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Social Community Pressure and Sustainability Practices of Oil and Gas Firms in the South-South Region of Nigeria

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Abstract: *The study investigates the relationship between social community pressure and sustainability practices of oil and gas firms in South- South Nigeria. Employing a cross-sectional survey design, 248 sample size was drawn from a population of 650 managerial staff of oil and gas firms operating in the South-South region of Nigeria. The sample size was determined using Taro Yame formula. Data collection was conducted using a structured questionnaire. The analysis was performed using Partial Least Squares – Structural Equation Modelling (PLS-SEM) with the aid of Smart PLS 4.0. The findings present social community pressures as a strong predictor of sustainability practices in oil and gas firms in South-South. The study concluded that there is a significant relationship between social community pressure and sustainability practices of oil and gas firms in South - South, Nigeria. It is recommended that the oil and gas firms in Rivers State should enhance social community pressure for improves sustainability practices in the oil and gas firms.*

Keywords: *Social Community Pressure, Sustainability Practices, Economic Sustainability, Environmental Sustainably, Social Sustainability.*

Introduction

In pursuit of a more responsible and sustainable energy landscape, oil and gas firms operating in south-south region of Nigeria have the opportunity to embrace a range of impact-full sustainability practices. Foremost among these is the mitigation of environmental impact, achieved through the implementation of advanced technologies to minimize emissions, the development of spill prevention and response strategies, and the establishment of robust waste management systems (Thompson, 2020). Additionally, fostering community engagement and social responsibility emerges as a cornerstone of sustainable practices, as companies collaborate with local communities to identify needs, initiate development programmes, and provide job opportunities and skill training. Transparency stands as another pivotal pillar, where firms openly disclose their environmental and social performance metrics and compile comprehensive sustainability reports to foster trust and accountability with stakeholders (Rodriguez & Patel, 2019). Embracing energy efficiency and conservation strategies, such as investing in energy-saving technologies and optimizing consumption, can further enhance sustainable operations.

The integration of renewable energy sources, such as solar and wind, into operations not only reduces reliance on fossil fuels but also positions companies at the forefront of environmental innovation. Protecting biodiversity and ecosystems through rigorous impact assessments and restoration efforts underscores a commitment to preserving the natural environment. By

effectively managing water resources and engaging with a diverse array of stakeholders, oil and gas firms can ensure sustainable growth that respects human rights, labor practices, and ethical supply chain considerations (International Energy Agency, 2020; World Economic Forum, 2021). These multifaceted sustainability practices collectively contribute to an industry that balances economic prosperity with environmental stewardship, social well-being, and responsible resource management in the Global South and beyond (United Nations, 2015).

The oil and gas industry, pivotal in driving the global economy, faces mounting scrutiny over its environmental and social impacts. As climate change concerns escalate and stakeholders demand greater corporate responsibility, oil and gas firms are increasingly pressured to adopt sustainable practices (BP, 2022). This growing pressure emanates from various sources, including regulatory bodies, investors, consumers, and environmental advocacy groups. These stakeholders urge firms to mitigate environmental damage, reduce carbon emissions, and enhance transparency regarding their sustainability efforts (ExxonMobil, 2022; Greenpeace, 2023). In response, many oil and gas companies are integrating sustainability into their core business strategies. This shift involves adopting cleaner technologies, investing in renewable energy, and committing to rigorous environmental standards (Shell, 2021). However, the transition is fraught with challenges, as firms must balance the demand for energy with the need for sustainability, often under intense scrutiny (TotalEnergies, 2022). This paper explores the dynamics of social community pressure on the sustainability practices of oil and gas firms. It examines the drivers of this pressure, the industry's response, and the implications for future business operations (International Energy Agency, 2020). By understanding these interactions, we can gain insights into how the oil and gas sector can navigate the complex landscape of sustainability, ultimately contributing to a more sustainable future (World Economic Forum, 2021).

Statement of the Problem

The oil sector, a global energy cornerstone, faces significant challenges in adopting sustainable practices due to social community pressure. These challenges include balancing economic viability with environmental responsibility, navigating technological limitations, and dealing with regulatory uncertainties (Martinez & Lee, 2020). Additionally, managing stakeholder expectations and community relations is complex, as miscommunication can lead to reputational damage and operational disruptions. The financial implications of sustainability initiatives, coupled with the pressure to transition to renewable energy, further complicate the sector's efforts (White & Rodriguez, 2020). Addressing these issues is critical for the industry's ability to contribute to a sustainable future while maintaining its economic role.

Objectives of the Study

The specific objectives are the following:

i. To examine the relationship between social community pressure and environmental sustainability.
ii. To ascertain the relationship between social community pressure and economic sustainability.
iii. To assess the relationship between social community pressure and social sustainability.

Research Questions

In order to achieve the above stated aim and objectives, the study will be addressing the following research questions:

i. What is the nexus between social community pressure and environmental sustainability?
ii. How does social community pressure relate to economic sustainability?
iii. What is the relationship between social community pressure and social sustainability?

Research Hypotheses

Based on the foregoing research questions, the following null hypotheses are hereby formulated to provide tentative answers:

Ho_1: There is no significant relationship between social community pressure and environmental sustainability.

Ho_2: There is no significant relationship between social community pressure and economic sustainability.

Ho_3: There is no significant relationship between social community pressure and social sustainability.

Review of Related Literature

One relevant theory is the Stakeholder Theory, which posits that organizations must consider the interests and pressures of all their stakeholders, not just shareholders, to achieve long-term success. Developed by R. Edward Freeman, this theory highlights the importance of addressing the needs and concerns of various groups, including employees, customers, suppliers, communities, and environmental activists (Freeman, 1984). In the context of the oil and gas industry, stakeholder theory underscores the necessity for firms to engage with and respond to the social communities that are increasingly demanding sustainable practices.

The relevance of Stakeholder Theory to the oil and gas sector lies in its ability to explain how and why these companies must adopt more sustainable practices. As social communities exert pressure through advocacy, protests, and calls for transparency, oil and gas firms are compelled to address environmental and social concerns to maintain their social license to operate. By integrating sustainability into their core strategies, these companies can better align with stakeholder expectations, mitigate risks, and enhance their reputation, ultimately leading to long-term viability and success. This approach not only addresses community pressure but also fosters a more sustainable and resilient business model.

Social Community Pressure

Social actors include environmental organizations, community groups, trade associations, and labour unions. These actors are able to mobilize public opinion, and thus instigate societal pressures on firms to reduce the adverse impact of their activities upon natural environment. In practice, firms' managers may need to balance heterogeneous and conflicting stakeholder interests. (Kawai et. al. 2018). The community consists of the public at large, consumers, and special interest groups, whose impressions of an enterprise reflect its status and reputation (Neville, Bell, & Mengüç 2005), as well as how it is positioned concerning other organizations. Consequently, sustainability practices have a beneficial impact on community stakeholders

and has a significant association with them (Rela et. al.,2020), indicating that sustainability practices can help to improve community collective ability, action, and responsiveness.

Sustainability Practices

Sustainability is a state in which an organization or a society exhibits a relation to economical, environmental, and social aspects (Munck & Souza, 2009). Therefore, usually when it is said that an organization or a society is sustainable it is meant that it holds a certain state of sustainability. As such, sustainability is what can be maintained, in other words, nothing is stagnant, that is why sustainability must be viewed in levels (Van Marrewijk & Werre, 2003). This way, the correct would be to say that a given organization or society holds a certain level of sustainability, rather than what is and is no longer sustainable. Reinforcing the idea of viewing sustainability as a state, organizations may be classified in sustainability levels (Van Marrewijk & Werre, 2003). According to Caiado et al. (2018), the main inductor of sustainable environment in an organization is the internal organizational factors and strategic practices that must be taken into consideration from the lower to the upper management. It is important to utilize systems of sustainable performance measurements in responding to the internal and external organizations, thereby serving as benchmarking for future corporate strategies and operations.

Economic Sustainability

Economic sustainability continues to be one of the main objectives of business organizations (Asswad et al., 2016). In other words, it is considered as "the evaluation of organizational cost reduction, that promotes market shares, returns on assets, improves income and profits regarding the economic goals of performance", as defined by Green et al. (2012). Economic sustainability is achieved through the application of practices of green supply chain management (GSCM) among the manufacturing industries (Green et al., 2012). Through multiple ways of sustainable supply chain management, economic sustainability is achievable (Liu et al., 2012). Also, Eltayeb et al. (2011) examined the initiatives of green supply chain among the Malaysian companies that are certified, and the results showed positive relationships between supply chain initiatives and economic performance. Thus, economic performance can be considered to be preconditioned for a successful transition to business sustainability.

Environmental Sustainability

The firm's environmental sustainability encompasses the prevention of the impacts created by the organization on the natural system, composed of living and non-living beings (Qalati, et al., 2023). It goes beyond certifying the conformity to governmental regulations and initiatives, like recycling or efficient energy usage, since it does not exempt a comprehensive approach over the organizational operations, which are ruled by the evaluation of the impacts generated by the company's products, processes and daily services, by the elimination of unnecessary costs and of high emissions, besides minimizing practices that may affect the access of future generations to critical natural resources (Munck, Munck, & Souza, 2011).

Social Sustainability

Sustainability through social performance is achievement in establishing social welfare for stakeholders like the customers, employees, suppliers and society as a result of undertaken operational moves (Brent and Labuschagne, 2004). In detail, the management has complete

responsibilities in the application of healthy working environment, human resources management (HRM), social involvement and participation and social administrative policies. Additionally, their responsibilities include social response and concern, working condition, employee benefits, public welfare supports, talent development and staff relations (United Microelectronics Corporation, 2012). Organizations can easily achieve their vision and mission and stay in the market competition when they successfully experience sustainable performance. In this line, researchers have started to consider a renewed interest towards developing solutions capable of not only minimising wastes but also reducing social negative impacts of the traditionally used industrial practices (Pinto Junior and Mendes, 2017).

Methodology

This study utilized a cross-sectional survey design, targeting oil and gas firms in Nigeria's South-South region. From a population of 650 managerial staff in these firms, a sample size of 248 was selected. Data was gathered through a structured questionnaire comprising both close-ended and multiple-choice questions. The predictor variable, social community pressure, was measured with five items (e.g., Our organization actively engages with local communities to address their concerns and needs). The criterion variable, sustainability practices, was divided into three components: economic sustainability, environmental sustainability, and social sustainability. Economic sustainability was assessed with five items (e.g., We invest in sustainable business practices to ensure ongoing profitability), environmental sustainability with five items (e.g., Sustainability goals are integrated into our strategic planning), and social sustainability with five items (e.g., Social responsibility is an integral part of our corporate culture). Responses were recorded on a 4-point Likert scale, ranging from 1 (Strongly disagree) to 4 (Strongly agree). To analyse the data, Partial Least Squares – Structural Equation Modelling (PLS-SEM) was employed.

Result

The hypotheses 1-3 result is presented thus;

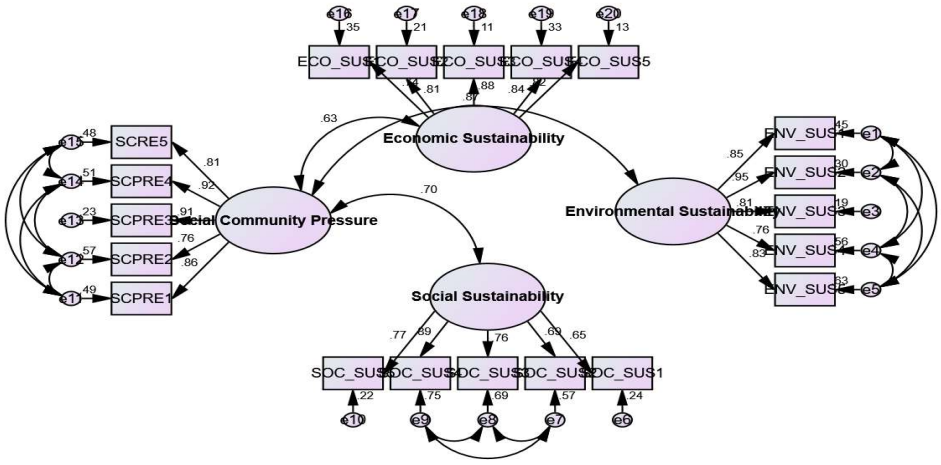

Figure 1: Structural Model of the Covariance between Social community pressures and the measures of Sustainability practices

Figure 1 shows the structural model of the correlation between social community pressures and the measures of sustainability practices – economic sustainability, environmental sustainability and social sustainability; as well as the measurement indicators of each variable. The structural model also shows the measurement error for each of the constructs' indicators, known as error term or error variances. From the structural model, the covariances between social community pressures and economic sustainability, environmental sustainability and social sustainability are 0.63, 0.87 and 0.70, respectively. This implies that there is a good fit between the structural model and the data.

The first hypothesis (H_{01}), states that there is no significant relationship between social community pressures and economic sustainability. However, table 1 indicates that social community pressures has a positive and significant relationship with economic sustainability of oil and gas firms in South-South, Nigeria (β=0.61, r=3.22, p<0.005). Thus, H_{04} was not supported. The evidence presents social community pressures as a strong predictor of economic sustainability of oil and gas firms in South-South, Nigeria. Statistically, it shows that when social community pressures goes up by 1 standard deviation, economic sustainability goes up by 0.61 standard deviation. That is, when social community pressures goes up by 1, economic sustainability goes up by 3.22 units. The regression weight for social community pressures in the prediction of economic sustainability is significantly different from zero at the 0.005 level (two-tailed).

The second hypothesis (H_{02}), states that there is no significant relationship between social community pressures and environmental sustainability. However, table 1 also suggests that social community pressures has a significant relationship with environmental sustainability of oil and gas firms in South-South, Nigeria (β=0.69, r=2.15, p<0.005). Thus, H_{05} was not supported. This means that the presence of social community pressures in oil and gas firms in South-South, Nigeria, will lead to environmental sustainability. Statistically, it shows that when social community pressures goes up by 1 standard deviation, environmental sustainability goes up by 0.61 standard deviation. In other words, when social community pressures goes up by 1, environmental sustainability goes up by 3.22. The regression weight for social community pressures in the prediction of environmental sustainability is significantly different from zero at the 0.005 level (two-tailed).

The third hypothesis (H_{03}), states that there is no significant relationship between social community pressures and social sustainability. However, table 1 also suggests that social community pressures has a significant relationship with social sustainability (β=-0.77, r=3.03, p<0.005). Thus, H_{06} was not supported. This means that the presence of social community pressures of oil and gas firms in South-South, Nigeria, will lead to social sustainability. Statistically, it shows that when social community pressures goes up by 1 standard deviation, social sustainability goes up by 0.77 standard deviation. In other words, when social community pressures goes up by 1, social sustainability goes up by 0.77. The regression weight for social community pressures in the prediction of social sustainability is significantly different from zero at the 0.005 level (two-tailed).

These results indicate that social community pressures impacts significantly and is critical to sustainability practices in oil and gas firms and implies that social community pressures drives the economic sustainability, environmental sustainability and the social sustainability of oil and gas firms. Thus, all three null hypothetical statements of no significant relationships between social community pressures and the measures of sustainability practices are not supported based on the lack of statistical evidence to show otherwise.

Discussion of Findings

Social Community Pressures and Sustainability Practices

Some scholars have argued that social community pressures have been found to have limited influence on sustainability practices. Studies have shown that the perception of local oil producing communities (OPCs) regarding the corporate social performance (CSP) of international oil companies (IOCs) operating in their communities is generally negative (Uche et al., 2023). The CSP policies and practices of IOCs have been perceived as ineffective compared to the large investments declared (Clement & Shamma, 2022). Additionally, institutional and stakeholder pressures have also been found to have limited impact on the sustainability practices of oil firms in the Niger Delta region (Abugu et al. 2022). These findings suggest that social community pressures alone are not sufficient to drive sustainable community development in the oil and gas sector in South-South Nigeria. Other factors, such as the effectiveness of CSP policies and practices, need to be considered in order to achieve sustainable outcomes.

On the other hand, consistent with the work of Helmmig et al. (2017) and Israr and Siddiqui (2020), the study indicates a positive relationship between social community pressures and sustainability practices. This emphasizes the role of community expectations in shaping organizations' sustainability efforts. Furthermore, extant research suggests a positive relationship between social community pressures and sustainability practices. For instance, Rocha (2018) and Broska (2021) both highlighted the role of social needs, social capital, and social norms in driving sustainable behaviours and community action. Becker (2018) further emphasized the influence of legal forms of organization on community-based sustainability initiatives, which can be shaped by regime pressures. Selman (2001) underscores the importance of social capital in successful community participation in sustainability projects. These studies collectively indicate that social community pressures, including social needs, social capital, and social norms, can drive and shape sustainability practices.

Conclusion

The relationship between social community pressure and environmental sustainability in South-South Nigeria's oil and gas sector is significant. Communities in this region are increasingly vocal about the environmental degradation caused by oil and gas activities, which has led to a heightened awareness and push for cleaner and more sustainable practices within the industry. This pressure has compelled oil and gas firms to adopt rigorous environmental impact assessments, engage in restoration projects, and invest in renewable energy sources to mitigate their environmental footprint. The active involvement of local communities ensures that companies remain accountable and committed to environmental stewardship.nEconomic sustainability is also influenced by social community pressure in South-South Nigeria. Local communities demand that oil and gas firms contribute to the economic well-being of the region by creating jobs, investing in local infrastructure, and supporting local businesses. This pressure drives companies to engage in sustainable economic practices that not only enhance their profitability but also promote economic growth and development within the communities they operate. The focus on economic sustainability ensures that the benefits of oil and gas extraction extend beyond the companies to the local population, fostering a more inclusive and resilient economy.

Social sustainability in the oil and gas sector is closely tied to the relationship between companies and the communities they impact. Social community pressure has led to increased attention to human rights, labor practices, and ethical supply chain considerations. Firms are

now more committed to ensuring safe and fair working conditions, respecting indigenous rights, and engaging in meaningful dialogue with stakeholders. By addressing these social concerns, oil and gas companies can build trust and foster positive relationships with local communities, which is essential for long-term operational success and social harmony in South-South Nigeria. Social community pressure plays a crucial role in shaping the sustainability practices of oil and gas firms in South-South Nigeria. By driving environmental, economic, and social sustainability, local communities ensure that these companies operate responsibly and contribute positively to the region's development. This dynamic interaction between social community pressure and corporate sustainability practices is essential for achieving a balanced and sustainable future for the oil and gas industry in South-South Nigeria.

Recommendations

The study recommended that the organization should;

1. Develop collaborative economic initiatives with local communities, ensuring mutual benefit and sustainable economic development. This can be achieved by through joint ventures, skill development programs, and fostering entrepreneurship within the community.
2. Engage in transparent communication with local communities, involving them in environmental conservation efforts and addressing concerns related to ecological impact. This should involve regular town hall meetings, environmental education programs, and establishing community liaison officers to address concerns and gather feedback.
3. Invest in social development projects and partnerships that directly contribute to the well-being and empowerment of local communities. This can be achieved by forming partnerships with non-profit organizations, implementing employee volunteer programs, and conducting social impact assessments.

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