



Mitigating Risk and Enhancing Governance: A Framework for Effective Implementation of Nigeria's Petroleum Industry Act

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ABSTRACT

The Nigerian Petroleum Industry Act aims to modernize the industry, promote sustainable growth, and attract investments, despite challenges like ownership conflict, complexity, and outdated regulatory frameworks. This research utilized a combination of qualitative and quantitative methods to understand Nigeria's Petroleum Industry Act (PIA), including a literature review, case studies, surveys, interviews, data analysis, policy analysis, stakeholder workshops, and fieldwork to identify industry trends and strategies. PIA aids Nigeria's economic development by attracting local (4.97) and international investors (4.89), ensuring benefits of natural resources are distributed back to their original communities. Inadequate funding ranked first as the risk to PIA implementation with a mean value of 4.96 and delayed dividends delivery and Limited collaboration among stakeholders ranked 2nd and 3rd with a mean value of 4.88 and 4.75 respectively. The study ranks mitigating strategies for improving PIA application in the Nigerian oil and gas sector. Conformity with global best practice ranks first with a mean value of 4.94, followed by a conducive environment for oil business and transparency with a mean value of 4.87 and 4.74 respectively. All strategies were accepted due to their high mean score. The coefficient of determination (R²) is 0.660420, indicating that 66% of problems faced in the sector are resolved by PIA. The study concluded that Nigeria's Petroleum Industry Assessment (PIA) gaps, suggesting that the 30% profit mandate for frontier basin exploration is unnecessary compared to clean energy sources. The study recommends amending Nigeria's PIA to prevent host communities from sabotaging corporations' facilities, establishing a dispute resolution system, and ensuring transparency in Act execution.

Keywords: Strategies, Risk, Petroleum Industry Act, Investment, Project Benefits, Oil and Gas

INTRODUCTION

Nigeria, a country with a population of 250 million, has a rich natural resource, including oil and gas, which has significantly impacted its economy. The Petroleum Industry Act (PIA) was passed to reform the sector, but it presents challenges and opportunities for stakeholders. The Petroleum Industry Bill (PIB) is a reform program aimed at addressing the industry's problems. Policymakers in 2009 agreed that a fresh start was necessary for the petroleum industry to realize its potential for economic development. The overhaul will replace the Nigerian National Petroleum Corporation (NNPC) and existing regulatory entities with new institutions to ensure operational excellence and promote long-term welfare for the Nigerian people. Nigeria's petroleum industry is crucial to the country's economy, with joint ventures between the government and oil companies generating lucrative projects [1]. However, Nigeria struggles to translate its resource wealth into rising living standards, leading to failed development projects and high poverty rates in oil-affected areas. The Nigeria Action Plan 2023-2025 aims to implement the Petroleum Industries Act (NG0035) to focus on public resource accountability and sustainable development through efficient use of extractive resources. The plan includes developing regulations for the Petroleum Industry Act (PIA), increasing citizen engagement, and facilitating multi-stakeholder engagements towards the establishment of the Petroleum Host Community Development Trust. The PIA's long-term implications are discussed, along with lessons learned from other petroleum sector reforms [2]. The petroleum industry's management has socio-economic impacts on Nigeria's economy and citizenry, with corruption, and social,

and political maladministration undermining the economic benefits of petroleum resources. The Nigerian government has announced plans to engage oil and gas-producing communities, particularly in the Niger Delta area, regarding the Petroleum Industry Act (PIA) 2021 details. The Oloibiri oil museum project, conceived in 1983, has been approved by the federal government and partners have committed to engaging a construction company. The Nigerian Senate has called for a comprehensive investigation into the PIA 2021 implementation, following a motion on the potential exit of international oil companies [3]. The Nigerian Upstream Petroleum Regulatory Commission has assured proper implementation of the PIA to contribute to the national economy. The House of Representatives Committee on Petroleum Resources is set to conduct a comprehensive audit of the Premium Motor Spirit subsidy regime. This study aims to reveal Strategies for Maximizing Benefits from Nigeria's Petroleum Industry Act" to explore and propose effective strategies aimed at maximizing the benefits derived from the implementation of the Petroleum Industry Act in Nigeria. This includes identifying key challenges, assessing opportunities, and offering actionable recommendations to optimize the utilization of resources, foster economic growth, and ensure sustainable development within the country's petroleum sector.

REVIEW OF THE LITERATURE

Petroleum Industry Act

The Petroleum Industry Act aims to modernize Nigeria's petroleum industry, addressing challenges and promoting sustainable growth. It establishes a progressive fiscal framework, encouraging petroleum exploration and production, and maintaining a competitive environment for oil companies. The Act provides a balance of government take, allowing for price windfalls without altering fiscal terms. It strengthens government accountability, legislative oversight, and financial autonomy for regulatory institutions. The Act aims to optimize the industry's positive impact on the Nigerian economy, creating a conducive business environment and ensuring investor confidence. The Petroleum Industry Act (PIA) in Nigeria aims to attract investments, enhance transparency and accountability in petroleum resource management, optimize petroleum operations, promote local content development, and ensure environmental and social responsibility [4]. It includes provisions for contract disclosure, financial reporting, and regulatory bodies. The act also promotes local content development, capacity building, and technology transfer. Additionally, it deregulates the downstream sector, including fuel subsidies, to encourage competition and improve efficiency.

Regulatory Framework

The petroleum industry's regulatory framework is complex, balancing economic development, environmental protection, and social responsibility while ensuring sustainable resource management. Key components include economic development, environmental protection, and energy security. Countries have specific laws governing the exploration, production, refining, transportation, and sale of petroleum products, often established by national governments. Governments typically establish regulatory agencies to oversee and enforce petroleum industry regulations, such as the Department of Energy, Ministry of Petroleum, or Petroleum Commission [5]. Licensing and permitting are required by companies involved in the petroleum industry, which may involve rigorous application processes. Environmental regulations aim to minimize the environmental impact of petroleum operations, such as preventing oil spills and reducing air and water pollution. Safety standards protect workers, communities, and the environment from accidents and hazards. Taxation and royalties are often imposed on petroleum companies to generate revenue and ensure a fair return on national resources. Market regulation promotes competition and prevents anti-competitive practices, such as monopolies, price regulation, and fair access to infrastructure. International agreements and treaties may also govern aspects of the petroleum industry [6], particularly concerning cross-border activities like oil and gas pipelines, offshore drilling, and international trade in petroleum products.

Stakeholder Engagement

The Petroleum Industry Act (PIA) is a crucial legislation governing the petroleum industry, encompassing regulations and guidelines for exploration, production, refining, and distribution. Government authorities, oil companies, regulatory bodies, local communities, civil society organizations, and investors are all key stakeholders in the PIA. Government authorities are responsible for drafting, implementing, and enforcing the Act, while oil companies and operators provide input and advocate for favorable terms. Regulatory bodies oversee the industry, developing regulatory frameworks, issuing permits, monitoring compliance, and enforcing penalties. Local communities and Indigenous groups are crucial for promoting transparency, addressing environmental and social concerns, and ensuring equitable benefit sharing [7]. Civil society organizations raise awareness about environmental impacts, human rights violations, and governance issues, while investors assess regulatory risks and ensure compliance with ESG criteria. Effective stakeholder engagement is essential for fostering collaboration, addressing conflicts, promoting sustainable development, and maximizing petroleum resource benefits. The Petroleum Industry Act (PIA) in many countries, particularly in oil-rich nations, can lead to various opportunities across sectors. In Nigeria, the PIA in 2021 aims to reshape the country's oil and gas industry, attracting investment

inflows, promoting diversification and local content development, fostering technology transfer and innovation, promoting environmental and social responsibility initiatives, enhancing infrastructure development, creating job creation and skills development, strengthening regulatory institutions, fostering international collaboration and partnerships, diversifying export markets for petroleum products, and promoting sustainable development initiatives. The PIA also presents opportunities for international collaboration, market diversification, and sustainable development initiatives [8]. Despite the challenges, the PIA presents numerous opportunities for economic growth, innovation, and sustainable development within the petroleum industry and beyond.

Challenges in Implementing the Petroleum Industry Act

The Petroleum Industry Act (PIA) in Nigeria aims to reform the oil and gas sector but faces challenges such as conflict of ownership, complexity, double taxation, and transition from an outdated regulatory framework. The PIA should include state, local governments, and host communities as petroleum owners to reduce resource control and theft. Transitioning from the previous regulatory framework requires careful planning and execution while ensuring transparent revenue management is crucial for unlocking Nigeria's petroleum industry's full potential. The Petroleum Industry Act (PIA) in Nigeria aims to promote sustainable development in the upstream oil and gas sector by balancing corporate social responsibility and taxation practices. It introduces new regulatory frameworks, amends existing ones, and may introduce fiscal regime changes. The Act also promotes local participation in the industry, such as hiring local workers and transferring technology [9]. The PIA can impact government revenue in countries with substantial oil and gas reserves, depending on industry structure, fiscal terms, global oil prices, and operational efficiency.

Related global petroleum statutes

Angola has introduced new laws limiting the definition of a "national company" to fully Angolan-owned companies in the petroleum sector, aiming to diversify the country's economy [10]. Key lessons from Qatar, Kuwait, Norway, Angola, and Libya include Qatar Energy having exclusive rights for exploration, production, and hydrocarbon development, while Libya's institutional framework has helped it navigate macroeconomic volatility. Nigeria's PIA 2021 faces challenges such as not addressing midstream operators' contribution to HCDDT, lack of dispute resolution, and cooperation framework. It also lacks energy transition plans, reduces royalties, and introduces a new HCT.

METHODOLOGY

To maximize the benefits of Nigeria's Petroleum Industry Act (PIA), a combination of qualitative and quantitative research methods was adopted in this research. This includes a literature review, case studies, surveys, interviews, data analysis, policy analysis, stakeholder workshops, and fieldwork. The literature review provides a foundation for understanding the industry, while case studies provide insights into other countries' experiences. Data analysis helps identify patterns and trends, while policy analysis evaluates the PIA and its policies. Stakeholder workshops and focus groups facilitate dialogue and consensus-building on strategies for maximizing benefits. Fieldwork and observational studies provide insights into local dynamics and the realities of petroleum operations.

DATA ANALYSIS

Benefits of PIA to Economic Growth

Data obtained through the questionnaire were analyzed. The data from the respondents was examined and ranked by the strength of the effects.

Table 1: Benefits of PIA to Economic Growth

S/N	Benefits of PIA to Economic Growth	W	VI-----LI					ΣFX	X̄	RANK
			5	4	3	2	1			
1	The benefits of natural resources must now flow back to the communities where they came from	F WF	326 1630	10 40	- 0	- 0	- 0	336 1670	4.97	1 ST
2	PIA helps Nigeria’s economic development by attracting and creating investment opportunities for local and international investors	F WF	300 1500	36 144	- 0	- 0	- 0	336 1644	4.89	2 nd
3	Enhancement of peaceful and harmonious co-existence between extractive corporations and their host communities	F WF	264 1320	62 248	10 30	- 0	- 0	336 1598	4.76	3 rd
4	Extractive corporations—Indigenous and international corporations are now required to contribute 3 percent of their actual operating expenditure to the Host Community Development Trusts	F WF	252 1260	60 120	24 48	- 0	- 0	336 1572	4.67	4 th
5	PIA addresses the issue of gas flaring	F WF	240 1200	60 240	24 72	12 24	- 0	336 1536	4.57	5 th
6	PIA focuses on the issues that have not allowed Nigeria to improve production and grow its reserves	F WF	228 1140	48 192	36 108	24 48	- 0	336 1488	4.42	6 th
7	Data obtained through the questionnaire were analyzed. The data from the respondents was examined and ranked by the strength of the effects.	F WF	240 1200	12 48	49 147	35 70	- 0	336 1465	4.36	7 th

VI= Very Important

LI= Less Important

X̄ = Mean

ΣFX= Sum of all the mean

WF= Weighted Frequency of the response

F= Frequency of the response

Table 1 shows the rank of benefits of PIA to the economy. Benefits of natural resources must now flow back to the communities where they came from and PIA helps Nigeria’s economic development by attracting and creating investment opportunities for local and international investors ranked first and second with mean scores of 4.97 and 4.89 respectively. This is in collaboration with [11] and [12] who opine that the Petroleum Industry Act (PIA) in Nigeria's oil and gas sector can promote sustainable development. The study further suggests the Act can balance CSR and taxation practices for sustainable growth, with recommendations for an integrated framework for monitoring its impact

Risks to Effective Implementation of PIA

Table 2: Ranking of Risks and hindrances to Effective Implementation of PIA

S/N	Hindrances	W	VI-----LI					ΣFX	X̄	RANK
			-LI							
			5	4	3	2	1			
1	Inadequate funding	F	326	8	2	-	-	336	4.96	1 st
		WF	1630	32	6	0	0	1668		
2	Delay dividends delivery	F	300	32	4	-	-	336	4.88	2 nd
		WF	1500	128	12	0	0	1640		
3	Limited collaboration among stakeholders	F	264	60	12	-	-	336	4.75	3 rd
		WF	1320	240	36	0	0	1596		
4	Lack of transparency and accountability	F	252	60	22	2	-	336	4.67	4 th
		WF	1260	240	66	4	0	1570		
5	Conflict of interest	F	240	60	24	10	2	336	4.57	5 th
		WF	1200	240	72	20	2	1534		
6	Corruption	F	228	48	36	20	4	336	4.42	6 th
		WF	1140	192	108	40	4	1484		
7	Regulatory inefficiency with bureaucracy	F	240	12	47	31	6	336	4.34	7 th
		WF	1200	48	141	62	6	1457		

VI= Very Important

LI= Less Important

X̄ = Mean

ΣFX= Sum of all the mean

WF= Weighted Frequency of the response

F= Frequency of the response

Table 2 above shows the rank of Risks and hindrances to Effective Implementation of PIA. Inadequate funding ranked first with a mean value of 4.96, and Delayed dividends delivery and Limited collaboration among stakeholders ranked 2nd and 3rd with mean values of 4.88 and 4.75 respectively. The Nigerian Petroleum Industry Act 2021, lacking provisions for energy transition in line with the Paris Agreement, necessitates an overhaul to protect host communities' interests as identified by [13] and [14] in affirmation of the above work.

Risk Strategies for improving PIA application
Table 3: Ranking of the Strategies for improving PIA application

S/N	Strategies for Improving PIA Application	W	VI-----LI					ΣFX	X̄	RANK	DECISION
			5	4	3	2	1				
1	Conformity with global best practice	F	320	13	3	-	-	336	4.94	1 st	Accepted
		WF	1600	52	9	0	0	1661			
2	Conducive environment for the oil business	F	300	30	5	1	-	336	4.87	2 nd	Accepted
		WF	1500	120	15	2	0	1637			
3	Transparency	F	261	63	10	2	-	336	4.74	3 rd	Accepted
		WF	1305	252	30	4	0	1591			
4	Accountability	F	250	61	23	2	-	336	4.66	4 th	Accepted
		WF	1250	244	69	4	0	1567			
5	Enforcement of contracts	F	239	60	22	12	3	336	4.55	5 th	Accepted
		WF	1195	240	66	24	3	1528			
6	Reformation of outdated laws	F	228	44	34	24	6	336	4.38	6 th	Accepted
		WF	1140	176	102	48	6	1472			
7	Stakeholders' engagement indicators	F	220	22	49	35	10	336	4.21	7 th	Accepted
		WF	1100	88	147	70	10	1415			

VI= Very Important

LI=Less Important

X̄ = Mean

ΣFX= Sum of all the mean

WF= Weighted Frequency of the response

F=Frequency of the response

Table 3 shows the rank of the Risk Strategies for improving PIA application. Conformity with global best practice ranked first with a mean value of 4.94. Conducive environment for oil business and Transparency ranked second and third with mean values of 4.87 and 4.74 respectively. All the strategies were accepted because they had a very high mean score. This position is supported by the work of [15, 16, 17] on the standardization of strategies towards improving PIA application in the oil and gas sector.

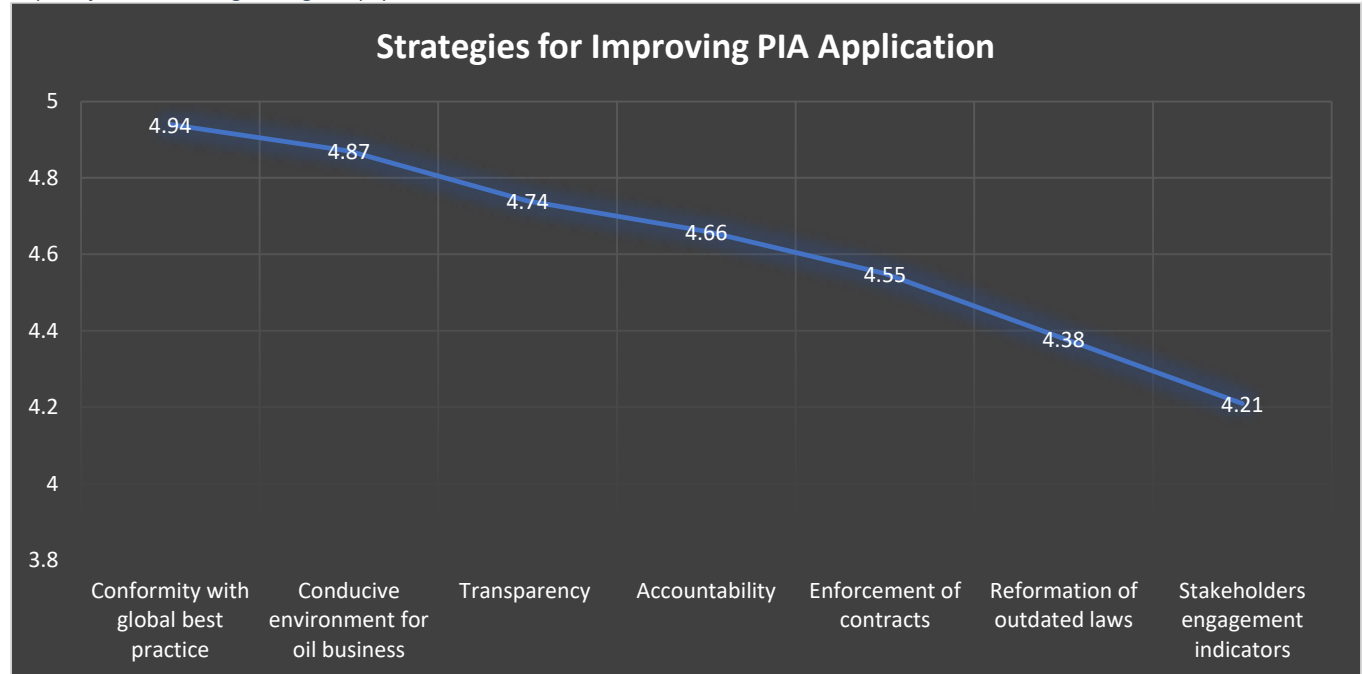


Fig. 1: Strategies for Improving PIA Application
Impact of PIA on the Oil and Gas Sector of Nigeria

Dependent variable: Oil and Gas Sector (OGS)

Independent Variable: PIA

Dependent Variable: CI

Method: Least Squares

Date: 06/05/24 Time: 20:50

Sample (adjusted): 2024

Included observations: 10 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
OGS	1.653412	1.407414	1.243183	0.1419
PIA	4.952331	3.511012	2.147616	0.0212
R-squared	0.660420	Mean dependent var		4.51E+13
Adjusted R-squared	0.717003	S.D. dependent var		2.23E+14
S.E. of regression	1.48E+14	Akaike info criterion		51.74923
Sum squared resid	1.03E+30	Schwarz criterion		33.05713
Log-likelihood	-1130.486	Hannan-Quinn criter.		48.85670
F-statistic	4.079140	Durbin-Watson stat		1.215343
Prob. (F-statistic)	0.005245			

EvIEWS8

The coefficient of determination R^2 from the regression result, the R^2 is given as 0.660420 this implies that 66% of problems faced in the oil and gas sector are being settled by the application of PIA as consented to by [18].

CONCLUSION

The research focuses on strategies for maximizing benefits from Nigeria's Petroleum Industry Act (PIA). The PIA aims to modernize Nigeria's petroleum industry, attract investments, and distribute benefits back to communities. However, challenges in implementing the PIA include inadequate funding, delayed dividends delivery, limited collaboration among stakeholders, lack of transparency, conflict of interest, corruption, and regulatory inefficiency. Strategies for improving PIA application include conformity with global best practices, creating a conducive environment for the oil business, transparency, accountability, enforcement of contracts, reformation of outdated

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laws, and stakeholders' engagement indicators. The study concludes that 66% of problems faced in the oil and gas sector are resolved by the application of the PIA. The research provides insights into maximizing benefits from Nigeria's petroleum industry and suggests policy recommendations to address challenges and optimize resource utilization for economic growth and sustainable development.

Recommendation

The study suggests amending Nigeria's PIA to enhance host communities' roles in protecting and preventing the sabotage of corporations' facilities; establish a dispute resolution system for both parties and ensure transparency in the Act's execution, thereby addressing gaps in the current legislation.

Contribution to knowledge

The study identifies gaps in Nigeria's Petroleum Industry Act (PIA) and petroleum operations, guides the government in adopting consistent policies, provides insights for maximizing benefits, recommends policy changes for economic growth and sustainable development, enhances understanding of socio-economic impacts, emphasizes stakeholder engagement and transparency, and offers comparative analyses with other countries' petroleum statutes for best practices.

Appreciation

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