

NIGERIA'S MARITIME POLICIES, MARITIME SECURITY AND REGIONAL COOPERATION IN THE GULF OF GUINEA: THE ROLES OF OIL MARKET VOLATILITY AND SECURITY FRAMEWORK INTEGRATION

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Abstract

The study examined Nigeria's maritime policies, maritime security, and regional cooperation in the Gulf of Guinea, with particular focus on the roles of oil market volatility and security framework integration. Two research questions and two null hypotheses guided the study. The study adopted a quantitative research design. Data were collected from 145 stakeholders drawn from security, regulatory, diplomatic, and maritime industry institutions, of which 121 valid responses were analyzed, representing an 80.7% response rate. The instrument for data collection was a self-structured questionnaire titled *Maritime Policy, Security and Regional Cooperation Questionnaire (MPSRCQ)*. The instrument was face-validated by experts in the Institute of Maritime Studies, University of Nigeria, Enugu Campus. Data were analyzed using Moderated Multiple Regression and One-Way Multivariate Analysis of Variance (MANOVA). The findings revealed that oil market volatility does not significantly moderate the relationship between Nigeria's maritime policies and regional cooperation outcomes in the Gulf of Guinea ($\beta = 0.0222$, $p = 0.787$). The study also found that the integration of the Deep Blue Project and the Yaoundé Code of Conduct does not significantly enhance maritime security effectiveness and regional cooperation outcomes in the Gulf of Guinea (Pillai's Trace $p = 0.749$; Wilks' Lambda $p = 0.752$). The study concluded that neither oil market volatility nor the integration of the two security frameworks significantly influenced the maritime security and regional cooperation outcomes examined. The study recommended strengthening institutional coordination, improving policy implementation mechanisms, and enhancing operational collaboration among maritime stakeholders to achieve more effective maritime security and regional cooperation outcomes in the Gulf of Guinea.

Keywords: Maritime policies, maritime security, regional cooperation, oil market volatility, security framework integration

Introduction

Nigeria's maritime policies have become increasingly important in contemporary discussions on maritime security and regional cooperation because of the persistent security challenges confronting the Gulf of Guinea and their implications for economic development, international trade, and regional stability. Despite several policy interventions and security initiatives introduced by governments and regional institutions, the Gulf of Guinea continues to experience piracy, sea robbery, crude oil theft, illegal fishing, trafficking, and other forms of transnational maritime crimes. These challenges have generated concerns regarding the effectiveness of existing maritime policies and the extent to which they contribute to maritime security and cooperative outcomes among coastal states. The growing importance of maritime resources, coupled with increasing dependence on ocean-based economic activities, has further intensified the need for effective maritime governance frameworks capable of ensuring security and sustainable development within the region.

The strategic significance of the Gulf of Guinea derives largely from its abundant marine resources, extensive shipping routes, and substantial contribution to global energy supply. According to the African Union–Inter-African Bureau for Animal Resources (2019),

Africa's maritime domain possesses enormous potential for economic transformation through fisheries, maritime transport, offshore energy, tourism, and other ocean-based industries. Similarly, Karani, Failler, Gilau, Ndende and Thiam Diop (2022) observed that African countries have increasingly embraced maritime development strategies as instruments for promoting economic growth, environmental sustainability, and regional integration. Failler, Antaya and March (2024) further argued that the sustainable development of Africa's maritime sector depends significantly on effective governance structures capable of balancing economic exploitation with environmental protection and security considerations. March, Bennett, Germishuizen, Evans and Failler (2024) noted that the growing emphasis on ocean-based development has elevated maritime governance to a central position within Africa's development agenda. Likewise, Narwal, Kaur, Yadav and Bast (2024) maintained that sustainable maritime development requires strong institutional frameworks, effective governance systems, and secure maritime environments capable of supporting long-term economic growth. These observations suggest that maritime security and cooperation have become indispensable requirements for harnessing the economic opportunities available within the Gulf of Guinea.

The increasing relevance of maritime resources has encouraged many African states to strengthen their maritime policies and governance frameworks. Guerreiro (2022) maintained that integrated maritime policies provide strategic direction for managing maritime resources, regulating maritime activities, and strengthening ocean governance systems. Similarly, the World Bank Independent Evaluation Group (2024) emphasized that effective governance structures are critical for maximizing maritime opportunities while mitigating security, environmental, and institutional risks. The Organisation for Economic Co-operation and Development (2024) further argued that maritime governance frameworks facilitate coordination among stakeholders and contribute significantly to sustainable economic development. Childs and Hicks (2019) also observed that the governance of maritime resources must address both developmental and security concerns to ensure sustainable utilization of marine resources. Within this context, Nigeria has implemented several maritime policies aimed at strengthening maritime administration, enhancing maritime security, and promoting regional cooperation within the Gulf of Guinea.

As the largest economy in West Africa and one of the major maritime nations in Africa, Nigeria occupies a strategic position in regional maritime governance. The country's extensive coastline, offshore oil reserves, and active maritime trade routes have necessitated sustained investment in maritime security and governance mechanisms. Monteh (2025) argued that Nigeria's maritime security policy has evolved significantly in response to emerging maritime threats and changing regional security dynamics. Udochukwu, Akinwumi and Haroun (2024) similarly observed that contemporary security governance in Nigeria increasingly emphasizes inter-agency collaboration, technological innovation, and institutional coordination as essential components of maritime security management. The Nigerian Ports Authority (2025) further noted that efficient maritime governance contributes significantly to trade facilitation, economic growth, and national competitiveness. Jacoba and Umoh (2022) also contended that Nigeria's maritime sector possesses significant potential for economic diversification, provided that adequate governance and security mechanisms are sustained. Consequently, maritime policies have become critical instruments for promoting both national development and regional maritime stability.

Maritime security has emerged as one of the most pressing concerns confronting policymakers and maritime stakeholders in the Gulf of Guinea. Persistent maritime crimes have undermined economic activities, threatened human security, and weakened investor confidence across the region. According to Badaru Garba (2022), piracy and maritime crimes

remain among the most significant threats to maritime stability in the Gulf of Guinea despite improvements in regional security cooperation. Fuller (2022) similarly argued that maritime insecurity in the region is closely linked to governance challenges, institutional weaknesses, and socio-economic conditions prevailing in coastal communities. Gesami (2023) further observed that maritime security constitutes an essential foundation for sustainable development because maritime crimes disrupt trade, reduce government revenues, and discourage private investment. The International Maritime Organization (2021) emphasized that effective maritime security systems are necessary for safeguarding maritime assets, protecting human lives, and ensuring the uninterrupted movement of goods and services across maritime domains. Sobrino-Heredia (2022) also noted that maritime security has become a major concern for regional and international actors because of its implications for economic stability and global trade.

The implications of maritime insecurity extend beyond security concerns to broader economic and developmental outcomes. Amao, Adesanya and Ola (2024) observed that piracy and maritime crimes continue to threaten the sustainability of Nigeria's maritime economy by increasing operational costs and undermining maritime investments. Popoola and Olajuyigbe (2023) argued that effective maritime governance is fundamental to realizing the full potential of maritime resources and promoting sustainable development within the Gulf of Guinea. Jacob and Umoh (2025) further contended that maritime security serves as a critical intersection between economic diversification, environmental sustainability, and national development objectives. Elston, Murray, Bricknell and Corner (2024) equally warned that maritime development initiatives may face significant risks and unintended consequences in the absence of effective security and governance structures. Consequently, maritime security has become a prerequisite for achieving sustainable economic development and regional prosperity.

Given the transnational nature of maritime threats, regional cooperation has become indispensable in contemporary maritime governance. Maritime crimes frequently transcend national boundaries and therefore require collaborative responses among affected states. Kicha (2021) maintained that regional integration mechanisms provide opportunities for collective action, policy coordination, and institutional cooperation in addressing common challenges. Saurugger (2023) similarly argued that regional cooperation enhances the capacity of states to respond effectively to transnational threats through coordinated policy frameworks and collective security arrangements. According to the United Nations Security Council (2023), regional cooperation remains essential for strengthening maritime governance and improving responses to security challenges within the Gulf of Guinea. Mensah and Afoakwa (2023) further emphasized that regional maritime governance structures contribute significantly to information sharing, joint operations, and coordinated enforcement activities among coastal states.

The Yaoundé Code of Conduct has emerged as one of the most important regional frameworks for addressing maritime insecurity in West and Central Africa. Enemuoh, Nwokedi and Enendu (2022) noted that maritime security cooperation within the Gulf of Guinea has improved considerably through collaborative mechanisms established under regional agreements. Tanimu (2025) similarly reported that the Yaoundé Code of Conduct has enhanced information sharing, operational coordination, and collective responses to piracy and other maritime crimes. Schandorf (2024) further observed that effective counter-piracy efforts in the Gulf of Guinea depend largely on sustained coordination among national and regional security institutions. Okafor and Chikwendu (2024) also argued that burden-sharing arrangements and collective security initiatives have strengthened regional efforts aimed at addressing maritime threats. Sobseh and Talla (2025) further noted that maritime

vulnerabilities in coastal states continue to necessitate deeper regional collaboration and coordinated security responses. These observations suggest that regional cooperation remains a critical component of maritime security governance within the Gulf of Guinea.

Despite improvements in maritime security cooperation, significant challenges continue to undermine the effectiveness of maritime policies and security interventions. One of the most important factors influencing maritime governance outcomes is oil market volatility. Nigeria's economy remains heavily dependent on petroleum exports, making fluctuations in global oil prices a significant determinant of public revenue and government expenditure. Obi (2020) argued that the political economy of oil extraction in the Gulf of Guinea has profound implications for governance, security, and development outcomes across the region. Variations in oil prices may influence the availability of financial resources required for maritime security operations, surveillance infrastructure, and regional cooperation programmes. Saleh and Munir (2023) similarly observed that resource-dependent economies frequently experience governance and development challenges arising from fluctuations in commodity markets. Consequently, periods of declining oil revenues may constrain governments' capacity to sustain maritime security initiatives, while favorable oil market conditions may enhance investment in maritime governance and security infrastructure.

Another critical issue relates to the integration of maritime security frameworks. Contemporary maritime security challenges require coordinated approaches that combine national initiatives with regional governance mechanisms. The effectiveness of Nigeria's maritime policies may therefore depend partly on the degree of integration achieved between national security initiatives and regional security arrangements. Okafor-Yarwood, Eastwood, Chikowore and de Oliveira Paes (2024) observed that technological innovation and institutional coordination have become increasingly important components of maritime security governance in Africa. Schandorf (2024) argued that successful counter-piracy strategies depend on effective coordination among maritime institutions operating at national and regional levels. Enemuoh, Nwokedi and Enendu (2022) similarly emphasized that institutional cooperation and law enforcement coordination remain essential for improving maritime security outcomes. Therefore, the integration of initiatives such as Nigeria's Deep Blue Project with the Yaoundé Code of Conduct represents a potentially important mechanism for strengthening maritime security effectiveness and regional cooperation outcomes.

Empirical studies have consistently demonstrated the importance of maritime governance, security cooperation, and institutional coordination in addressing maritime challenges. Enemuoh, Nwokedi and Enendu (2022) found that maritime security cooperation contributes significantly to law enforcement effectiveness in West Africa. Mensah and Afoakwa (2023) reported that regional governance mechanisms enhance maritime security outcomes through coordinated policy implementation and information sharing. Amao, Adesanya and Ola (2024) observed that reducing piracy and maritime crimes is essential for promoting sustainable maritime development in Nigeria. Okafor and Chikwendu (2024) concluded that collective security arrangements improve regional responses to maritime threats by facilitating burden-sharing among participating states. Tanimu (2025) further established that institutionalized regional frameworks contribute positively to maritime crime reduction and maritime governance effectiveness. Although these studies provide valuable insights into maritime security and governance, they primarily focus on specific dimensions of maritime cooperation and security management.

From the researcher's observations and the reviewed literature, existing studies have largely concentrated on maritime security challenges, blue economy development, piracy

suppression, maritime governance, and regional cooperation as separate areas of investigation. While scholars such as Failler, Antaya and March (2024), Mensah and Afoakwa (2023), Enemuoh, Nwokedi and Enendu (2022), Schandorf (2024), Tanimu (2025), Okafor and Chikwendu (2024), Amao, Adesanya and Ola (2024), and Monteh (2025) have examined various aspects of maritime governance and security cooperation, limited attention has been devoted to understanding how oil market volatility conditions the relationship between Nigeria's maritime policies and regional cooperation outcomes. Furthermore, existing studies have paid insufficient attention to the extent to which the integration of national maritime security initiatives and regional security frameworks influences maritime security effectiveness and regional cooperation in the Gulf of Guinea. To the best of the researcher's knowledge, no study has comprehensively examined Nigeria's maritime policies, maritime security, and regional cooperation in the Gulf of Guinea by simultaneously investigating the moderating role of oil market volatility and the influence of security framework integration. This gap therefore necessitates the present study, which seeks to examine Nigeria's maritime policies, maritime security, and regional cooperation in the Gulf of Guinea, with particular emphasis on the roles of oil market volatility and security framework integration.

Statement of the Problem

Effective maritime policies, robust maritime security mechanisms, and strong regional cooperation are essential for ensuring the safety of maritime domains, protecting strategic economic assets, promoting international trade, and fostering sustainable development in the Gulf of Guinea. Ideally, maritime policies should provide a framework for addressing maritime threats, enhancing surveillance and enforcement capabilities, facilitating information sharing, and strengthening collaboration among coastal states. Similarly, regional security frameworks should operate in a coordinated and integrated manner to ensure effective responses to piracy, armed robbery at sea, oil theft, illegal fishing, trafficking, and other transnational maritime crimes. In such an environment, maritime security initiatives would contribute significantly to regional stability, economic growth, and the sustainable utilization of maritime resources. However, the reality within the Gulf of Guinea presents a different picture. Despite the introduction of various maritime policies and security initiatives, maritime crimes and security threats continue to pose significant challenges to maritime governance and regional stability. The region has historically experienced high incidences of piracy, kidnapping for ransom, crude oil theft, illegal fishing, and other illicit maritime activities that undermine economic development and threaten maritime commerce. Although security interventions and regional cooperation mechanisms have contributed to improvements in maritime security, concerns remain regarding the effectiveness and sustainability of these efforts. Variations in institutional capacity, differences in national priorities, resource constraints, and coordination challenges continue to affect the implementation of maritime policies and regional security arrangements.

Furthermore, Nigeria's role as a leading maritime actor in the Gulf of Guinea is influenced by broader economic and institutional factors that may affect the outcomes of its maritime policies. As an oil-dependent economy, fluctuations in global oil prices have implications for government revenue, security expenditure, and the financing of maritime security initiatives. Changes in oil market conditions may therefore influence the extent to which maritime policies can be effectively implemented and translated into meaningful regional cooperation outcomes. Similarly, while national and regional maritime security initiatives exist, questions remain regarding the extent of integration and coordination among these frameworks and their collective contribution to maritime security effectiveness within the region. The problem, therefore, is that despite the existence of maritime policies, security

initiatives, and regional cooperation frameworks aimed at improving maritime security in the Gulf of Guinea, persistent maritime threats, economic uncertainties associated with oil market fluctuations, and challenges relating to the integration of security frameworks continue to raise concerns about the effectiveness of these measures in enhancing maritime security and regional cooperation outcomes. It is against this background that this study examines Nigeria's maritime policies, maritime security, and regional cooperation in the Gulf of Guinea, with particular emphasis on the roles of oil market volatility and security framework integration.

Purpose of the Study

The purpose of this study was to examine Nigeria's maritime policies, maritime security, and regional cooperation in the Gulf of Guinea, with particular emphasis on the roles of oil market volatility and security framework integration. Specifically, the study sought to:

1. Assess the moderating role of oil market volatility on the relationship between Nigeria's maritime policies and regional cooperation outcomes in the Gulf of Guinea.
2. Assess the impact of integrating the national Deep Blue Project and the regional Yaoundé Code of Conduct on maritime security effectiveness and regional cooperation outcomes in the Gulf of Guinea.

Research Questions

The following research questions were formulated to guide the study:

1. Does oil market volatility moderate the relationship between Nigeria's maritime policies and regional cooperation outcomes in the Gulf of Guinea?
2. Does the integration of the Deep Blue Project and the Yaoundé Code of Conduct enhance maritime security effectiveness and regional cooperation outcomes in the Gulf of Guinea?

Hypotheses

The following null hypotheses were tested in the study:

- Ho₁:** Oil market volatility does not significantly moderate the relationship between Nigeria's maritime policies and regional cooperation outcomes in the Gulf of Guinea.
- Ho₂:** The integration of the Deep Blue Project and the Yaoundé Code of Conduct does not significantly enhance maritime security effectiveness and regional cooperation outcomes in the Gulf of Guinea.

Methods

The study adopted a quantitative survey research design. The area of the study was the Gulf of Guinea, with emphasis on Nigeria's maritime sector and its regional maritime security and cooperation engagements. The population of the study comprised stakeholders from security, regulatory, diplomatic, and maritime industry institutions involved in maritime governance and security matters within the Gulf of Guinea. A sample size of 145 respondents was selected for the study, out of which 121 valid responses were retrieved and analyzed, representing a response rate of 80.7%. The study employed a purposive sampling technique to select respondents considered knowledgeable and experienced in maritime security, maritime policy implementation, and regional cooperation issues. Data were collected using a self-structured questionnaire titled *Maritime Policy, Security and Regional Cooperation Questionnaire (MPSRCQ)*. The instrument was face-validated by experts in the Institute of Maritime Studies, University of Nigeria, Enugu Campus, to ensure clarity, relevance, and adequacy of the items. The questionnaire was administered directly to the respondents, and the retrieved copies formed the basis for analysis. Data were analyzed using descriptive statistics, Moderated Multiple Regression Analysis, and One-Way Multivariate Analysis of Variance (MANOVA). Descriptive statistics were presented using frequencies, percentages,

mean scores, and standard deviations. For decision making, questionnaire items with a mean score of 2.50 and above were accepted, while items with a mean score below 2.50 were rejected. For the hypotheses, a significance level of 0.05 was adopted. Thus, the null hypothesis was rejected where the probability value (p-value) was less than 0.05 and accepted where the p-value was greater than 0.05.

Results

Research Question One: Does oil market volatility moderate the relationship between Nigeria's maritime policies and regional cooperation outcomes in the Gulf of Guinea?

Table 1: Stakeholders' Perceptions of Oil Market Volatility on Security Outcomes in Regional Maritime Operations

Stakeholders	Very Positive Effect (%)	Positive Effect (%)	Neutral Effect (%)	Negative Effect (%)	Very Negative Effect (%)
NIMASA	10.0	0.0	10.0	40.0	40.0
Nigerian Navy	0.0	14.3	14.3	42.9	28.6
Ministry of Marine & Blue Economy	0.0	16.7	16.7	50.0	16.7
Gulf of Guinea Commission	0.0	0.0	0.0	100.0	0.0
ECOWAS Maritime Security Directorate	0.0	25.0	0.0	50.0	25.0
AU Maritime & UNECA	0.0	0.0	33.3	0.0	66.7
International Organizations (UN, DFID, US, WB)	0.0	0.0	37.5	50.0	12.5
Industry Associations	0.0	14.3	28.6	42.9	14.3
NGOs and Civil Societies	10.0	10.0	30.0	40.0	10.0
Security Practitioners & Regional Experts	5.0	25.0	25.0	45.0	0.0
Academics & Researchers	0.0	0.0	14.3	64.3	21.4
Development Partners & Donors	0.0	28.6	14.3	42.9	14.3
Other Key Stakeholders	7.1	14.3	35.7	35.7	7.1
Total	3.3	12.4	22.3	46.3	15.7

Data in Table 1 revealed that only 3.3% of the respondents perceived oil market volatility as having a very positive effect on security outcomes in regional maritime operations, while 12.4% reported a positive effect. In contrast, 46.3% and 15.7% of the respondents reported negative and very negative effects respectively, whereas 22.3% maintained a neutral position. At the institutional level, the Gulf of Guinea Commission recorded 100.0% negative responses, while AU Maritime and UNECA recorded 66.7% very negative responses. Similarly, Academics and Researchers reported 64.3% negative and 21.4% very negative responses. Although some stakeholders such as Development Partners and Donors (28.6%) and Security Practitioners and Regional Experts (25.0%) expressed positive perceptions, the overall pattern of responses suggests that stakeholders generally perceived oil market volatility as having adverse implications for maritime security operations and regional cooperation activities. The findings therefore indicate that oil market volatility is perceived as a challenge to the effectiveness of maritime security and cooperation

initiatives in the Gulf of Guinea. However, the hypothesis test revealed that oil market volatility did not significantly moderate the relationship between Nigeria's maritime policies and regional cooperation outcomes in the Gulf of Guinea.

Research Question Two: Does the integration of the Deep Blue Project and the Yaoundé Code of Conduct enhance maritime security effectiveness and regional cooperation outcomes in the Gulf of Guinea?

Table 2: Integration of National and Regional Maritime Security Frameworks

Survey Item	Very Positive / High (%)	Positive / High (%)	Neutral / Moderate (%)	Negative / Low (%)	Very Negative / Very Low (%)
Deep Blue Project Effectiveness	4.1	8.3	28.1	43.8	15.7
Yaoundé Code of Conduct Coordination Improvement	4.1	11.6	20.7	41.3	22.3
Integration Enhances Security Outcomes	3.3	5.8	28.1	45.5	17.4
Integrated Framework Performance (vs. Parallel Systems)	4.1	9.1	21.5	47.9	17.4

Data in Table 2 revealed that only 4.1% and 8.3% of the respondents rated the effectiveness of the Deep Blue Project as very high and high respectively, while 43.8% and 15.7% rated it low and very low. Regarding coordination improvement under the Yaoundé Code of Conduct, only 4.1% reported a very high level and 11.6% reported a high level, whereas 41.3% and 22.3% reported low and very low levels respectively. Concerning whether the integration of the Deep Blue Project and the Yaoundé Code of Conduct enhances security outcomes, only 3.3% and 5.8% of the respondents reported very high and high effects respectively, while 45.5% and 17.4% reported low and very low effects. Similarly, only 4.1% and 9.1% of the respondents believed that the integrated framework performs better than parallel systems, whereas 47.9% and 17.4% rated its performance as low and very low respectively. The data generally indicate that stakeholders perceived limited effectiveness in the integration of the Deep Blue Project and the Yaoundé Code of Conduct. The predominance of negative responses across all indicators suggests that the integration of the two frameworks has not substantially improved maritime security effectiveness or regional cooperation outcomes. This finding is consistent with the hypothesis test, which revealed that the integration of the Deep Blue Project and the Yaoundé Code of Conduct did not significantly enhance maritime security effectiveness and regional cooperation outcomes in the Gulf of Guinea.

Hypothesis 1: (H_{01}): Oil market volatility does not significantly moderate the relationship between Nigeria's maritime policies and regional cooperation outcomes in the Gulf of Guinea.

Table 3: Moderated Multiple Regression Results for Hypothesis One

Predictor Variable	Coefficient (β)	Std. Error	t-statistic	P-Value
Constant	2.5021	0.602	4.157	0.000
Maritime Policy (MaritPol)	-0.1048	0.229	-0.457	0.649
Oil Market Volatility (OilVol)	0.0604	0.221	0.273	0.785
Interaction (MaritPol $\times$ OilVol)	0.0222	0.082	0.271	0.787

Table 4: Model Fit Statistics for Hypothesis One

Statistic	Value
R-Squared	0.016
F-statistic P-value	0.964

The results presented in Table 3 and 4 showed that Nigeria's maritime policies did not exert a statistically significant effect on regional cooperation outcomes ($\beta = -0.1048$, $p = 0.649$). Similarly, oil market volatility was not found to have a significant direct influence on regional cooperation outcomes ($\beta = 0.0604$, $p = 0.785$). More importantly, the interaction effect between Nigeria's maritime policies and oil market volatility was not statistically significant ($\beta = 0.0222$, $p = 0.787$), indicating the absence of a significant moderating effect. Furthermore, the model fit statistics in Table 2 show that the model explained only 1.6% of the variation in regional cooperation outcomes ($R^2 = 0.016$), while the overall regression model was not statistically significant ($p = 0.964$). The result suggests that fluctuations in oil market conditions did not significantly alter the relationship between Nigeria's maritime policies and regional cooperation outcomes in the Gulf of Guinea. Since the probability value associated with the interaction effect ($p = 0.787$) exceeded the 0.05 level of significance, the null hypothesis was accepted. Therefore, oil market volatility does not significantly moderate the relationship between Nigeria's maritime policies and regional cooperation outcomes in the Gulf of Guinea.

Hypothesis 2: (H_{02}): The integration of the Deep Blue Project and the Yaoundé Code of Conduct does not significantly enhance maritime security effectiveness and regional cooperation outcomes in the Gulf of Guinea.

Table 5: One-Way MANOVA Results for the Effect of Security Framework Integration on Maritime Security Effectiveness and Regional Cooperation Outcomes

Test Statistic	Value	F-Value	p-value
Pillai's Trace	0.0162	0.4816	0.749
Wilks' Lambda	0.9838	0.4785	0.752
Hotelling-Lawley Trace	0.0164	0.4782	0.752

The multivariate test results presented in Table 5 indicate that the integration of the Deep Blue Project and the Yaoundé Code of Conduct did not produce statistically significant differences in the combined measures of maritime security effectiveness and regional cooperation outcomes. Specifically, Pillai's Trace produced a p-value of 0.749, while Wilks' Lambda and Hotelling-Lawley Trace yielded p-values of 0.752 respectively. Since all the p-values exceeded the 0.05 level of significance, the observed differences were not statistically significant. The findings suggest that the integration of the Deep Blue Project and the Yaoundé Code of Conduct did not significantly influence maritime security effectiveness or regional cooperation outcomes in the Gulf of Guinea. Although both frameworks were established to strengthen maritime security governance and enhance regional collaboration, their integration did not generate statistically significant improvements in the measured outcomes. Since all the reported probability values were greater than the 0.05 significance threshold, the null hypothesis was accepted. Therefore, the integration of the Deep Blue Project and the Yaoundé Code of Conduct does not significantly enhance maritime security effectiveness and regional cooperation outcomes in the Gulf of Guinea.

Discussion

The findings of the study revealed that oil market volatility does not significantly moderate the relationship between Nigeria's maritime policies and regional cooperation

outcomes in the Gulf of Guinea. The moderated multiple regression analysis showed that the interaction between Nigeria's maritime policies and oil market volatility was not statistically significant, indicating that fluctuations in global oil prices did not significantly alter the effectiveness of maritime policies in influencing regional cooperation outcomes. This suggests that although oil remains a strategic component of Nigeria's economy and maritime sector, variations in oil market conditions did not significantly affect the relationship between policy initiatives and cooperation outcomes within the Gulf of Guinea. The findings align with the position of Mensah and Afoakwa (2023), who emphasized that regional maritime governance outcomes in West Africa are increasingly shaped by institutional cooperation, policy coordination, and collective security arrangements rather than by economic variables alone. The findings also support the observations of Enemuoh, Nwokedi and Enendu (2022), who argued that effective maritime cooperation depends largely on institutional commitment, law enforcement collaboration, and information-sharing mechanisms among regional actors. Similarly, Saurugger (2023) maintained that regional integration outcomes are primarily influenced by the strength of cooperative institutions and collective action frameworks rather than fluctuations in economic resources. Furthermore, the findings corroborate the views of the United Nations Security Council (2023), which highlighted the importance of sustained regional collaboration and maritime governance structures in addressing security challenges within the Gulf of Guinea. The findings are also consistent with Kicha (2021), who argued that successful regional integration is often driven by political commitment, institutional effectiveness, and shared security interests. This implies that regional cooperation outcomes in the Gulf of Guinea may be sustained through established governance mechanisms even during periods of economic uncertainty. However, the findings differ from the position of Obi (2020), who argued that the political economy of oil extraction significantly influences governance and security outcomes within the Gulf of Guinea. Similarly, the findings contrast with the concerns raised by Saleh and Munir (2023), who suggested that fluctuations in resource-based revenues may affect governments' ability to finance strategic development and security initiatives. While these studies emphasize the importance of economic conditions, the findings of the present study suggest that oil market volatility did not significantly influence the relationship between Nigeria's maritime policies and regional cooperation outcomes. The findings further suggest that maritime cooperation within the Gulf of Guinea may have evolved beyond dependence on oil-driven financing and may increasingly rely on institutionalized regional frameworks and collective governance arrangements. Consequently, the study concludes that oil market volatility does not significantly moderate the relationship between Nigeria's maritime policies and regional cooperation outcomes in the Gulf of Guinea.

The findings of the study revealed that the integration of the Deep Blue Project and the Yaoundé Code of Conduct does not significantly enhance maritime security effectiveness and regional cooperation outcomes in the Gulf of Guinea. The MANOVA results indicated that differences in maritime security effectiveness and regional cooperation outcomes associated with the integration of the two frameworks were not statistically significant. This implies that the integration of these national and regional maritime security initiatives has not yet produced measurable improvements in the outcomes examined in the study. The findings are consistent with Schandorf (2024), who observed that despite improvements in counter-piracy coordination within the Gulf of Guinea, operational and institutional challenges continue to affect the effectiveness of regional maritime security initiatives. The findings also support Enemuoh, Nwokedi and Enendu (2022), who identified persistent law enforcement and coordination challenges within maritime security cooperation arrangements in West Africa. Similarly, Tanimu (2025) noted that although the Yaoundé Code of Conduct provides

an important framework for regional maritime security governance, implementation challenges continue to affect the realization of its intended objectives.

The findings further corroborate the observations of Okafor and Chikwendu (2024), who argued that collective security initiatives within the Gulf of Guinea continue to face challenges relating to burden-sharing, operational coordination, and institutional effectiveness. Likewise, Sobseh and Talla (2025) observed that maritime security vulnerabilities persist in several coastal states despite the existence of regional security frameworks and collaborative initiatives. These findings suggest that the mere existence or integration of security frameworks may not automatically translate into significant improvements in maritime security effectiveness and regional cooperation outcomes. The findings are also supported by Udochukwu, Akinwumi and Haroun (2024), who emphasized that security governance effectiveness depends on institutional capacity, operational readiness, stakeholder collaboration, and implementation effectiveness. Similarly, Okafor-Yarwood, Eastwood, Chikowore and de Oliveira Paes (2024) argued that technological advancement and maritime security innovations can only produce meaningful outcomes when accompanied by effective institutional coordination and governance mechanisms. However, the findings differ from the expectations associated with Nigeria's maritime security reforms. Monteh (2025) argued that Nigeria's maritime security policy has contributed to strengthening maritime governance and security management. Similarly, the International Maritime Organization (2021) emphasized the importance of coordinated maritime security frameworks in enhancing maritime safety and security outcomes. While these positions suggest that integrated security arrangements should improve maritime security performance, the findings of the present study indicate that the integration of the Deep Blue Project and the Yaoundé Code of Conduct has not significantly enhanced maritime security effectiveness and regional cooperation outcomes.

The findings therefore suggest that the anticipated benefits of framework integration may not yet have been fully realized due to implementation constraints, institutional limitations, coordination challenges, and differences in operational priorities among participating stakeholders. Consequently, the study concludes that the integration of the Deep Blue Project and the Yaoundé Code of Conduct has not significantly enhanced maritime security effectiveness and regional cooperation outcomes in the Gulf of Guinea.

Contribution to Knowledge

The study contributes to knowledge by establishing that oil market volatility does not significantly moderate the relationship between Nigeria's maritime policies and regional cooperation outcomes in the Gulf of Guinea. The study also provides empirical evidence that the integration of the Deep Blue Project and the Yaoundé Code of Conduct does not significantly enhance maritime security effectiveness and regional cooperation outcomes. Additionally, the study expands maritime governance literature by demonstrating that institutional effectiveness and operational coordination may be more important determinants of maritime security and regional cooperation outcomes than oil market volatility or security framework integration.

Conclusion

The study examined the moderating role of oil market volatility on the relationship between Nigeria's maritime policies and regional cooperation outcomes, and the impact of integrating the Deep Blue Project and the Yaoundé Code of Conduct on maritime security effectiveness and regional cooperation outcomes in the Gulf of Guinea. The findings revealed that oil market volatility does not significantly moderate the relationship between Nigeria's maritime policies and regional cooperation outcomes. The study also found that the integration of the

Deep Blue Project and the Yaoundé Code of Conduct does not significantly enhance maritime security effectiveness and regional cooperation outcomes. The study therefore concludes that institutional effectiveness, policy implementation, and operational coordination are more critical to achieving improved maritime security and regional cooperation outcomes in the Gulf of Guinea.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. The Nigerian government and regional stakeholders should strengthen institutional coordination and policy implementation to improve regional cooperation outcomes.
2. Maritime security agencies should enhance information sharing and operational collaboration between the Deep Blue Project and the Yaoundé Architecture.
3. Governments within the Gulf of Guinea should invest in capacity building, technology, and joint maritime operations to improve maritime security effectiveness.

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