewness, kurtosis, and Pearson Product Moment correlation coefficient. The mean is important in this study, because it represents the central point of a dataset, while standard deviation measures the extent to which data likely digresses from the mean. A minimal standard deviation (i.e. close to zero) suggests that data points are tightly clustered around the mean, while a greater standard deviation signifies that the data points are more isolated from the mean. Therefore, table 4.2 indicated a mean between 3.10 and 3.14 which is suitable for a central point within a 5-point likert scale as adopted in this study. The standard deviation between 0.567 and 0.629 has demonstrated good confidence and prescription.

Skewness measures the asymmetry of the data distribution around its mean (-0.5 and 0.5), while Kurtosis measures the variance as a result of extreme values which is between (-1 and +1). A high kurtosis represents more outliers, while low kurtosis suggests fewer outliers. The findings in table 4.2 revealed that both the skewness and kurtosis of the data distribution do not have normality concern (between 0.469 and 0.519). In addition, considering the level of association among independent variables (social innovation, green practices, resource efficiency) in table 4.2, the study presumed that they are reasonably normal as they are between -0.01 and .525 which does not create any concerns for multicollinearity at $**p < 0.01$.

Hypotheses Testing

Table 4.3: Regression analysis

SOP, GRP, and REE (IVs); Enterprise Competitiveness (DV)							
Hypothesis 1	**R**	**R^2**	**β**	**F**	**T**	***P* value**	**Decision**
SOP	.244[a]	.060	.244	25.493	4.746	.000	Rejected
Hypothesis 2							
GRP	.287[a]	.082	.287	31.945	5.652	.000	Rejected
Hypothesis 3							
REE	.361[a]	.130	.361	53.236	7.296	.000	Rejected

Keys: *= Social Innovation; GRP= Green Practices; REE= Resource Efficiency; IVs= Independent Variables; DV= Dependent Variable*

Dependent Variable: Entrepreneurship Competitiveness (P<0.05)

Independent Variables: SOP; GRP; REE

Source: Researcher's Computation (2025)

Table 4.3 illustrated relationship among predictor's variables (such as social innovation, green practices, and resource efficiency) and entrepreneurship competitiveness of indigenous oil and gas in Lagos State. The findings revealed that social innovation, green practices, and resource efficiency have significant positive relationship with entrepreneurship competitiveness of indigenous oil and gas in Lagos State with (β=.244; β=-.287; and β=.361) respectively. In addition, the result showed that all the three variables significantly predict entrepreneurship competitiveness of indigenous oil and gas in Lagos State with (t=4.746, P<.05; t=5.652, P<.05; t=7.296, P<.05) respectively; however, resource have more contribution, followed by green practices, and social innovation. The statistical meaning of these findings is that the three hypotheses are rejected, while the null hypotheses are accepted. The statistical findings of this study suggested that sustainable entrepreneurship through social innovation, green practices, and resource efficiency serves a workable tool for competitive advantage of indigenous oil and gas in Lagos State

Discussion of Findings

The hypothesis one finding of this study revealed that social innovation has

positive and significant effect on enterprise competitiveness of indigenous oil and gas companies in Lagos State. The implication of this finding is that, given attention to technologies that drive more social benefits enhances the reputations of organisations, thereby improving business competitiveness. This finding corroborates with the study of Abubakar *et al*., (2024) who found significant relationship between social innovation and value creation in large companies.

The finding of hypothesis two showed that green practices have positive and significant effect on enterprise competitiveness of indigenous oil and gas companies in Lagos State. This implies the usefulness of ecological preservation in the performance of oil and gas industry. This finding supports Ahmad *et al*. (2021) who identified green purchasing practice, green manufacturing practices, green distribution/packaging practices and green marketing practice as dimensions of green practices that relates with Business competitiveness (BC).

The hypothesis three finding demonstrated that resource efficiency has positive and significant effect on enterprise competitiveness of indigenous oil and gas companies in Lagos State. This finding suggests that integrating modern and home-grown technologies ensures efficient utilization of resources. Horbach (2018) also argued that a high investment in resource efficiency measures optimises the overall performance of an organisation, thereby leading to enterprise competitiveness.

Implications for Theory and Practice

Theoretically, this research has established how sustainable development theory can be useful in indigenous oil and gas companies by ensuring a balanced method to economic growth, ecological protection, and social justice. In addition, the inclusion of entrepreneurial orientation theory in this study explained how indigenous oil and gas firms in Lagos State could achieve competitiveness Practically, the outcomes of this study have offered a strategic roadmap for indigenous oil and gas companies in Lagos State by entrenching socially innovative practices, and leverage home-grown resources responsibly.

5. Conclusion and Recommendations

This study examined the interaction between sustainable entrepreneurship and competitive advantage of indigenous oil and gas in Lagos State from the perspectives of social innovation, green practices, and resource efficiency. Therefore, based on the statistical findings of this study, it is concluded that

sustainable entrepreneurship serves a workable tool for competitive advantage of indigenous oil and gas in Lagos State. Based on the results of finding and conclusion of the study, the researcher recommends that:

i. Indigenous oil and gas companies in Lagos State need to prioritise training and upskilling local talent to foster home-grown innovation, and minimise over-dependence on foreign expertise, and stimulate inclusive economic growth.
ii. There is need for indigenous oil and gas companies in Lagos State to deepen the implementation of modern, energy-efficient technologies that are more efficient in the reduction of operational costs, drive improved resource utilization, and minimise ecological impacts.
iii. Indigenous oil and gas companies should consider engaging local communities in co-creating eco-friendly solutions that address shared challenges, while strengthening cultural values and home-grown capacities.
iv. Clear sustainability indicators that align with enterprise goals need to be developed and monitored to ensuring resource efficiency and social impact are important parts of performance evaluation.

Suggestion for Further Studies

The findings of this study have established the importance of sustainable entrepreneurship in enhancing competitive advantages of indigenous companies in Lagos State. However, future studies may investigate comparative analysis between indigenous and multinational companies in Lagos State for the purpose of understanding differences in sustainable entrepreneurship practices and their influence on firm's competitiveness. Further studies may also consider other dimensions of sustainability such as ethical leadership, and stakeholder engagement for a more wide-ranging framework in oil and gas industry.

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