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GULF OF GUINEA AND MARITIME SECURITY CHALLENGES: THE NIGERIAN EXPERIENCE

BY

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Abstract

Both member states and foreign investors have expressed concerns about the resource-rich but the maritime crime-infested environment of the Gulf of Guinea. The inability to evolve harmonized and uniformly domesticated laws have not helped in stabilising the maritime domain nor has the less patronage of space-based assets in maritime protection. It was against this background that this study engaged Regime Theory to investigate the maritime security challenges of the Gulf of Guinea. The study deconstructs maritime security challenges into the dearth of space-based technology for security and the lack of harmonized legal framework. The study employed a quantitative research design, data were elicited through an administered questionnaire using the scientific sampling technique of Krejcie and Morgan (1970). Findings from the study showed that less patronage of space-based technology has a negative effect on the maritime domain. Finding also revealed that the inability to harmonise the legal framework encourages maritime criminality. This study recommends that States and International partners should evolve an integrated space-based technology to jointly battle maritime crimes as such integrated webs of approach could overwhelm criminals within the maritime industry. The study also recommends that harmonisation of existing International and Regional laws with relevant State laws on kidnapping, firearms, and money laundering, should be taken seriously among countries in the Gulf of Guinea particularly Nigeria, such that uniformity in penalties should be pursued to avoid any of the states magnetizing maritime crimes

Keywords: Harmonised Legal Framework, Maritime Domain, Regime Theory, Space Based Assets

Introduction

The high sea is a reflective mirror of all and whatever plays out on the offshore of every country. Hence, whatever nuances from governance and security that plays out onshore will also be replicated offshore. Maritime security of a nation in the 21st century is the ability of a nation to use the seas safely, securely, fully, and wisely to achieve its socioeconomic, commercial and military objectives. As the probability of a war at sea amongst nation states keeps diminishing so is, the expanse of the maritime space keeps revealing larger geo-economics, geostrategic, crimes and criminalities activities particularly in the Gulf of Guinea (GoG), where Nigeria is rated as the most dangerous territory for piracy attacks in Africa and fourth most dangerous behind Singapore Straits, Peru Indonesia and Philippines (Statista, 2022).

Maritime insecurity endanger the maritime domain; thousands of foreign fishing vessels ply African maritime space every year seeking to tap the continent's rich fish stocks without license, depriving and unduly competing with the locals even in protected areas, catching beyond limits, or catching protected species and under declaring their catches even as Chinese fishing vessels and African political leaders are implicated in

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shady deals (Standing, 2017; Transparency International, 2013). Nigeria, located on the coastline corridors of the Gulf of Guinea and the Bight of Benin with a natural maritime endowment coastline of over 850kms, an exclusive economic zone (EEZ) of over 200 nautical miles, exposure to piracy menace within the GoG cost Nigeria over $1.1 billion annually, average ransoms of $50,000 per crew member now a reality following successful kidnappings of crews, all these established that the maritime space is of great importance to the Nigerian economy (Support, 2021; Statista, 2022).

It is no gainsaying that maritime crimes and criminalities; kidnapping, piracy illegal immigration, narcotics trafficking, oil bunkering and smuggling, human trafficking and smuggling, environmental degradation of toxic discharge at sea, maritime terrorism, unreported, and unregulated fishing, arms trafficking and maritime accidents, has left the notorious Gulf of Aden and has berthed in the Gulf of Guinea in West Africa, where Nigeria is located (International Maritime Bureau (IMB), 2016). The extent to which space assets technology and harmonized legal framework could be used to tackle maritime security challenges in the Nigeria Maritime domain is of interest to this study.

Interestingly, there is increasing interest in using space-based assets; satellites, for improvising various capabilities required for operating in the maritime domain. Such space assets cut across Satellite's capabilities and Unmanned Aerial Vehicles (UAV), can monitor almost every activities happening in the sea and/or in a port of a maritime domain. Innovative satellite-based technical applications are steadily becoming a part of various maritime activities and there could be need for the various agencies and stakeholders involved in the maritime domain to ensure that these technologies are exploited correctly to derive maximum benefits for maritime domain security enhancement and for the ease of operations. Also, it is important to use these technologies innovatively so as to identify new fields for their adoption and be abreast of how non state armed actors also deployed same alongside loose maritime legal provisions (Klein & MCLaughlin, 2022).

Expectedly, maritime criminals understudy if the prize of one crime is similar from one state to the next, but the risk of being caught and seriously penalized for it varies, maritime criminals will incline toward the lower risk jurisdictions; looking for ways to innovate to reduce risk or increase reward, using nuances in maritime law or not yet domesticated international conventions. Hence the need for similar activities to be outlawed and the penalties for them relatively equivalent, so that no state or region becomes a magnet for crime (Africa Center for Strategic Studies (ACSS), 2018). It remains a fundamental and unfortunate phenomenon with legislations in Nigeria that while enough laws are on the books, the degree of their implementation is not matched with the rate at which the laws are churned out. Efforts should be seen connecting activities of various agencies with those of international organizations to encompass political, financial and criminal

justice system support, as such could tie the various national efforts into a more effective approach as most policies are land centric (Orakwusi, 2010).

In a bid to achieve the objective of this study, answers are provided to the following research questions

i. How does space technology affect the maritime domain in Nigeria?
ii. To what extent does legal frameworks influence the maritime domain in Nigeria?

Literature Review

Conceptual Framework

Space Technology on Maritime Domain

The possible roles of space technology in maritime security enhancement could be seen Ukrainian deployed unmanned aerial vehicles (UAVs) and unmanned surface vessels (USVs) to attack and damage the flagship of the Russian Navy Black Sea Fleet, in the Crimean port of Sevastopol (Klein & McLaughlin, 2022), this new frontier of naval warfare uncovers drones potential roles in maritime security. Beyond Ukraine including the United States, United Kingdom, France and China use advanced UAVs for maritime border protection, while developing USV technology. The use of drones by Coast Guards could also be a development that could ease maritime tension in the Gulf of Guinea (Bachega & Gregory, 2022). Drones deployment can also perform different tasks and reach remote or inaccessible locations for surveillance, monitoring ports and offshore oil and gas facilities, detecting marine pollution, and oceanographic surveys. But criminals also use such innovations to exploit law enforcement and surveillance gaps as seen in Spain, Colombia and Yemen amongst others (Klein & McLaughlin, 2022; Sutton, 2020).

A major drawback is that data collected by drones could be hacked as modern drones and floating platforms operating at sea rely on satellite navigation and data, which is susceptible to disruptions. This makes GPS spoofing, in particular, a significant concern. Hostile state and non-state actors could ‘fool’ the GPS by altering its location coordinates, neutralising it, or exposing passing vessels to risks that could result in collisions and sinking. The mis-deployment or spoofing of a drone could even be considered an act of war or result in significant legal ramifications. Furthermore, the use of unmanned systems in Africa is constrained by outdated regulations and bureaucratic delays such that disconnect between existing directives and the requirements for using uncrewed systems in African waters (Reva, 2022).

Nigeria’s Maritime Domain Legal Framework

Law is necessary for security, to criminalized bad actions and if loopholes appears between international, regional and domestic laws, and if deterrent penalties do not exist, then maritime security cannot occur.

Absence of certainties from clear criminal and commercial laws endangers investors who can really help make the maritime economy boom. Most maritime laws, conventions and protocols at international and regional levels are not yet domesticated into Nigeria maritime law nor linked to money laundering, drugs and kidnapping. Hence, a situation of stand-alone laws is feasible in the Nigeria maritime context. Despite, being the first country in the Gulf of Guinea to pass an anti-piracy law via the Suppression of Piracy and Other Maritime Offences Act, 2019 (POMO Act), even forty years after UNCLOS which aims to 'prevent and suppress piracy, armed robbery and any other unlawful act against a ship, aircraft and any other maritime craft, including fixed and floating platforms (Wambua, 2022).

Tackling a transnational crime like piracy demands more than national efforts. Nigeria's anti-piracy law could be seen altercating with regional maritime legal regimes; Yaoundé Code of Conduct as well as domestic legislation dealing with kidnapping, firearms and money laundering. Altercation could also be seen on the role of the navy as the sole agency for Nigeria maritime security as provided by the Armed Forces Act of 1993 while Section 17(1-2) of the POMO Act tasked NIMASA with coordinating all maritime activities and security including 'to prevent and combat piracy, maritime offences and any other unlawful acts. The need to extend and should be clarified, and collaboration among relevant agencies strengthened. The law also need to deal with the proceeds of piracy and related crimes including corruption.was reviewed in 2017, maritime laws or amendments to penal codes were expected throughout West Africa to standardise legal regimes.

A major challenge with the POMO Act is its lack of clarity on roles and responsibilities. Section 17(3) says 'law enforcement and security agencies' will be responsible for gathering intelligence, patrolling waters and investigating offences. But the law isn't specific on which law enforcement agencies are responsible for these functions – an oversight that may deepen inter-agency rivalry and an escape route for maritime criminal. While the Armed Forces Act of 1993 makes Nigeria's Navy responsible for securing the country's maritime domain. Section 17(1-2) of the POMO Act tasked the NIMASA with coordinating all maritime activities and security including 'to prevent and combat piracy, maritime offences and any other unlawful acts ((Enebeli & Njoku, 2021).

Nuances from Nigeria Maritime laws does not provide for strengthening maritime agencies and the inability to control private maritime security operatives remains a grey areas. While the Nigeria Navy is solely responsible for securing Nigeria Maritime domain, the POMO Acts recognizes NIMASA to coordinate all maritime activities and security including 'to prevent and combat piracy, maritime offences and any other unlawful acts. Such lack of clarity on roles and responsibilities further deepen inter-agency rivalry which shows preponderance of irregular practices rather than the absence of laws, and this account for Nigeria's weak maritime security Vogel, 2009).

The inability of the POMO Act to provide against corrupt practices by Nigeria's maritime agencies also fuels piracy. Most fundamentally, the law doesn't deal with proceeds from piracy, kidnapping and armed robbery at sea. Although it provides, as punishment, the 'forfeiture to the Federal Government of Nigeria whatever the person obtained or gained from commission of the crime,' this may not be adequate as a deterrent. Proceeds of piracy are connected to illicit financial activities such as money laundering, corruption, tax and document fraud. Combatting piracy must go beyond the mere forfeiture of gains and imprisonment. A nuanced approach is needed to deal with related crimes, including the transfer and use of proceeds and some form of recourse, especially for victims of armed robbery and kidnapping.

Empirical Review

Space Technology and Maritime Domain in Nigeria

Madhumath (2019) explored the India, France plan constellations of satellite surveillance of ships with specific focus on the India Ocean where India and France interest lies. The study showed that the unique constellation of around 10 low-earth orbit satellites will continuously provide maritime surveillance and security. The empirical study established that the satellite based Automatic Identification System will detect identify and track a range of vessels moving in the ocean region and guide against aggression, terrorism, piracy, smuggling, source of oil slick with a maritime surveillance centre in India with sharing capacity to process satellite data and joint development of associated algorithms or platforms. The study is a cross-country study and results emanated from it cannot be used for country specific study like Nigeria because the operational environment differs in terms of regulation, supervision and operation hence the need for a country specific study like this.

Smita (2019) engaged qualitative study to assess how earth observation satellite services can help increase maritime security ranging from natural disaster and risk management, risk from oil spillage, vessel tracking, narcotic trafficking, human trafficking and maritime piracy. Findings from the study showed that special class of satellites based on principle of remote sensing are extremely helpful when it comes to making maritime industry safer. Study established that Satellite imaging can detect any incoming inhospitable objects and when combined with other anti-encounter measures taken on the ships can increase security against maritime piracy to great extent. Study concluded that the interconnected systems between coast guards along with security measures like onboard security, armed personnel, deck patrolling, can together make an efficient security system towards a downfall in graph of pirate attacks with use satellite services to combat it. The study did not consider other maritime security enhancement constructs such as the harmonized legal framework of which the present study intends to consider

Standing (2017) employed a cross country study to explore the nexus between criminality in Africa's fishing industry and the threat to human security. Findings of the study showed that there is a need for African countries to significantly upgrade their capability to monitor the unwholesome activities of foreign firms in the maritime domain through technological advances, such as satellite monitoring or the deployment and the use of drones, to help improve effectiveness in detecting some forms of crime which will bring surveillance costs down. The study concluded that such step will enable prosecution of illegal fishing in African waters and regulate the unethical practices of fishing vessels in order to support fair trading practices and avoid the imminent collapse of African fish stocks. The study is an African cross-country study and results emanated from it cannot be used for country specific study like Nigeria because the operational environment differs in terms of regulation, supervision and operation.

Lele (2017) deployed qualitative research design to examine the connecting linkages between maritime domain activities and space assets technology deployment in ensuring safety of the maritime domain against asymmetrical threats like terrorism and piracy which unabatedly challenge the security mechanism of the states. Findings from the study revealed satellite automated information system (S-AIS) technology is of great assistance as it assists maritime security forces to get to know instances of the purposeful violation of maritime boundaries as also provide help in demarcating SEZs, The study established that myriads of maritime domain challenges, maritime terrorism, piracy, oil spillage, drug trafficking can be extensively addressed by Synthetic Aperture Radar (SAR) as the imaging sensors are the answer to these challenges. SAR based satellites are independent of weather conditions, and provide rapid, wide area coverage for vessel detection, and makes routine access to remote areas. The constructs deployed by the study is limited to collaboration and satellites technology deployment in enhancing maritime security while the study did not capture other constructs as harmonized legal framework which the present study intends to cover.

Jennings (2016) analysed the modern radio maritime communications. Study showed the emergence of the VHF Data Exchange System (VDES) with the potential to provide many forms of data to ships, such as Maritime Safety Information (MSI), hydrographic and environmental data, piracy and security reporting, updating and monitoring of onboard systems of engine and cargo monitoring systems. Study concluded that in many coastal areas mobile phone 2g and 3g coverage extends out from 15 to 30 kilometers from shore as these stations are used only for commercial calls even as tests have indicated that with appropriate antenna and power configurations 4G may have a range of up to 100 kilometers out to sea, providing LTE 4G data rates of 100 Mbps. The study hampers extensively on technological deployment in enhancing maritime

security of which the present study intends to go beyond by deploying additional constructs to ensure maritime security in the Nigeria maritime domain

Bosilca (2016) engaged in a cross country study to empirically examine the use of satellite technologies for maritime surveillance as vastly deployed by the European Union. Findings of the study revealed that the deployment of the vessel monitoring system (VMS) and the vessel detection system (VDS); FRONTEX and EUROSUR; and the CleanSeaNet operated by EMSA has greatly assisted the Union to protect their maritime space across a wide range of maritime surveillance fields such as monitoring and controlling fisheries, detecting vessels, patrolling borders, protecting the marine environment, preventing crises, responding to emergencies, and numerous other. Study established that there exist the added-value of using satellites which reside in an increased effectiveness coupled with lower costs of action; even as the traditional methods of surveillance (e.g. on board inspections) are not dismissed, but rather streamlined and focused through the introduction of new technologies. The study is a cross-country study and results emanated from it cannot be used for country specific study like Nigeria because the operational environment differs in terms of regulation, supervision and operation.

Mantzouris et al. (2015) engaged literature design to investigate the potential deployment of low earth observation small satellites for maritime interdiction and security applications by investigating the available solutions and formulating a generic proposal to optimize the use of those short-lived space assets in support of maritime space security. The study revealed the capabilities of Lambdasat picosatellite currently in orbit to demonstrate the exchanging of alert messages between ground stations in Greece and in the US and vessels in the middle of the ocean. Study established the magnitude of a picosatellite to support maritime operations as shown that obtained computational results provide useful insight into how space systems can be used for maritime security operations. Particular reference is given to the state-of-the-art status of propulsion systems capable of enhancing the lifetime of the satellites. The study was conducted using US and Greece data, and the need to conduct similar study using Nigeria specific data could make a great deal of difference.

Legal Frameworks and Maritime Domain in Nigeria

Ezeozue (2019) analysed the effects of piratical challenges in the Nigeria maritime space on her national security with extensive searchlight on deaths resulting from puritanical violence per coastal state in Nigeria. The study engaged extant literature on the nature of piracy in Nigeria. Findings of the study showed that lack of harmonized legal framework and jurisdictional weakness coupled with underfunded law enforcement. Study showed that increased sea pirate attacks and illegal activities on Nigerian waters can be traced to observed corruption and dirty deals within the security apparatus. Study though peculiar to Nigeria considers legal framework at the neglect of other constructs such as satellite technology deployment

Africa Center for Strategic Studies (2018) engaged in a qualitative study to analyse the legal and security ecosystem where harmonization can occur in strengthening the security enhancement of the African maritime domain. The study was a thematic study of relevant literature and publication. Findings of the study revealed that maritime criminalities are similar from one State to the next, but the risk of being caught and seriously penalized for it varies, maritime criminals will incline toward the lower risk jurisdictions; looking for ways to innovate to reduce risk or increase reward, using nuances in maritime law. Study submitted that this does not mean that the states across a region should have the same laws – indeed, they likely should not, as each legal system has its own nuances. Rather, it means that the same activities need to be outlawed and the penalties for them relatively equivalent so that no state or region becomes a magnet for crime. This is an African maritime study and the need to make it country specific will make a big difference with other evolving variables like deployment of technology for maritime security enhancement which this study considers.

Hassan and Hassan (2017) investigated the shortcomings and relevance of the current arrangements in addressing the problem of piracy in the Gulf of Guinea. Analysis include an evaluation of the steps taken by the governments of the region and the effectiveness of the implemented strategies to counter the threat posed by piracy in the region. Findings of the study revealed that most of the countries in the Gulf of Guinea region lack the legal infrastructure to try pirates. The study submitted that the regional countries have to effect significant changes in the law and establish an elaborate legislative framework that grants extra-territorial jurisdiction to the courts in the region by establishing special courts in the respective countries of the region having the jurisdiction to adjudicate piracy prosecutions. The study is a gulf of guinea regional cross-country study and results emanated from it cannot be used for country specific study like Nigeria because the operational environment differs in terms of regulation, supervision and operation.

Otto (2016) examined the nexus between generation of order, the established law and the maritime security in the Gulf of Guinea. Results from the study showed that while countries in the region are receptive to mechanisms promoting co-operation in tackling maritime insecurity, problems are posed by the dearth of legal instruments to address maritime crime activities and these presents an important challenge to evidence-based policymaking, and prevents capacity-constrained countries from using their resources in the most effective way. Study established that states of the Gulf of Guinea region should have a common agreement or arrangement in place to facilitate expeditious investigation, prosecution and punishment for any captured pirates with mechanism, procedures and conditions for transfer agreements between the apprehending state and the prosecuting state. The study is of Gulf of Guinea, a regional cross-country study and results emanated

from it cannot be used for country specific study like Nigeria because the operational environment differs in terms of regulation, supervision and operation.

Jimoh (2015) employed an empirical analysis to analyse lethal violence offshore and maritime piracy in Nigeria. The study engaged related study related publications and literature. Analysis of results revealed that shipping companies and oil multinationals prefer to pay ransoms to pirates, without much resistance since they are aware they may not get compensation and legal remedy when attacked by pirates or kidnappers. Study submitted that the loose legal frameworks that hardly gets maritime criminals convicted is totally endangering the system noted by corruption and dirty deals within the Nigerian Navy. Study though Nigeria specific, harped on legal framework incapabilities and did not capture other constructs like spaced based assets which this study captures.

Osinowo (2015) engaged qualitative study to investigate efforts in combating the scourge piracy activities escalation in the Gulf of Guinea. The study was an empirical review of extant literature and relevant publications. Findings from the study revealed that the unabated piracy activities and threats cannot be addressed without the harmonization of legal efforts in the region as stated in the Memorandum of Understanding between Economic Community of Central African States (ECCAS), ECOWAS, and the Gulf of Guinea Commission to enable each to effectively prosecute piracy perpetrators. The study submitted that there is the need to facilitate information sharing among law enforcement agencies, international partners and maritime commerce stakeholders, through MICC and the pilot Zone E mechanisms. The study did not capture adoption of satellites technology as enhancement of maritime domain security of which present study captures.

Theoretical Framework

Regime Theory.

Regime theory is a theory within international relations derived from the liberal tradition that argues that international institutions or regimes affect the behavior of states or other international actors. The theory submits that states are rational actors despite operating in an anarchic system. Seen as sets of implicit or explicit principles, norms, rules, and decision making procedures around which actors' expectations converge in a given area of international relations (Little, 2001). As such, liberal institutionalists encourage cooperation between states with mutual interests which would result in absolute gains for all participants. Neo-realists on the other hand differ in their views. They believe that one state should have a comparative advantage in comparison to another. Nevertheless that does not stop them from cooperating as long as they prevent each other from gaining more power and resources (Lamy, 2001).

An example of those views is the dramatically improved relations between the US and the Russian Federation in the field of arms control. Agreements like the Strategic Arms Reduction Treaty (START) have established greater limitations on nuclear arsenals. The establishment of satellite surveillance and onsite inspections has insured that both sides are adhering to regulations and norms determined by the treaty (Operations, 2005). These has also evolved the Gulf of Guinea Commission of which member state cooperate with in ensuring maritime security in the region.

Methodology

This study adopts survey research design using descriptive statistical analysis to present analysed data. This study focuses on the Nigeria Maritime industry, the study purposively chooses Lagos, and Rivers States as the study areas. The choice of these two states is informed by the prevalence of maritime activities. The population of the areas of study is a finite population and large, therefore, study employs scientific sampling technique determination of Krejcie and Morgan (1970) that recommends a sample size of 400 for a population above 1 million.

Structured questionnaire was administered on purposively sampled officers and men of security agencies involve in the maritime domain; Nigerian Maritime Administration and Safety Agency (NIMASA), members of Nigerian Trawler Owners' Association (NTOA), Nigeria Navy Military personnel, The Nigeria Police Mobile Force, personnel of the Directorate of State Security Service, officers of the Nigeria Security and Civil Defence Corps.

Table 1: Space Technology and Maritime Domain Using Likert's Scale on Primary Data

Space Technology and Maritime Domain in Nigeria.		**SA**	**A**	**D**	**SD**	**Std Dev**	**Mean**	**Total**
15	Drone deployment will enhance maritime safety for its users	104 26%	238 59.5%	44 11%	14 3.5%	0.58314	3.0990	400
16	Constellations of satellite surveillance on maritime domain will stabilize the maritime economy	294 73.5%	92 23%	8 2%	6 1.5%	0.57109	3.7109	400
17	Drones usage by criminals can be countered by law enforcement agencies	74 18.5%	233 58.3%	49 12.2%	44 11%	0.68966	2.9141	400
18	Deployment of low earth observations for maritime interdiction is beneficial to maritime safety	287 15.4%	79 65.1%	15 15.1%	19 4.4%	0.57184	3.6823	400
19	Regulations of drones in maritime domain further strengthens security	32 8%	178 44.4%	143 35.8%	47 11.8%	0.68101	2.5313	400
20	Drones can reach inaccessible locations for surveillance, monitoring ports and offshore oil and gas facilities	174 43.4%	189 47.3%	18 4.5	19 4.8%	0.63603	3.3464	400
21	Space based assets helps detecting marine pollution and disasters management	135 33.8%	179 44.8%	38 9.4%	48 12%	.88109	3.0417	400

Source: Field Survey, 2021.

The results clearly indicate that 108 respondents representing 26% of 400 respondents strongly agreed that drones deployment will enhance maritime safety for its users. Exactly 238 respondents which translate to 59.5% of higher percentage of respondents simply agreed with same assertion while 44 respondents and 4 respondents respectively disagree that drone deployment will enhance maritime safety for its users. More than 95% of the total respondents shared a common ground as to satellites surveillance stabilising maritime security.

53% of the total respondents posited that the regulations of the usage of drones in maritime industry will further strengthen maritime domain awareness. While 47% of the total respondents, disagreed with such position, this could be due to the likewise usage of drone by criminal minded ones to transport drugs from one point to another. Lastly, majority of the respondents of 78.6% agreed that the drones can reach inaccessible locations for surveillance and port monitoring. The mean value of all the questions raised are more than the standard deviation values, this shows that the variable is not widely dispersed from the mean, because the standard deviation is less than the mean value.

Table 2: Legal Framework and Maritime Domain Using Likert's Scale on Primary Data

Legal Framework and **Maritime Domain in Nigeria.**		**SA**	**A**	**D**	**SD**	**Std Dev**	**Mean**	**Total**
29	Lack of harmonized legal framework increases maritime domain insecurity	260 65%	115 28.7%	13 3.3%	12 3%	0.76333	3.5859	400
30	Corruption and dirty deal within the security apparatus fuels maritime insecurity	189 47.3%	175 43.8%	10 2.5%	26 6.5%	0.74803	3.3411	400
31	Uniform penalties on maritime criminalities will disallow a State or region becomes a magnet for crime	270 67.5%	106 26.5%	13 3.3%	11 2.7%	0.62248	3.6406	400
32	Lack of clarity of roles between NIMASA and Nigeria Navy create loopholes for maritime criminality	132 33%	248 62%	8 2%	12 3%	0.55324	3.6328	400
33	Absence of separate Coast Guard services from Nigeria Navy is a minus for maritime safety.	132 33%	257 64.2%	6 1.5%	5 1.3%	0.89602	2.9635	400
34	Expeditious investigation, prosecution and punishment mechanism will reduce maritime insecurity.	182 45.4%	197 49.3%	8 2%	13 3.3%	1.02572	3.3021	400
35	Procedures for transfer agreements between the apprehending and the prosecuting state will reduce maritime insecurity	182 45.4%	195 48.8%	10 2.5%	13 3.3%	.84426	3.2448	400

Source: Field Survey, 2021.

The results clearly indicate that 93.7% are in agreement that lack of harmonized legal framework increases maritime domain insecurity, a position that was resisted by only 16% of the total respondents. There exists a common ground by over 364 respondents that Corruption and dirty deal within the security apparatus fuels maritime insecurity. This could mean lack of confidence in the mainstream security agencies.

The absence of separate Coast Guard services from Nigeria Navy as a minus for maritime safety was supported by 97% of the respondents hence, this further shows that operators in the maritime industry are not comfortable with monopolistic nature of security provisions by Nigeria Navy.

The mean value of all the questions raised are more than the standard deviation values, this shows that the variable is not widely dispersed from the mean, because the standard deviation is less than the mean value.

Discussion of Findings

The findings from research questions one is how does space technology affect the maritime domain in Nigeria? The result from survey as summarized in table 1 indicates the minimal use of space based technology in the Nigeria maritime to extent that data elicited shows that criminal elements in engage drones for illicit activities thus calling for its regulations as a way of sanitizing the Nigeria Maritime domain. Data elicited reveals the need for space based technology to be engaged in order to secure the maritime domain. This finding is consistent with the findings in previous works of Madhumath (2019); Smita (2019); Standing (2017); Lele (2017); Bosilca (2016); Mantzouris et al. (2015)

The result from research question is to what extent does legal frameworks influence the maritime domain in Nigeria? Results from both empirical reviews and data elicited from administered questionnaire showed that inability to align international and regional laws with local laws is greatly explored by maritime criminals. The inability of Countries in the Gulf of Guinea to have a uniform arrangement in place to facilitate expeditious investigation, prosecution and punishment for apprehended pirates between the apprehending state and the prosecuting state is a big minus that calls for attention. The finding is in tandem with the findings in the previous works Ezeozue (2019);Africa Center for Strategic Studies (2018);Hassan and Hassan (2017);Otto (2016); Jimoh (2015); Osinowo (2015)

Conclusion and Recommendations

Based on the above findings, this study conclude that space based assets should be patronised by countries in the Gulf of Guinea judging by how impacted the GoG is from piracy, small weapons trafficking, insecurity of which policing the maritime environment has proven to be a difficult. The study also concluded that dearth of Maritime law is not the problem, since there is abundance of international, Regional and States laws, but

the inability to harmonized and domesticated available laws hence the stand alone nature of these laws allows criminal to escape prosecutions

Based on the conclusions, the study therefore recommends the followings;

I. States and International partners should evolve an integrated space based technology to jointly battle maritime crimes as such integrated webs of approach could overwhelm criminals within the maritime industry.

a) Harmonisation of existing International and Regional laws with relevant State laws on kidnapping, firearms and money laundering. should be taken serious among countries in Gulf of Guinea particularly Nigeria. Uniformity in penalties should be pursued to avoid a state magnetizing maritime crimes.

Compliance with ethical standards

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