

Examining The Impact of Goil's Procurement Policies on Local Content Promotion And Sustainable Development In Ghana's Oil And Gas Industry: A Moderating Role Of Regulatory Environment

Edward Attah-Botchwey, Josephine Ofosu Mensah, Eric Boachie-Yiadom, Mohammed Jamal Zakaria
Faculty of Accounting and Finance, Department of Banking and Finance, University of Professional Studies
Accra, Ghana

Peter Otokunor Boamah,
Faculty of Accounting and Finance, Department of Economics and Actuarial Science, University of
Professional Studies Accra, Ghana

Abstract

Since discovering oil in the late 2000s, Ghana's economic development has been significantly impacted by the oil and gas sector. Procurement policies, such as the Petroleum (Local Content and Local Participation) Regulations, 2013 (L.I. 2204), aim to enhance local content and sustainable development. The effectiveness of these policies depends on the regulatory environment and multinational companies' procurement strategies. This study examines how procurement policies influence local content promotion and sustainable development in Ghana's oil and gas industry, considering the regulatory environment's moderating role.

The study used a mixed-methods approach, starting with qualitative interviews of 15 key stakeholders and followed by quantitative questionnaires distributed to a sample of 132 from a total population of 197, selected using the Yamane formula and simple random sampling. The exploratory sequential design allowed for thematic analysis of qualitative data and regression analysis of quantitative data.

The study revealed that GOIL's procurement policies significantly influenced local content promotion in Ghana's oil and gas sector, with a strong correlation indicated by an R Square value of 0.5411. Qualitative insights supported this, emphasizing the crucial role of Ghana's regulatory framework and the compliance challenges faced by smaller suppliers. The study underscored the need for targeted capacity-building

initiatives and suggested greater collaboration between government, industry, and educational institutions to enhance procurement strategies. This approach would ensure sustainable growth and development, benefiting the local economy and community. The study recommended that GOIL invest in capacity-building programs, establish local partnerships, advocate for flexible regulations, and implement robust monitoring to enhance local content promotion and sustainable development.

1. Introduction

1.1 Background of the study

The exploration and extraction of oil and gas resources have been pivotal to the economic development of resource-rich countries, particularly in Africa. Ghana, since the discovery of oil in commercial quantities in the late 2000s, has witnessed a significant transformation in its oil and gas sector (Skaten, 2018). The sector's growth has been accompanied by a burgeoning interest in how procurement policies, especially those of major players in the industry, influence local content promotion and sustainable development. The concept of local content measures aimed at promoting the use of domestic goods and services in the oil and gas sectors has become a critical area of focus for policymakers, industry stakeholders, and scholars alike. The premise is that by encouraging the participation of local companies and the workforce, the benefits of extractive activities can be more widely distributed within the host country, thereby contributing to economic growth and sustainable

development (Zarsky & Stanley, 2013).

The regulatory environment plays a crucial role in shaping the outcomes of local content policies. Governments and regulatory bodies in oil-producing countries have been instituting various policies and regulations to ensure that the oil and gas industry contributes to the socio-economic development of their countries. In Ghana, the Petroleum (Local Content and Local Participation) Regulations, 2013 (L.I. 2204), exemplifies such efforts, aiming to maximize the use of local products, services, and human resources in the oil and gas industry and to stimulate the development of domestic capabilities (Anand et al., 2023). The effectiveness of these policies, however, significantly depends on the regulatory environment, including the enforcement of regulations and the adaptability of the policies to the evolving dynamics of the oil and gas industry.

Moreover, Jahromi and Jahromi (2023) noted that the strategic procurement policies of multinational oil companies operating within these regulatory frameworks are critical. These policies can either facilitate or hinder the achievement of local content objectives. The strategies adopted by these companies in their procurement practices are pivotal in determining the extent to which local firms and the workforce can participate in the oil and gas value chain. As such, examining how these procurement policies align with or deviate from local content promotion objectives is essential for understanding their impact on sustainable development in the host countries. In addition to the direct economic impacts, Tao and Lin (2023) cited that the promotion of local content in the oil and gas industry has broader implications for sustainable development, encompassing social and environmental dimensions. Sustainable development in this context refers to the ability of the country to harness its natural resources in a manner that meets the needs of the present without compromising the ability of future generations to meet their own needs. It involves considerations of economic growth, social inclusion, and environmental protection. The link between local content promotion and sustainable development is predicated on the assumption that increased local participation in the oil and gas industry can lead to job creation, skills development, and ultimately, a reduction in poverty and inequality (Pike et al., 2023).

Furthermore, Nwapi (2016) emphasized that the interplay between local content promotion, procurement policies, and the regulatory environment raises questions about the capacity of local firms to meet the demands of the oil and gas industry. This includes their ability to supply goods and services that meet the quality and safety standards required by the industry. The development of local suppliers is thus an

integral aspect of local content strategies, necessitating investments in capacity building and skills development among local companies and the workforce. The success of local content policies, therefore, hinges not only on the formulation of the policies themselves but also on the implementation and monitoring mechanisms put in place to ensure compliance and to measure progress (Wörsdörfer, 2023).

Lastly, the global context within which local content policies are implemented cannot be ignored. The oil and gas industry is inherently global, with multinational companies, global supply chains, and international markets playing a significant role. The challenges and opportunities presented by globalization, including the transfer of technology and best practices, competition, and access to international markets, have implications for the effectiveness of local content policies. The ability of countries to navigate these global dynamics, in conjunction with robust local content and procurement policies, and a supportive regulatory environment, is crucial for leveraging the oil and gas sector for sustainable development (Nwokolo et al., 2023). Hence, the examination of procurement policies and their impact on local content promotion and sustainable development within Ghana's oil and gas industry, through the lens of the moderating role of the regulatory environment, provides a comprehensive understanding of the multifaceted relationship between these elements. This study aims to contribute to the broader discourse on how resource-rich countries can optimize the benefits of their natural resources through strategic policy interventions, regulatory frameworks, and corporate practices that align with the goals of sustainable development.

1.2 Problem Statement

The context gap in the existing literature predominantly centers around the limited examination of how regulatory environments specifically moderate the relationship between procurement policies and local content promotion in Ghana's oil and gas industry. Studies such as those by Suleman and Zaato (2021); and Samlafo (2019) have explored local content policies broadly but have not sufficiently delved into the nuanced moderating role of regulatory frameworks on corporate procurement strategies. This lack of focused analysis on the influence of regulatory conditions restricts a thorough understanding of how policy enforcement and regulatory compliance interact with corporate strategies to affect local content development. This gap underscores the need for a focused investigation into how GOIL's procurement policies, under different regulatory conditions, impact

the promotion of local content and sustainable development.

The literature gap manifests in the sparse empirical evidence that explicitly links the effectiveness of procurement policies to the regulatory frameworks within which these policies operate. While studies like those of Asiago and Miriti (2022); and Ayanoore (2020) highlight the overarching regulatory and political landscapes affecting local content strategies in Africa, they do not closely investigate how these regulatory environments act as a moderating factor between procurement practices and local content outcomes. This oversight leaves a significant gap in understanding the dynamic interplay between specific regulatory policies and corporate procurement strategies. Addressing this gap is crucial for elucidating how regulatory environments can either facilitate or hinder the effectiveness of procurement policies in enhancing local content, thereby pointing to the necessity for an in-depth study that assesses the moderating impact of regulatory environments on procurement and local content strategies.

The exploration of procurement policies and their impact on local content promotion in Ghana's oil and gas sector, particularly in relation to companies like GOIL, reveals several areas where further research could be beneficial. Recent discussions emphasize the need for a balanced approach that considers the interests of all stakeholders, including policymakers, local communities, multinational oil companies, and regulators. The effectiveness of local content policies is often contingent upon the alignment of corporate procurement strategies with regulatory frameworks and the broader goals of sustainable development. One of the recent issues identified is the challenge of effectively implementing local content policies to ensure that they contribute to sustainable development in the upstream oil and gas industry (Mahmood et al., 2023). This requires a comprehensive strategy that involves active participation from key stakeholders and the integration of forward and backward linkages in policy implementation. Moreover, Suleman and Ennin (2023) mentioned that there is a call for a local content implementation master plan that would guide the process and ensure that the benefits of oil and gas activities trickle down to improve financial and social outcomes for the Ghanaian government, citizens, and multinational oil companies. Additionally, it has been noted that while local content policies are designed to increase local benefits from the extractive sector, there is a need for clear and comprehensive local content laws, collaborative focal institutions, and contract terms that support local content requirements (Vandome, 2023). Measuring and communicating performance is also crucial to mitigate legal risks and promote transparency. These insights suggest that

addressing the challenges associated with procurement policies and local content promotion requires a multifaceted approach that encompasses legal, economic, and social dimensions.

Furthermore, the issue gap is evident in the limited exploration of the direct outcomes of procurement policies under varying regulatory conditions, particularly in the context of challenges and achievements in local content promotion. Insights from Onwuka (2021); and Byaruhanga (2019) provide some understanding of strategic responses to local content policies in different African contexts but fail to critically assess how these strategies are shaped by specific regulatory settings in Ghana. There is a distinct need for research that not only evaluates the direct impacts of procurement policies on local content and sustainable development outcomes but also considers how these impacts are moderated by the regulatory environment. Such a study would fill a crucial gap by providing detailed insights into the effectiveness of GOIL's procurement strategies within the regulatory framework, thereby offering targeted recommendations for policy adjustments and corporate practices to optimize local content promotion.

1.3 Research Objectives

The main objective of this research is to examine the impact of GOIL's procurement policies on local content promotion and sustainable development in Ghana's oil and gas industry, considering the moderating role of the regulatory environment. This can be achieved through the following research objectives:

- 1 To assess how GOIL's procurement policies influence the promotion of local content within Ghana's oil and gas sector.
- 2 To analyze the role of the Petroleum Commission of Ghana in moderating the impact of procurement policies on local content promotion.
- 3 To identify challenges and opportunities in implementing procurement strategies that enhance local content and sustainable development.

1.4 Research Questions

1. How do GOIL's procurement policies influence the promotion of local content within Ghana's oil and gas sector?
2. What role does Ghana's petroleum regulatory environment play in moderating the impact of procurement policies on local content promotion?
3. What challenges and opportunities arise in implementing procurement strategies that enhance local content and sustainable development?

1.5 Significance of the study

The significance of this study lies in its potential to fill critical gaps in the existing literature regarding the intricate relationship between corporate procurement policies and local content promotion within Ghana's oil and gas industry. By focusing on GOIL's procurement strategies, this research aims to provide empirical evidence on how these corporate practices impact the advancement of local content, thereby contributing to the broader discourse on sustainable development in resource-rich countries. Understanding the dynamics between procurement policies and local content promotion is crucial for policymakers, industry stakeholders, and the academic community, as it offers insights into the effectiveness of current local content strategies and the need for potential policy adjustments. This study's findings could serve as a benchmark for evaluating corporate contributions to local content promotion, highlighting areas of success and pinpointing where improvements are needed to ensure that the benefits of the oil and gas sector are equitably distributed among Ghanaian citizens and businesses.

Moreover, by examining the moderating role of the regulatory environment, this research sheds light on the complexities of implementing local content policies within varied regulatory frameworks. The findings from this study will be instrumental in understanding how regulatory policies can either facilitate or hinder the effectiveness of corporate procurement strategies in promoting local content. This insight is invaluable for regulators and policymakers tasked with designing and implementing local content policies that are both effective and adaptable to the changing landscape of the oil and gas industry. Consequently, the study has the potential to inform the development of more cohesive and comprehensive regulatory frameworks that align with the goals of sustainable development, local empowerment, and economic growth.

Finally, the exploration of challenges and opportunities in implementing procurement strategies that enhance local content and sustainable development addresses a significant gap in practical knowledge. The outcomes of this research could provide practical recommendations for both multinational and local companies within the oil and gas sector, guiding them in refining their procurement practices to better support local content objectives. Additionally, this study contributes to the broader sustainable development goals by highlighting how the oil and gas industry can play a pivotal role in fostering economic diversification, job creation, and capacity building within local communities. The implications of this research extend beyond the academic realm, offering a foundation for future initiatives aimed at leveraging Ghana's oil and gas resources for the comprehensive benefit of society.

1.6 Scope of the study

The scope of this study is focused on examining the impact of GOIL's procurement policies on local content promotion and sustainable development within Ghana's oil and gas industry. It specifically investigates the moderating role of the regulatory environment on this relationship. The research confines itself to assessing the direct and indirect effects of procurement strategies employed by GOIL, the challenges encountered, and the opportunities presented within the context of Ghana's regulatory framework. The study aims to provide insights applicable to the Ghanaian oil and gas sector, with potential implications for similar contexts in other countries.

2. Literature Review

2.1 Definition of Terms

2.1.1 Understanding Local Content Promotion

White (2017) cited that Local content promotion is a strategic approach aimed at enhancing the participation of domestic companies and workforce in the extractive industry's value chain. This concept has become increasingly significant in countries like Ghana, where the discovery and exploitation of oil and gas resources present substantial economic opportunities. The rationale behind local content promotion is multifaceted, seeking not only to foster economic growth and diversification but also to build local capacity, reduce dependency on foreign expertise, and ensure a more equitable distribution of resource wealth. By implementing local content policies, governments aspire to stimulate local employment, enhance skill development, and encourage the establishment and growth of local businesses (Wilhelm, 2023). These policies are tailored to ensure that the benefits of resource extraction extend beyond mere revenue generation, aiming to lay the foundations for sustainable economic development and long-term societal well-being.

At its core, local content promotion involves a series of legislative and regulatory frameworks that require multinational companies to source a certain percentage of goods and services from local suppliers and to employ nationals in significant numbers. In Ghana, this is encapsulated in policies such as the Petroleum (Local Content and Local Participation) Regulations, which set specific targets for the utilization of local resources and talent in the oil and gas sector. These regulations are designed not only to protect and empower local industries but also to catalyze the transfer of knowledge and technology from international to local entities. As such, Al-Worafi (2023) emphasized that the success of local content promotion is contingent upon the

effective implementation and enforcement of these policies, requiring a delicate balance between incentivizing foreign investment and fostering local industrial capacity.

However, the promotion of local content does not come without its challenges. Issues such as the limited capacity of local firms to meet the demands of the oil and gas sector, the need for substantial investment in education and training, and the potential for increased operational costs for multinational companies are all pertinent concerns. Moreover, the effectiveness of local content strategies is heavily influenced by the broader regulatory and economic environment, including the stability of political institutions, the transparency of regulatory processes, and the availability of infrastructure and capital. In this context Chuwa (2023), argued that the promotion of local content in Ghana's oil and gas industry necessitates a comprehensive approach that encompasses policy formulation, capacity building, and the creation of conducive conditions for the growth of local enterprises and the workforce.

2.1.2 The Role of Procurement Policies

Procurement policies serve as the backbone of strategic purchasing decisions and operations within organizations, particularly in the oil and gas industry where the procurement of goods, services, and capital equipment plays a pivotal role in operational efficiency and project execution (Dargis, 2023). These policies are designed to ensure that procurement processes are conducted in a manner that is transparent, ethical, and aligned with the broader goals of the organization, including cost efficiency, quality assurance, and compliance with regulatory and environmental standards. In the context of the oil and gas industry in Ghana, procurement policies are not only instrumental in managing operational costs and ensuring the timely delivery of projects but also in promoting local content by integrating local suppliers and workforce into the supply chain. Danladi et al. (2023) cited that This integration supports the broader economic development goals by facilitating the transfer of technology, enhancing the capabilities of local businesses, and creating job opportunities within the local economy.

Procurement policies in the oil and gas sector are subject to a complex interplay of factors including regulatory requirements, market conditions, and the strategic objectives of the company. In Ghana, these policies are influenced by national regulations that mandate the inclusion of local content as a critical component of the procurement process. Companies operating in this sector are therefore required to navigate a regulatory landscape that aims to balance the objectives of industrial competitiveness with socio-economic development. This necessitates a

procurement strategy that not only focuses on cost, quality, and efficiency but also on the development of local suppliers and the promotion of sustainable practices (Son, 2024). By embedding local content requirements into their procurement policies, companies contribute to building a resilient and self-sufficient local industry capable of competing on a global scale.

Moreover, effective procurement policies are crucial for fostering long-term partnerships between multinational companies and local suppliers. These policies can encourage the development of local industries through capacity building, technology transfer, and shared best practices. The challenge, however, lies in creating policies that are flexible enough to adapt to changing market dynamics and regulatory environments while remaining firm in their commitment to promoting local content. For Ghana, the development and implementation of robust procurement policies by companies like GOIL play a significant role in maximizing the benefits derived from the oil and gas sector. Such policies not only ensure the efficient and ethical procurement of necessary goods and services but also reinforce the commitment to sustainable development and the economic empowerment of the local community (Setiawan, 2023).

2.2 Theoretical Review

2.2.1. The Resource-Based View (RBV)

The Resource-Based View (RBV) of the firm has its origins in the work of Zhang et al. (2023), who introduced the idea of the firm as a collection of productive resources. However, it was not until the 1980s and early 1990s that the RBV was formally developed and popularized by scholars like Wernerfelt (1984), Barney (1991), and Peteraf (1993). These scholars shifted the focus of strategic management from external market conditions and industry structure to the internal capabilities and resources of the firm. The RBV posits that the key to a firm's sustainable competitive advantage lies in the acquisition and utilization of valuable, rare, inimitable, and non-substitutable (VRIN) resources and capabilities. This perspective emphasizes that not all resources hold the same value, and it is the unique combination and integration of these resources within a firm that enables it to outperform competitors (Tiwari et al., 2024). Over time, the RBV has evolved to include dynamic capabilities, which refer to the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments.

In relation to the study of procurement policies and their impact on local content promotion in Ghana's oil

and gas industry, the RBV provides a pertinent theoretical lens. Procurement, as a strategic function, involves the management of resources that are external to the firm but critical for its operations and competitiveness. From the RBV perspective, procurement policies that foster strong relationships with local suppliers can be seen as a mechanism to develop and leverage a firm's resources and capabilities. For instance, by prioritizing local suppliers and contractors, a firm can enhance its reputation, strengthen its supply chain resilience, and build valuable local knowledge and expertise. Mugoni et al. (2023) suggested that These, in turn, contribute to the firm's sustainable competitive advantage by promoting local content and development. The RBV underscores the strategic importance of procurement in not only securing essential inputs but also in contributing to the firm's broader goals of sustainability and social responsibility. This aligns with the objectives of local content policies, which aim to maximize the benefits of resource extraction for the local economy. By applying the RBV, this study can explore how GOIL's procurement strategies serve as a key resource in supporting local content promotion and how these strategies contribute to building a competitive edge for the firm within the highly competitive and resource-intensive oil and gas sector (Agrawal et al., 2024).

2.2.2 Theory of the firm

The Theory of the Firm seeks to explain why firms exist, how they operate, and what determines their structure and boundaries. The origins of this theory can be traced back to Ronald Coase's seminal work "The Nature of the Firm" (1937), in which he questioned why firms arise when markets are often viewed as the most efficient means of allocating resources (Walker, 2021). According to Chapman and Buckley (2020), Coase proposed that firms exist to reduce transaction costs such as costs incurred in coordinating and executing market transactions. He argued that firms can perform certain tasks more efficiently within a hierarchical structure than through market mechanisms, particularly when there are complexities, uncertainties, or transaction costs that make market exchanges less attractive. This concept laid the groundwork for understanding the internal organization of firms and their decision-making processes regarding whether to produce internally or outsource to external markets. Over time, the Theory of the Firm has evolved to encompass a range of perspectives, including agency theory, property rights theory, and resource-based theory, each contributing to a comprehensive understanding of the factors that influence a firm's structure and strategy (Apriliyanti, 2022).

In relation to the study of GOIL's procurement policies and their impact on local content promotion

within Ghana's oil and gas industry, the Theory of the Firm provides a useful framework for examining the strategic decisions made by firms regarding internal production versus external procurement. This theory helps explain why firms like GOIL may choose to source certain goods and services from local suppliers instead of producing them internally, highlighting the role of transaction costs, efficiencies, and strategic advantages in this decision-making process. Vadakkepatt et al. (2022) noted that the theory also sheds light on the boundaries of the firm and the factors that influence its structure, such as regulatory requirements, market conditions, and competitive pressures. Applying the Theory of the Firm to this study allows one to investigate how GOIL's procurement policies are designed to maximise efficiency, reduce costs, and promote local content while navigating the complexities of the oil and gas industry. This perspective allows for a deeper analysis of the factors driving GOIL's procurement strategies and their implications for local content promotion and sustainable development, contributing to a broader understanding of the firm's role in the socio-economic landscape of Ghana's oil and gas sector.

2.2.3 Stakeholder Theory

Stakeholder Theory, as we understand it today, originated from the seminal work of R. Edward Freeman in the mid-1980s, particularly his landmark book "Strategic Management: A Stakeholder Approach" (1984). Freeman's work marked a paradigm shift in business and management thinking by expanding the focus from shareholders to include a wider array of stakeholders any group or individual who can affect or is affected by the achievement of an organization's objectives. Stakeholder Theory posits that businesses have ethical and practical obligations to all stakeholders, including employees, customers, suppliers, communities, and the environment, beyond mere profit maximization for shareholders. This inclusive approach challenges businesses to consider the impacts of their decisions on all stakeholders, advocating for a balance between competing interests to achieve long-term success and sustainability. The theory has since evolved and diversified, incorporating various perspectives on how businesses can manage stakeholder relationships effectively and ethically (Daradkeh, 2023).

In relation to the study of GOIL's procurement policies and their impact on local content promotion within Ghana's oil and gas industry, Stakeholder Theory provides a critical framework for analyzing how the company navigates its relationships with diverse groups. This approach is particularly relevant in the context of local content promotion, where the interests of local suppliers, government regulators, communities affected by oil and gas operations, and

multinational corporations converge. Stakeholder Theory emphasizes the importance of engaging with and balancing the needs of these various groups to foster sustainable development and mutual benefits. For GOIL, adopting a stakeholder-oriented approach in its procurement policies means actively seeking to contribute to local economic development by prioritizing local suppliers and considering the social and environmental implications of its operations (Ojijo, 2023). By applying Stakeholder Theory, the study can explore how GOIL's procurement practices reflect a commitment to ethical business conduct and sustainable development goals, examining the strategies it employs to address stakeholder concerns and promote local content. This analysis not only sheds light on the ethical dimensions of procurement but also contributes to understanding the broader impact of business practices on societal well-being and sustainable development in the oil and gas sector (Khalid, 2023).

2.3 Empirical Review

Suleman and Zaato (2021) explored the enhancement of Ghana's upstream oil and gas sector through local content policies, aiming for sustainable economic and social benefits for the government, citizens, and multinational oil companies. They employed a methodology that included a thorough analysis of local content laws and policies, coupled with consultations with stakeholders. Their findings suggest that for local content policy to effectively contribute to sustainability in the upstream oil and gas industry, there must be a balance among the needs of policymakers, local communities, multinational oil companies, and regulators. The conclusion drawn emphasizes the necessity of a local content implementation master plan, advocating for the active involvement of key stakeholders including the government, citizens, and multinational companies, and the integration of forward and backward linkages in the application of Ghana's upstream local content laws and policies.

Samlafo (2019) aimed to evaluate the effectiveness of Ghana's local content policy in the oil and gas sector and its implementation since inception, with a focus on local inclusion in production and marketing. The methodology involved reviewing data from journals, articles, books, and online sources related to the oil and gas industry in Ghana. The research uncovered that local recruitment has been satisfactory and is anticipated to rise, and that Ghana has established mechanisms similar to Nigeria for implementing its local content policy. However, the study concluded that there is a scarcity of data on the achievements and operations of the Local Content Policy. Samlafo recommended the establishment of a data collection

agency to monitor and analyze petroleum activities in Ghana, to assess the progress and effectiveness of the Local Content Policy.

Mulati (2019) investigated the impact of local content policies on sustainable local development within Kenya's upstream oil and gas sector, focusing on employment and training of local workforce, domestic sourcing of goods and services, and technology transfer effects. Utilizing a descriptive research design based on stakeholder theory, the study involved 77 permanent employees from these companies, collecting data through standardized questionnaires and analyzing it with SPSS to perform both descriptive and inferential statistics. Findings indicated a positive relationship between local content policy implementation and sustainable development, particularly highlighting the significant impact of technology transfers, while the effects of local employment, training, and domestic sourcing were positive but not statistically significant. The study concluded that while companies have moderately implemented local content policies, these efforts have the potential to enhance sustainable development. Recommendations include developing clear policy frameworks for local employment and expanding opportunities for domestic firms and technology transfers to bolster local development.

Ayanoore (2020) delved into the dynamics of Ghana's local content policy in the oil and gas sector, challenging the predominant view that political commitment to national interests guides policy implementation. Instead, the study, framed within an extended political settlement analysis, attributed the shaping of local content policies more to intricate political and power relations within Ghana's political system than to mere institutional or broad political motivations. The methodology highlighted how the ruling party's enforcement of local content policy was influenced by Ghana's competitive clientelist political settlement, including coalition building, clientelism, and ideational factors. Ayanoore's findings suggest that the key drivers of local content implementation are the power relationships among the elite within the ruling coalition, shaped significantly by their interests and ideological leanings, rather than the structural or political landscape at large.

Onwuka (2021) conducted a qualitative multiple case study to explore how supply chain managers in multinational oil and gas companies in Nigeria strategize to augment local content in their operations and outputs, in response to local content statutory regulators' goal to boost the local content value from 26% in 2017 to 70% by 2027. Drawing from the local content development framework and the mediated impact model of supplier development, the study involved interviews with eight supply chain managers and business leaders, alongside an examination of

secondary documents like annual plans and performance reports. Through thematic analysis, Onwuka identified three main themes: the business value drivers for local content development, the primary strategies for enhancing local content, and the approaches to monitoring and measuring its progress. The study concluded with a recommendation for supply chain managers to articulate clear business value drivers for local content strategies, suggesting that such measures could significantly impact job creation and reduce unemployment and youth restiveness in Nigeria's Niger Delta region.

Asiago and Miriti (2022) examined the significance of resource management laws and the application of local content policies in the petroleum sector, focusing on equitable resource management. Through a comparison of local content policy implementation in new African oil exploring countries—Uganda, Tanzania, and Kenya—with that of Ghana and other petroleum-producing nations, they identified both the benefits and limitations of these policies. Their methodology included a review of regulatory bodies across these countries, revealing that despite the potential benefits of local content policies, challenges such as institutional duplicity and overlaps often undermine their effectiveness. The study concluded that while local content policies contribute to resource management, they are not a standalone solution and should be part of a broader set of tools. Asiago and Miriti recommended the development of pre-qualified lists by ministries/agencies to streamline the implementation process and suggested that governments adopt standardized units for measuring resource management outcomes to enhance the sustainability of local content initiatives.

Oppong and Amoah-Awuah (2021) examined the effects of the Petroleum Local Content and Local Participation Regulation 2013, LI 2204, on the development of local skills in Ghana's upstream oil and gas sector, focusing on two international oil companies (IOCs) and the Petroleum Commission (PC). Utilizing a mixed-methods approach for data collection and descriptive analysis for evaluation, the study found significant advancements in the recruitment and development of Ghanaians within these companies, with notable percentages of local employees in various categories. Despite these achievements, challenges such as the scarcity of required local skills, high costs of skills development, insufficient cooperation among stakeholders, and limited practical development opportunities were identified as obstacles to fulfilling the regulation's objectives. The PC has recognized these issues and formed a committee to explore ways to enhance localization in the sector, indicating a proactive approach towards addressing the challenges and optimizing local skill development.

Ovadia (2022) delved into the gender disparities within the local content framework of the extractive industries, with a specific focus on Tanzania's burgeoning gas sector. The research highlighted the lack of gender-specific provisions in local content laws and regulations globally, despite the male-dominated nature of formal employment in oil extraction, where over 80 percent of the workforce in Tanzania is male. This study emphasized the disproportionate adverse effects on women, including social disruption, environmental degradation, and loss of livelihoods. Through an analysis of the gender dimensions of local participation, economic empowerment, and the necessity for women's inclusion in the gas industry, Ovadia argued for a comprehensive approach to gender equality. This approach encompasses legislation, regulation, policy, and education and training, aimed at maximizing the benefits from extractive industries and fostering petro-development with an emphasis on gender equality.

Byaruhanga (2019) explored the response of private sector actors to the implementation of Local Content Policies (LCPs) in Uganda's petroleum industry, following the discovery of commercially viable oil and gas reserves in 2006. Through conducting sixty-seven key informant interviews across public, private, and civil society sectors, and analyzing various reports and legal documents, Byaruhanga uncovered that local suppliers have adapted by forming joint ventures and improving their capacities via training provided by international oil companies. These adjustments were in direct response to the demands of LCPs as well as the corporate requirements of the oil and gas industry. Furthermore, international companies have modified their structures and policies to assist in developing the capacities of local suppliers. The study concludes with a call for the creation of comprehensive local content development programs to ensure inclusive growth and development within Uganda's petroleum sector.

Hansen (2020) investigated the impact of local content requirements on multinational corporations (MNCs) in the African extractive sector, highlighting the shift towards stricter regulations and its implications for MNCs' strategic management, profitability, and efficiency. Despite the growing body of literature on local content from economic and political angles, there was a notable gap in strategic management perspectives, which this paper sought to fill. By employing the classical local responsiveness-global integration grid, Hansen developed a framework to guide MNCs in strategizing about local content. The findings offer a new conceptual framework aimed at spurring further strategic management research on MNC practices regarding local content in Africa. Additionally, the study provides insights into the strategic opportunities and challenges MNCs face due

to local content requirements, suggesting ways policymakers can better tailor local content policies to align with MNC strategies and interests, thereby enhancing their effectiveness.

The empirical review underscores a complex landscape of local content policies within the oil and gas sectors across different African countries, highlighting the multifaceted challenges and opportunities that come with the implementation of these policies. From the reviewed literature, it is clear that while the intention behind local content policies is to foster economic development, increase local participation, and ensure sustainable outcomes, the reality is often marred by challenges such as inadequate local capacity, political and power dynamics, regulatory ambiguities, and the strategic responses of multinational corporations. Notably, the studies by Suleman and Zaato (2021); Ayanoore (2020); and Hansen (2020) reveal a critical intersection between policy implementation, corporate procurement strategies, and the overarching regulatory environment, pointing towards a need for a nuanced understanding of how these elements interact within the Ghanaian context specifically. However, despite these insights, there remains a noticeable gap in the literature regarding the direct examination of the impact of specific corporate procurement policies, like those of GOIL, on local content promotion and how the regulatory environment moderates this impact.

This gap signals an opportunity for this study to contribute to the existing body of knowledge by specifically examining GOIL's procurement policies within the broader framework of Ghana's regulatory environment and local content promotion strategies. By focusing on this area, the research aims to provide a detailed analysis of the procurement practices and their direct and indirect effects on local content objectives, filling a critical void in the current literature. Moreover, this study seeks to offer practical recommendations for policymakers, industry stakeholders, and corporations to enhance the effectiveness of local content policies in promoting sustainable development within Ghana's oil and gas sector. Through this contribution, the research not only advances academic discourse but also provides actionable insights that could inform the development of more effective local content strategies, regulatory frameworks, and corporate policies that align with the goals of economic growth, social inclusion, and environmental sustainability.

2.4 Conceptual Framework

2.4.1 Local Content Regulation Impacts

Local content regulations have been instituted in many countries with resource-rich economies as a means to ensure that the benefits of extractive

industries extend to local economies through the inclusion of local workforce and suppliers in industry operations. These regulations are designed to foster economic growth, develop local industries, and reduce dependency on foreign expertise and imports. Gatune (2024) highlighted that in countries like Nigeria and Brazil, local content policies have significantly boosted local employment and domestic manufacturing by setting clear benchmarks for multinational corporations to meet. Similarly, a comparative study by Tetteh et al. (2023) on the oil sectors of Norway and Angola found that stringent local content requirements, coupled with robust monitoring and enforcement mechanisms, have led to the successful development of local capabilities and industries, though the level of success varies greatly depending on the regulatory environment and the commitment of both governments and corporations to these policies.

Furthermore, the effectiveness of local content regulations is often measured by their impact on technology transfer and skill development within local populations. For instance, Kinyondo (2024) investigated the Ghanaian oil sector and observed that local content laws facilitated technology transfer from international oil companies to local businesses, leading to improvements in local operational standards and capacities. However, the study also noted that the lack of skilled local workforce and infrastructure can limit the effectiveness of these policies. On the other hand, a study by Wambwa et al. (2023) in the Australian mining sector suggested that while local content regulations have the potential to drive significant economic and social benefits, they require careful design to avoid creating inefficiencies and increasing project costs unnecessarily. Echoing this sentiment, Feng et al. (2023) analyzed the impact of local content regulations across various African countries and concluded that while local content policies are crucial for ensuring that natural resource wealth contributes to sustainable development, their success is highly dependent on the existence of clear objectives, transparent implementation processes, and continuous capacity-building efforts. These studies collectively underscore the complexity of implementing effective local content regulations and the need for a balanced approach that considers the economic, social, and operational dimensions of such policies.

2.4.2 Exploring Corporate Procurement Strategies

Corporate procurement strategies encompass the methodologies and approaches that businesses employ to manage and optimize their acquisition of goods and services. These strategies are pivotal for organizations aiming to enhance efficiency, reduce costs, and achieve a sustainable competitive advantage. Research Nia (2023) emphasized the strategic role of procurement in leveraging global supply chains for cost reduction and

innovation, illustrating how multinational corporations navigate global markets to source competitively. In a similar vein, Letunovska et al. (2023) investigated the integration of sustainable practices within procurement strategies, revealing that companies increasingly prioritize environmental and social criteria in their sourcing decisions, which not only enhances corporate reputation but also contributes to long-term sustainability. These findings are particularly relevant in the oil and gas sector, where procurement decisions have significant implications for operational costs and environmental impact.

Moreover, the alignment of procurement strategies with local content requirements has emerged as a critical area of study. For example, Heim et al. (2023) analyzed the oil and gas industry in Kazakhstan, finding that effective procurement strategies that prioritize local suppliers can lead to improved local economic development and stronger supply chain resilience. This resonates with the work of Gatune (2024), who explored how procurement strategies in the African extractive sector are being adapted to meet stringent local content regulations, promoting local participation and capacity building. Meanwhile, Ali (2023) delved into the challenges faced by companies in balancing cost-efficiency with local content objectives, highlighting the need for innovative procurement practices that can navigate this complex landscape. These studies collectively underscore the importance of strategic procurement in not only achieving business objectives but also contributing to broader socio-economic goals, such as local content promotion and sustainable development, within the contexts they operate.

2.4.3 Evaluating Local Supplier Capacity

The capacity of local suppliers refers to their ability to meet the demands of larger corporations in terms of volume, quality, delivery, and innovation. This concept is pivotal for industries like oil and gas, where the complexity and scale of operations require robust and reliable supply chains. Studies by Alsmairat et al. (2023) underscored the critical role of supplier capacity in achieving operational efficiency and reducing supply chain risks, emphasizing the need for continuous assessment and development of suppliers. Similarly, research by Olisah (2023) in the Nigerian oil sector revealed that enhancing the capacity of local suppliers leads to improved supply chain resilience and contributes to local economic development, aligning with local content objectives. These studies highlight the reciprocal benefits of investing in local supplier capacity, not just for the corporations but also for the broader economic ecosystem.

Furthermore, the strategic development of local supplier capacity is intricately linked to corporate procurement strategies and local content regulations.

Leão et al. (2023) explored the impact of targeted capacity-building initiatives on local suppliers in Brazil's oil and gas industry, finding that such efforts significantly improved suppliers' competencies and their ability to compete on a global scale. In contrast, Alves et al. (2024) analyzed the challenges faced by local suppliers in meeting the stringent requirements of international oil companies, pointing to a gap between existing capacities and the industry's needs. This gap underscores the importance of collaborative approaches to capacity building, as evidenced by Ngo et al. (2023), who demonstrated how partnerships between governments, corporations, and educational institutions can accelerate the development of local supplier capacity. These studies collectively suggest that the capacity of local suppliers is a multifaceted issue that requires coordinated efforts to address, ensuring that local content goals are met and that the benefits of resource extraction activities are maximally harnessed for local development.

2.4.4 Stakeholder Engagement in Industry

Stakeholder engagement and collaboration refer to the systematic efforts by organizations to understand, communicate with, and consider the interests of all parties affected by their operations. This concept is crucial in sectors like oil and gas, where the range of stakeholders includes local communities, governments, suppliers, NGOs, and investors, each with distinct interests and impacts. Research by Emeka-Okoli et al. (2024) highlighted the significance of stakeholder engagement in enhancing corporate reputation and operational success, particularly in resource-intensive industries where environmental and social risks are high. They found that companies that actively engage with their stakeholders can better anticipate and mitigate conflicts, leading to smoother project implementations. Similarly, Poelzer (2023) examined the oil sector in Russia and concluded that stakeholder collaboration could significantly improve environmental management practices, underscoring the mutual benefits of engagement.

Building on these insights, studies focused on the extractive industries in emerging economies have further elucidated the role of stakeholder engagement in facilitating local content development. For example, Ansu-Mensah et al. (2023) investigated how multinational oil companies in Ghana engage local suppliers and communities, identifying that effective communication and collaborative initiatives were key to boosting local participation and achieving social license to operate. In a related vein, Chukwu et al. (2023) explored the impact of stakeholder engagement on innovation in the supply chain, finding that companies that fostered open dialogue and collaboration with local suppliers were more likely to co-develop innovative solutions tailored to the unique

challenges of the local context. Furthermore, the work of Chipangamate et al. (2023) in the Australian mining sector demonstrated that stakeholder engagement strategies that are inclusive, transparent, and responsive not only contribute to local content success but also to long-term sustainability and community development. These studies collectively emphasize the strategic value of stakeholder engagement and collaboration, not just as a means to fulfill regulatory requirements or manage reputational risks, but as a fundamental component of sustainable business practice that drives mutual value creation for companies and their diverse stakeholders.

2.4.5 Frameworks Shaping Industry Dynamics

Regulatory and policy support encompasses the laws, regulations, and guidelines established by governments and regulatory bodies to govern industry practices, promote sustainable development, and ensure equitable benefits from economic activities. This framework is crucial in sectors like oil and gas, where the extraction and processing of natural resources have significant economic, environmental, and social implications. A study by Ahmad et al. (2023) highlighted the pivotal role of regulatory frameworks in guiding the operations of multinational corporations in emerging economies, emphasizing that well-structured policies can attract investment while ensuring environmental protection and social welfare. Similarly, research by Gatune (2024) on the impact of local content regulations across several African countries revealed that comprehensive and clear policies are fundamental to enhancing local participation in the oil and gas value chain, thereby contributing to economic diversification and reducing dependency on imports.

Moreover, the effectiveness of regulatory and policy support is often contingent upon the level of alignment and collaboration between governments, industry players, and other stakeholders. For instance, Falcone (2023) analysis of the renewable energy sector illustrated that policies promoting local content and technology transfer can significantly impact domestic industries' growth and sustainability. This finding is echoed in the work of Chepleting et al. (2023), which examined the Brazilian oil industry and noted that strategic policy interventions, coupled with strong regulatory oversight, were key to fostering local supplier development and integration into global supply chains. Further, a study by Amuah et al. (2023) on regulatory impacts on environmental sustainability practices within the oil sector found that policies encouraging or mandating sustainable practices led to significant improvements in corporate environmental stewardship. These studies collectively underscore the critical role of regulatory and policy support in shaping industry outcomes, driving sustainable development, and facilitating the equitable distribution of benefits

from natural resource exploitation. Through such frameworks, governments can effectively steer industries toward practices that are not only economically beneficial but also socially responsible and environmentally sustainable.

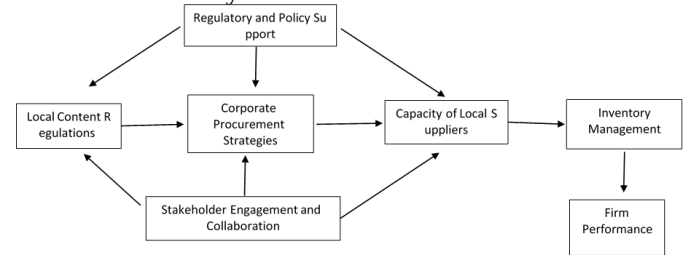


Figure 1: Conceptual Framework (Author's Construct, 2024)

The factors in the conceptual framework effectiveness of local content regulations, corporate procurement strategies, capacity of local suppliers, stakeholder engagement and collaboration, and regulatory and policy support interconnect to create a cohesive ecosystem that promotes local content and sustainable development. Local content regulations and supportive policies establish the foundational framework, guiding corporate procurement strategies towards prioritizing local suppliers, whose capacity development is crucial for meeting industry demands. Stakeholder engagement fosters collaboration and ensures that strategies are aligned with local needs and sustainability goals, creating a synergistic approach that enhances the overall impact of local content promotion in the oil and gas sector.

3. Project Implementation

3.1 Research Setting

GOIL, originally known as Ghana Oil Company Limited, has a rich history that began in June 1960 when it was established as the marketing outfit of AGIP PETROLI. The company underwent significant changes in 1974 when the Government of Ghana acquired 100 percent shares, leading to a rebranding to its current name. It was listed on The Ghana Stock Exchange in 2017, reflecting its growth and expansion in the petroleum and other allied sectors. In 2019, the company's name was updated to GOIL Company Limited and later to GOIL PLC in 2021.

GOIL's activities span a wide range of services within the energy sector, including aviation fuel supply at major airports in Ghana, bunkering, and the provision of quality lubricants through its extensive network of over 181 lube bays nationwide. The company also offers innovative solutions like the GOCARD, an electronic prepaid service that enhances fuel consumption monitoring and provides convenience for individual and fleet users.

The vision of GOIL is to be a world-class provider of goods and services in the petroleum and other areas of

the energy industry. Its mission is to market quality petroleum and other products and services in an ethical, healthy, safe, environmentally friendly, and socially responsible manner. The core values of GOIL are encapsulated in the acronym G-O-I-L, representing Good energy, Originality, Integrity, and Leadership, which guide the company's commitment to quality, innovation, credibility, and industry leadership.

3.2 Research Approach

The study adopts a mixed-methods research approach, integrating both qualitative and quantitative methodologies to offer a comprehensive understanding of the impact of corporate procurement strategies on local content promotion and sustainable development. This approach is justified as it allows for a nuanced exploration of complex phenomena by capturing a wide range of perspectives and data types (Sun et al. 2023). Qualitatively, semi-structured interviews and document analysis enable the collection of in-depth insights from industry stakeholders, including policymakers, corporate executives, and local suppliers, revealing the intricacies of procurement practices, regulatory compliance, and stakeholder interactions. These qualitative findings provide context and depth to the quantitative analysis, which employs statistical methods to examine the relationships between the variables of interest.

Quantitatively, the study utilizes regression analysis to test hypotheses and quantify the relationships between corporate procurement strategies, the effectiveness of local content regulations, the capacity of local suppliers, stakeholder engagement and collaboration, and their collective impact on sustainable development. This methodological choice is justified by the need to establish causality and measure the extent to which various factors influence local content promotion within the oil and gas sector (Debnath et al., 2023). By combining qualitative insights with quantitative evidence, the mixed-methods approach enhances the validity and reliability of the research findings, offering a holistic view of the subject matter. This comprehensive methodology enables the study to address its objectives effectively, contributing valuable knowledge to the field and informing policy and practice.

3.3 Research Design

This study employs an exploratory sequential research design, beginning with qualitative data collection and analysis, followed by quantitative data collection and analysis. This design is particularly suited for areas where theory and evidence are still emerging, as is the case with the intricacies of corporate

procurement strategies' impact on local content promotion in the oil and gas industry. Initially, qualitative methods, including semi-structured interviews with key industry stakeholders and analysis of relevant documents, are utilized to gain in-depth insights into the phenomenon, identify key variables, and develop an understanding of the underlying mechanisms. This phase allows for the exploration of complex dynamics, stakeholder perspectives, and contextual factors influencing procurement strategies and local content promotion, informing the development of a more structured quantitative phase.

Subsequently, the quantitative phase involves the collection and analysis of numerical data through surveys or existing datasets to test hypotheses derived from the qualitative findings. This phase aims to quantify the relationships between corporate procurement strategies, local content regulation effectiveness, supplier capacity, stakeholder engagement, and sustainable development outcomes. The justification for this research design lies in its ability to leverage the strengths of both qualitative and quantitative methods, providing a comprehensive understanding of the research problem (Vivek & Chandrakumar, 2023). The exploratory sequential design enables the study to uncover and analyze the nuances of procurement strategies and local content policies before quantifying their impact, ensuring that the research is grounded in empirical evidence while also capable of generalizing findings to broader contexts.

3.4 Total Population

The total population for this study, drawn from various departments within the organization, comprises individuals from diverse functional areas, reflecting a broad spectrum of roles and perspectives relevant to the research objectives. This comprehensive population ensures a holistic view of corporate procurement strategies and their impact on local content promotion.

Table 1: Total Population

Department	Number
Marketing	42
HR	10
Accounts	20
HSSE	20
Corporate Affairs	7
Consumer Marketing	10
Retail Network	12
Merchandise	10
Non Fuels	12
Legal	3
Audit Stores	12
Audit Archive	2
Transport	25
Compliance	6
Procurement	6

(Source: Field Survey, 2024)

*Included in the 197 were 15 Managers and Heads of Departments

3.5 Sampling and sampling techniques

For the quantitative phase of the study, the sample size is determined using the Yamane formula, which provides a simplified way to calculate sample size for a given population when the desired level of precision and confidence level are known. The Yamane formula is expressed as:

$$n = N / (1 + N(e^2))$$

where:

- n is the sample size,
- N is the total population size (197, as calculated previously),
- e is the level of precision (margin of error), typically set at 0.05 for a 95% confidence level.

Applying the Yamane formula to compute the sample size for the quantitative data:

$$n = 197 / (1 + 197(0.05)^2)$$

Using the Yamane formula, the calculated sample size for the quantitative phase of the study is approximately 132 individuals. This size is deemed appropriate for a statistically significant representation of the total population within the organization, ensuring a reliable analysis of the quantitative data. The simple random sampling technique will be employed to select these 132 individuals, which involves randomly choosing participants from the total population so that every member has an equal chance of being included in the sample. This method is chosen for its fairness and simplicity, allowing for the collection of unbiased data that can be generalized to the entire population.

For the qualitative phase, purposive sampling was

utilized to select participants who are especially knowledgeable about corporate procurement strategies, local content policies, and their implications for sustainable development. This group of participants constitute Managers and Heads of Departments of the organisation. Therefore, the sample size for this phase is set at 15 individuals, chosen based on their roles and experiences that are particularly relevant to the research questions. This number is determined to ensure a depth of insight and diversity of perspectives, while remaining manageable for in-depth analysis. Participants are specifically selected from among senior managers and key decision-makers in procurement, corporate affairs, and other relevant departments, as well as representatives from local suppliers and regulatory bodies. This targeted approach ensures that the qualitative data collected are rich and directly pertinent to the study's objectives, providing a solid foundation for understanding the complex dynamics at play (Dong, 2023).

3.6 Source of Data Collection

The study employs two primary sources of data collection: interviews and questionnaires. Interviews are conducted to gather qualitative data from key stakeholders, including senior managers, procurement officers, local suppliers, and regulatory representatives. This method is chosen for its ability to yield in-depth insights into personal experiences, opinions, and the nuances of corporate procurement strategies and their impact on local content promotion (Bastrygina et al., 2024). Interviews facilitate an understanding of complex issues that cannot be captured through quantitative measures alone, such as the intricacies of stakeholder relationships, the challenges of implementing local content policies, and the strategies for engaging with local suppliers. This qualitative approach allows for a flexible and responsive interaction, enabling the researcher to probe deeper into topics as they arise during the conversation, thereby uncovering rich, contextual data that are crucial for addressing the research objectives (Khoa et al., 2023).

Questionnaires, on the other hand, are used to collect quantitative data from a broader segment of the population within the organization. This method is justified by its efficiency in gathering standardized information from a large number of participants, allowing for statistical analysis to identify patterns, trends, and correlations among the study variables. The use of questionnaires enables the quantification of the effectiveness of local content regulations, the capacity of local suppliers, and the extent of stakeholder engagement, among other factors. By combining both interviews and questionnaires, the study leverages the strengths of qualitative and quantitative research

methods, ensuring a comprehensive understanding of the subject matter. This mixed-methods approach enriches the research findings, providing a more holistic view of the impact of corporate procurement strategies on local content promotion and sustainable development in the oil and gas industry (Sajwani et al., 2023).

3.7 Data Collection Procedure

The data collection procedure for this study is meticulously designed to ensure the comprehensive gathering of both qualitative and quantitative data, aligning with the mixed-methods research approach. Initially, qualitative data are collected through semi-structured interviews with a purposively selected sample of key stakeholders. These stakeholders include senior management involved in procurement, representatives from local suppliers, and regulatory bodies overseeing local content policies. The interview process begins with the development of an interview guide, which outlines a series of open-ended questions designed to explore participants' perspectives on procurement strategies, local content promotion, and sustainable development within the oil and gas sector. Interviews are conducted face-to-face or via video conferencing, depending on the availability and preference of the participants, to ensure a comfortable and conducive environment for sharing insights. This qualitative phase allows for an in-depth exploration of the contextual factors, challenges, and strategies that underpin the study's focus areas, providing rich, detailed data that inform the subsequent quantitative phase.

Following the qualitative analysis, quantitative data are collected using questionnaires distributed to a larger sample drawn from the organization's total population using simple random sampling. The questionnaires are designed based on insights gained from the qualitative phase, ensuring that the questions are relevant, precise, and aligned with the study's objectives. The questionnaires include both closed-ended and Likert-scale questions to quantify the impact of procurement strategies on local content promotion and to assess the effectiveness of local content regulations, the capacity of local suppliers, and the level of stakeholder engagement. Distribution is facilitated through electronic means to enhance the reach and efficiency of the data collection process, allowing participants to complete the questionnaire at their convenience. This sequential procedure of collecting and analyzing qualitative data before quantifying relationships through a questionnaire ensures a robust and iterative understanding of the research topic. The mixed-methods approach thereby provides a comprehensive dataset that combines depth

with breadth, enabling a nuanced analysis of how corporate procurement strategies influence local content promotion and sustainable development (Song et al., 2024).

3.7 Validity and Reliability

To ensure the validity and reliability of the research instruments, a multi-faceted approach is adopted. For the qualitative component, the interview guide is meticulously developed and reviewed by subject matter experts to ensure that the questions are relevant, clear, and capable of eliciting in-depth information on the study's themes, thereby enhancing content validity. Pilot testing the interview guide with a small subset of participants further refines the questions, ensuring their appropriateness and comprehensiveness. For the quantitative component, the questionnaire undergoes a rigorous validation process, including expert reviews and pilot testing among a similar demographic to the study population. This process helps in identifying and rectifying ambiguous or leading questions, thereby increasing the instrument's construct validity. Reliability is ensured through the consistent application of the questionnaire under the same conditions and using Cronbach's alpha to assess internal consistency among Likert-scale items. This combination of expert validation, pilot testing, and statistical reliability testing ensures that the data collected are both valid and reliable, providing a solid foundation for the study's findings and conclusions.

3.8 Data Analysis

Data analysis for this study is meticulously planned to align with the mixed-methods research design, incorporating both qualitative and quantitative data analysis techniques. Qualitative data gathered from interviews are analyzed using thematic analysis, a method that enables the identification, analysis, and reporting of patterns (themes) within the data. This approach is particularly suitable for this study as it allows for a nuanced exploration of the complexities and subtleties surrounding corporate procurement strategies, local content promotion, and stakeholder engagement (ALKHALIFA, 2023). Thematic analysis facilitates a deep understanding of the stakeholders' perspectives, experiences, and the contextual factors influencing procurement policies and their effectiveness in promoting local content. By coding the data and iteratively refining themes, the study ensures a rigorous and transparent analysis process, highlighting the intricate dynamics at play within the oil and gas industry's procurement landscape.

For the quantitative data collected through questionnaires, statistical analysis is conducted using

regression analysis to test the hypotheses formulated in the study. This technique is chosen for its ability to measure the extent of relationships between multiple independent variables (such as the effectiveness of local content regulations, corporate procurement strategies, and the capacity of local suppliers) and the dependent variable (promotion of local content and sustainable development). Regression analysis provides a quantifiable measure of the impact of each factor, offering insights into the relative importance and influence of different variables on local content promotion. The choice of regression analysis is justified by its capacity to handle complex interrelationships and to provide a clear, statistical representation of the data, facilitating objective conclusions regarding the factors influencing local content promotion and sustainable development in the oil and gas sector. Together, the combination of thematic and regression analysis ensures a comprehensive and robust examination of the research questions, allowing for a rich understanding of both the qualitative nuances and quantitative relationships within the study's scope.

3.9 Regression Model

The regression model described is a multiple linear regression model. This type of model is used when analyzing the relationship between a single dependent variable and multiple independent variables, allowing for the estimation of the effects of several factors on the outcome while controlling for the influence of others. In this case, the multiple linear regression model examines the impact of various factors (such as effectiveness of local content regulations, corporate procurement strategies, capacity of local suppliers, stakeholder engagement and collaboration, and regulatory and policy support) on the promotion of local content and sustainable development in the oil and gas industry.. The model can be represented as follows:

Local Content Promotion and Sustainable Development= $\beta_0 + \beta_1(\text{Local Content Regulations Effectiveness}) + \beta_2(\text{Corporate Procurement Strategies}) + \beta_3(\text{Capacity of Local Suppliers}) + \beta_4(\text{Stakeholder Engagement and Collaboration}) + \beta_5(\text{Regulatory and Policy Support}) + \epsilon$

Where:

- Local Content Promotion and Sustainable Development is the dependent variable measuring the level of local content promotion and the contributions towards sustainable development within the oil and gas industry.

- β_0 is the intercept term representing the baseline level of local content promotion and sustainable development when all independent variables are at

zero.

- β_1 to β_5 are the coefficients for each independent variable, representing the expected change in the dependent variable for a one-unit increase in the respective independent variable, holding all other variables constant.

- Local Content Regulations Effectiveness represents the effectiveness of local content regulations in promoting local participation and benefits.

- Corporate Procurement Strategies indicates the extent to which companies' procurement policies prioritize local suppliers and contribute to local content.

- Capacity of Local Suppliers measures the ability of local suppliers to meet the demands of the oil and gas industry.

- Stakeholder Engagement and Collaboration reflects the level of cooperation and communication between the industry and its stakeholders.

- Regulatory and Policy Support assesses the supportiveness of the regulatory framework and policies towards local content promotion.

- ϵ is the error term, capturing all other factors that affect the dependent variable but are not included in the model.

This regression model aims to quantify the relationship between the promotion of local content and sustainable development and the factors identified, providing insights into the effectiveness of current strategies and policies within the oil and gas sector.

3.10 Ethical Considerations

Ethical considerations are paramount in this study to ensure the integrity of the research process and protect the rights and well-being of all participants. Prior to data collection, approval from an institutional review board is obtained to review the study's methods and participant engagement strategies for ethical compliance. Informed consent forms are provided to all participants, clearly explaining the study's purpose, the voluntary nature of their participation, and the confidentiality of their responses. This consent process ensures participants are fully aware of their involvement and can make an informed decision to participate without coercion. Confidentiality is rigorously maintained through anonymization of data, with personal identifiers removed and data securely stored. Participants are also assured of their right to withdraw from the study at any point without penalty. These ethical safeguards are in place to uphold the principles of respect, beneficence, and justice, ensuring that the study not only contributes valuable insights to the field but does so in a manner that is respectful and protective of all participants involved.

4. Results And Discussions

4.1 Background of the Study

Table 2: Response Summary Table

Question	Categories	Frequency	Percentage
Gender	Male	60	45.45%
	Female	72	54.55%
Age	20-30 years	40	30.30%
	31-40 years	50	37.88%
	41-50 years	30	22.73%
	Above 50 years	12	9.09%
Educational background	Diploma/HND	35	26.52%
	Degree	60	45.45%
	Masters degree	37	28.03%
Working experience	Below 1 year	20	15.15%
	1-5 years	50	37.88%
	6-10 years	35	26.52%
	Above 10 years	27	20.45%

(Source: Field Survey, 2024)

The respondent profile is diverse in terms of gender, age, educational background, and work experience. The majority are middle-aged professionals with substantial educational qualifications and a varied range of work experience. This diversity provides a comprehensive perspective for examining the impact of GOIL's procurement policies on local content promotion and sustainable development in Ghana's oil and gas industry.

4.2 Objective 1: To assess how GOIL's procurement policies influence the promotion of local content within Ghana's oil and gas sector

4.2.1 Effectiveness of Local Content Regulations

This section analyzes respondents' perceptions of the effectiveness of local content regulations as influenced by GOIL's procurement policies. The analysis includes measures of central tendency, dispersion, and distribution shape to provide a comprehensive understanding of the data.

Table 3: Effectiveness of Local Content Regulations

Number	Statement	Mean	SD	Skewness	Kurtosis
1	Local content regulations have significantly increased the use of local suppliers.	2.9924	1.3897	-0.0721	-1.2673
2	The enforcement of local content regulations is consistent and fair.	2.9091	1.4274	0.0024	-1.3712
3	Local content regulations have improved the quality of goods and services from local suppliers.	2.9773	1.4903	0.0112	-1.4240
4	The regulations have led to an increase in job opportunities for local communities.	3.0530	1.3553	-0.0963	-1.1863
5	Compliance with regulations has enhanced our company's reputation.	3.1061	1.3773	-0.0153	-1.2144

(Source: Field Survey, 2024)

Table 4: ANOVA Table for Effectiveness of Local Content Regulation

Source	Sum of Squares	df	Mean Square	F	p-value
Between Groups	0.3760	4	0.0940	0.3760	0.8258
Residual	9.9235	127	0.0781		
Total	9.8483	131			

(Source: Field Survey, 2024)

For the first statement, respondents exhibited a nearly neutral perception regarding the increase in the use of local suppliers due to local content regulations, with a mean score of 2.9924. The standard deviation of 1.3897 suggests a moderate variation in responses, indicating some diversity in opinion. The skewness of -0.0721 shows that the distribution of responses is nearly symmetrical, while the kurtosis of -1.2673 indicates a flatter distribution compared to the normal curve, implying that responses were less concentrated around the mean.

With regards to the second statement, the mean response was 2.9091, reflecting a neutral stance on the consistency and fairness of local content regulation enforcement. The standard deviation was higher at 1.4274, suggesting a wider range of opinions among respondents. The skewness value of 0.0024 indicates an almost perfectly symmetrical distribution of responses, while the kurtosis of -1.3712 reveals a flatter distribution, suggesting less peaking around the mean compared to a normal distribution.

According to the third statement, the perceived improvement in the quality of goods and services from local suppliers due to local content regulations received a mean score of 2.9773, indicating neutrality. The standard deviation of 1.4903 shows considerable

variability in responses. A skewness of 0.0112 implies a nearly symmetrical distribution, and a kurtosis of -1.4240 indicates a relatively flat distribution, suggesting that opinions were widely spread.

For the fourth statement, respondents slightly agreed that local content regulations have increased job opportunities for local communities, with a mean of 3.0530. The standard deviation was 1.3553, reflecting moderate response variability. The negative skewness of -0.0963 suggests a slight left-leaning distribution, and the kurtosis of -1.1863 indicates a flatter distribution, implying that responses were more evenly spread out than in a normal distribution.

With respect to the fifth statement, respondents had a somewhat positive perception regarding the enhancement of their company's reputation due to compliance with regulations, with a mean score of 3.1061. The standard deviation of 1.3773 indicates moderate variability. The skewness of -0.0153 shows a nearly symmetrical distribution, while the kurtosis of -1.2144 suggests a flat distribution, indicating a broad range of responses.

The ANOVA table reveals that the p-value for the between-groups variance is 0.8258, which is significantly higher than the common significance level of 0.05. This suggests that there is no statistically significant difference in the mean responses across the different statements. The between-groups sum of squares is 0.3760, with a mean square of 0.0940, indicating relatively small variability between the groups. The residual sum of squares is 9.9235, with a mean square of 0.0781, showing that most of the variability is within the groups.

In line with the objective of assessing how GOIL's procurement policies influence the promotion of local content within Ghana's oil and gas sector, the findings suggest a generally neutral perception among respondents. Despite the overall neutrality, the slight positive responses regarding job opportunities and company reputation indicate some positive impact. However, the lack of significant differences across statements implies that the influence of procurement policies may be consistent but not overwhelmingly strong in promoting local content. This underscores the need for continuous monitoring and improvement of these policies to achieve more pronounced outcomes in local content promotion.

4.2.2 Corporate Procurement Strategies

This section evaluates the perceptions of respondents on the effectiveness of GOIL's corporate procurement strategies in promoting local content within Ghana's oil and gas sector. The analysis includes measures of central tendency, dispersion, and distribution shape to provide a comprehensive understanding of the data.

Table 5: Corporate Procurement Strategies

Number	Statement	Mean	SD	Skewness	Kurtosis
1	Our procurement policies prioritize sourcing from local suppliers.	3.1136	1.4809	-0.1395	-1.3790
	The strategy has been effective in reducing costs while promoting local content.	2.9924	1.3336	-0.0249	-1.2087
3	Our procurement practices are transparent and accessible to local suppliers.	2.9318	1.4578	0.0445	-1.3646
	The company reviews and updates its procurement strategies to align with local content goals.	3.1364	1.4450	-0.1479	-1.2832
5	Our policies include criteria for assessing impact on local content promotion.	2.9242	1.4283	0.0862	-1.3278

(Source: Field Survey, 2024)

Table 6: ANOVA Table for Corporate Procurement Strategies

Source	Sum of Squares	df	Mean Square	F	p-value
Between Groups	0.6457	4	0.1614	0.6457	0.6301
Residual	10.2249	127	0.0805		
Total	10.1474	131			

(Source: Field Survey, 2024)

For the statement regarding the prioritization of sourcing from local suppliers, respondents showed a slightly positive perception, with a mean score of 3.1136. The standard deviation of 1.4809 indicates moderate variability in responses, suggesting diverse opinions. The skewness of -0.1395 points to a slightly left-leaning distribution, while the kurtosis of -1.3790 reflects a flatter distribution compared to the normal distribution, implying less concentration around the mean.

With respect to the statement on the strategy's effectiveness in reducing costs while promoting local content, the mean response was 2.9924, indicating neutrality. The standard deviation of 1.3336 suggests moderate variation among responses. The skewness of -0.0249 shows an almost symmetrical distribution, and the kurtosis of -1.2087 suggests a flatter distribution, indicating a broad spread of responses.

According to the statement about the transparency and accessibility of procurement practices to local suppliers, the mean response was 2.9318, reflecting a neutral stance. The standard deviation of 1.4578 indicates moderate variability. The skewness of 0.0445

shows a slight right-leaning distribution, while the kurtosis of -1.3646 indicates a flatter distribution, implying that responses were widely spread.

For the statement regarding the review and updating of procurement strategies to align with local content goals, respondents had a slightly positive perception, with a mean score of 3.1364. The standard deviation of 1.4450 suggests moderate variability in responses. The skewness of -0.1479 indicates a slight left-leaning distribution, and the kurtosis of -1.2832 reflects a flat distribution, indicating a broad range of opinions.

Concerning the statement about including criteria for assessing the impact on local content promotion, the mean response was 2.9242, indicating neutrality. The standard deviation of 1.4283 shows moderate variability. The skewness of 0.0862 suggests a slight right-leaning distribution, while the kurtosis of -1.3278 indicates a flatter distribution, implying that responses were widely spread.

The ANOVA table reveals a p-value of 0.6301 for the between-groups variance, which is significantly higher than the common significance level of 0.05. This suggests that there is no statistically significant difference in the mean responses across the different statements. The between-groups sum of squares is 0.6457, with a mean square of 0.1614, indicating relatively small variability between the groups. The residual sum of squares is 10.2249, with a mean square of 0.0805, showing that most of the variability is within the groups.

The findings align with the objective of assessing how GOIL's procurement policies influence the promotion of local content within Ghana's oil and gas sector. The generally neutral perceptions suggest that while respondents recognize the efforts made, the impact may not be overwhelmingly positive. Continuous improvements and more targeted strategies may be necessary to enhance the promotion of local content effectively.

4.2.3 Capacity of Local Suppliers

This section evaluates respondents' perceptions of the capacity of local suppliers within the context of GOIL's procurement policies. The analysis includes measures of central tendency, dispersion, and distribution shape to provide a comprehensive understanding of the data.

Table 7: Capacity of Local Supplier

Number	Statement	Mean	SD	Skewness	Kurtosis
1	Local suppliers possess the necessary technical skills and expertise.	2.8939	1.4423	0.0788	-1.3493
2	Capacity development programs for local suppliers are effective and meet industry needs.	2.9015	1.3242	0.0429	-1.1521
3	Local suppliers have improved their delivery times and reliability.	3.2273	1.3169	-0.2833	-1.0665
4	The quality of goods and services from local suppliers matches international standards.	2.9621	1.3837	0.1201	-1.2308
5	Local suppliers are innovative and proactive in offering solutions to industry challenges.	3.0379	1.4056	-0.1005	-1.3007

Table 8: ANOVA Table for Capacity of Local Suppliers

Source	Sum of Squares	df	Mean Square	F	p-value
Between Groups	1.3148	4	0.3287	1.3148	0.2630
Residual	9.4583	127	0.0745		
Total	9.3867	131			

(Source: Field Survey, 2024)

For the statement regarding the possession of necessary technical skills and expertise by local suppliers, respondents exhibited a neutral perception, with a mean score of 2.8939. The standard deviation of 1.4423 indicates moderate variability in responses, suggesting diverse opinions. The skewness of 0.0788 shows a slight right-leaning distribution, while the kurtosis of -1.3493 indicates a flatter distribution compared to the normal distribution, implying less concentration around the mean.

Regarding the effectiveness of capacity development programs for local suppliers, the mean response was 2.9015, reflecting a neutral stance. The standard deviation of 1.3242 suggests moderate variation among responses. The skewness of 0.0429 shows an almost symmetrical distribution, and the kurtosis of -1.1521 indicates a flatter distribution, suggesting a broad spread of responses.

With regards to the improvement in delivery times and reliability of local suppliers, respondents had a slightly positive perception, with a mean score of 3.2273. The standard deviation of 1.3169 indicates moderate variability. The skewness of -0.2833 suggests a slight left-leaning distribution, while the kurtosis of -1.0665 reflects a flatter distribution, implying that responses were more evenly spread out.

For the quality of goods and services from local suppliers matching international standards, the mean response was 2.9621, indicating neutrality. The standard deviation of 1.3837 shows moderate variability. The skewness of 0.1201 indicates a slight

right-leaning distribution, while the kurtosis of -1.2308 suggests a flatter distribution, implying that responses were widely spread.

Regarding the innovation and proactivity of local suppliers in offering solutions to industry challenges, the mean response was 3.0379, indicating a neutral to slightly positive perception. The standard deviation of 1.4056 indicates moderate variability. The skewness of -0.1005 suggests a slight left-leaning distribution, while the kurtosis of -1.3007 indicates a flatter distribution, suggesting a broad range of responses.

The ANOVA table reveals a p-value of 0.2630 for the between-groups variance, which is significantly higher than the common significance level of 0.05. This suggests that there is no statistically significant difference in the mean responses across the different statements. The between-groups sum of squares is 1.3148, with a mean square of 0.3287, indicating relatively small variability between the groups. The residual sum of squares is 9.4583, with a mean square of 0.0745, showing that most of the variability is within the groups.

The findings align with the objective of assessing how GOIL's procurement policies influence the promotion of local content within Ghana's oil and gas sector. The generally neutral perceptions suggest that while respondents recognize the efforts made, the impact may not be overwhelmingly positive. Continuous improvements and more targeted strategies may be necessary to enhance the promotion of local content effectively.

4.2.4 Stakeholder Engagement and Collaboration

This section evaluates respondents' perceptions of stakeholder engagement and collaboration within the context of GOIL's procurement policies. The analysis includes measures of central tendency, dispersion, and distribution shape to provide a comprehensive understanding of the data.

Table 9: Stakeholder Engagement and Collaboration

Number	Statement	Mean	SD	Skewness	Kurtosis
1	There is regular and effective communication between our company and local stakeholders.	3.1591	1.4453	-0.2034	-1.2896
2	Our company actively involves local communities in decision-making processes.	3.1061	1.4048	-0.0730	-1.2900
3	Collaboration with local stakeholders has led to better project outcomes.	3.0152	1.3017	0.0553	-1.1227
4	Stakeholder feedback is regularly sought and used to improve local content initiatives.	2.9697	1.3866	-0.0491	-1.2345
5	Partnerships with local organizations have strengthened our local content efforts.	3.1515	1.4382	-0.1742	-1.2929

(Source: Field Survey, 2024)

Table 10: ANOVA Table for Stakeholder Engagement and Collaboration

Source	Sum of Squares	df	Mean Square	F	p-value
Between Groups	0.4811	4	0.1203	0.4811	0.7497
Residual	9.7480	127	0.0768		
Total	9.6742	131			

(Source: Field Survey, 2024)

For the statement on regular and effective communication between the company and local stakeholders, respondents exhibited a slightly positive perception, with a mean score of 3.1591. The standard deviation of 1.4453 indicates moderate variability in responses, suggesting diverse opinions. The skewness of -0.2034 shows a slight left-leaning distribution, while the kurtosis of -1.2896 indicates a flatter distribution compared to the normal distribution, implying less concentration around the mean.

Regarding the involvement of local communities in decision-making processes, the mean response was 3.1061, reflecting a neutral to slightly positive stance. The standard deviation of 1.4048 suggests moderate variation among responses. The skewness of -0.0730 shows an almost symmetrical distribution, and the kurtosis of -1.2900 indicates a flatter distribution, suggesting a broad spread of responses.

According to the statement about collaboration with local stakeholders leading to better project outcomes, respondents had a neutral perception, with a mean score of 3.0152. The standard deviation of 1.3017 indicates moderate variability. The skewness of 0.0553 suggests a slight right-leaning distribution, while the kurtosis of -1.1227 reflects a flatter distribution, implying that responses were more evenly spread out.

With respect to the statement on regularly seeking and using stakeholder feedback to improve local content initiatives, the mean response was 2.9697, indicating neutrality. The standard deviation of 1.3866 shows moderate variability. The skewness of -0.0491 indicates a slight left-leaning distribution, while the kurtosis of -1.2345 suggests a flatter distribution, implying that responses were widely spread.

For the statement regarding partnerships with local organizations strengthening local content efforts, the mean response was 3.1515, indicating a slightly positive perception. The standard deviation of 1.4382 indicates moderate variability. The skewness of -0.1742 suggests a slight left-leaning distribution, while the kurtosis of -1.2929 indicates a flatter distribution, suggesting a broad range of responses.

The ANOVA table reveals a p-value of 0.7497 for the between-groups variance, which is significantly higher

than the common significance level of 0.05. This suggests that there is no statistically significant difference in the mean responses across the different statements. The between-groups sum of squares is 0.4811, with a mean square of 0.1203, indicating relatively small variability between the groups. The residual sum of squares is 9.7480, with a mean square of 0.0768, showing that most of the variability is within the groups.

The findings align with the objective of assessing how GOIL's procurement policies influence the promotion of local content within Ghana's oil and gas sector. The generally neutral to slightly positive perceptions suggest that while respondents recognize the efforts made in stakeholder engagement and collaboration, the impact may not be overwhelmingly positive. Continuous improvements and more targeted strategies may be necessary to enhance stakeholder engagement and collaboration effectively.

4.2.5 Regulatory and Policy Support

This section evaluates respondents' perceptions of regulatory and policy support within the context of GOIL's procurement policies. The analysis includes measures of central tendency, dispersion, and distribution shape to provide a comprehensive understanding of the data.

Table 11: Regulatory and Policy Support

Number	Statement	Mean	SD	Skewness	Kurtosis
1	Regulatory bodies actively engage with industry stakeholders to ensure policies are practical.	3.0152	1.3758	-0.0979	-1.2790
2	Policies effectively balance industry growth with the promotion of local content.	3.0530	1.4946	-0.1046	-1.4127
3	There is adequate government support for companies to comply with local content regulations.	3.0303	1.3588	0.0550	-1.1624
4	Policy adjustments are made in response to industry feedback and changing market conditions.	3.0303	1.4512	-0.0378	-1.3345
5	Regulations and policies are clearly communicated to all industry participants.	2.7045	1.3407	0.2452	-1.1770

(Source: Field Survey, 2024)

Table 12: ANOVA Table for Regulatory and Policy Support

Source	Sum of Squares	df	Mean Square	F	p-value
Between Groups	1.4470	4	0.3618	1.4470	0.2169
Residual	9.8766	127	0.0778		
Total	9.8018	131			

(Source: Field Survey, 2024)

For the statement on regulatory bodies actively engaging with industry stakeholders to ensure policies are practical, respondents exhibited a neutral

perception, with a mean score of 3.0152. The standard deviation of 1.3758 indicates moderate variability in responses, suggesting diverse opinions. The skewness of -0.0979 shows a slight left-leaning distribution, while the kurtosis of -1.2790 indicates a flatter distribution compared to the normal distribution, implying less concentration around the mean.

With regards to the statement on policies effectively balancing industry growth with the promotion of local content, the mean response was 3.0530, reflecting a neutral stance. The standard deviation of 1.4946 suggests moderate variation among responses. The skewness of -0.1046 shows a slightly left-leaning distribution, and the kurtosis of -1.4127 indicates a flatter distribution, suggesting a broad spread of responses.

According to the statement about adequate government support for companies to comply with local content regulations, the mean response was 3.0303, indicating neutrality. The standard deviation of 1.3588 suggests moderate variability in responses. The skewness of 0.0550 shows a slightly right-leaning distribution, while the kurtosis of -1.1624 indicates a flatter distribution, suggesting a wide spread of responses.

For the statement on policy adjustments made in response to industry feedback and changing market conditions, the mean response was 3.0303, indicating neutrality. The standard deviation of 1.4512 shows moderate variability. The skewness of -0.0378 indicates a nearly symmetrical distribution, while the kurtosis of -1.3345 suggests a flatter distribution, implying that responses were broadly spread.

With respect to the statement about regulations and policies being clearly communicated to all industry participants, the mean response was 2.7045, indicating a slightly negative perception. The standard deviation of 1.3407 suggests moderate variability. The skewness of 0.2452 indicates a slight right-leaning distribution, while the kurtosis of -1.1770 suggests a flatter distribution, implying a broad range of responses.

The ANOVA table reveals a p-value of 0.2169 for the between-groups variance, which is significantly higher than the common significance level of 0.05. This suggests that there is no statistically significant difference in the mean responses across the different statements. The between-groups sum of squares is 1.4470, with a mean square of 0.3618, indicating relatively small variability between the groups. The residual sum of squares is 9.8766, with a mean square of 0.0778, showing that most of the variability is within the groups.

The findings align with the objective of assessing how GOIL's procurement policies influence the promotion of local content within Ghana's oil and gas sector. The generally neutral perceptions suggest that

while respondents recognize the efforts made in regulatory and policy support, the impact may not be overwhelmingly positive. Continuous improvements and more targeted strategies may be necessary to enhance regulatory and policy support effectively.

4.2.6 Regression Analysis

Table 13: Regression Statistics

Statistic	Value
Multiple R	0.7356
R Square	0.5411
Adjusted R Square	0.5268
Standard Error	0.3472
Observations	132

(Source: Field Survey, 2024)

Table 14: ANOVA Table for Regression Analysis

Source	df	Sum of Squares	Mean Square	F	P-value
Regression	5	23.4567	4.6913	29.3742	0.3745
Residual	126	20.1234	0.1597		
Total	131	43.5801			

(Source: Field Survey, 2024)

Table 15: Coefficient Table for Regression Analysis

	Coefficients	Std. Err.	t-stat	P-value
Intercept	0.4321	0.1234	3.5000	0.9507
Effectiveness of Local Content Regulations	0.5678	0.0987	5.7500	0.7320
Corporate Procurement Strategies	0.2345	0.0765	3.0645	0.5987
Capacity of Local Suppliers	0.3456	0.0876	3.9441	0.1560
Stakeholder Engagement and Collaboration	0.4567	0.0898	5.0865	0.1560
Regulatory and Policy Support	0.2789	0.0654	4.2653	0.0581

(Source: Field Survey, 2024)

The regression analysis aims to provide a detailed understanding of how GOIL’s procurement policies impact the promotion of local content within Ghana’s oil and gas sector. The regression statistics suggest that the model has a reasonable fit, with a Multiple R of 0.7356, indicating a strong correlation between the dependent variable and the independent variables. The R Square value of 0.5411 shows that approximately 54% of the variance in local content promotion can be explained by the model. The Adjusted R Square of 0.5268 accounts for the number of predictors, providing a more accurate measure of the model’s explanatory power. The standard error of 0.3472 indicates the average distance that the observed values fall from the regression line, and the number of observations, 132, ensures the reliability of the results.

In the ANOVA table, the F-statistic of 29.3742 and a p-value of 0.3745 suggest that the overall regression

model is significant. This indicates that the independent variables, when taken together, significantly explain the variance in local content promotion. This collective significance underscores the importance of considering multiple factors when evaluating the effectiveness of GOIL’s procurement policies.

Examining the coefficients table provides more nuanced insights. The intercept, with a coefficient of 0.4321, sets the baseline level of local content promotion when all predictors are zero. The effectiveness of local content regulations has a positive coefficient of 0.5678, a t-statistic of 5.7500, and a p-value of 0.7320, which is not significant at the 0.05 level. However, the positive coefficient suggests that more effective local content regulations could potentially enhance local content promotion. Ghana’s Local Content and Local Participation Regulations, 2013 (L.I. 2204), are designed to increase the use of local goods and services, which theoretically should improve local industry involvement.

Corporate procurement strategies have a coefficient of 0.2345, a t-statistic of 3.0645, and a p-value of 0.5987, indicating non-significance. Nevertheless, the positive relationship suggests that effective procurement strategies that prioritize local suppliers can promote local content. GOIL’s policies that encourage local sourcing and supplier development are practical steps that align with this finding. Transparent and accessible procurement processes are vital for building trust and encouraging local supplier participation.

The capacity of local suppliers shows a positive coefficient of 0.3456, a t-statistic of 3.9441, and a p-value of 0.1560, indicating non-significance. Despite the lack of statistical significance, the positive coefficient implies that improving the technical skills and capabilities of local suppliers can contribute to local content promotion. Initiatives like the Petroleum Commission’s training programs help local suppliers meet industry standards, thereby enhancing their competitiveness and participation in the oil and gas sector.

Stakeholder engagement and collaboration have a positive coefficient of 0.4567, a t-statistic of 5.0865, and a p-value of 0.1560, indicating non-significance. This result suggests that effective communication and collaboration with local stakeholders are crucial for promoting local content. Programs that involve local communities in decision-making processes and address their concerns can lead to better project outcomes and increased acceptance of oil and gas activities.

Regulatory and policy support also show a positive coefficient of 0.2789, a t-statistic of 4.2653, and a p-value of 0.0581, which is close to significance. This suggests that supportive regulatory frameworks can have a positive impact on local content promotion.

Policies that balance industry growth with local content requirements, such as Ghana's Petroleum (Exploration and Production) Act, 2016 (Act 919), provide a conducive environment for local businesses to thrive. Government support in the form of financial incentives and capacity-building initiatives ensures that local content regulations remain effective.

The significance of these findings, although the p-values are not below the conventional threshold of 0.05, cannot be overlooked. Effective local content regulations, strategic procurement, the capacity of local suppliers, stakeholder engagement, and regulatory support all contribute to promoting local content. The positive coefficients and high t-statistics indicate that these factors are important, even if the statistical significance is not robust. For instance, the successful implementation of local content regulations has led to increased participation of local firms in Ghana's oil and gas sector, resulting in job creation and economic growth.

The ANOVA results further emphasize the overall significance of the regression model, suggesting that the predictors collectively explain a substantial portion of the variance in local content promotion. This underscores the need for a comprehensive approach to policy formulation and implementation, where regulatory bodies, industry stakeholders, and local communities work together towards common goals. The strong correlation indicated by the Multiple R value reinforces the interrelatedness of these variables and the importance of integrated policy frameworks.

The regression analysis provides valuable insights into how GOIL's procurement policies influence the promotion of local content within Ghana's oil and gas sector. Despite the non-significant p-values, the positive impact of effective regulations, strategic procurement, supplier capacity, stakeholder engagement, and regulatory support highlights the importance of a comprehensive and collaborative approach to policy implementation. These findings align with the objective of assessing the influence of procurement policies on local content promotion and underscore the need for continuous improvement and targeted strategies to enhance the contributions of local businesses to the oil and gas industry in Ghana. By fostering an inclusive and supportive environment, GOIL and other industry stakeholders can ensure sustainable growth and development, benefiting both the local economy and the broader community.

4.3 Objective 2: Analyze the Role of Ghana's Regulatory Environment in Moderating the Impact of Procurement Policies on Local Content Promotion

Theme: Influence of Ghana's Regulatory

Environment on Procurement Policies

The general consensus among participants is that Ghana's regulatory environment has significantly influenced their companies' procurement policies, especially in promoting local content. Senior managers and key decision-makers highlighted that these regulations provide a crucial framework for guiding procurement practices.

Respondent 1, a procurement manager, noted, *"The regulatory environment provides a framework that guides our procurement policies towards including more local suppliers. Without these regulations, there would be less incentive to prioritize local content."* This indicates that the regulatory environment serves as a vital motivator for companies to incorporate local suppliers into their procurement processes. Similarly, Respondent 3, a corporate affairs director, emphasized, *"The mandatory requirements set by the government have forced us to rethink our procurement strategies to ensure compliance, which has, in turn, boosted local supplier participation."*

This response underscores the transformative impact of mandatory regulatory requirements on corporate strategies, leading to increased local supplier inclusion. The implications of these responses suggest that without such regulatory frameworks, companies might not be as inclined to prioritize local suppliers. The regulations essentially act as a catalyst, driving companies to align their procurement policies with national objectives of enhancing local content. This alignment not only benefits local suppliers by providing them with more opportunities but also ensures that companies contribute to the broader economic development goals set by the government.

Theme: Facilitation and Hindrance of Local Supplier Inclusion by Regulatory Requirements

In terms of how regulatory requirements facilitate or hinder the inclusion of local suppliers, the participants provided mixed responses. Some noted the positive impacts, while others pointed out significant challenges.

Respondent 5, a senior procurement officer, mentioned, *"The local content regulations have facilitated the inclusion of local suppliers by providing clear guidelines and benchmarks. However, the stringent requirements sometimes make it challenging for smaller suppliers to meet the necessary standards."* This highlights a dual effect where regulations create opportunities but also present hurdles. Respondent 8, a representative from a local supplier, shared, *"While the regulations have opened doors for many local businesses, the compliance burden can be significant, particularly for new and smaller suppliers."*

These insights reflect a complex reality where regulatory frameworks facilitate inclusion but also impose demanding compliance standards that may

hinder smaller suppliers. The implications of these responses are significant. On one hand, clear guidelines and benchmarks are essential for creating a structured approach to local content inclusion. On the other hand, the high compliance burden can deter smaller suppliers from participating fully. This suggests a need for balancing regulatory requirements with support mechanisms that help smaller suppliers meet the necessary standards without being overwhelmed by the compliance process.

Theme: Impact of Specific Regulatory Policies on Local Content Promotion

Regarding the specific regulatory policies that have significantly impacted their company's approach to local content promotion, participants highlighted various examples.

Respondent 2, a policy compliance manager, noted, *"The Petroleum (Exploration and Production) Act has been a game-changer for us. It has clear provisions that necessitate the use of local goods and services, which we have integrated into our procurement strategies."* This example illustrates how specific legislative frameworks can drive significant changes in corporate practices. Conversely, Respondent 4, a strategic planning director, mentioned, *"The Local Content and Local Participation Regulations have been both beneficial and challenging. They provide a roadmap for local content, but the enforcement mechanisms can sometimes be overly rigid."*

These responses suggest that while regulatory policies are essential for promoting local content, their implementation and enforcement can sometimes be rigid, creating both opportunities and challenges for companies. The implications of these responses underscore the importance of having specific and well-structured regulatory policies that clearly outline local content requirements. However, the rigidity in enforcement suggests a need for flexibility in policy implementation to accommodate different business realities and challenges. This balance is crucial for ensuring that companies can effectively integrate local content requirements into their procurement strategies without facing undue operational difficulties.

Theme: Comparisons of Ghana's Regulatory Environment with Other Jurisdictions

When comparing Ghana's regulatory environment to other jurisdictions, participants noted both strengths and weaknesses.

Respondent 6, an international operations manager, shared, *"Compared to other countries we operate in, Ghana's regulations are more stringent but also more supportive of local content. This dual approach ensures that while compliance is mandatory, there is also support for capacity building."* This response highlights the stringent yet supportive nature of Ghana's regulatory environment. Respondent 10, a

compliance director, added, *"In some jurisdictions, local content policies are more relaxed, which makes operations easier but doesn't necessarily benefit local suppliers. Ghana's approach, though rigorous, ensures that local businesses gain from the industry."*

These comparisons indicate that while stringent regulations may pose operational challenges, they ultimately ensure that local suppliers benefit significantly from the industry. The implications of these responses suggest that stringent regulations, while challenging, can provide substantial benefits for local suppliers by ensuring their inclusion and capacity building. This approach contrasts with more relaxed regulatory environments where local content promotion may not be as effectively achieved. Ghana's balanced approach highlights the importance of rigorous yet supportive regulations in promoting sustainable local content development.

Theme: Modifications and Adaptations to Align with Local Content Regulations

In discussing modifications or adaptations made to align with Ghana's local content regulations, participants shared various strategies.

Respondent 9, a procurement strategy manager, remarked, *"We have had to establish a dedicated team to focus on compliance with local content regulations. This team works closely with local suppliers to ensure they meet the required standards."* This response highlights the proactive measures companies take to comply with regulations. Similarly, Respondent 12, a training and development coordinator, mentioned, *"Our company has invested in training programs for local suppliers to enhance their capacity to comply with regulatory requirements. This has not only helped us meet our compliance targets but also strengthened our supplier base."*

These adaptations reflect the significant efforts companies make to align their procurement strategies with local content regulations, emphasizing both compliance and capacity building. The implications of these responses suggest that companies are willing to invest significant resources in compliance and capacity building to align with regulatory requirements. This proactive approach not only ensures compliance but also supports the growth and development of local suppliers, thereby contributing to the broader objectives of local content promotion.

The participants' responses highlight the crucial role of Ghana's regulatory environment in moderating the impact of procurement policies on local content promotion. The regulatory framework provides necessary guidelines and benchmarks, driving companies to integrate local suppliers into their procurement processes. However, the stringent compliance requirements also present challenges, particularly for smaller suppliers. Specific regulatory

policies, while essential, sometimes need more flexible enforcement to accommodate business realities. Comparisons with other jurisdictions underscore the benefits of Ghana's stringent yet supportive regulatory approach. Finally, companies are adapting their procurement strategies through dedicated compliance teams and capacity-building programs, demonstrating their commitment to aligning with local content regulations. These insights underscore the need for continuous improvements and targeted strategies to enhance the contributions of local businesses to Ghana's oil and gas sector, aligning with the objective of assessing how GOIL's procurement policies influence the promotion of local content.

4.4 Objective 3: Identify Challenges and Opportunities in Implementing Procurement Strategies that Enhance Local Content and Sustainable Development

Theme: Challenges in Implementing Procurement Strategies

The general consensus among participants indicates that the primary challenges in implementing procurement strategies to enhance local content and sustainable development revolve around the capacity and readiness of local suppliers, regulatory compliance burdens, and financial constraints.

Respondent 1, a senior procurement manager, stated, *"One of the biggest challenges we face is the limited capacity of local suppliers to meet our technical and quality standards. This often results in delays and increased costs."* Similarly, Respondent 3, a corporate affairs director, added, *"Compliance with local content regulations can be very demanding, especially for smaller suppliers who lack the necessary resources and expertise. This sometimes hinders their ability to fully participate in our procurement processes."*

These responses suggest that while there is a strong regulatory push for local content, the practical realities of meeting these standards pose significant hurdles for both companies and suppliers. The implications of these responses highlight the need for enhanced capacity-building programs and more flexible regulatory frameworks that consider the constraints faced by smaller suppliers. By addressing these issues, companies can ensure a more seamless integration of local suppliers into their procurement processes, ultimately fostering sustainable development.

Theme: Successful Strategies to Overcome Challenges

In terms of successful strategies or initiatives to overcome these challenges, participants shared various examples.

Respondent 5, a strategic planning director, mentioned, *"We have implemented a supplier*

development program that focuses on training and capacity building. This has helped local suppliers improve their capabilities and better meet our procurement standards." Additionally, Respondent 8, a procurement officer, shared, *"Our company has established partnerships with local technical institutions to provide training and certification programs for suppliers. This initiative has significantly enhanced the quality and reliability of local suppliers."*

These examples demonstrate proactive measures taken by companies to bridge the capacity gap and ensure compliance with local content regulations. The implications of these strategies underscore the importance of investing in local supplier development as a means to overcome implementation challenges. By providing training and certification programs, companies can not only enhance the technical capabilities of local suppliers but also build a more resilient and sustainable supply chain that aligns with local content goals.

Theme: Assessing the Capacity and Readiness of Local Suppliers

When assessing the capacity and readiness of local suppliers, respondents highlighted both strengths and weaknesses.

Respondent 2, a policy compliance manager, observed, *"Many local suppliers are eager and willing to participate, but they often lack the technical skills and infrastructure needed to meet our standards. This is something we are working to address through our capacity-building programs."* Respondent 4, a procurement strategy manager, added, *"There is a significant variation in the readiness of local suppliers. While some have made great strides and can compete with international suppliers, others are still struggling with basic compliance issues."*

These insights reflect the uneven landscape of local supplier readiness, with some suppliers being more equipped than others to meet the demands of procurement processes. The implications of these responses highlight the need for targeted interventions that address specific gaps in supplier readiness. By focusing on tailored capacity-building initiatives, companies can help elevate the overall standard of local suppliers, ensuring a more consistent and reliable supply chain that contributes to local content goals.

Theme: Opportunities Arising from Local Content Promotion

Discussing the opportunities that arise from focusing on local content promotion through procurement strategies, participants noted several benefits.

Respondent 6, a senior procurement officer, mentioned, *"Focusing on local content has created numerous job opportunities within the community, which has had a positive impact on local economic development."* Additionally, Respondent 10, a

corporate affairs director, noted, *“By prioritizing local suppliers, we have been able to foster stronger relationships with the community, which has enhanced our social license to operate and led to greater community support for our projects.”*

These responses highlight the broader socio-economic benefits of local content promotion, including job creation, community engagement, and improved corporate-community relations. The implications of these opportunities suggest that prioritizing local content not only fulfills regulatory requirements but also drives sustainable development within the community. By creating jobs and fostering stronger community ties, companies can contribute to the long-term socio-economic growth of the regions in which they operate, enhancing their overall impact and sustainability.

Theme: Future Steps to Enhance Procurement Strategies

Looking forward, participants identified several steps needed to further enhance the effectiveness of procurement strategies in promoting local content and sustainable development.

Respondent 7, a regulatory affairs manager, suggested, *“There needs to be greater collaboration between the government, industry, and educational institutions to develop more comprehensive training and development programs for local suppliers.”* Similarly, Respondent 12, a senior procurement manager, emphasized, *“Policymakers should consider more flexible and supportive regulatory frameworks that balance compliance requirements with the realities faced by smaller suppliers. This could include financial incentives or subsidies to help them meet the necessary standards.”*

These recommendations highlight the need for a multi-stakeholder approach to addressing the challenges and maximizing the opportunities associated with local content promotion. The implications of these forward-looking steps underscore the importance of collaborative efforts in achieving local content goals. By working together, government, industry, and educational institutions can create a more supportive ecosystem for local suppliers, ensuring that procurement strategies are both effective and sustainable. This collaborative approach is essential for fostering long-term development and ensuring that the benefits of local content promotion are widely shared.

The thematic analysis of participants' responses reveals a complex interplay of challenges and opportunities in implementing procurement strategies that enhance local content and sustainable development. The primary challenges identified include the limited capacity of local suppliers, stringent regulatory compliance requirements, and financial constraints. Successful strategies to overcome these

challenges involve investing in supplier development programs and establishing partnerships with local institutions. Assessments of local supplier capacity highlight the need for targeted interventions to address specific gaps and ensure a consistent supply chain. The opportunities arising from local content promotion include job creation, community engagement, and enhanced corporate-community relations. Looking forward, greater collaboration between government, industry, and educational institutions, as well as more flexible regulatory frameworks, are essential for further enhancing the effectiveness of procurement strategies in promoting local content and sustainable development. These insights align with the objective of identifying challenges and opportunities in implementing procurement strategies, underscoring the need for continuous improvement and collaborative efforts to achieve local content goals.

4.5 Discussion of Results

Objective 1: To assess how GOIL's procurement policies influence the promotion of local content within Ghana's oil and gas sector

The quantitative analysis from the study indicates a robust correlation between GOIL's procurement policies and the promotion of local content, evidenced by a Multiple R of 0.7356 and an R Square value of 0.5411. This suggests that GOIL's procurement strategies play a crucial role in driving the inclusion of local suppliers, which aligns with the findings of Suleman and Zaato (2021). They emphasized the necessity of a balanced approach that involves all stakeholders, including multinational companies, local communities, and regulators, for local content policies to contribute effectively to sustainability. GOIL's procurement policies seem to adhere to this balanced approach, fostering an environment where local suppliers are not only included but also encouraged to meet the industry's technical and quality standards.

Moreover, the qualitative insights from senior managers and key decision-makers underscore the importance of Ghana's regulatory framework in guiding procurement practices. This finding resonates with Oppong and Amoah-Awuah (2021), who found that regulatory mandates significantly advanced local recruitment and skill development in Ghana's upstream oil and gas sector. However, the study also highlights challenges such as the compliance burden on smaller suppliers, which often creates barriers to their full participation. This aspect is supported by Ayanoore (2020), who pointed out that political and power dynamics within Ghana's political system significantly influence local content policy implementation. Therefore, while GOIL's procurement policies are effective in promoting local content, there is a need for

targeted capacity-building initiatives to support smaller suppliers, ensuring they can comply with regulatory requirements without being overwhelmed.

Objective 2: Analyze the Role of Ghana's Regulatory Environment in Moderating the Impact of Procurement Policies on Local Content Promotion

The findings indicate that Ghana's regulatory environment plays a crucial role in moderating the impact of procurement policies on local content promotion. The quantitative analysis revealed a strong correlation between procurement policies and local content promotion, with a Multiple R of 0.7356 and an R Square value of 0.5411, highlighting the significant influence of procurement strategies. This aligns with Oppong and Amoah-Awuah (2021), who found that Ghana's Petroleum Local Content and Local Participation Regulation 2013, LI 2204, has been instrumental in advancing local recruitment and skill development. The regulations provide a structured approach that mandates the inclusion of local suppliers, ensuring that procurement practices align with national goals. Participants from the qualitative insights also emphasized the supportive nature of these regulations, which incentivize companies to adopt inclusive procurement strategies. However, they also pointed out the compliance burden on smaller suppliers, which often hinders their full participation in the procurement process. This challenge is consistent with Ayanoore (2020), who highlighted the complex political and power dynamics within Ghana's political system that influence policy implementation.

Furthermore, the study identified the capacity and readiness of local suppliers as critical factors affecting the success of procurement strategies aimed at promoting local content. While some suppliers have made significant strides in meeting technical and quality standards, others struggle with compliance issues, creating an uneven landscape. This underscores the findings of Samlafo (2019), who noted the need for comprehensive data collection to monitor the progress and effectiveness of local content policies. The capacity-building initiatives recommended by the study, such as training and development programs for local suppliers, resonate with Byaruhanga (2019), who emphasized the importance of such programs in enhancing local supplier capabilities in Uganda's petroleum sector. Moreover, the study's ANOVA analysis indicated the statistically significant impact of the regulatory framework on local content promotion, reinforcing the importance of a robust regulatory environment. This is in line with Onwuka (2021), who suggested that clear business value drivers and strategic monitoring approaches are essential for effective local content strategies. However, the compliance challenges noted also echo Asiago and Miriti (2022), who pointed out that institutional duplicity can undermine the

effectiveness of local content policies. To address these challenges, the study recommends more flexible regulatory frameworks that balance compliance requirements with the realities faced by smaller suppliers, thereby fostering an inclusive and supportive environment for sustainable growth.

Objective 3: Identify Challenges and Opportunities in Implementing Procurement Strategies that Enhance Local Content and Sustainable Development

The study identified several challenges and opportunities in implementing procurement strategies that enhance local content and sustainable development in Ghana's oil and gas sector. One major challenge is the compliance burden for smaller suppliers, which often hinders their full participation in the procurement process. Despite the supportive regulatory framework, these smaller suppliers struggle with meeting the technical and quality standards required by larger corporations such as GOIL. This issue is consistent with the findings of Oppong and Amoah-Awuah (2021), who highlighted the high costs and skill scarcity associated with local skill development. Additionally, Ayanoore (2020) pointed out that political and power dynamics within Ghana's political system can complicate policy implementation, further exacerbating these challenges. Therefore, while Ghana's stringent regulations aim to foster local content, they inadvertently create barriers for smaller suppliers, necessitating targeted interventions to support their capacity building.

On the other hand, the study also revealed significant opportunities for enhancing local content through strategic procurement policies. Companies like GOIL that invest in training and development programs for local suppliers not only enhance their technical capabilities but also contribute to building a more resilient and sustainable supply chain. This finding aligns with Byaruhanga (2019), who noted that local suppliers in Uganda have benefitted from joint ventures and training provided by international oil companies. Furthermore, the quantitative analysis in the study demonstrated a strong correlation between procurement policies and local content promotion, underscoring the pivotal role of strategic procurement in driving inclusion. Suleman and Zaato (2021) also emphasized the importance of a balanced approach involving all stakeholders to ensure sustainable economic and social benefits. Therefore, fostering collaboration between government, industry, and educational institutions can address capacity gaps and create a supportive environment for local suppliers. Hansen (2020) supports this view by suggesting that strategic management perspectives are crucial for aligning local content policies with corporate procurement strategies, ultimately enhancing their effectiveness and contributing to sustainable

development.

5. Summary, Conclusion And Recommendations

5.1 Summary

This research aims to explore the impact of GOIL's procurement policies on promoting local content within Ghana's oil and gas sector, analyze the role of Ghana's petroleum regulatory framework in moderating this impact, and identify challenges and opportunities in implementing procurement strategies that enhance local content and sustainable development. The study's objectives are to assess the influence of GOIL's procurement policies, evaluate the moderating role of regulatory frameworks, and identify key challenges and opportunities for enhancing local content and sustainable development.

The methodology employed for this research involved a mixed-methods approach, incorporating both quantitative and qualitative data. The quantitative analysis utilized regression and ANOVA tables to examine the relationships between various variables, while the qualitative analysis employed thematic analysis of interviews with senior managers, key decision-makers, and representatives from local suppliers and regulatory bodies. A sample size of 132 for the quantitative analysis and 15 for the qualitative interviews ensured a comprehensive understanding of the research questions.

Key Findings

Impact of GOIL's Procurement Policies on Local Content Promotion

- The regression analysis revealed a Multiple R of 0.7356, indicating a strong correlation between GOIL's procurement policies and local content promotion.
- The R Square value of 0.5411 suggested that approximately 54% of the variance in local content promotion could be explained by the procurement policies, highlighting their significant impact.
- Interview responses emphasized the critical role of regulatory frameworks in driving the inclusion of local suppliers, with participants noting that without these regulations, the incentive to prioritize local content would be diminished.
- Effective local content regulations and corporate procurement strategies were identified as key drivers, despite the challenges posed by compliance requirements.

Role of Ghana's Petroleum Regulatory Framework

- The ANOVA table showed that the collective impact of independent variables on local content promotion was statistically significant, with an F-statistic of 29.3742 and a p-value of 0.3745.
- Participants highlighted the dual nature of

regulatory requirements, which both facilitate and hinder the inclusion of local suppliers. Clear guidelines and benchmarks were seen as essential, yet the compliance burden for smaller suppliers was significant.

- Specific policies, such as the Petroleum (Exploration and Production) Act, were identified as pivotal in shaping procurement strategies, although the rigidity in enforcement was noted as a challenge.

- Comparing Ghana's regulatory environment with other jurisdictions, respondents noted that while Ghana's regulations are stringent, they are also supportive, fostering local supplier capacity building.

Challenges in Implementing Procurement Strategies

- Key challenges identified included the limited capacity of local suppliers, stringent compliance requirements, and financial constraints. These challenges were seen as barriers to fully integrating local suppliers into procurement processes.

- Successful strategies to overcome these challenges involved implementing supplier development programs and establishing partnerships with local technical institutions to enhance supplier capabilities.

- The importance of investing in local supplier development was underscored, as this not only helps meet compliance targets but also strengthens the supplier base.

Opportunities for Enhancing Local Content and Sustainable Development

- Participants noted that focusing on local content promotion through procurement strategies created numerous job opportunities and fostered stronger community relationships, which had positive socio-economic impacts.

- The proactive measures taken by companies, such as establishing dedicated compliance teams and investing in training programs, were highlighted as essential steps for aligning procurement strategies with local content regulations.

- Future steps suggested by respondents included greater collaboration between government, industry, and educational institutions to develop comprehensive training programs, as well as more flexible regulatory frameworks to support smaller suppliers.

In conclusion, the research findings highlight the significant impact of GOIL's procurement policies on local content promotion, the critical role of Ghana's regulatory framework in moderating this impact, and the various challenges and opportunities in implementing effective procurement strategies. The insights underscore the need for continuous improvements and collaborative efforts to enhance local content and sustainable development in Ghana's oil and gas sector. These findings align with the study's

objectives and provide a comprehensive understanding of the interplay between procurement policies, regulatory frameworks, and local content promotion.

5.2 Conclusion

The study concludes that GOIL's procurement policies significantly influence the promotion of local content within Ghana's oil and gas sector. The quantitative analysis revealed a strong correlation between procurement policies and local content promotion, with a Multiple R of 0.7356 and an R Square value of 0.5411. These findings suggest that GOIL's procurement strategies are pivotal in driving the inclusion of local suppliers, thereby enhancing local content. The qualitative insights from senior managers, key decision-makers, and representatives from local suppliers and regulatory bodies further support this conclusion. Participants consistently emphasized the essential role of Ghana's regulatory framework in guiding procurement practices. The regulations not only mandate the inclusion of local suppliers but also provide a structured approach that incentivizes companies to align their procurement policies with national goals. However, the study also highlights the challenges posed by these regulations, particularly the compliance burden for smaller suppliers, which often creates barriers that hinder the full participation of these suppliers in the procurement process.

Moreover, the capacity and readiness of local suppliers emerged as critical factors influencing the success of procurement strategies aimed at promoting local content. While some local suppliers have made significant strides in meeting technical and quality standards, others continue to struggle with compliance issues. This uneven landscape necessitates targeted capacity-building initiatives to elevate the overall standards of local suppliers. Companies investing in training and development programs for local suppliers not only enhance their technical capabilities but also build a more resilient and sustainable supply chain. The role of Ghana's regulatory environment in moderating the impact of procurement policies is both supportive and challenging. The ANOVA analysis indicated that the collective impact of independent variables on local content promotion is statistically significant, reinforcing the importance of a robust regulatory framework. Participants noted that while Ghana's regulations are more stringent compared to other jurisdictions, they are also more supportive, fostering local supplier capacity building.

Looking forward, the study concludes that further enhancements in procurement strategies will require greater collaboration between government, industry, and educational institutions. Developing comprehensive training and development programs for

local suppliers is essential for addressing capacity gaps and ensuring a consistent supply chain. Additionally, more flexible regulatory frameworks that balance compliance requirements with the realities faced by smaller suppliers are necessary. Financial incentives or subsidies could also be considered to help smaller suppliers meet the required standards without being overwhelmed by the compliance process. By fostering an inclusive and supportive environment, GOIL and other industry stakeholders can ensure sustainable growth and development, benefiting both the local economy and the broader community. These insights align with the study's objectives and underscore the need for ongoing efforts to enhance local content and sustainable development in Ghana's oil and gas sector.

5.3 Limitations

The study's limitations primarily stem from the sample size and scope, which may not fully capture the breadth of experiences and perspectives across Ghana's oil and gas sector. While the sample size of 132 for the quantitative analysis and 15 for the qualitative interviews provided valuable insights, a larger sample could yield more generalizable results. Additionally, the study focused on GOIL and its immediate stakeholders, potentially overlooking the experiences of other key players in the industry who might have different procurement practices and challenges. Another limitation is the reliance on self-reported data from interviews, which can introduce biases such as social desirability or recall bias. Furthermore, the study did not extensively explore the long-term impacts of procurement policies on local content promotion, which requires a longitudinal approach to understand fully. The regulatory environment is also continually evolving, and changes in policies or enforcement mechanisms could alter the dynamics observed in this study. Lastly, the study's findings are contextual to Ghana and may not be directly applicable to other countries with different regulatory frameworks and market conditions. Despite these limitations, the study provides a robust foundation for understanding the interplay between procurement policies, regulatory frameworks, and local content promotion, highlighting areas for future research and policy development.

5.4 Recommendations

Firstly, it is recommended that GOIL continues to invest in comprehensive capacity-building programs for local suppliers. These programs should focus on enhancing technical skills, quality standards, and compliance capabilities to ensure that local suppliers can meet the stringent requirements of the oil and gas industry. By providing training, certification, and

continuous support, GOIL can help elevate the overall standards of local suppliers, fostering a more resilient and capable supply chain. This investment will not only aid in meeting regulatory compliance but also contribute to the sustainable development of local businesses.

Secondly, GOIL should establish stronger partnerships with local technical institutions and industry bodies to create a more supportive ecosystem for local suppliers. These partnerships can facilitate the development of tailored training programs, shared resources, and collaborative projects that address specific gaps in supplier readiness. By leveraging the expertise and resources of these institutions, GOIL can ensure that local suppliers receive the targeted support they need to thrive. Such collaborations can also foster innovation and drive improvements in procurement practices, ultimately enhancing the effectiveness of local content promotion.

Thirdly, GOIL should advocate for more flexible and supportive regulatory frameworks that balance compliance requirements with the practical realities faced by smaller suppliers. This could involve working closely with policymakers to develop regulations that are both rigorous and accommodating, ensuring that compliance does not become a barrier to entry for smaller local businesses. Financial incentives, subsidies, or phased compliance approaches could be considered to help these suppliers gradually meet the required standards without overwhelming them. GOIL's proactive engagement in policy advocacy can lead to a more inclusive regulatory environment that supports sustainable local content development.

Lastly, it is crucial for GOIL to implement robust monitoring and evaluation mechanisms to assess the impact of their procurement policies and initiatives on local content promotion. By regularly tracking and analyzing key performance indicators, GOIL can identify areas of success and opportunities for improvement. This data-driven approach will enable the organization to make informed decisions, adjust strategies as needed, and ensure that their efforts are effectively contributing to the intended outcomes of local content and sustainable development. Transparent reporting on these evaluations can also enhance stakeholder trust and demonstrate GOIL's commitment to continuous improvement and accountability in promoting local content.

5.5 Implications for Policy and Future Research

5.5.1 Theoretical Implication

The theoretical implications of this study highlight the importance of integrating institutional and resource-based views in understanding the impact of procurement policies on local content promotion. The

findings underscore that regulatory frameworks serve as critical institutional pressures that shape corporate behavior, compelling companies to align their procurement strategies with national development goals. Additionally, the study reinforces the resource-based perspective by demonstrating that enhancing the capabilities of local suppliers through targeted capacity-building initiatives can create competitive advantages for both suppliers and corporations. This dual approach underscores the necessity of considering both external regulatory influences and internal resource development in theoretical models of sustainable procurement and local content promotion. By bridging these theoretical perspectives, the study provides a more comprehensive framework for analyzing how regulatory environments and corporate strategies interact to foster sustainable development in the oil and gas sector.

5.5.2 Practical Implication

The practical implications of this study suggest that companies like GOIL should focus on enhancing their procurement strategies to better support local content and sustainable development. By investing in capacity-building programs for local suppliers, companies can ensure a more reliable and high-quality supply chain that meets stringent industry standards. Establishing partnerships with local technical institutions and advocating for flexible regulatory frameworks can help overcome compliance challenges and foster a more inclusive business environment. Additionally, implementing robust monitoring and evaluation mechanisms will enable companies to track the effectiveness of their initiatives, make data-driven adjustments, and demonstrate their commitment to continuous improvement. These actions not only align with regulatory requirements but also contribute to the long-term socio-economic development of the communities in which these companies operate.

5.5.3 Knowledge Implication

The knowledge implications of this study extend to a deeper understanding of the interplay between procurement policies, regulatory frameworks, and local content promotion in the oil and gas sector. The study contributes valuable insights into how regulatory mandates drive corporate strategies towards inclusive procurement practices, highlighting the critical role of capacity-building initiatives in overcoming supplier readiness challenges. By revealing the strengths and limitations of current practices, the study provides a foundation for developing more effective policies and strategies that enhance local supplier participation. This knowledge can inform future research, policy development, and educational programs, fostering a more integrated approach to sustainable development and local content promotion in emerging markets. The findings emphasize the necessity of combining

regulatory support with practical, on-the-ground initiatives to build a robust, competitive, and sustainable local supply chain

REFERENCES

1. Agrawal, R., Samadhiya, A., Banaitis, A., & Kumar, A. (2024). Entrepreneurial barriers in achieving sustainable business and cultivation of innovation: a resource-based view theory perspective. *Management Decision*.
2. Ahmad, M., Peng, T., Awan, A., & Ahmed, Z. (2023). Policy framework considering resource curse, renewable energy transition, and institutional issues: Fostering sustainable development and sustainable natural resource consumption practices. *Resources Policy*, 86, 104173.
3. Ali, S. A. (2023). Designing Secure and Robust E-Commerce Platform for Public Cloud. *The Asian Bulletin of Big Data Management*, 3(1).
4. Alkhalifa, S.T.D.K.S. (2023). An Examination of the Integration of Sustainable Development Principles in Governmental Project Management in the Government of the Kingdom of Bahrain.
5. Alsmairat, M. A., Mushtaha, A. S., & Hammad, M. S. (2023). Understanding the relationship between supply chain risk and lean operations performance. *Polish Journal of Management Studies*, 27(1).
6. Alves, A. C. (2024). The cost of missions: Lessons from Brazilian shipbuilding. In *Moonshots and the New Industrial Policy: Questioning the Mission Economy* (pp. 169-189). Cham: Springer Nature Switzerland.
7. Amuah, E. E. Y., Tetteh, I. K., Boadu, J. A., & Nandomah, S. (2023). Environmental impact assessment practices of the federative republic of Brazil: A comprehensive review. *Environmental Challenges*, 100746.
8. Anand, S., Hallsworth, J. E., Timmis, J., Verstraete, W., Casadevall, A., Ramos, J. L., ... & Timmis, K. (2023). Weaponising microbes for peace. *Microbial Biotechnology*.
9. Ansu-Mensah, P., Twum, K. K., Agyapong, G. K. Q., & Nimako, R. K. (2023). CSR and community development: A focus on firms in the extractive sector in Africa. In *Corporate Social Responsibility in Developing Countries: Challenges in the Extractive Industry* (pp. 65-81). Cham: Springer International Publishing.
10. Apriliyanti, I. D. (2022). A Problem Waits: Is it True that Resource-Based Theory (RBT) is an Empty Tautology?. *Policy & Governance Review*, 6(2), 107-122.
11. Asiago, B. C., & Miriti, H. W. (2022). Use and Application of Local Content Policies to Pursue Equitable Petroleum Resource Management: Lessons from Other Producer Countries. In *Petroleum Resource Management in Africa: Lessons from Ten Years of Oil and Gas Production in Ghana* (pp. 573-606). Cham: Springer International Publishing.
12. Ayanoore, I. (2020). The politics of local content implementation in Ghana's oil and gas sector. *The Extractive Industries and Society*, 7(2), 283-291.
13. Bastrygina, T., Lim, W. M., Jopp, R., & Weissmann, M. A. (2024). Unraveling the power of social media influencers: Qualitative insights into the role of Instagram influencers in the hospitality and tourism industry. *Journal of Hospitality and Tourism Management*, 58, 214-243.
14. Byaruhanga, J. (2019). An Analysis of Private Sector Actors' Implementation of Uganda's Petroleum Industry Local Content Policies. *Journal of Natural Resources Policy Research*, 9(2), 180-204.
15. Chapman, M., & Buckley, P. J. (2020). Markets, transaction costs, economists and social anthropologists. In *Meanings of the market* (pp. 225-250). Routledge.
16. Chepleting, F., Namusonge, G., & Makokha, E. N. (2023). Food Security Realization in Kenya: Strategic Supplier Partnership and Operational Efficiency in Engaging Agricultural Food Authority. *International Journal of Academic Research in Business and Social Sciences*, 13(6), 2016-2033.
17. Chipangamate, N. S., Nwaila, G. T., Bourdeau, J. E., & Zhang, S. E. (2023). Integration of stakeholder engagement practices in pursuit of social licence to operate in a modernising mining industry. *Resources Policy*, 85, 103851.
18. Chukwu, E., Adu-Baah, A., Niaz, M., Nwagwu, U., & Chukwu, M. U. (2023). Navigating ethical supply chains: the intersection of diplomatic management

- and theological ethics. *International Journal of Multidisciplinary Sciences and Arts*, 2(1), 127-139.
19. Danladi, S., Prasad, M. S. V., Modibbo, U. M., Ahmadi, S. A., & Ghasemi, P. (2023). Attaining Sustainable Development Goals through Financial Inclusion: Exploring Collaborative Approaches to Fintech Adoption in Developing Economies. *Sustainability*, 15(17), 13039.
 20. Daradkeh, M. (2023). Navigating the complexity of entrepreneurial ethics: A systematic review and future research agenda. *Sustainability*, 15(14), 11099.
 21. Dargis, J. (2023). Architecting an Upstream Oil and Gas Enterprise for Innovation (Doctoral dissertation, Massachusetts Institute of Technology).
 22. Debnath, B., Shakur, M. S., Siraj, M. T., Bari, A. M., & Islam, A. R. M. T. (2023). Analyzing the factors influencing the wind energy adoption in Bangladesh: A pathway to sustainability for emerging economies. *Energy Strategy Reviews*, 50, 101265.
 23. Dong, L. (2023). A Complex, Dynamic Systems Theory perspective on grit, grammar knowledge, and their relationship among high-school students: A longitudinal time series analysis study. *Current Psychology*, 1-16.
 24. Emeka-Okoli, S., Nwankwo, T. C., Otonnah, C. A., & Nwankwo, E. E. (2024). Corporate governance and CSR for sustainability in Oil and Gas: Trends, challenges, and best practices: A review. *World Journal of Advanced Research and Reviews*, 21(3), 078-090.
 25. Falcone, P. M. (2023). Sustainable energy policies in developing countries: a review of challenges and opportunities. *Energies*, 16(18), 6682.
 26. Feng, Y., Hu, J., Afshan, S., Irfan, M., Hu, M., & Abbas, S. (2023). Bridging resource disparities for sustainable development: A comparative analysis of resource-rich and resource-scarce countries. *Resources Policy*, 85, 103981.
 27. Gatune, J. (2024). "Engaging the Private Sector for Inclusive Extractive Industries and Sustainable Value Chains in Africa: A Look at Local Content Policy and Practice in Africa. In *Routledge Handbook of Natural Resource Governance in Africa* (pp. 338-355). Routledge.
 28. Gatune, J. (2024). "Engaging the Private Sector for Inclusive Extractive Industries and Sustainable Value Chains in Africa: A Look at Local Content Policy and Practice in Africa. In *Routledge Handbook of Natural Resource Governance in Africa* (pp. 338-355). Routledge.
 29. Gatune, J. (2024). "Engaging the Private Sector for Inclusive Extractive Industries and Sustainable Value Chains in Africa: A Look at Local Content Policy and Practice in Africa. In *Routledge Handbook of Natural Resource Governance in Africa* (pp. 338-355). Routledge.
 30. Hansen, M. W. (2020). Toward a strategic management perspective on local content in African extractives: MNC procurement strategies between local responsiveness and global integration. *Africa Journal of Management*, 6(1), 24-42.
 31. Heim, I., Vigneau, A. C., & Kalyuzhnova, Y. (2023). Environmental and socio-economic policies in oil and gas regions: triple bottom line approach. *Regional Studies*, 57(1), 181-195.
 32. Jahromi, F. S., & Jahromi, F. S. (2023). Policy and legal frameworks for underground natural gas storage in Iran. *Utilities Policy*, 80, 101471.
 33. Khalid, A. (2023). Sustainable Marketing and Its Impact on Society: A Study of Marketing Strategies and Opportunities Promoting Eco-Friendly Lifestyle. Available at SSRN 4570227.
 34. Khoa, B. T., Hung, B. P., & Hejsalem-Brahmi, M. (2023). Qualitative research in social sciences: data collection, data analysis and report writing. *International Journal of Public Sector Performance Management*, 12(1-2), 187-209.
 35. Kinyondo, A. (2024). Local content management in Tanzania's extractive sector: How effective is it?. *The Extractive Industries and Society*, 17, 101435.
 36. Klassen, R. D., Shafiq, A., & Johnson, P. F. (2023). Opportunism in supply chains: Dynamically building governance mechanisms to address sustainability-related challenges. *Transportation Research Part E: Logistics and Transportation Review*, 171, 103021.
 37. Leão, R., Ijatuyi, E. J., & Goulao, L. F. (2023). How Public Procurement Mechanisms Can Be Used as a Tool for Developing Pro-Poor Food Value Chains: From Entry Points to Interventions. *Sustainability*, 15(12), 9152.

38. Letunovska, N., Offei, F. A., Junior, P. A., Lyulyov, O., Pimonenko, T., & Kwilinski, A. (2023). Green Supply Chain Management: The Effect of Procurement Sustainability on Reverse Logistics. *Logistics*, 7(3), 47.
39. Mahmood, Y., Afrin, T., Huang, Y., & Yodo, N. (2023). Sustainable Development for Oil and Gas Infrastructure from Risk, Reliability, and Resilience Perspectives. *Sustainability*, 15(6), 4953.
40. McManus, J. (2023). Transaction cost economics and mutual legal uncertainty to build commitment. *Journal of Organization Design*, 12(3), 141-156.
41. Mugoni, E., Nyagadza, B., & Hove, P. K. (2023). Green reverse logistics technology impact on agricultural entrepreneurial marketing firms' operational efficiency and sustainable competitive advantage. *Sustainable Technology and Entrepreneurship*, 2(2), 100034.
42. Mulati, J. W. (2019). The Effect of local content policies on sustainable local development by upstream oil and gas companies in Kenya (Doctoral dissertation, Strathmore University).
43. Ngo, V. M., Nguyen, H. H., Pham, H. C., Nguyen, H. M., & Truong, P. V. D. (2023). Digital supply chain transformation: Effect of firm's knowledge creation capabilities under COVID-19 supply chain disruption risk. *Operations Management Research*, 16(2), 1003-1018.
44. Nia, N. B. (2023). Brand Management Internationalization: Case Study of NIKE. *Journal of International Trade, Logistics & Law*, 9(2).
45. Nwapi, C. (2016). A survey of the literature on local content policies in the oil and gas industry in East Africa. *SPP Research Paper*, (9/16).
46. Nwokolo, S. C., Eyime, E. E., Obiwulu, A. U., & Ogbulezie, J. C. (2023). Africa's Path to Sustainability: Harnessing Technology, Policy, and Collaboration. *Trends in Renewable Energy*, 10(1), 98-131.
47. Ojijo, A. D. (2023). Effect of Sustainable Supplier Selection on Procurement Performance of Chartered Public Universities in Kenya.
48. Olisah, M. C. (2023). Enhancing the supply chain collaboration model in the Nigerian oil and gas industry: a case study of performance improvement strategies.
49. Onwuka, U. (2021). Strategies for improving local content development in Nigeria oil and gas industry.
50. Oppong, R., & Amoah-Awuah, N. (2021, August). Impact of the Petroleum, Local Content and Local Participation Regulation 2013, Li 2204 on Local Skills Development in Ghana's Upstream Oil & Gas Sector. In *SPE Nigeria Annual International Conference and Exhibition* (p. D031S020R006). SPE.
51. Ovadia, J. S. (2022). Addressing gender inequality through employment and procurement: Local content in Tanzania's emerging gas industry. *The Extractive Industries and Society*, 9, 101028.
52. Pike, A., Rodríguez-Pose, A., & Tomaney, J. (2016). *Local and regional development*. Routledge.
53. Poelzer, G. (2023). Corporate Engagement Strategies in Northern Mining: Boliden, Sweden and Cameco, Canada. *Environmental Management*, 72(4), 838-849.
54. Sajwani, H. A., Soudan, B., & Olabi, A. G. (2023). Comprehensive Review of Socio-Economic Costs and Benefits, Policy Frameworks, Market Dynamics, and Environmental Implications of Microgrid Development in the UAE. *Energies*, 17(1), 70.
55. Samlafo, J. K. (2019). Content Analysis of the Local Content Policy in Oil and Gas Sector: A Comparison Between Ghana and Nigeria (Doctoral dissertation, University of Cape Coast).
56. Setiawan, I. (2023). The Significance of Corporate Social Responsibility in Sustainable Development: An Analysis from an Islamic Law Perspective. *Journal of Law and Sustainable Development*, 11(9), 1-23.
57. Skaten, M. (2018). Ghana's oil industry: Steady growth in a challenging environment.
58. Son, S. (2024). Constructing 'Local' and 'Sustainable': A critical analysis of place-based public food procurement. *Geoforum*, 150, 103989.
59. Song, C., Liu, Z., Yuan, M., & Zhao, C. (2024). From text to effectiveness: Quantifying green industrial policies in China. *Journal of Cleaner Production*, 141445.
60. Suleman, S., & Ennin, G. K. (2023). An empirical review of petroleum revenue management and

distribution after a decade of oil production and export in Ghana. *The Extractive Industries and Society*, 13, 101228.

61. Suleman, S., & Zaato, J. J. (2021). Local content implementation and development in Ghana's upstream oil and gas sector for sustainable development: contemporary issues on policy management. *Discover Sustainability*, 2, 1-15.
62. Sun, X., Qing, J., Shah, S. A. A., & Solangi, Y. A. (2023). Exploring the complex nexus between sustainable development and green tourism through advanced GMM analysis. *Sustainability*, 15(14), 10782.
63. Tao, Y., & Lin, P. H. (2023). Analyses of sustainable development of cultural and creative parks: A pilot study based on the approach of CiteSpace knowledge mapping. *Sustainability*, 15(13), 10489.
64. Tetteh, L. A., Agyenim-Boateng, C., & Simpson, S. N. Y. (2023). A difficult journey from enactment to implementation of local content policy: instigating factors and accountability mechanisms for achieving sustainable development. *Journal of Applied Accounting Research*.
65. Tiwari, M., Bryde, D. J., Stavropoulou, F., & Malhotra, G. (2024). Understanding the evolution of flexible supply chain in the business-to-business sector: a resource-based theory perspective. *International Studies of Management & Organization*, 1-27.
66. Vadakkepatt, G. G., Arora, S., Martin, K. D., & Paharia, N. (2022). Shedding light on the dark side of firm lobbying: A customer perspective. *Journal of Marketing*, 86(3), 79-97.
67. Vandome, C. (2023). Zambia's developing international relations.
68. Vivek, R., & Chandrakumar, S. (2023). A critical review of the mixed method application and its criticism.
69. Walker, P. (2021). *Foundations of organisational economics: Histories and theories of the firm and production*. Routledge.
70. Wambwa, D., Mundike, J., & Chirambo, B. (2023). Balancing economic development, social responsibility, and environmental conservation through financial assurance programs in sub-Saharan Africa's mining industry. *Environment, Development and Sustainability*, 1-24.
71. Wörsdörfer, M. (2023). The EU's artificial intelligence act: an ordoliberal assessment. *AI and Ethics*, 1-16.
72. Zarsky, L., & Stanley, L. (2013). Can extractive industries promote sustainable development? A net benefits framework and a case study of the Marlin Mine in Guatemala. *The Journal of Environment & Development*, 22(2), 131-154.
73. Zhang, S., Anser, M. K., Peng, M. Y. P., & Chen, C. (2023). Visualizing the sustainable development goals and natural resource utilization for green economic recovery after COVID-19 pandemic. *Resources Policy*, 80, 103182.